

Guidelines on the management of

Co-occurring alcohol and other drug and mental health conditions in alcohol and other drug treatment settings

SECOND EDITION

Christina Marel

Katherine L Mills

Rosemary Kingston

Kevin Gournay

Mark Deady

Frances Kay-Lambkin

Amanda Baker

Maree Teesson



Australian Government

Department of Health



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NHMRC Centre of Research Excellence in Mental Health and Substance Use

National Drug and Alcohol Research Centre

University of New South Wales

Sydney, Australia



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National Drug &
Alcohol Research Centre

Christina Marel, Katherine L Mills, Rosemary Kingston, Kevin Gournay, Mark Deady, Frances Kay-Lambkin, Amanda Baker, Maree Teesson

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Baker, A., Kay-Lambkin, F., Lee, N. K., Claire, M., & Jenner, L. (2003). *A brief cognitive behavioural intervention for regular amphetamine users*. Canberra, Australia: Australian Government Department of Health and Ageing.

Baker, A. & Velleman, R. (2007). *Clinical handbook of co-existing mental health and drug and alcohol problems*. New York, NY: Routledge.

Croton, G. (2007). *Screening for and assessment of co-occurring substance use and mental health disorders by alcohol and other drug and mental health services*. Wangaratta, Australia: Victorian Dual Diagnosis Initiative Advisory Group.

Deady, M. (2009). *A review of screening, assessment and outcome measures for drug and alcohol settings*. Strawberry Hills, Australia: Network of Alcohol and other Drug Agencies.

Jenner, L. & Lee, N. (2008). *Treatment approaches to users of methamphetamine: A practical guide for front line workers*. Canberra, Australia: Australian Government Department of Health and Ageing.

Lee, N., Jenner, L., Kay-Lambkin, F., Hall, K., Dann, F., Roeg, S., et al. (2007). *PsyCheck: Responding to mental health issues within alcohol and drug treatment*. Canberra, Australia: Commonwealth of Australia.

Marsh, A., Dale, A., & Willis, L. (2007). *A counsellor's guide to working with alcohol and drug users (2nd edition)*. Perth, Australia: Drug and Alcohol Office.

Marsh, A., O'Toole, S., Dale, A., Willis, L., & Helfgott, S. (2013). *Counselling guidelines: Alcohol and other drug issues (3rd Edition)*. Perth, Australia: Western Australia Drug and Alcohol Office.

NSW Department of Health. (2007). *Mental health reference resource for drug and alcohol workers*. Sydney, Australia: NSW Department of Health.

NSW Department of Health. (2008). *NSW Health drug and alcohol psychosocial interventions: Professional practice guidelines*. Sydney, Australia: NSW Department of Health.

Teesson, M., Degenhardt, L., Hall, W., & Proudfoot, H. (2012) *Addictions: Clinical psychology module (2nd edition)*. East Sussex, UK: Psychology Press.

Teesson, M. & Proudfoot, H. (2003). *Comorbid mental disorders and substance use disorders: Epidemiology, prevention and treatment*. Canberra, Australia: Australian Government Department of Health and Ageing.

Expert panel

Prof Steve Allsop	National Drug Research Institute
A/Prof Michael Baigent	Flinders Medical Centre and Flinders University
Ms Nicky Bath	NSW Users and AIDS Association
Prof Tim Carey	Centre for Remote Health
Mr Kelvin Chambers	Drug and Alcohol Multicultural Education Centre
Dr Derek Chong	Institute of Urban Indigenous Health
Dr Janette Curtis	Drug and Alcohol Nurses Australasia
A/Prof Adrian Dunlop	Hunter New England Health; University of Newcastle
Dr Suzie Hudson	Network of Alcohol and other Drug Agencies
Mr Chris Gibbs	Mental Health Professionals' Network
Mr Mark Goodhew	Medically Supervised Injecting Centre
Ms Jennifer Holmes	Drug and Alcohol Nurses Australasia; Medically Supervised Injecting Centre
A/Prof Nicole Lee	National Centre for Education and Training on Addiction
Dr Steve Leicester	Headspace
Ms Leonie Manns	Consumer Advocate; Co-chair of Executive Advisory Board, NHMRC Centre of Research Excellence in Mental Health and Substance Use
Emeritus Prof Ian Webster	University of NSW

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Abbreviations

ADHD	Attention-Deficit/Hyperactivity Disorder	K10	Kessler Psychological Distress Scale
AOD	Alcohol and Other Drugs	LSD	Lysergic acid diethylamide
ASPD	Antisocial Personality Disorder	MANTRA	Maudsley Model of Anorexia Nervosa Treatment for Adults
ASRS	Adult ADHD Self-Report Scale	MAOI	Monoamine Oxidase Inhibitors
BDI	Beck Depression Inventory	MI	Motivational Interviewing
BMI	Body Mass Index	NaSSA	Noradrenaline and specific serotonergic agent
BPD	Borderline Personality Disorder	NDARC	National Drug and Alcohol Research Centre
CALD	Culturally and Linguistically Diverse	NICE	UK National Institute for Health and Care Excellence
CAN	Camberwell Assessment of Need	NHMRC	National Health and Medical Research Council
CANSAS	Camberwell Assessment of Need Short Appraisal Schedule	NRI	Noradrenaline Reuptake Inhibitor
CBT	Cognitive Behavioural Therapy	NRT	Nicotine Replacement Therapy
CBT-E	Cognitive Behavioural Therapy-Enhanced	NSMHWB	Australian National Survey of Mental Health and Wellbeing
CVD	Cardiovascular Disease	OCD	Obsessive Compulsive Disorder
DASS	Depression Anxiety Stress Scale	PC-PTSD	Primary Care PTSD Screen
DBT	Dialectical Behavioural Therapy	PCP	Phenylcyclohexylpiperidine
DBT-S	Dialectical Behaviour Therapy-S	PS	Psychosis Screener
DDP	Dynamic Deconstructive Psychotherapy	PTSD	Post Traumatic Stress Disorder
DFST	Dual Focus Schema Therapy	RCT	Randomised Controlled Trial
DSM	Diagnostic and Statistical Manual of Mental Disorders	RIMA	Reversible Inhibitor of Monoamine Oxidase A
ECT	Electroconvulsive Therapy	SAD	Social Anxiety Disorder
ED	Feeding and Eating disorders	SAK	Suicide Assessment Kit
EDE	Eating Disorder Examination	SCL-90-R	The Symptom Checklist-90-Revised
ERP	Exposure and Response Prevention	SNRI	Serotonin and Noradrenaline Reuptake Inhibitor
GAD	Generalised Anxiety Disorder	SRQ	Self Reporting Questionnaire
GHQ	General Health Questionnaire	SSCM	Specialist Supportive Clinical Management
GLBTI	Gay, Lesbian, Bisexual, Transgender, Intersex	SSRI	Selective Serotonin Reuptake Inhibitors
GP	General Practitioner	TCA	Tricyclic Antidepressants
ICD	International Classification of Diseases	THQ	Trauma History Questionnaire
IPT	Interpersonal Psychotherapy	TLEQ	Traumatic Life Events Questionnaire
IRIS	Indigenous Risk Impact Screen	TSQ	Trauma Screening Questionnaire

Glossary

The following terms are used throughout this document and are defined here for ease of reference.

Alcohol and/or other drug (AOD) use disorders	The presence of an AOD use disorder as defined by the DSM-5. This term is used interchangeably with 'substance use disorders', and includes the use of alcohol; benzodiazepines; cannabis; methamphetamines, cocaine, and other stimulants; hallucinogens; heroin and other opioids; inhalants; and tobacco.
AOD workers	All those who work in AOD treatment settings in a clinical capacity. This includes, but is not limited to, nurses, medical practitioners, psychiatrists, psychologists, counsellors, social workers, and other AOD workers.
AOD treatment settings	Specialised services that are specifically designed for the treatment of AOD problems and include, but are not limited to, facilities providing inpatient or outpatient detoxification, residential rehabilitation, substitution therapies (e.g., methadone or buprenorphine for opiate dependence), and outpatient counselling services. These services may be in the government or non-government sector.
Comorbidity	Use of the term 'comorbidity' in these Guidelines refers to the co-occurrence of one or more AOD use disorders with one or more mental health conditions. The terms 'comorbid' and 'co-occurring' are used interchangeably throughout this document.
Mental health disorders	Refers to the presence of a mental health disorder (other than AOD use disorders) as defined by the DSM-5.
Mental health conditions	Refers to those with a diagnosable mental health disorder as well as those who display symptoms of disorders while not meeting criteria for a diagnosis of a disorder.

In a nutshell...

These Guidelines aim to provide alcohol and other drug (AOD) workers with evidence-based information to assist with the management of co-occurring, or comorbid, AOD and mental health conditions. They represent an update and revision of the first edition of these Guidelines published in 2009.

Population estimates indicate that more than one-third of individuals with an AOD use disorder have at least one comorbid mental health disorder; however, the rate is even higher among those in AOD treatment programs. Additionally, there are a large number of people who present to AOD treatment who display *symptoms* of disorders while not meeting criteria for a *diagnosis* of a disorder.

The high prevalence of comorbidity means that AOD workers are frequently faced with the need to manage complex psychiatric symptoms that may interfere with their ability to treat clients' AOD use. Furthermore, clients with comorbid mental health conditions often have a variety of other medical, family, and social problems (e.g., housing, employment, welfare, legal problems). As such, it is important that AOD workers adopt a holistic approach to the management and treatment of comorbidity that is based on treating the person, not the illness (see Chapter B1).

The first step in responding to comorbidity is being able to identify the person's needs (see Chapters B2 and B3). Despite high rates of comorbidity among clients of AOD services, it is not unusual for comorbid mental health conditions to go unnoticed. This is mostly because AOD workers are not routinely looking for them. It is a recommendation of these Guidelines that all clients of AOD treatment services should be screened and assessed for comorbidity as part of routine clinical care.

Once identified, symptoms of mental health conditions may be effectively managed while the person is undergoing AOD treatment (see Chapters B5 and B6). The goal of management is to allow AOD treatment to continue without mental health symptoms disrupting the treatment process, and to retain clients in treatment who might otherwise discontinue such treatment. Comorbidity is not an insurmountable barrier to treating people with AOD use disorders. Indeed, research has shown that clients with comorbid mental health conditions can benefit just as much as those without comorbid conditions from usual AOD treatment.

Some clients with comorbidity may require additional treatment for their mental health problems (see Chapter B6). Some interventions have been designed for the treatment of specific comorbidities; however, these interventions generally have not been well researched. Where there is an absence of specific research on comorbid disorders, it is recommended that best practice is to use the most effective treatments for each disorder. Both psychosocial and pharmacological interventions have been found to have some benefit in the treatment of many comorbidities. Consideration should also be given to the use of e-health interventions, physical activity, and complementary and alternative therapies, as an adjunct to traditional treatments.

In addition to mental health services, AOD workers may need to engage with a range of other services to meet clients' needs, including housing, employment, education, training, community, justice, and other support services. A broad, multifaceted, and co-ordinated approach is needed in order to address all of these issues effectively, and it is important that AOD services and workers develop links with a range of local services (see Chapter B4).

About these guidelines

Key Points

- The purpose of these Guidelines is to provide AOD workers with up-to-date, evidence-based information on the management of comorbid mental health conditions in AOD treatment settings.
- All AOD workers should be 'comorbidity informed' – that is, knowledgeable about the symptoms of the common mental health conditions that clients present with and how to manage these symptoms.
- The Guidelines are not a policy directive and are not intended to replace or take precedence over local policies and procedures.
- The Guidelines should be used in conjunction with existing guidelines and discipline-specific practice standards.
- The Guidelines do not provide formal recommendations, but rather guidance for AOD workers when working with clients who have comorbid mental health conditions.
- The Guidelines are based on the best available evidence and draw upon the experience and knowledge of clinicians, researchers, consumers, and carers.

Rationale

In 2007, the Australian Government Department of Health and Ageing funded the National Drug and Alcohol Research Centre (NDARC) to develop '*Guidelines on the management of co-occurring alcohol and other drug and mental health conditions in alcohol and other drug treatment settings*' (hereafter referred to as the Guidelines) [1]. The development of these Guidelines was funded as part of the National Comorbidity Initiative in order to improve the capacity of AOD workers to respond to comorbidity.

Since publication in December 2009, over 10,000 hard-copies and electronic copies have been distributed to clinicians and treatment services across Australia. In addition, this resource is a recommended text for students studying tertiary courses in AOD and mental health. The impact of this resource is demonstrated not only by its popularity, but by its perceived utility. Respondents to an online survey of AOD workers from a range of occupations and service types across Australia indicated that the Guidelines were both relevant and useful to their clinical practice, and that the Guidelines enabled them to respond to comorbidity related issues with greater confidence [2].

While the Guidelines have proved to be an extremely successful clinical resource, the scientific evidence regarding the management and treatment of comorbid disorders has grown considerably since they were first published. Consequently, the Australian Government Department of Health funded the NHMRC Centre of Research Excellence in Mental Health and Substance Use, NDARC, to update and revise the Guidelines to bring them up to date with the most current evidence. The purpose of this chapter is to describe the aims, scope, and development of the revised Guidelines.

Guideline aims

These Guidelines aim to provide AOD workers with up-to-date, evidence-based information on the management of comorbid mental health conditions in AOD treatment settings. They are based on the best available evidence and draw upon the experience and knowledge of clinicians, researchers, consumers, and carers. The intended outcome of the Guidelines is increased knowledge and awareness of comorbid mental health conditions in AOD treatment settings, improved confidence and skills of AOD workers, and increased uptake of evidence-based care. By increasing the capacity of AOD workers to respond to comorbidity, it is anticipated that the outcomes for people with comorbid mental health conditions will be improved.

These Guidelines are not a policy directive and are not intended to replace or take precedence over local policies and procedures. The Guidelines are not formal recommendations, but instead provide guidance for AOD workers when working with clients who have comorbid mental health conditions. The Guidelines are not a substitute for training; rather, they should be used in conjunction with appropriate comorbidity training and supervision. Workers should use their experience and expertise in applying recommendations into routine clinical practice.

Intended audience

The Guidelines have been designed primarily for AOD workers. When referring to AOD workers, we are referring to all those who work in AOD treatment settings in a clinical capacity. This includes nurses, medical practitioners, psychiatrists, psychologists, counsellors, social workers, and other AOD workers.

AOD treatment settings are those specialised services that are specifically designed for the treatment of AOD problems and include, but are not limited to, facilities providing inpatient or outpatient detoxification, residential rehabilitation, substitution therapies (e.g., methadone or buprenorphine for opiate dependence), and outpatient counselling services. These services may be in the government or non-government sector.

Although these Guidelines focus on AOD workers, a range of other health professionals may find them useful. However, it should be noted that comorbidity is not homogenous, and different patterns of comorbidity are seen across different health services [3]. For example, AOD treatment services are most likely to see comorbid mood, anxiety, and personality disorders; mental health services, on the other hand, are more likely to see individuals with schizophrenia and bipolar disorder comorbid with AOD use disorders [4].

These Guidelines have been developed with the assumption that the management and treatment of comorbid AOD and mental health conditions will be provided by trained practitioners. AOD workers differ in their job descriptions, education, training, and experience. This may range from those who are highly educated with little experience to those with little education but much experience [5]. The amount of time that AOD workers spend with clients also varies widely depending on the type of service provided, and the presentation of the client. For example, AOD workers may have very brief contact with clients who present in medical or psychiatric crisis (who may then be referred to other services); they may work with them for one week if they are entering detoxification, or they may work with them for several months or years if they present for substitution therapy, residential rehabilitation, or outpatient counselling.

Given these differences in AOD workers' roles, education, training, and experience, it is not expected that all AOD workers will be able to address comorbid conditions to the same extent. Each AOD worker should use these Guidelines within the context of his/her role and scope of practice. At a minimum, however, it is suggested that all AOD workers should be 'comorbidity informed'. That is, all AOD workers should be knowledgeable about the symptoms of the common mental health conditions that clients present with (see Chapter A4) and how to manage these symptoms (see Chapter B6). The provision of opportunities for continuing professional development for AOD staff in the area of comorbidity should be a high priority for AOD services.

Relationship with existing guidelines

These Guidelines should be used in conjunction with existing guidelines and discipline-specific practice standards. There are a growing number of guidelines being developed on the management and treatment of people with comorbid mental health and AOD use disorders across jurisdictions and disciplines. Other existing guidelines are listed in Appendix A. These Guidelines have drawn on these key resources and reference is made to them throughout this document.

All AOD workers should refer to the standards and competencies relevant to their own professions; for example, those specified by the Australian Psychological Society, the Royal Australian and New Zealand College of Psychiatrists, the Australian Medical Association, the Nursing Board, the Australian Association of Social Workers, the Australian Counselling Association, and Volunteering Australia. In addition, the National Practice Standards for the Mental Health Services [6] provide practice standards for services and professionals who work with people who have mental health conditions.

Development

The current Guidelines represent an update, revision, and expansion of the original Guidelines [1], and are based on comprehensive reviews of the best available evidence. The revision process also involved consultation between academic experts in the field of mental health and substance use, consumer groups and clinicians, and as such, the current Guidelines reflect the collective experience of an expert panel of academic researchers, clinicians, consumers and carers (see p.iii). In addition to reviewing, synthesising, and updating the evidence to date, feedback on the original Guidelines was obtained from key-stakeholders, and areas for improvement identified.

Both clinical and scientific knowledge about what treatment modalities may help those with comorbidity has been included, and as such, a variety of psychotherapies and pharmacotherapies are discussed. We have also included discussion of physical activity, some complementary and alternative therapies, as well as e-health interventions. The clinical evidence for the efficacy of these interventions varies greatly, and it is critical to note that although there may be limited scientific evidence to recommend a treatment as best practice, that does not necessarily mean that the treatment is ineffective. That is, the quality of some studies evaluating some interventions is not as rigorous as others, and does not provide adequate support or evidence for clinical guidance.

Holistic health care

Given the multitude of problems with which clients present to treatment, the goal of any service should be to improve clients' quality of life across all domains, including health, social welfare and housing, employment, criminal justice, and of course, AOD and mental health. As such, these Guidelines adopt a holistic health care approach to the management and treatment of comorbidity, which is based on the adage 'Treat the person, not the illness' [7]. It is essential to consider the whole person, taking into account psychological, physical, and sociodemographic perspectives when consulting with clients with comorbid mental health conditions (Figure 1).

Figure 1: Holistic health care framework: Physical and mental health



Comparison with 2009 Guidelines

Development

Although the fundamental approach to the development of the revised Guidelines was the same as that used for the first edition, there were minor changes. The multidisciplinary panel of experts was supplemented by an additional discussion forum, membership of which was comprised of stakeholders who wished to contribute to the revision process.

Structure

The structure of the revised Guidelines has significantly changed from the first edition, and is formatted in four parts:

- Part A addresses the nature and extent of comorbidity, and discusses why it is important for AOD services to respond. Information regarding the prevalence, guiding principles, and classification of disorders are contained in Part A.
- Part B contains information regarding responding to comorbidity, including holistic health care, identifying comorbidity, risk assessments, care coordination, approaches to comorbidity, managing and treating specific disorders, and worker self-care.
- Part C addresses specific population groups.
- Useful resources, techniques, and worksheets are contained in the appendices.

It should be noted that although the first edition of the Guidelines had separate chapters for information regarding managing and treating comorbidity, the revised edition has combined these into one cohesive section (see Chapter B6), which addresses specific disorders. In addition, the revised edition has included discussion of comorbid attention-deficit/hyperactivity disorder (ADHD) as well as feeding and eating disorders (ED).

Changes in diagnostic criteria

The diagnostic criteria for mental health disorders are defined in internationally accepted diagnostic manuals. Research settings most commonly use the Diagnostic and Statistical Manual of Mental Disorders (DSM), published by the American Psychiatric Association. Although the fifth version of this manual (DSM-5) was in use during the development of these guidelines, the large majority of studies included in the literature reviews relied on DSM-IV-TR criteria for mental disorders. As such, we refer to both DSM-IV-TR and DSM-5 criteria where appropriate. The other major classification system is the International Classification of Diseases (ICD), with the current version being ICD-10. ICD-11 is currently under development. Although widely used in clinical practice in many parts of the world, ICD is rarely used in the type of research studies included for review. Nevertheless, ICD is referred to in these guidelines where appropriate.

Case studies

A series of case studies have been included to highlight some of the presenting issues that are experienced by AOD clients with comorbid mental health conditions and demonstrate some examples of pathways through treatment.

Limitations of the Guidelines

As noted above, the Guidelines are not intended to be used prescriptively; rather AOD workers should use their experience and expertise in applying the Guidelines.

These Guidelines are based on the evidence currently available. As new and emerging treatments will likely contribute to a strong evidence base which should be included in future revisions, it is recommended that the Guidelines be updated every five years.



Part A: What is comorbidity and why is it important?

A1: What is comorbidity?

A1: What is comorbidity?

Key Points

- Although other types of 'comorbidity' exist, the use of the term in this document refers to the co-occurrence of an AOD use disorder with any other mental health condition.
- In this document, we use the term comorbid 'mental health disorder' when referring to those who have a diagnosable mental health disorder, as defined by the DSM.
- When using the term 'mental health condition', we are referring to both those who have a diagnosable disorder as well as those who display *symptoms* of disorders while not meeting criteria for a *diagnosis* of a disorder.
- There are a number of possible explanations as to why two or more disorders may co-occur. It is most likely, however, that the relationship between comorbid conditions is one of mutual influence.

Use of the term 'comorbidity' in these Guidelines refers to the co-occurrence of one or more AOD use disorders with one or more mental health conditions. This phenomenon is often referred to as 'dual diagnosis'; however, this term is often misleading, as many clients present with a range of co-occurring conditions of varying severity [8]. It should be noted that there are other types of comorbidity. For example, a person may have co-occurring AOD use disorders (i.e., more than one AOD use disorder). Indeed, one of the most common and often overlooked comorbidities in AOD clients is tobacco use (discussed in Chapter B1) [9-12]. Other conditions that are often found to co-occur with AOD use disorders are physical health conditions (e.g., cirrhosis, hepatitis, heart disease, diabetes), intellectual and learning disabilities, cognitive impairment, and chronic pain [13-20]. While there are a number of different types of comorbidity, these Guidelines focus on the co-occurrence of AOD use disorders and mental health conditions.

To be classified as having a mental health disorder, a person must meet a number of diagnostic criteria (see Chapter A4 for a discussion of the classification of mental health disorders). There are, however, a

large number of people who present to AOD treatment who display *symptoms* of disorders while not meeting criteria for a *diagnosis* of a disorder. For example, a person may exhibit depressed mood or anxiety without having a diagnosable depressive or anxiety disorder. Although these individuals may not meet full diagnostic criteria according to the classification systems, their symptoms may nonetheless impact significantly on their functioning and treatment outcomes [21]. For example, people who report symptoms of depression but do not meet diagnostic criteria have reduced productivity, increased help-seeking, and an increased risk of attempted suicide [22]. Therefore, rather than viewing mental health as merely the presence or absence of disorder, mental health conditions can be viewed as a continuum ranging from mild symptoms (e.g., mild depression) to severe disorders (e.g., schizophrenia or psychotic/suicidal depression).

In this document we use the term comorbid 'mental health disorder' when referring to those who have a diagnosable mental health disorder, as defined by the DSM [23, 24]. When using the term 'mental health condition', we are referring to both those who have a diagnosable disorder as well as those who display *symptoms* of disorders while not meeting criteria for a *diagnosis* of a disorder.

Why does comorbidity occur?

There are a number of possible explanations as to why comorbidity may occur (see Figure 2):

- The presence of a mental health condition may lead to an AOD use disorder, or vice versa (known as the direct causal hypothesis).
- There may be an indirect causal relationship.
- There may be factors that are common to both the AOD and mental health condition, increasing the likelihood that they will co-occur.

Direct causal hypothesis

The AOD use disorder may be a consequence of the mental health condition

In some cases where there is comorbidity, the AOD use disorder occurs as a consequence of repeated AOD use to relieve or cope with mental health symptoms. This is often described as the 'self-medication hypothesis', in that substances are used in an attempt to medicate mental health symptoms [25-28]. In these circumstances, mental health conditions may become more apparent after the AOD use has ceased. Certain mental health conditions may also impair a person's ability to make sound judgements regarding his/her AOD use. For example, individuals with some personality characteristics or cognitive impairment may have difficulty identifying social cues about appropriate use. This may lead the person to use in greater quantities or with greater frequency, increasing the likelihood of developing an AOD use disorder.

The mental health condition may be a consequence of AOD use

Alternatively, AOD intoxication and withdrawal can induce a variety of mental health symptoms and disorders, such as depression, bipolar, anxiety, obsessive-compulsive, and psychotic disorders (see Chapter A4 for a discussion of substance-induced disorders). For example, alcohol use and withdrawal can induce symptoms of depression or anxiety [29-31]; manic symptoms can be induced by intoxication with stimulants, steroids, or hallucinogens; and psychotic symptoms can be induced by withdrawal from alcohol, or intoxication with amphetamines, cocaine, cannabis, lysergic acid diethylamide (LSD), or phenylcyclohexylpiperidine (PCP) [32, 33]. Other disorders that may result from AOD use include substance-induced neurocognitive disorder, sexual dysfunction, and sleep disorder [24]. In the majority of cases, these effects subside and eventually disappear with abstinence [34-36]. For some, however, symptoms may continue even after they have stopped drinking or using drugs. Regardless of whether the comorbid disorder is classified as independent or substance-induced, it may be associated with poorer treatment outcomes [37].

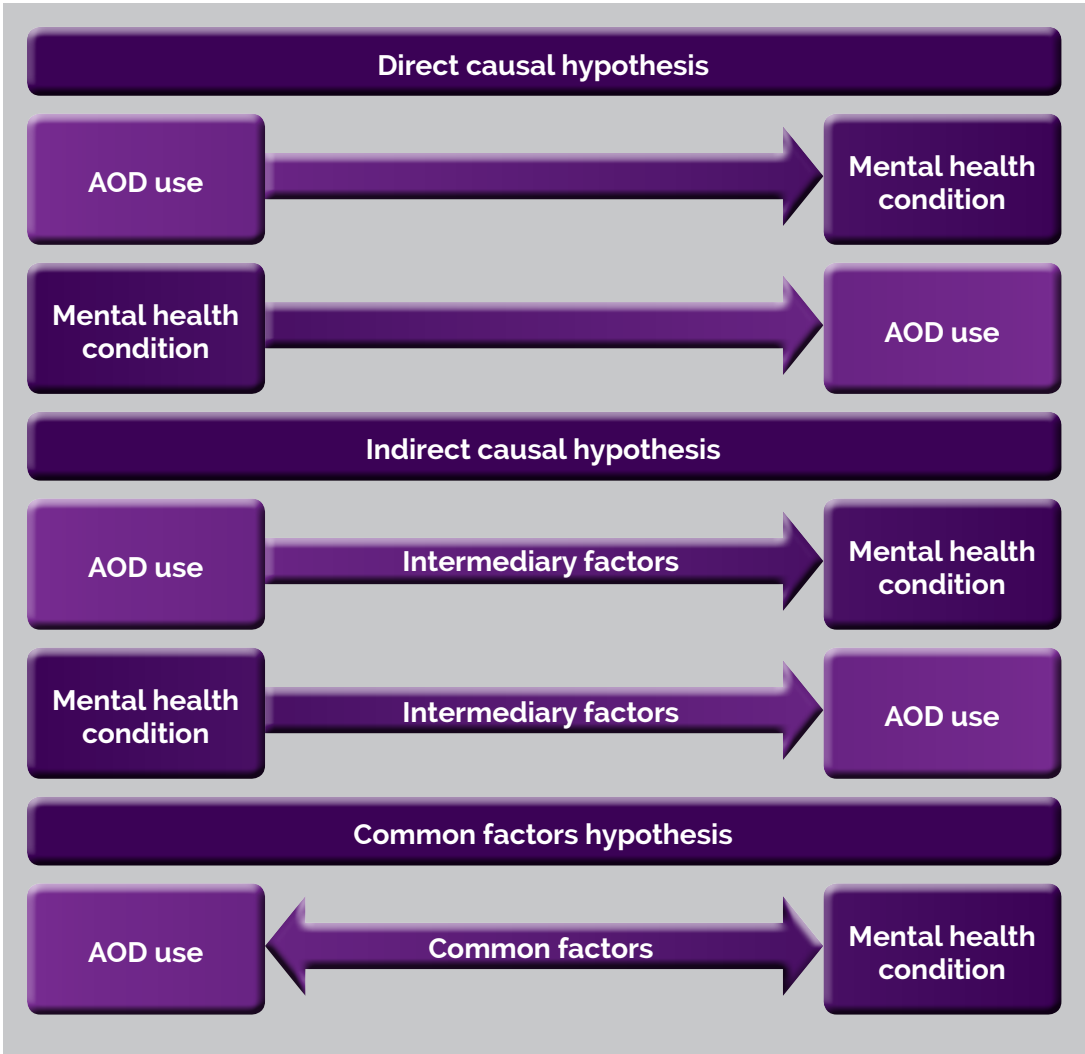
Indirect causal relationship

An indirect causal relationship is said to exist if one condition has an effect upon an intermediary factor that, in turn, increases the likelihood of developing the second condition [38]. For example, research has shown that the presence of early onset AOD use reduces the likelihood of completing high school, entering tertiary education, and completing tertiary education [39, 40]. This poor level of education may lead to later life difficulties (e.g., unemployment) that may lead to other problems, such as depression [38]. Similarly, the reverse is possible, whereby a depressive disorder may lead to difficulties in completing study and work commitments, which may in turn lead to difficulties finding employment, increasing the risk of AOD misuse [41-43].

Common factors

The co-occurrence of two conditions may also come about due to the presence of shared biological, psychological, social, or environmental risk factors. That is, the factors that increase the risk of one condition may also increase the risk for another [38, 44-47]. For example, both AOD and mental health conditions have been associated with lower socioeconomic status, cognitive impairment, the presence of conduct disorder in childhood and antisocial personality disorder (ASPD). It is also possible that a genetic vulnerability to one disorder may increase the risk of developing another disorder [47-49].

Figure 2: Explaining comorbidity

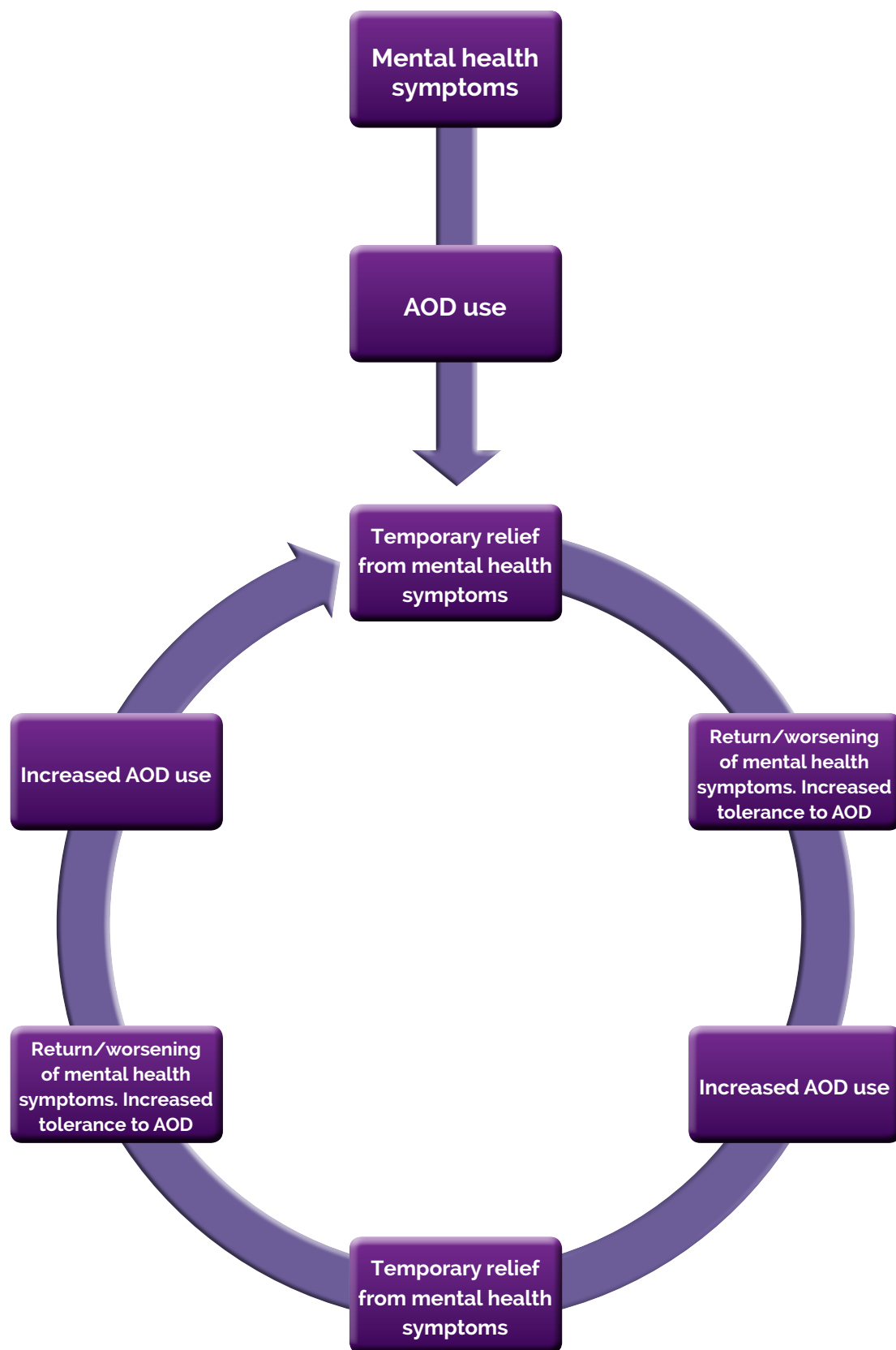


Does causality matter?

In the past, there has been a focus on establishing the order of onset of conditions to identify which is the primary disorder. Conditions may occur in any order, or they may develop at the same time. The evidence regarding the typical order of onset of disorders is not consistent, and differences have been observed between males and females [50]. It appears, however, that social anxiety disorder (SAD), specific phobia, agoraphobia, and post traumatic stress disorder (PTSD) tend to predate the AOD use disorder in most cases; generalised anxiety disorder (GAD), panic disorder, depression, and dysthymia, on the other hand, tend to have their onset after the onset of an AOD use disorder [30, 51].

Establishing the order of onset of conditions can be useful in understanding the relationship between conditions. It is important to note, however, that once comorbid conditions have been established it is most likely that the relationship between them is one of mutual influence rather than there being a clear causal pathway [32, 52] (see Figure 3). Regardless of how the comorbidity came about, both conditions may serve to maintain or exacerbate the other. For example, a person may engage in AOD use to reduce symptoms of anxiety; however, research suggests that repeated use may lead to increased anxiety [53]. It is also possible that the relationship between disorders may change over time [52, 54]. For example, depression may trigger alcohol use on some occasions, while it may be the result of alcohol use on others [55]. Irrespective of what order comorbid conditions have developed, the strategies used to manage these conditions are the same.

Figure 3: Example of a relationship of mutual influence between AOD use and mental health conditions



A2: How
common is
comorbidity
and why is it of
concern?

A2: How common is comorbidity and why is it of concern?

Key Points

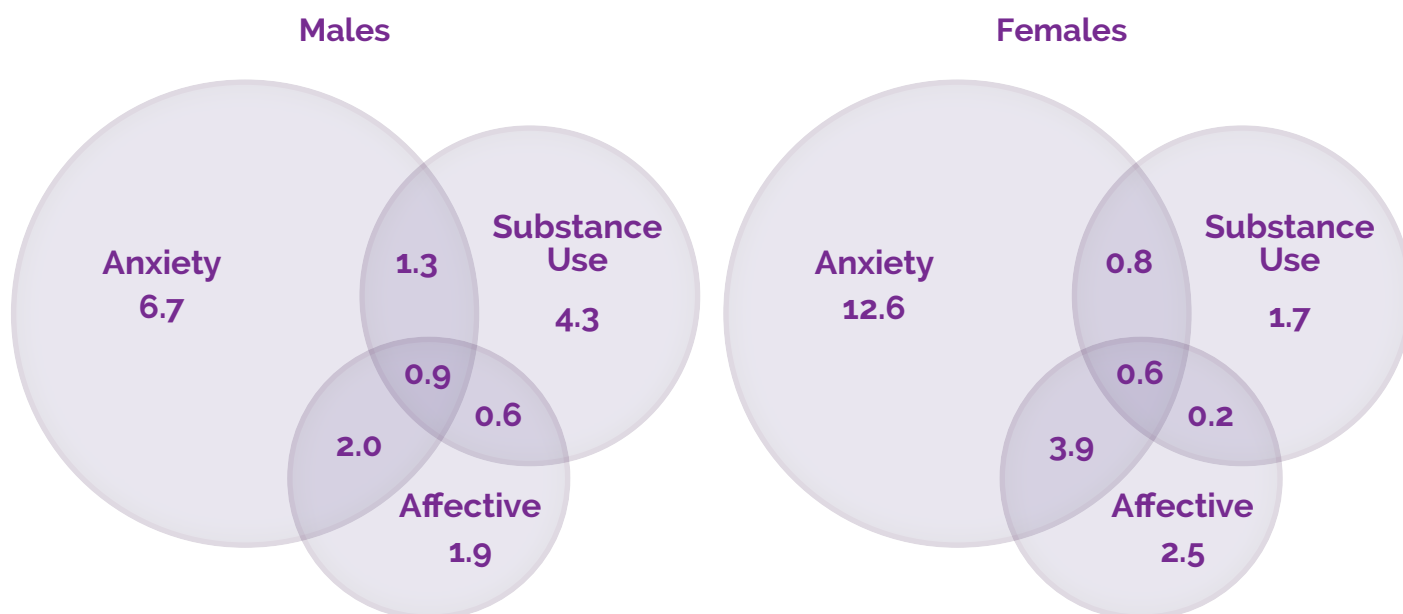
- Mental health disorders are common among clients of AOD services.
- The most common comorbid mental health disorders are anxiety, depression, PTSD, and personality disorders.
- In addition to those with mental health disorders, there are a number of people who present to AOD treatment who display *symptoms* of disorders while not meeting criteria for a *diagnosis* of a disorder.
- Although people with comorbid mental health conditions may have more complex profiles, they have been found to benefit as much from traditional AOD treatment methods as those without comorbid mental health conditions.

How common are mental health disorders?

In Australia, mental disorders are the third leading cause of burden of disease following cancer and cardiovascular disease (CVD) [56]. Research conducted on the general population indicates that approximately one in two people will develop a mental disorder at some point in their life [50, 57, 58]. The 2007 Australian National Survey of Mental Health and Wellbeing (NSMHWB) found that more than 41% of Australian adults (45% of men and 38% of women) had experienced a substance use, anxiety, or mood disorder in their lifetime [50]. The projected lifetime prevalence of these disorders is 28%, 25%, and 23% respectively [59]. Just over 10% of Australian adults had experienced two classes of mental disorders, and just over 4% had experienced three [50].

The 2007 NSMHWB also found that one in five Australian adults (18% of men and 22% of women) had a substance use, anxiety, or mood disorder in the past year, representing close to 3.2 million Australian adults [58]. Approximately 25% of people with mental disorders were found to have two or more classes of mental disorder [18]. The prevalence of single and comorbid substance use, anxiety, and affective (i.e., mood) disorders among Australian men and women from the NSMHWB is depicted in Figure 4. The overlapping portions of the circles indicate the proportion of the population who have co-occurring disorders. For example, 1.3% of men and 0.8% of women have a substance use and anxiety disorder only.

Figure 4: Prevalence (%) of single and comorbid DSM-IV affective, anxiety and substance use disorders amongst Australian males (left) and females (right) in the past year



Source: Teesson et al. [18].

How common is comorbidity among clients of AOD treatment services?

Comorbidity among clients of AOD treatment services is not a new phenomenon: AOD workers have been responding effectively to comorbidity for many years with very little guidance from the research field. There has, however, been an increase in awareness of this phenomenon due to the development of structured diagnostic interviews, and their use in large-scale population surveys [18, 60]. The high prevalence of comorbid mental health disorders among individuals with AOD use disorders in the Australian general population was highlighted by the 2007 NSMHWB (see Table 1). These estimates indicate that 35% of individuals with a substance use disorder (31% of men and 44% of women) have at least one co-occurring affective or anxiety disorder, representing nearly 300,000 Australians. Furthermore, of the 183,900 Australians who used alcohol or other drugs nearly every day, 63% had a 12-month mental disorder [61]. The prevalence of comorbidity is even higher among individuals entering AOD treatment programs, because the presence of co-occurring disorders increases the likelihood of treatment seeking [62–64].

A variety of mental health disorders have been found to co-occur in clients of Australian AOD services. Studies that have undertaken comprehensive assessments of mental health disorders indicate that between 50–76% of Australian clients meet diagnostic criteria for at least one comorbid mental disorder [65–67]. At least one in three have multiple comorbidities [65, 66, 68]. The proportion of clients who have a mental disorder documented in their medical records, however, ranges from 42–52% [68–71], indicating that a number of cases likely go unrecognised.

Table 1: Prevalence (%) of mental health disorders in the past year among adults with substance use disorders in the 2007 National Survey of Mental Health and Wellbeing

Disorder	% Men	% Women	% Total
Affective disorders			
Major depressive disorder	16.1	20.3	17.4
Dysthymia	7.5	7.9	7.6
Bipolar affective disorder	3.9	5.1	4.3
Any affective disorder	19.1	22.0	20.0
Anxiety disorders			
Generalised anxiety disorder (GAD)	11.5	10.7	11.3
Social phobia	10.9	14.7	12.1
Post traumatic stress disorder (PTSD)	9.3	19.8	12.6
Panic disorder (with or without agoraphobia)	6.6	4.1	5.8
Obsessive compulsive disorder (OCD)	9.1	10.2	9.5
Agoraphobia (without panic disorder)	2.3	4.7	3.1
Any anxiety disorder	28.1	38.5	31.4
Any disorder (affective/anxiety)	31.1	44.0	35.2

As in the general population, the most frequently seen disorders among people seeking AOD treatment are anxiety disorders (45–70%), most commonly GAD [65, 66, 72, 73]; depression (26–60%) [65–67, 70, 73–76], PTSD (27–51%) [65, 67, 74, 76]; and personality disorders, in particular, borderline personality disorder (BPD) (37–66%) [76] and ASPD (61–72%) [72, 76]. Although less common, studies have also found elevated rates of bipolar disorders (4–10%) [65, 67]; psychotic disorders (2–10%) [65, 68–71]; obsessive-compulsive disorder (OCD) (1–10%) [65, 67]; ADHD (6%) [70]; and ED (2–9%) [68, 69].

A recent Australian study found that 82% of those in current residential rehabilitation had experienced an anxiety disorder in their lifetime (70% were experiencing a current anxiety disorder), and just over 79% had experienced depression in their lifetime (55% were experiencing current depression) [73]. Similarly, rates of trauma exposure and PTSD have been shown to be extremely high across a number of settings [74, 77, 78].

It should be borne in mind that the prevalence of mental health disorders may vary between substances. Little research has been conducted comparing the rates of mental health disorders across different types of AOD use disorders; however, there is some evidence to suggest that co-occurring disorders are higher among those who use stimulants and opioids [64]. For example, the prevalence of PTSD is much higher among individuals with opioid, sedative, or amphetamine use disorders compared to those with alcohol or cannabis use disorders [79].

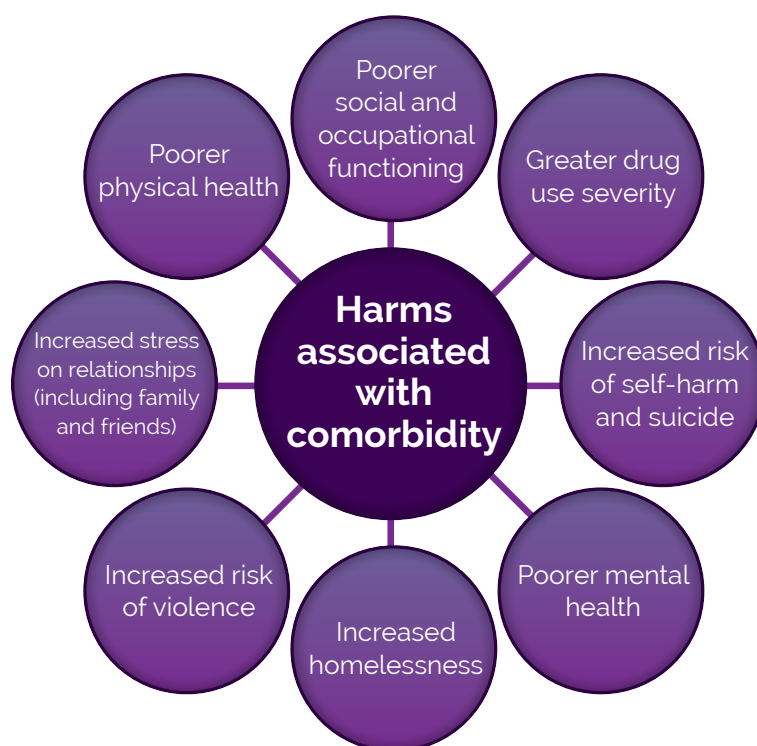
The number of potential combinations of disorders and symptoms is infinite. Furthermore, as mentioned in Chapter A1, there are a large number of people who present to AOD treatment who display *symptoms* of disorders while not meeting criteria for a *diagnosis* of a disorder [80]. Individuals who display a number of symptoms of a disorder but do not meet criteria for a diagnosis are sometimes referred to as having

a 'subsyndromal' or 'partial' disorder. Although these individuals may not meet full diagnostic criteria according to the classification systems (described in Chapter A4), their symptoms may nonetheless impact significantly on their functioning and treatment outcomes [21, 81-84].

What are the harms associated with comorbidity?

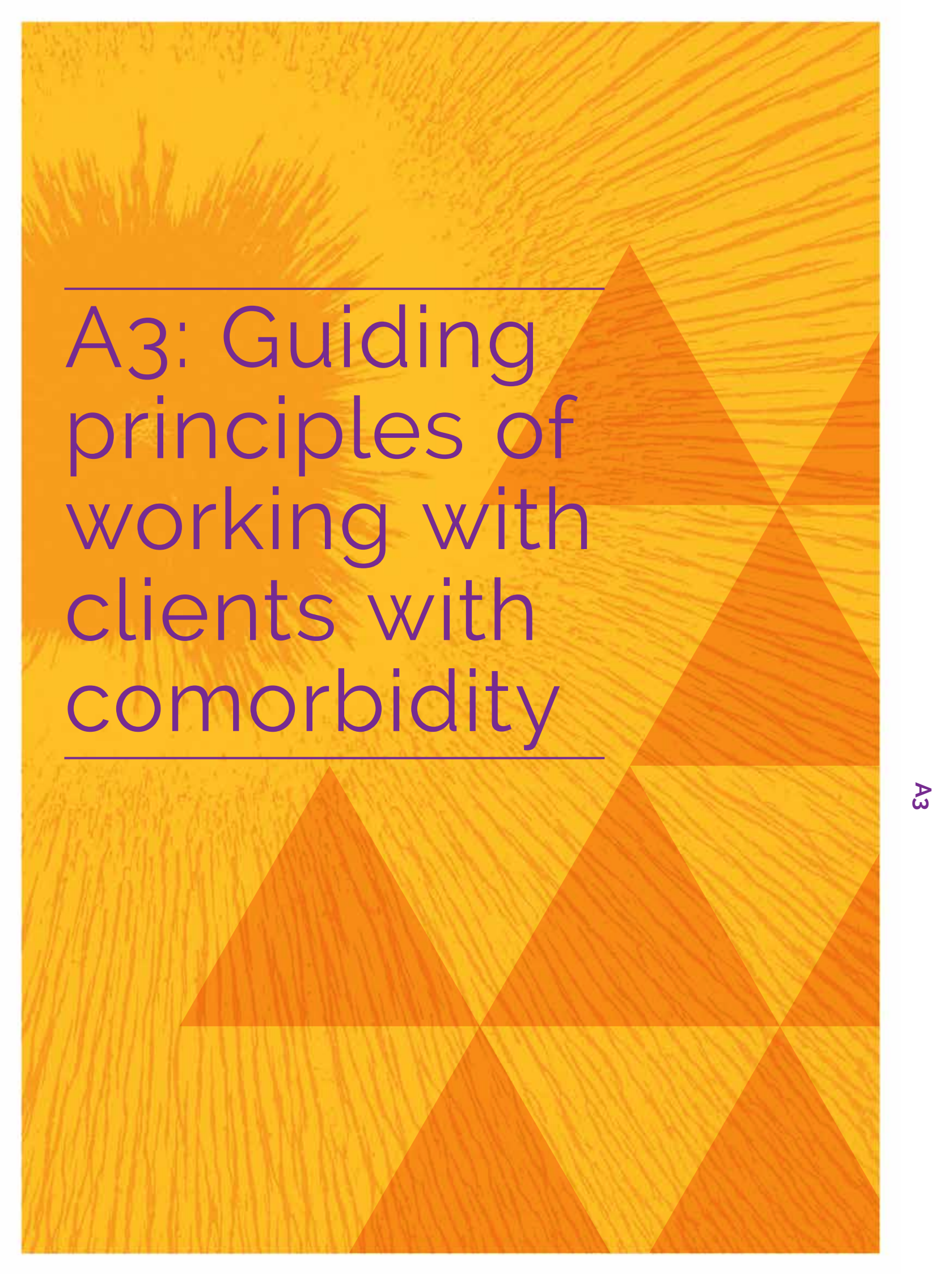
The high prevalence of comorbidity means that AOD workers are frequently faced with the need to manage complex psychiatric symptoms, which may interfere with their ability to treat the clients' AOD use [85]. Clients with comorbidity present to treatment with a more complex and severe clinical profile, including poorer general physical and mental health, greater drug use severity, and poorer functioning (see Figure 5) [66, 86-90]. It is not only AOD workers who must cope with the increased burden associated with comorbidity. The presence of comorbid mental health conditions can place an enormous strain on clients' families and others close to them, both emotionally and financially.

Figure 5: Harms associated with comorbidity



What is the impact of comorbidity on treatment outcomes?

Some studies have shown that clients with comorbid mental health disorders have poorer treatment outcomes [67, 89, 91]. There are, however, a growing number of studies that have clearly demonstrated that clients with comorbidity benefit as much as those without comorbid conditions in terms of their AOD use, general physical and mental health, and functioning – even those with severe mental health disorders [66, 92-95]. However, while both those with and without comorbid conditions follow a similar course in terms of their treatment outcomes (i.e., both groups improve), those with comorbid conditions continue to drink or use more, be in poorer physical and mental health, and display poorer functioning following treatment. These findings indicate that AOD services and AOD workers do exceptionally well at treating AOD use (despite the poorer clinical profile described in the previous section) and its associated disability, but that the disability associated with the comorbid condition remains.

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A3: Guiding principles of working with clients with comorbidity

A3: Guiding principles of working with clients with comorbidity

Key Points

- When working with clients with comorbid mental health conditions, it is recommended that AOD services and AOD workers take the following principles into consideration:
 - First, do no harm.
 - Work within your capacity.
 - Engage in ongoing professional development.
 - Recognise that the management of comorbidity is part of AOD workers' core business.
 - Provide equity of access to care.
 - Adopt a 'no wrong door' policy.
 - Recognise that comorbidity is common and that all clients should be routinely screened for comorbid conditions.
 - Conduct ongoing monitoring of symptoms and assessment of client outcomes.
 - Adopt a holistic approach.
 - Adopt a client-centred approach.
 - Emphasise the collaborative nature of treatment.
 - Have realistic expectations.
 - Express confidence in the effectiveness of the treatment program.
 - Adopt a non-judgemental attitude.
 - Adopt a non-confrontational approach to treatment.
 - Involve families and carers in treatment.
 - Consult and collaborate with other health care providers.
 - Ensure continuity of care.

When working with clients with comorbid mental health conditions, it is recommended that AOD services and AOD workers take the following principles into consideration. AOD services need to provide the infrastructure, policy, and systems support for AOD workers to put these principles into practice. The implementation of these principles may help to engage the client in treatment, enhance the therapeutic alliance, and increase the likelihood of improved client outcomes.

First, do no harm

The principle 'first, do no harm' is not unique to comorbidity; it underscores the provision of all health care. AOD workers must consider the risks and benefits of potential actions and avoid those that may result in harm to the client.

Work within your capacity

In line with the principle above, each AOD worker should work within his/her capacity to address comorbid conditions. As mentioned in Part A, AOD workers differ with regard to their roles, education, training, and experience. It is not expected that all AOD workers will be able to address comorbid conditions to the same extent. It is essential that appropriate supervision be provided to those working with comorbid clients, particularly for those who are less experienced in mental health.

Engage in ongoing professional development

All AOD workers should be knowledgeable about the symptoms of the common mental health conditions that clients present with and how to manage these symptoms. Where AOD workers do not have these skills, professional development should be provided to bring them to a level of confident and competent performance. The provision of opportunities for continuing professional development for AOD staff should be a high priority for AOD services. AOD workers should seek out, and actively engage in, comorbidity-specific training. It is important that professional development in this area be ongoing, as it is an evolving area of research with many studies currently underway. AOD workers are encouraged to update their knowledge by accessing new research and training opportunities, and new clinical guidelines as they emerge (Appendix C provides a list of research organisations).

Recognise that the management of comorbidity is part of AOD workers' core business

AOD treatment services and AOD workers need to recognise that working with comorbidity is part of their core business. Indeed, managing comorbidity is the core business of all health care providers.

Provide equity of access to care

Cases have been documented where clients of AOD services have received prejudicial treatment or were refused entry to treatment due to the presence of comorbid disorders [96]. All clients, regardless of their mental health status, are morally and legally entitled to equal access to the highest quality of care [97].

Adopt a 'no wrong door' policy

In line with the above principles, AOD services (and all other health services) should adopt a 'no wrong door' policy. No client should be turned away from treatment; rather, it is necessary to establish where the client will receive the most appropriate care. When a person presents at a facility that is not equipped to provide a particular type of service, he/she should be guided to appropriate facilities (using active referral methods discussed in Chapter B4), with follow-up by staff to ensure that he/she receives appropriate care [94, 98]. In this way, every door in the health care system should provide access to the services needed. Guidance about which sector of the health care system should have primary responsibility for comorbid presentations is provided in Figure 6. It should be noted, however, that it can be difficult to discern

which areas should take primary responsibility for individual cases as the severity of conditions may be interpreted differently by various service providers.

Figure 6: Clinical governance

AOD services Primarily responsible for people severely disabled by current substance use and adversely affected by mental health problems.	Mental health services Primarily responsible for people severely disabled by current mental health problems and adversely affected by substance use.
AOD and mental health services Shared responsibility for people severely disabled by both substance use and mental health disorders. The client should be treated by the service that best meets his/her needs.	General practitioners Primarily responsible for people with mild to moderate AOD and/or mental health conditions but with access to specialist AOD and mental health services as required.

Source: NSW Health [99].

Recognise that comorbidity is common and that all clients should be routinely screened for comorbid conditions

Despite the fact that comorbid mental health conditions are common among people with AOD use disorders, they are often overlooked in AOD treatment settings [100]. This is mostly because AOD workers are not routinely looking for them. As part of routine clinical care, all clients should be screened for comorbidity. Chapter B2 discusses how to screen and assess for comorbidity.

Conduct ongoing monitoring of symptoms and assessment of client outcomes

Assessing mental health is a process, not a one-off event. It is important to monitor a person's mental health symptoms throughout treatment as they may change over time. For example, a person may present with symptoms of anxiety and depression upon treatment entry; however, these symptoms may subside with abstinence. Alternatively, a person may enter treatment with no mental health symptoms, but such symptoms may develop after a period of reduced use or abstinence.

Clients should also be provided with feedback regarding changes in their mental health. It is often difficult for clients to detect subtle changes over time. Evidence of a reduction in psychiatric symptoms may help to maintain their motivation. On the other hand, evidence that there has been no change or that their psychiatric symptoms have worsened may help them understand why they have been using substances and alert them to the need to address these issues.

Focus on engaging the client in treatment

The development of a trusting therapeutic alliance with the client is essential to engaging the client in the treatment process [101, 102]. Engaging clients in treatment can be difficult, particularly clients with personality or psychotic disorders. This may be due to a history of poor relationships with AOD and other health professionals; a bias towards suspiciousness or paranoid interpretation of relationships; or a chaotic lifestyle, making appointment scheduling and engaging in structured work more difficult [103]. The following strategies may assist in engaging the client in treatment [99]:

- Express empathetic, non-judgemental, and compassionate attitudes.
- Provide individualised care that includes identified strengths as well as problems.
- Adopt a holistic approach.
- Be flexible with appointments.
- Protect confidentiality and privacy.
- Promote self-efficacy.
- Work with the client's current stage of readiness to change (as discussed in Chapter B2).

Adopt a holistic approach

The primary goal of AOD treatment services is to address clients' AOD use. In order to do so effectively, AOD workers must take into account the broad range of issues that clients present with, including their mental health. When considering comorbidity, one cannot look at the person's AOD use and mental health alone. Clients with comorbid conditions often have a variety of other medical, family, and social problems (e.g., housing, employment, welfare, and legal problems). These problems may be contributing to the client's AOD and mental health conditions, or they may be the product of his/her AOD and mental health conditions. Clients also need to be viewed in light of their age, gender, sexual orientation, culture, ethnicity, spirituality, socioeconomic status, and cognitive abilities.

Adopt a client-centred approach

AOD workers are specialists in their field. It is important to acknowledge, however, that it is the client who is the expert on him/herself. It is important that AOD workers listen to what clients want to achieve from treatment. This will assist in developing the treatment plan and identifying other services that may need to be engaged.

In terms of clients' AOD use, the goal of abstinence is usually favoured, particularly for those whose mental health conditions are exacerbated by AOD use. Abstinence is also preferred for those with more severe mental disorders (or cognitive impairment) because even low level substance use may be problematic for these individuals [54]. Those taking medications for mental health conditions (e.g., antipsychotics, antidepressants, mood stabilisers) may also find that they become intoxicated even with low levels of AOD use due to the interaction between the drugs. Although abstinence is favoured, it is recognised that many people with comorbid conditions prefer a goal of moderation. In order to successfully engage with the client, AOD workers should accommodate a range of treatment goals and adopt a harm reduction approach [104].

Emphasise the collaborative nature of treatment

Clients with comorbid conditions often feel that they have very little control over their lives. It is important that they understand that you will be working together throughout treatment, to help them re-establish a sense of control.

Have realistic expectations

It is important that AOD workers have realistic expectations regarding the course of treatment and outcomes to be expected of clients with comorbidity. It is commonly believed that clients with comorbid mental health conditions are more difficult to treat, require more intensive treatments, and have poorer treatment outcomes. However, comorbidity is not an insurmountable barrier to treating people with AOD use disorders. As discussed in Chapter A2, research has shown that clients with comorbid mental health conditions can benefit just as much as those without comorbid conditions from usual AOD treatment [66, 94, 95, 105].

Express confidence in the effectiveness of the treatment program

As mentioned above, positive outcomes can be achieved in clients with comorbid conditions. AOD workers' confidence in the treatment will increase clients' confidence that the treatment they are entering can help them.

Adopt a non-judgemental attitude

Clients with comorbid problems have often been subjected to stigmatisation and discrimination in relation to their AOD use (particularly those who use illicit drugs) and their mental health condition. People with mental health disorders have traditionally been viewed by society as violent, brain damaged, intellectually disabled, unimportant, untrustworthy, or worthless. As a result, clients with comorbidity will often feel too ashamed or embarrassed to tell people about it, even health professionals [97]. It is important that clients with comorbid conditions do not feel that AOD workers have the same negative attitudes towards them. AOD and other health professionals should view and treat people with comorbidity with the same respectful care that would be extended to someone with any other health condition. Just as people with an AOD use disorder should not be thought of or referred to as an 'addict', a person with schizophrenia should not be referred to or thought of as 'schizophrenic'. The mental health condition does not define the person; rather, it is one aspect of the person.

Adopt a non-confrontational approach to treatment

Sustained emotional distress can worsen a number of mental health conditions and a highly demanding or confrontational treatment approach may be harmful to those with mental health conditions [54]. Emotional distress may be triggered by criticism, rejection, or an inability to deal with task demands [106]. It is recommended instead that a non-confrontational approach, such as a motivational enhancement approach, be taken with clients with comorbidity. Motivational interviewing (MI) techniques are described in Appendix E.

Involve families and carers in treatment

With the client's consent, AOD workers should involve the client's family and carers where possible and appropriate. Families and carers should be involved as much as possible in decisions regarding treatment and discharge planning, as they will often need to facilitate the client's access to other services. With the client's consent, family members/carers should be provided with regular feedback so that they know their views and feelings are valued. It is important to clarify with clients specifically what information they consent to being shared with their families or carers. Families and carers should also be informed of services available to them in the form of advocacy and support groups.

Two useful resources are available, and may have relevant information for families, friends, carers, and friends:

- *Tools for change: A new way of working with families and carers*, developed by the Network of Alcohol and Drug Agencies, available as part of the *Families and Carers Toolkit* [107]. <http://www.nada.org.au/resources/nadapublications/resourcestoolkits/familycarertoolkit/>
- *Guidelines to consumer participation in NSW drug and alcohol services*, developed by the NSW Ministry of Health [108]. http://www0.health.nsw.gov.au/policies/gl/2015/pdf/GL2015_006.pdf

Consult and collaborate with other health care providers

AOD clients present with diverse issues that cannot possibly be addressed by one health professional or service alone. A broad, multifaceted, and multidisciplinary approach is needed in order to address all of these issues effectively [97, 109]. It is important that AOD services and AOD workers develop links with local services and engage them in clients' treatment. Such services include mental and community health practitioners, as well as housing, employment, and welfare services. General practitioners (GPs) in particular play an important role in delivering care to people with comorbidity, as they are often their first and most consistent point of contact [110, 111]. Ideally, case management and treatment should be shared by health care providers/services, and there should be good communication and sharing of information between these professionals.

Ensure continuity of care

People with comorbid conditions often have difficulty navigating their way through the services required to address all of their needs. It is crucial that systems be established that ease clients' transitions between services to prevent them from 'falling through the gaps' between services [98]. Chapter B4 discusses methods that may be used to refer clients to other services.



A4: Classification of disorders

A4:

Classification of disorders

Key Points

- Disorders represent particular combinations of signs and symptoms that are grouped together to form criteria. A certain number of criteria need to be met within a certain timeframe for a person to be diagnosed as having a disorder.
- Not all AOD workers are able to formally diagnose the presence or absence of mental health disorders. Diagnoses of mental health disorders should only be made by suitably qualified and trained health professionals.
- It is nonetheless useful for all AOD workers to be aware of the characteristics of disorders so that they are able to describe and elicit information about mental health symptoms when undertaking screening and assessment, and to inform treatment planning.
- It is important that clients suspected of having a comorbid mental health condition undergo a medical assessment as many symptoms of mental health disorders mimic those of physical disorders.

This chapter provides a brief overview of the mental disorders most commonly seen among clients of AOD treatment settings. Not all AOD workers are able to formally diagnose the presence or absence of mental health disorders. Diagnoses of mental health disorders should only be made by suitably qualified and trained health professionals (e.g., registered or clinical psychologists, and psychiatrists). It would be unethical for non-trained workers to use diagnostic labels in clinical notes, or to inform the client that they have a diagnosis, unless they have received written confirmation from a suitably qualified professional.

It is nonetheless useful for all AOD workers to be aware of the characteristics of disorders so that they are able to describe and elicit information about mental health symptoms when undertaking screening and assessment (discussed in Chapter B2), and to inform treatment planning. Many more people will present with some symptoms than will meet criteria for a diagnosis of a disorder; however, these symptoms are distressing and need to be managed nonetheless. It is hoped that the descriptions provided here will increase AOD workers' knowledge and awareness of different signs (i.e., what is objectively visible about the client, such as sweating) and symptoms (i.e., what the client describes, such as sadness) of disorders. The case studies provided throughout these Guidelines also provide examples of how symptoms may present in clients with comorbid mental health disorders.

Disorders represent particular combinations of signs and symptoms that are grouped together to form criteria. A certain number of criteria need to be met within a certain timeframe for a person to be diagnosed as having a disorder. There are two main classification systems used to diagnose mental health disorders:

- The *Diagnostic and Statistical Manual of Mental Disorders*, currently in its fifth edition (DSM-5) [24].
- The *International Classification of Diseases*, currently in its 10th revision (ICD-10) [112].

These systems are similar; however, there are a number of important differences. The disorder descriptions outlined in this chapter are based on those provided by the most recent diagnostic manual available, the DSM-5, which was released in May 2013 [24]. AOD workers are encouraged to familiarise themselves with the DSM-5, in particular its uses, limitations and recommendations regarding differential diagnosis (i.e., determining which symptoms are attributable to which disorder).

It is important to note that substantial revisions to diagnostic and classification criteria have been made for many mental disorders, and the disorder descriptions may vary greatly from those in the previous edition (DSM-IV-TR [23]). In an effort to help navigate the major revisions, the primary changes between the DSM-IV-TR and the DSM-5 disorder classification are explained. As many AOD workers may also use ICD codings, we have cross-referenced the DSM-5 disorders described here with the corresponding ICD-10 codes in Appendix D.

In these Guidelines we focus on 10 categories of disorder that are most commonly seen among people with AOD use disorders:

- Attention-deficit/hyperactivity disorder (ADHD).
- Schizophrenia spectrum and other psychotic disorders.
- Bipolar disorders.
- Depressive disorders.
- Anxiety disorders.
- Obsessive-compulsive disorder (OCD).
- Trauma-related disorders.
- Feeding and eating disorders (ED).
- Personality disorders.
- Substance-induced disorders.

There are, however, a number of other disorder types that individuals with AOD use disorders may experience. These include somatoform disorders, sleep disorders, and adjustment disorders. For further information on these disorders readers are referred to the DSM-5 [24].

It is also important to note that many symptoms of mental health disorders mimic those of physical disorders. For example, heart palpitations may be related to anxiety, or they may be a symptom of a heart condition. Similarly, depressed mood may be a symptom of major depressive disorder, or it may be a symptom of hypothyroidism. For this reason, it is important that clients suspected of having a comorbid

mental health condition undergo a medical assessment to rule out the possibility of an underlying physical condition. This is particularly pertinent for those individuals with advanced AOD use disorders, who may suffer from malnutrition or organ damage.

What is attention-deficit/hyperactivity disorder (ADHD)?

The fundamental feature of ADHD is an ongoing pattern of inattention and/or impulsivity-hyperactivity, which interferes with functioning (see Table 2). Many people experience periods of excitability or zealousness, which can sometimes be described as 'hyperactive'. Similarly, many people experience periods of distraction and have difficulty concentrating. ADHD is distinct from relatively short periods of over-excitability or distraction in that it involves severe and persistent symptoms that are present in more than one setting (e.g., home and work). A case study example of how comorbid ADHD and AOD use disorder may present is illustrated in Box 1.

Table 2: Attention-deficit/hyperactivity disorder (ADHD)

Attention-deficit/hyperactivity disorder (ADHD)
<p>ADHD is characterised by a persistent and debilitating pattern of inattention and/or hyperactivity-impulsivity where at least five inattention or hyperactivity-impulsivity symptoms are present. Symptoms need to have been experienced for at least six months, and several need to have been present prior to age 12:</p> <p><i>Inattention:</i></p> <ul style="list-style-type: none">• Lacking attention to detail.• Difficulty maintaining focus during work, study, or conversation.• Appearing not to listen when spoken to.• Difficulty following instructions and completing housework, work, or study.• Difficulty organising time and materials.• Avoiding tasks that involve constant mental energy.• Losing material possessions.• Easily distracted.• Forgetting to return calls, pay bills, keep appointments. <p><i>Hyperactivity and impulsivity:</i></p> <ul style="list-style-type: none">• Fidgeting, tapping hands or feet, wriggling in seat.• Leaving seat in inappropriate situations.• Inappropriately restless.• Unable to relax or engage in activities quietly.• Unable to keep still for extended periods.• Talking excessively.• Interrupting conversations.• Difficulty waiting in line or for his/her turn.• Intruding on, or taking over from others.

Box 1: Case study A: What does comorbid ADHD and AOD use look like? Ali's story

Case study A: What does comorbid ADHD and AOD use look like? Ali's story

Ali, a 23-year-old unemployed man who was living with his parents, presented to the local AOD service. His presentation followed an arrest and fine for possession of a small amount of speed. Ali said that he had only come to the appointment to get his parents 'off his back', and although he agreed to an assessment, he said he would probably not come back.

Ali's AOD use dated back to his mid-teens, and he described using both speed and cannabis. He admitted that some of his drug use was funded by borrowing money from friends and family and, on occasion, stealing money from his parents. Ali said that when he first started using speed, he felt 'inner calmness', but as he increased the quantity and frequency of use, his life became increasingly chaotic. However, he found that smoking a joint had helped him calm down and sleep.

During the assessment, Ali described being brought up in a loving family home, but he encountered a number of problems at school. All of Ali's teachers agreed that he was brighter than most of his classmates, but his school reports often mentioned that he had difficulty paying attention to detail, was inattentive in class, and forgot to bring in school materials or homework. During the assessment Ali was noticeably fidgeting and often answered a question before the AOD worker had finished asking the question.

Key points:

- What are the primary concerns for Ali?
- Where to from here?

Case study A continues in Chapter B6.

What are schizophrenia spectrum and other psychotic disorders?

People experiencing schizophrenia spectrum or other psychotic disorders lose touch with reality. Their ability to make sense of both the world around them and their internal world of feelings, thoughts, and perceptions is severely altered. The most prominent symptoms are delusions, hallucinations, disorganised speech, grossly disorganised or abnormal behaviour, and negative symptoms (see Table 3).

Individuals with AOD use disorders may display symptoms of psychosis that are due to either intoxication or withdrawal from substances. However, if the person experiences psychotic episodes even when they are not intoxicated or withdrawing, it is possible that they may have one of the disorders described in Table 4. These are severely disabling mental health disorders. Psychotic symptoms may also present in people with major depressive disorder or bipolar I disorder, or from a medical condition. A case study example of how comorbid psychosis and AOD use disorder may present is illustrated in Box 2.

Table 3: Predominant symptoms associated with schizophrenia spectrum and other psychotic disorders

Delusions
<p>Delusions are false beliefs that usually involve a misinterpretation of perceptions or experiences. For example, people who experience delusions may feel that someone is out to get them, that they have special powers, or that passages from the newspaper have special meaning for them. Delusions may be either bizarre or non-bizarre.</p> <ul style="list-style-type: none"> • Bizarre delusions are those that are clearly implausible, not understandable, and not derived from ordinary life experiences (e.g., the belief that one's internal organs have been removed and replaced with someone else's by a stranger without leaving any wounds or scars). • Non-bizarre delusions are those which involve situations that could conceivably occur in real life (e.g., being followed, poisoned, or deceived by one's partner).
Hallucinations
<p>Hallucinations are false perceptions such as seeing, hearing, smelling, sensing, or tasting things that others cannot. These are vivid and clear, with the impact of regular perceptions, and are not under voluntary control. It is important to note that the classification of an experience as either a delusion or a hallucination is dependent upon culture. That is, the experience must be one that most members of that culture would deem a misrepresentation of reality.</p>
Disorganised Speech
<p>Disorganised speech involves difficulty with communication, through difficulty keeping track of conversations, switching between unrelated topics, or incoherent words or sentences.</p>
Grossly disorganised or abnormal behaviour
<p>Grossly disorganised or abnormal behaviour may be evident in several ways, ranging from inappropriate behaviour or silliness, to unpredictable agitation. There may be problems with goal-directed behaviour interfering with usual daily activities, or difficulty maintaining hygiene. Catatonic behaviour, which is a decreased reactivity to the environment (sometimes to the extreme of complete unawareness, maintaining a rigid or inappropriate posture, or complete lack of verbal or motor response).</p>
Negative symptoms
<p>Negative symptoms account for much of the morbidity associated with schizophrenia, but are less prominent in other psychotic disorders. These include:</p> <ul style="list-style-type: none"> • Diminished emotional expression (i.e., reductions intensity of emotional expressiveness). • Avolition (i.e., a lack of interest in initiating or continuing with activities). • Alogia (i.e., restricted fluency and productivity of thought and speech). • Anhedonia (i.e., restricted ability to experience pleasure from positive stimuli). • Asociality (i.e., a lack of interest in social interactions).

What are the different types of schizophrenia spectrum and other psychotic disorders?

The particular combination of symptoms a person displays, and their duration, determines what diagnostic category they may fall into. There are five types of psychotic disorders (see Table 4):

- Schizophrenia.
- Schizophreniform disorder.
- Schizoaffective disorder.
- Brief psychotic disorder.
- Delusional disorder.

Table 4: Psychotic disorders

Disorder	Symptoms
Schizophrenia	<p>Schizophrenia is one of the most common and disabling of the psychotic disorders. It affects a person's ability to think, feel, and act. To be diagnosed with schizophrenia, two or more of the following symptoms must have been continuing for a period of at least six months:</p> <ul style="list-style-type: none">• Delusions.• Hallucinations.• Disorganised speech.• Grossly disorganised or catatonic behaviour.• Negative symptoms (diminished emotional expression or avolition). <p>These symptoms cause significant impairment in a person's functioning at work, social relationships, or self-care. People are considered to have particular 'types' of schizophrenia depending upon the predominance of symptoms displayed (paranoid, disorganised, catatonic, undifferentiated, or residual type).</p>
Schizophreniform disorder	<p>Schizophreniform disorder is characterised by a symptomatic presentation that is equivalent to schizophrenia except its duration is limited to more than one month and less than six months, and it is not necessary to have a decline in social or occupational functioning.</p>
Schizoaffective disorder	<p>Schizoaffective disorder is characterised by the symptoms of schizophrenia alongside a major depressive or manic episode (described later in this chapter). This disorder may thus be divided into two types:</p> <ul style="list-style-type: none">• Bipolar type (if the mood episode is manic).• Depressive type (if the mood episode is major depressive).
Brief psychotic disorder	<p>Brief psychotic disorder is a disturbance when delusions, hallucinations, or disorganised speech are present, with or without grossly disorganised or catatonic behaviour, for at least one day but less than one month.</p>
Delusional disorder	<p>Delusional disorder is characterised by at least one month of non-bizarre delusions. Hallucinations and other positive symptoms of schizophrenia are relatively absent, and functioning is not significantly impaired.</p>

Box 2: Case study B: What does comorbid psychosis and AOD use look like? Nick's story

Case study B: What does comorbid psychosis and AOD use look like? Nick's story

Nick, a 24-year-old, had been a client of community mental health services since his late teens. His case manager, who was becoming increasingly concerned about Nick's AOD use, contacted the local AOD service requesting an assessment. Nick reluctantly agreed to an assessment and consented to his case manager providing the AOD service with some background information.

Nick was first referred to community mental health services after being discharged from an inpatient psychiatric unit to which he had been admitted after experiencing an acute psychotic episode. Nick remained in the unit for four months. During his admission, Nick was treated with major tranquillising medications and discharged on a regime that included a depot injection every two weeks. Following discharge, he went home to his parents' house. He was withdrawn, spending all of his time in his bedroom, wearing headphones and playing music almost all the time, to 'block out the voices'. Nick became convinced that messages from another planet were being transmitted via the family's television set, and he subsequently smashed every electrical appliance in the house that he could find, 'to stop messages being sent to him'. The community mental health team organised some rehabilitative activities, and encouraged him to 'get out more'.

Unbeknownst to any of the professionals caring for him at the time, Nick had been introduced to stimulant medication by another patient while in hospital, and continued to use following his discharge. Over time, Nick continued to display features of his psychosis and remained fixed in the belief that he was receiving communications from other planets – these communications coming from multiple sources, including the electricity supply. He also continued to hear voices, most of which were making complimentary comments about him; however, occasionally the voices accused him of various wrongdoings.

Nick was compliant with appointments for his depot injection, as he knew that if he wasn't he would be compelled to do so by hospital admission. He was prescribed other oral medication for both his psychosis and mood, but his compliance with the regime of oral medication was very poor. By the time Nick was assessed by the AOD service, his substance use was far more extensive than his case manager had realised. He was smoking cannabis daily, occasionally sniffing solvents, binge drinking once or twice a week, and using cocaine whenever he could afford to do so. Although Nick had never injected drugs, he had smoked heroin and, over time, had 'tried every drug under the sun'. The community mental health team had referred him to the AOD service on a number of occasions, but Nick failed to attend any of the appointments made for him. On this particular occasion, the AOD worker agreed to come to the community mental health service to meet with Nick during one of his other regularly scheduled appointments to facilitate the process.

It became apparent during the assessment that Nick's decline in mental health and escalating substance use had been precipitated by the death of both parents a short time apart. For a while, Nick remained in the family home until it became uninhabitable because of the appalling standards of hygiene. He began to spend time away from home, spending the summer months 'sleeping under the stars' or in hostels for the homeless.

Box 2: Case study B: What does comorbid psychosis and AOD use look like? Nick's story (continued)

Key points:

- What are the primary concerns for Nick?
- Where to from here?

Case study B continues in Chapter B6.

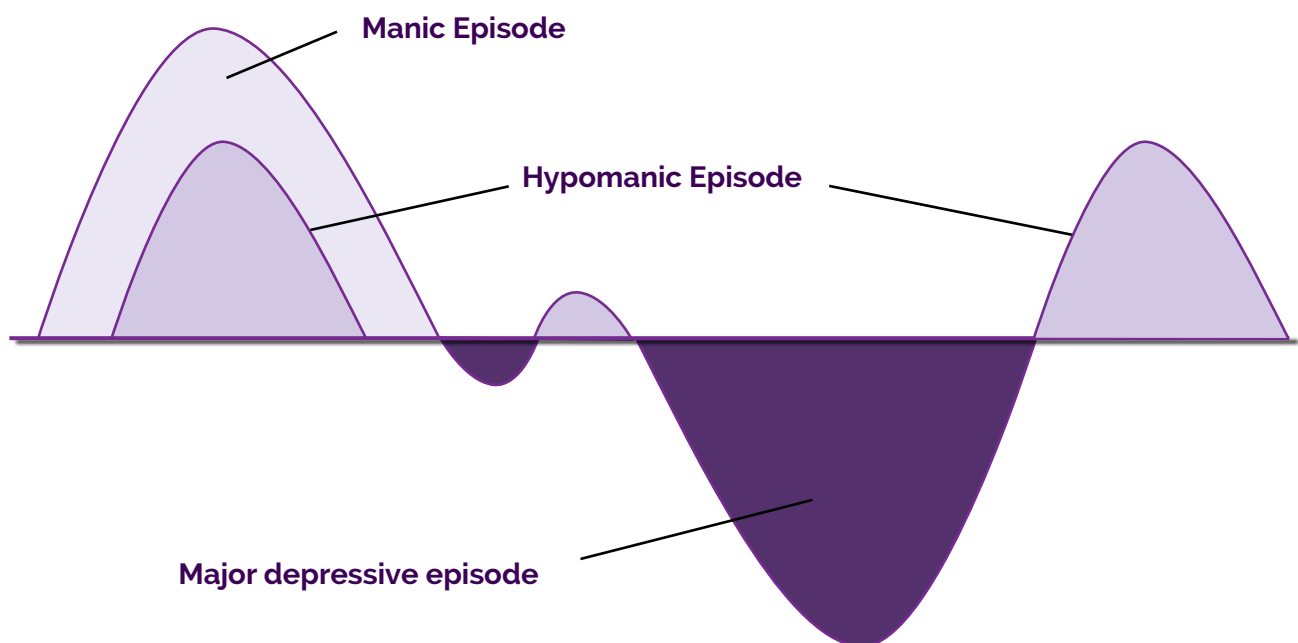
What are bipolar disorders?

Bipolar disorders are characterised by recurrent episodes of mood disturbances. The DSM-IV-TR had grouped bipolar and depressive disorders together as mood disorders, but in the DSM-5 they have been separated from the depressive disorders and form their own distinct category of disorder.

There are three types of mood disturbance episodes (see Figure 7, Table 7):

- Major depressive episodes.
- Hypomanic episodes.
- Manic episodes.

Figure 7: The spectrum of bipolar episodes



Adapted from Black Dog Institute [113].

In between episodes, the person is usually completely well. Most people with a bipolar disorder experience their first serious mood episode in their 20s; however, the onset of bipolar disorders may occur earlier or later in life, and can be diagnosed in children as well as adults. The first episode of illness is most commonly a depressive illness and bipolar disorder may not be diagnosed until treatment with antidepressant medication triggers a manic illness. Recognition of bipolar disorders can often be difficult and many people are not diagnosed until they have experienced a number of years of severe mood swings. People tend to seek treatment for the depressive phases of the disorder but not for the periods of elation, so they are often mistakenly diagnosed as having a depressive disorder.

Table 5: Bipolar episodes

Major depressive episode
<p>In a major depressive episode, some of the following symptoms are experienced nearly every day for at least two weeks:</p> <ul style="list-style-type: none"> • Depressed mood most of the day, nearly every day. • Loss of interest or enjoyment in activities. • Reduced interest or pleasure in almost all activities. • Change in weight or appetite. • Difficulty concentrating or sleeping (e.g., sleeping too much or too little). • Restlessness and agitation. • Slowing down of activity. • Fatigue or reduced energy levels. • Feelings of worthlessness or excessive/inappropriate guilt. • Recurrent thoughts of death, suicidal thoughts, attempts, or plans.
Manic episode
<p>During a manic episode, the person experiences an abnormally or persistently elevated, expansive, or irritable mood and increased goal-directed activity or energy for at least one week. The episode is characterised by the person experiencing some of the following symptoms:</p> <ul style="list-style-type: none"> • Inflated self-esteem. • Decreased need for sleep. • Increased talkativeness or racing thoughts. • Distractibility. • Agitation or increase in goal directed activity (e.g., at work or socially). • Excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., buying sprees, sexual indiscretions, dangerous driving).
Hypomanic episode
<p>A hypomanic episode is the same as a manic episode, but is less severe. A hypomanic episode need only last four days and does not require the episode to be severe enough to cause impairment in social or occupational functioning.</p>

What is the difference between depression and mania?

Having fluctuations in feelings, mood swings, and a wide range of emotions is very common; almost everyone can relate to emotional upheavals and changes in mood. However, when these emotions or moods are severe to the point of impairing a person's ability to function, there may be a disorder present. It can be difficult to understand how depression and mania co-exist. Table 6 compares some of the key features of both.

Table 6: Comparison of mania and depression in bipolar disorder

	Mania	Depression
Energy Levels	Increased energy, increase in activity and/or goal directed activities. May spend more money.	Loss of energy, decrease in activity and interest in activities.
Changes in sleep pattern	Decreased need for sleep without feeling tired.	Disrupted sleep patterns, with trouble falling or staying asleep, waking too early, sleeping too much.
Thoughts and feelings	Feeling good, high or exhilarated. May think they are chosen, special, gifted, entitled. Increased libido. Increased thinking, disorganised, flood of ideas.	Feeling down, low, empty, hopeless, worthless. Think they are useless, a burden, and the cause of their own problems. Decreased libido. Impaired thinking, concentration, decision making.
Speech and sensations	Pressured speech, maybe without enough time to convey all of the ideas, inappropriate. Heightened perception and sensation. May have underlying agitation in severe cases	Speech can be slowed, with few ideas. Dulled perception and sensation, but in some cases some senses can be heightened (e.g., taste and smell).
Delusions, hallucinations	In severe cases of mania, there may be grandiose delusions (e.g., may think they are God, or they are a superhero sent to save the world).	In severe cases of depression, there can be nihilistic delusions (e.g., may think their body is decaying).

Adapted from Black Dog Institute [114].

What are the different types of bipolar disorders?

There are three main types of bipolar disorders (see Table 7):

- Bipolar I disorder.
- Bipolar II disorder.
- Cyclothymic disorder.

A case study example of how comorbid bipolar and AOD use disorder may present is illustrated in Box 3.

Table 7: Types of bipolar disorders

Disorder	Symptoms
Bipolar I disorder	Bipolar I is characterised by one or more manic episodes, which can be preceded or followed by hypomanic or major depressive episodes.
Bipolar II disorder	Bipolar II is characterised by recurring mood episodes, consisting of at least one or more major depressive episodes and at least one hypomanic episode.
Cyclothymic disorder	Cyclothymic disorder is characterised by chronic (at least two years), fluctuating disturbances in mood involving numerous periods of hypomanic and depressive symptoms. The symptoms do not meet the criteria for a manic or major depressive episode.

Box 3: Case study C: What does comorbid bipolar and AOD use look like? Layla's story

Case study C: What does comorbid bipolar and AOD use look like? Layla's story

Layla is a 30-year-old woman who was referred to the AOD service by her psychiatrist. Layla has been referred to AOD services many times. On one previous occasion she attended for an assessment but failed to return for any further appointments.

Layla grew up in a country town in what she described as a very happy family; she is the third of six siblings. Layla described herself as always being 'the life of the party'. She performed well at school, enjoyed many interests and activities, and had a wide circle of friends.

Before going to university, Layla rarely drank alcohol and had never been around people who used any drugs. However, after moving to the city to attend university, she discovered that she enjoyed a mixture of methamphetamines, which helped her 'to party through the night', and cannabis, which calmed her down.

This pattern continued for the duration of Layla's years at university and, instead of being a star student, she was only able to scrape through her exams. She presented to student psychological services on several occasions requesting support in her applications for extensions and exemptions for several assignments, describing her depressive episodes to them. She did not, however, reveal any details of her substance use, or periods of feeling high when she had excessive amounts of physical and mental energy.

Following university, Layla found an office job back in her country town and promised herself that she would not engage in any more AOD use.

Several months later, Layla became more active, pursuing a wide range of social activities and became increasingly distractible and irritable at work. She also began spending excessively on her credit card. Several people close to her suggested that she see her doctor for some form of medical assessment, however, Layla was reluctant see anyone and said she felt 'on top of the world'.

Box 3: Case study C: What does comorbid bipolar and AOD use look like? Layla's story (continued)

Finally, to please her mother, Layla went to her GP who quickly recognised that she was experiencing a manic episode and arranged for her to see a psychiatrist as a priority. The psychiatrist diagnosed Layla with bipolar disorder. Despite having enormous credit card bills, loss of weight and complaints from all of her friends that she was intolerable to be around, Layla refused to accept that there was anything wrong. Layla would not accept any medication and stormed out of the psychiatrist's consulting room. Later that day, Layla was arrested in the town centre, having consumed a large amount of alcohol and behaved in a sexually disinhibited way in a supermarket. She was admitted to hospital and prescribed benzodiazepines.

After about a week, Layla's mood had settled and she was prescribed a mood stabilising drug. Layla was discharged to the care of her psychiatrist, and over three to four weeks she became well enough to return to work. Several months later, Layla became depressed and, recognising this, went back to see the psychiatrist who prescribed an antidepressant medication in addition to her mood stabilising medication, and reduced her benzodiazepines.

At this point, Layla remembered how methamphetamines had lifted her mood and, for the first time since her university days, she began taking methamphetamines on a daily basis and smoking cannabis in the evenings to help her to sleep. Over the following years, Layla had three significant episodes of mood disturbance – two manic and one depressive. Layla had been able to work intermittently, but it was only because her employer was a family friend that she was able to keep her job.

During the last episode, it became clear that Layla's compliance with her medication regime had been poor. Layla was told on numerous occasions that she 'needed to take the medications as prescribed for the rest of her life', and that the doctors and nurses 'knew best', and she should follow their advice. There were no attempts made to enter into any detailed discussion about the nature and dose of medication, which led Layla to feel a growing distance between herself and the health professionals involved.

Key points:

- What are the primary concerns for Layla?
- Where to from here?

Case study C continues in Chapter B6.

What are depressive disorders?

The predominant feature of depressive disorders is the presence of sad, empty, or irritable mood, accompanied by physical and cognitive changes that significantly impair an individual's ability to function. Differences between the depressive disorders depend largely on duration, timing, or origin.

Depressive disorders are distinct from feeling unhappy or sad (which is commonly referred to as 'depression') in that they involve more severe and persistent symptoms. Depressive disorders are often long-lasting, recurring illnesses. Individuals with depressive disorders feel depressed, sad, hopeless, discouraged, or 'down in the dumps' almost all the time. They also experience other symptoms including sleep disturbances (including difficulty getting to sleep, frequent waking during the night, being unable to

wake in the morning, or sleeping too much); loss of interest in daily activities; a lack of energy, tiredness and fatigue; restlessness, irritability, or anger; difficulty concentrating, remembering, and making decisions; feelings of guilt or worthlessness; appetite changes (either decreased or increased appetite); loss of sex drive; and thoughts of death or suicide.

What are the different types of depressive disorders?

There are three main types of depressive disorders (see Table 8):

- Major depressive disorder.
- Dysthymic disorder.
- Premenstrual dysphoric disorder.

A case study example of how comorbid depression and AOD use disorder may present is illustrated in Box 4.

Table 8: Depressive disorders

Disorder	Symptoms
Major depressive disorder	<p>Major depressive disorder is characterised by one or more major depressive episodes in which five or more of the following symptoms are experienced nearly every day for at least two weeks:</p> <ul style="list-style-type: none"> • Depressed mood. • Loss of interest or enjoyment in activities. • Change in weight and appetite. • Sleeping problems (difficulty getting to sleep, frequent waking during the night, being unable to wake in the morning or sleeping too much). • Fatigue. • Feelings of worthlessness or inappropriate guilt. • Difficulty concentrating. • Recurrent suicidal thoughts, attempts, or plans. <p>A person may have a single episode or they may have recurrent episodes over his/her lifetime. The duration of depressive episodes may range from weeks to years.</p>
Dysthymic disorder	<p>Dysthymic disorder is characterised by two or more chronic symptoms of depression that do not meet the diagnostic criteria for a major depressive episode. The person experiences at least two years of depressed mood more days than not, as well as other depressive symptoms such as appetite changes, sleeping problems, fatigue, feelings of worthlessness and hopelessness.</p>

Table 8: Depressive disorders (continued)

Disorder	Symptoms
Premenstrual dysphoric disorder	<p>The essential features of premenstrual dysphoric disorder are:</p> <ul style="list-style-type: none">• Irritability or anger.• Mood swings.• Feelings of hopelessness, restlessness, anxiety, or tension.• Difficulty concentrating or lack of interest in usual activities.• Lethargy.• Change in appetite.• Sleeping too much or too little. <p>The symptoms of premenstrual dysphoric disorder occur repeatedly during the premenstrual phase of the cycle, ease around the time of menstruation, and are usually absent throughout the rest of the month.</p>

Box 4: Case study D: What does comorbid depression and AOD use look like? Jack's story

Case study D: What does comorbid depression and AOD use look like? Jack's story

Jack, a 51-year-old man, contacted his local AOD service at the recommendation of his psychologist. Jack had been smoking cannabis every evening with his wife since leaving university 30 years ago. He had also been drinking increasing amounts of alcohol. Until recently, Jack estimated that he was drinking six to eight bottles of beer and half a bottle of wine every evening. In addition, Jack drank several gin and tonics each weekend. Despite this being Jack's first contact with an AOD service, he had been a consumer of mental health services for many years.

Since his early 20s, Jack has had five separate occasions where he has felt incredibly low. The episodes have increased in intensity, and the last two involved suicidal thoughts. Due to the increasing severity of the episodes, Jack has needed to take a significant amount of sick leave from his work as an accountant, and it was three months before he could return to work after the last episode. He has worked for the same company for the past 10 years.

Jack has seen a number of psychiatrists but, due to staff turnover, he has seen three separate consultants, all of whom have taken a comprehensive history. In the first four episodes, Jack was managed without the need for inpatient care and received medication, which was monitored by his GP. However, at the onset of the last episode, Jack's presentation was so severe that he agreed to go into a local psychiatric unit. His suicidal ideation was high and he was having trouble controlling the thoughts. Jack had also made a plan and had the means with which to kill himself.

In addition to pharmacotherapy, Jack was referred for psychotherapy for the first time. Although psychotherapy had previously been mentioned as potentially being part of his treatment, in practice, there appears to have been an almost complete reliance on the use of medication. However, whilst an inpatient, Jack started seeing a psychologist who he continued to see weekly as an outpatient following his discharge. It was during one of these sessions that Jack first revealed details of his substance use.

Box 4: Case study D: What does comorbid depression and AOD use look like? Jack's story (continued)

When the psychologist asked whether he had disclosed this information to any health professional before, Jack replied that no-one had ever asked him about any illicit substance use, and said this was because he 'always turned up for sessions in a suit and tie and presented as a pillar of the community'. Jack said that when he had been previously questioned about his alcohol intake, he would say, 'I'm just a social drinker' and no further questions were asked regarding the nature and quantity of his drinking.

Key points:

- What are the primary concerns for Jack?
- Where to from here?

Case study D continues in Chapter B6.

What are anxiety disorders?

Feeling anxious is not necessarily problematic. Many people feel anxious because they have reason to; for example, they may be facing economic hardship, or difficulties with housing or relationships, or may be preparing for a presentation at work. Many people undergoing AOD treatment will experience anxiety which can be a consequence of intoxication, withdrawal, or learning to live without using substances. This anxiety usually reduces over time with a period of abstinence. A person's anxiety is problematic, however, when it is persistent, or so frequent and intense that it prevents the person from living his/her life in the way that he/she would like.

People with anxiety disorders often experience intense feelings of fear and anxiety. Fear is an emotional response that refers to real or perceived imminent threat, and anxiety is the anticipation of future threat. Although fear and anxiety overlap, they are associated with differing autonomic responses. Fear is associated with a flight or fight response, thoughts of immediate danger, and escape. Anxiety is more commonly associated with muscle tension, hypervigilance in preparation for danger, and avoidance. Feelings of panic are also common among people with anxiety disorders.

Panic attacks are not a specific disorder, but rather a symptom that is common amongst many of the anxiety disorders. The symptoms of a panic attack are outlined in Table 9, although not all panic attacks include all symptoms. Panic attacks can be terrifying. As many of the symptoms of a panic attack mirror those of a heart attack, many people who experience them (particularly for the first time) have a genuine fear that they are going to die. Given the overlap in symptoms (e.g., shortness of breath, chest pain and tightness, numbness and tingling sensations), it is important that a person displaying these symptoms be referred to a medical practitioner.

Table 9: Symptoms of a panic attack

Panic symptoms	
<ul style="list-style-type: none">• Sweating• Shaking• Shortness of breath• Feeling of choking• Light headedness• Heart palpitations, chest pain, or tightness	<ul style="list-style-type: none">• Numbness or tingling sensations• Chills or hot flushes• Nausea and/or vomiting• Fear of losing control, going crazy, or dying• Feelings of unreality or being detached from oneself

What are the different types of anxiety disorders?

Anxiety disorders differ from one another in the types of objects or situations that induce fear, anxiety or avoidance, and duration. There are a number of different types of anxiety disorders (see Table 10):

- Generalised anxiety disorder (GAD).
- Panic disorder.
- Agoraphobia.
- Social anxiety disorder (SAD).
- Specific phobia.

A case study example of how comorbid anxiety and AOD use disorder may present is illustrated in Box 5. It should be noted that OCD, PTSD, and acute stress disorder were categorised as anxiety disorders in DSM-IV-TR, but have been moved in the DSM-5 to other sections described later in this chapter.

Table 10: Anxiety disorders

Disorder	Symptoms
Generalised anxiety disorder (GAD)	<p>GAD is marked by excessive anxiety or worry for at least six months, which a person feels more often than not. The worry or anxiety is difficult to control and is associated with at least three of the following:</p> <ul style="list-style-type: none">• Restlessness or edginess.• Being easily fatigued.• Difficulty concentrating.• Irritability.• Muscle tension.• Difficulty either falling or staying asleep. <p>These symptoms cause significant distress, or interfere with a person's occupational or social functioning.</p>
Panic disorder	<p>Panic disorder involves the experiencing of unexpected panic attacks followed by at least one month of persistent concern or worry about having another attack, and the implications of having another attack. As a result the person changes his/her behaviour in relation to the attacks. Panic disorder is sometimes accompanied by agoraphobia.</p>

Table 10: Anxiety disorders (continued)

Disorder	Symptoms
Agoraphobia	<p>Agoraphobia involves marked fear or anxiety about two or more of the following, for at least six months:</p> <ul style="list-style-type: none"> • Using public transportation (e.g., buses, trains, taxis, planes, ships). • Being in open spaces (e.g., parking lots, bridges). • Being in enclosed spaces (e.g., shops, movie theatres). • Standing in line or being in a crowd • Being outside the home alone. <p>The person avoids these situations because anxiety about being in places or situations from which escape might be difficult or embarrassing, or in which help may not be available, in the event of a panic attack. The person avoids these places or situations, or if such situations are endured there is considerable distress or anxiety, or the need for a companion.</p>
Social anxiety disorder (SAD)	<p>SAD (formerly known as social phobia) is characterised by excessive anxiety or worry about one or more social situations for at least six months, where their actions may be analysed by others, such as meeting new people, or eating, drinking, performing, or speaking in public. The person fears he/she will be negatively evaluated, humiliated, embarrassed, or rejected. The social situations almost always provoke the same feelings of distress or anxiety, and are avoided or endured with intense fear or anxiety, which is disproportionate to the actual threat posed by the situation. Fearing embarrassment, humiliation, or rejection is not necessarily unusual, but a person with SAD will fear the situation to the point where their avoidance or anxiety causes significant distress, and interferes with their ability to function.</p>
Specific phobia	<p>Specific phobia is characterised by excessive or unreasonable fear of a specific object or situation causing immediate anxiety and/or panic attacks, for at least six months. Phobic cues may include animals; blood, injury or injections; situations involving the natural environment (such as heights or storms); or other specific situations such as airplanes, lifts, or enclosed spaces. The person avoids the feared places or situations, or if such situations are endured there is considerable distress or anxiety. Having a fear is not so unusual, but when it interferes with performing the responsibilities in a person's life it can become a problem. For example, having a fear of flying is not a problem until one finds oneself planning a holiday overseas or that he/she needs to travel for work.</p>

Case study E: What does comorbid anxiety and AOD use look like? Alina's story

Alina, a 33-year-old medical secretary, was referred to a clinical psychologist by her GP for treatment of her panic attacks, which were of increasing severity. The panic attacks had caused her to begin avoiding a range of social activities and she had begun having days off work because she was unable to face the crowded bus that she needed to take from her home to her workplace just five kilometres away.

On assessment, Alina told the psychologist of her upbringing, her schooling and family life. After school, Alina attended a secretarial course and then began work as a medical secretary. She had been in her current job in a hospital for six years. Alina's background history appeared unremarkable and it seemed that her family life, schooling, and upbringing had been happy and fulfilling. She said that she had always been a bit nervous, although this had never really stopped her from doing anything. Alina told the psychologist that she'd had two significant relationships, the most recent of which had lasted for four years, ending six months ago. It appeared as though the breakup had been very upsetting to her. There was no evidence of abuse or domestic or family violence.

The psychologist asked about any drug use and Alina said very firmly that she had never taken any illegal drugs and seemed upset that the psychologist might have thought that this was a problem for her. The psychologist asked about Alina's alcohol use and she said that this was social. When asked about quantities, Alina said that she drank three or four times a week, either a couple of beers or two to three glasses of wine. The psychologist asked her to keep a diary.

The next week, Alina broke down in tears saying that she had been unable to complete her diary as things were much worse. At this point, she revealed that she had not been truthful about her alcohol intake and felt very ashamed about her dishonesty. She said that for many years she needed a nightcap to help her sleep and, although she rarely got drunk, she felt an increasing need to drink every day after work. Although this was usually in the company of her friends and workmates, since the breakdown of her relationship, Alina's drinking had become more solitary and she had begun drinking increasing amounts of alcohol. After drinking her nightly bottle of wine (or more), she often woke up the next morning in a state of anxiety and then began to experience periods of panic. She had lost weight over recent months, her appetite had greatly reduced, and she had often woken in the morning unable to remember what she had done the night before.

Alina appeared very relieved that she had been able to tell someone exactly what was happening. Her psychologist suggested they contact her GP to discuss various treatment options.

Key points:

- What are the primary concerns for Alina?
- Where to from here?

Case study E continues in Chapter B6.

What is obsessive-compulsive disorder (OCD)?

Previously categorised as an anxiety disorder in DSM-IV-TR, OCD now sits within the newly formed 'obsessive-compulsive and related disorders' category in DSM-5, which also includes body dysmorphic disorder, hoarding disorder, trichotillomania (hair-pulling disorder), and excoriation (skin picking disorder).

OCD is characterised by the presence of compulsions or obsessions (see Table 11). It is distinct from feeling a need for neatness, cleanliness, or order (which is sometimes referred to as 'obsessive-compulsive' or 'OCD'). OCD is often long-lasting and debilitating with people feeling compelled to prevent disasters befalling loved ones or alleviate anxiety by performing rituals which cause significant distress.

Obsessions are recurring, persisting thoughts, urges, or images that are intrusive or unwanted. Examples of obsessions include persistent fears of contamination, thinking that he/she is to blame for something, or an overwhelming need to do things perfectly. Compulsions are repetitive mental or physical acts that a person feels driven to perform, in response to an obsession or rules that must be applied. Examples of compulsive behaviours include the need to repeatedly wash one's hands due to the fear of contamination, check that things have been done (e.g., whether doors or windows have been locked, appliances switched off), or avoid certain objects and situations (e.g., holes in the road, cracks or lines in the pavement). A case study example of how comorbid OCD and AOD use disorder may present is illustrated in Box 6.

Table 11: Obsessive-compulsive disorder (OCD)

Obsessive-compulsive disorder (OCD)
OCD is characterised by the presence of time-consuming (at least one hour per day) obsessions or compulsions (or both), which are performed in order to prevent or reduce anxiety or distress, or prevent a dreaded situation. However, the behaviours are not realistically connected with what they are designed to prevent, or are excessive (for example, symmetrically ordering items so as to prevent harm coming to a loved one). The behaviours or mental acts cause significant distress and, as the performance of these rituals is time-consuming, they can significantly interfere with the person's social and occupational functioning.

Box 6: Case study F: What does comorbid OCD and AOD use look like? Jenny's story

Case study F: What does comorbid OCD and AOD use look like? Jenny's story

Jenny is a 31-year-old self-employed jewellery designer, who lives at home with her parents. She was brought by ambulance to the emergency department of her local hospital after vomiting large amounts of blood. Jenny was diagnosed with alcoholic gastritis (stomach inflammation and erosion due to alcohol intake), received a blood transfusion and was kept in hospital for several days. While she was in hospital, she was visited by an AOD consult liaison nurse.

Jenny broke down in tears and told the nurse that her GP had prescribed her some Xanax to help her manage her obsessive thoughts and panic attacks. She said that since her early 20s she had been unable to stop herself ritualistically cleaning and checking. She had also been plagued by obsessive ruminations that she might harm other people, or that she might perpetrate sexual abuse on children. These thoughts had led to Jenny avoiding public places as much as possible, and made her highly anxious around children.

Box 6: Case study F: What does comorbid OCD and AOD use look like? Jenny's story (continued)

Jenny told the liaison that although her GP had referred her to a psychologist, she had been unable to travel to the appointment because of her anxiety and avoidance. She had also been consumed with irrational and obsessional fears that she might somehow harm the psychologist during the consultation, and went back to see her GP. Over the next several years, Jenny began experiencing panic attacks, for which her GP continued to prescribe Xanax.

Although Jenny's GP had told her the Xanax was for short-term use, due to the severity of the panic attacks, her GP increased the dose. Jenny told the liaison nurse that she found taking Xanax in the evening and at night helped her to sleep and temporarily suppressed her obsessive thoughts. However, eventually her GP refused to prescribe Jenny any more Xanax, and suggested a program of tapering the medication down before discontinuing. Jenny told the liaison nurse that she was not able to follow this program, and had found a regular supply of Xanax through the internet, although this often left her with hangover-type symptoms. These were compounded by the fact that Jenny had begun to supplement Xanax with increasing amounts of alcohol, and was drinking a bottle of wine daily.

Up until her hospitalisation, Jenny had been conducting her business from home, but her use of benzodiazepines and alcohol had made her feel tired for most of the day, and she had problems fulfilling orders, eventually losing a number of clients. Although her distressing ruminations had been somewhat suppressed by her use of benzodiazepines and alcohol, they gradually began to lose their effectiveness and Jenny became increasingly anxious.

Key points:

- What are the primary concerns for Jenny?
- Where to from here?

Case study F continues in Chapter B6.

What are trauma-related disorders?

Traumatic events refer to situations in which a person experiences, witnesses, or is confronted with a situation in which they fear for their own or another's safety. A trauma may be a one-off event or it may be prolonged, having occurred over a period of time. Examples of traumatic events include (but are not limited to) combat exposure, being in a place of war, experiencing a natural disaster (e.g., fire, flood), actual or threatened physical or sexual assault, being in a life-threatening accident, being kidnapped, taken hostage, or threatened with a weapon, or witnessing any of these events. Symptoms may be especially long-lasting when the trauma is interpersonal and intentional (e.g., torture, sexual violence).

Reactions following exposure to a traumatic event are varied, and can include anxiety or fear-based symptoms, aggression or anger-based symptoms, or dissociative symptoms. Although emotional and behavioural disturbances following a traumatic event are to be expected, for some people the reaction to the event can result in prolonged and significant distress, as well as impaired social and occupational functioning.

What are the different types of trauma-related disorders?

There are two main trauma-related disorders:

- Post traumatic stress disorder (PTSD).
- Acute stress disorder.

These disorders were previously classified as anxiety disorders in DSM-IV-TR, but have formed their own category in the DSM-5, which also includes other stressor-related disorders. It should be noted that the DSM-5 does not require a person to have experienced a sense of fear, helplessness, or horror at the time of the traumatic event, in order to meet criteria for either of these disorders, as was the case in DSM-IV-TR. The structure of the criteria has also changed (there are now four symptom clusters instead of three) and three new symptoms have been added. A summary of the DSM-5 criteria are provided in Table 12; however, readers are encouraged to refer to DSM-5 for a more detailed explanation of the changes made between editions. A case study example of how comorbid PTSD and AOD use disorder may present is illustrated in Box 7.

Table 12: Trauma-related disorders

Disorder	Symptoms
Post traumatic stress disorder (PTSD)	<p>PTSD is a disorder that may develop after a person has experienced a traumatic event during which the individual perceived his/her own (or someone else's) life or physical integrity to be at risk.</p> <p>Following the event, for at least one month, the person experiences some of the following symptoms:</p> <ul style="list-style-type: none">• Re-experiencing: Spontaneously re-experiencing the event in the form of unwanted and intrusive memories, recurrent dreams or nightmares, or 'flashbacks'.• Avoidance: Avoiding memories, thoughts, feelings, or external reminders of the event (e.g., people, places or activities).• Negative cognitions and mood: Feeling a distorted sense of blame of self or others, feeling detached from others or less interest in activities, or inability to remember key aspects of the event.• Arousal: Aggressive, reckless, self-destructive behaviour, sleep disturbances, hypervigilance, or increased startle response. <p>These symptoms may begin immediately after the traumatic event, or they may appear days, weeks, months, or years after the trauma occurred.</p>
Acute stress disorder	<p>Acute stress disorder is similar to PTSD but lasts for less than one month following exposure to a traumatic event.</p>

Box 7: Case study G: What does comorbid PTSD and AOD use look like? Emily's story

Case study G: What does comorbid PTSD and AOD use look like? Emily's story

Emily is a 42-year-old woman, presenting to her local AOD service for her tenth admission for inpatient detoxification from heroin, alcohol, and cannabis. Emily has been using heroin since she was 17 years old. Although heroin has always been her main drug of concern, Emily also drinks heavily and smokes cannabis daily, particularly on days when she cannot obtain heroin. She occasionally used stimulant drugs but didn't particularly like the effect.

In addition to her nine previous attempts at inpatient detoxification, Emily has been on a methadone program on three occasions. The first time, she stayed on methadone for 10 years before being imprisoned for her involvement in a break and enter. Emily stayed clean for the duration of her sentence, but returned to use soon after she was released. Emily had also tried going cold turkey, and detoxing by herself numerous times, with the help of non-prescribed benzodiazepines and buprenorphine - none of which were successful. Her longest period of abstinence since she started using was two years after the birth of her first child, who is now 16 years old. Emily has four children, ranging in age from 4–16 years, all of whom are in foster care. Emily relies on the disability support pension to pay the rent towards her Department of Housing flat, which she shares with her current boyfriend. She has never been able to hold down a job for more than a few weeks.

Emily is highly motivated to stop using all drugs so that she may have more contact with her children and hopefully one day have them returned to her custody. Emily was coping with withdrawal relatively well until one night when a male client accidentally walked into her room when trying to find the bathroom. Emily was awoken by the feeling that someone was watching her and could hear heavy breathing. His shadowed appearance in the half-light caused her to become hysterical and she lashed out violently. Staff quickly arrived and calmed Emily and the male client who was swearing at her and calling her a 'crazy bitch'. Emily was given a sedative to help her sleep and permitted to sleep with the lights on that evening.

The following morning, the incident was reported during staff handover. The psychologist starting her shift identified seeing Emily as a priority. The psychologist told Emily that she had heard about what happened last night and asked whether she was okay. Emily was still a little shaken but said that she was okay now, she was just startled and overreacted. She explained that it had reminded her of a time when one of her previous boyfriends had come into their bedroom one night and started beating her. The psychologist asked whether she was hurt at the time, to which Emily replied that she required surgery for internal injuries and was hospitalised. Emily appeared reluctant to talk about it. She said that she tried not to think about it and avoided any possibility of running into him. Despite her efforts to forget about it, she often had bad dreams, trouble sleeping, and had to take large amounts of benzodiazepines to sleep.

After talking with Emily, the psychologist made a time to talk with her some more later in the day. During this session, the psychologist asked more questions about how Emily felt after she was beaten and how this had affected her. The psychologist was mindful of reassuring Emily that she did nothing to deserve being treated this way, and her reactions were completely normal. Emily was shaking as she described the incident in more detail, and later confided that she was also raped during this attack – something that she had not previously told anyone.

Box 7: Case study G: What does comorbid PTSD and AOD use look like? Emily’s story (continued)

Key points:

- What are the primary concerns for Emily?
- Where to from here?

Case study G continues in Chapter B6.

What are feeding and eating disorders (ED)?

The predominant feature of ED is a persistent disturbance in eating or eating-related behaviours that impacts on food intake and impairs physical health or psychosocial functioning (see Table 13). Some people with ED describe symptoms similar to those associated with AOD use, such as craving and patterns of compulsive use. It is thought this may in part be due to the shared neural pathways, including those involved in self-control and reward, however, in general the shared features are not well understood [24].

What are the different types of ED?

There are several types of ED, four main types are included here (see Table 13):

- Avoidant/restrictive food intake disorder.
- Anorexia nervosa.
- Bulimia nervosa.
- Binge eating disorder.

A case study example of how comorbid ED and AOD use disorder may present is illustrated in Box 8.

Table 13: Feeding and eating disorders (ED)

Disorder	Symptoms
Avoidant/ restrictive food intake disorder	Avoidant/restrictive food intake disorder is characterised by disturbances in eating, due to a lack of interest, or a concern about the negative consequences of eating. This is accompanied by significant weight loss, significant nutritional deficiency, dependence on oral nutritional supplements, and impaired psychosocial functioning.
Anorexia nervosa	<p>There are three primary features of anorexia nervosa:</p> <ul style="list-style-type: none">• Persistent restriction of energy intake.• Intense fear of gaining weight or becoming fat.• Disturbance in self-perceived weight or shape. <p>Maintained body weight is below minimally normal for age, sex, development, and physical health.</p>

Table 13: Feeding and eating disorders (continued)

Disorder	Symptoms
Bulimia nervosa	<p>Bulimia nervosa is characterised by three essential features, which must occur on average at least once a week for three months:</p> <ul style="list-style-type: none">• Recurrent episodes of binge eating (e.g., eating a much larger amount of food in less than two hours than most people would eat under similar circumstances).• Recurrent inappropriate behaviours that attempt to prevent or compensate for weight gain (e.g., vomiting, use of laxatives, excessive exercise).• Distorted self-image that is unduly influenced by body shape or weight. <p>People with bulimia nervosa are typically ashamed of their eating problems and attempt to hide their symptoms, and may be within a normal weight range.</p>
Binge eating disorder	<p>The predominant feature of binge eating disorder is recurrent episodes of binge eating that occur at least once a week for three months. The episodes of binge eating are accompanied by a sense of lack of control, where the person feels that once they have started eating, they are unable to stop, and cause significant distress to the person.</p>

Box 8: Case study H: What does comorbid ED and AOD use look like? Charlotte's story

Case study H: Identifying co-occurring ED and AOD use: Charlotte's story

Charlotte is a 19-year-old university student who lives at home with her parents. Her GP referred her to the local AOD service after she requested several prescriptions for Valium and sleeping pills. Charlotte's GP made the referral as she had provided several prescriptions for Charlotte in the past few months, who said that she needed Valium to help her sleep.

Charlotte was not planning on following up the referral and attending the AOD service, but her mother found her referral and forced her to go, accompanying her to the appointment. She had also been concerned about Charlotte, as she noticed that Charlotte had been increasingly jittery, agitated, and irritable, often snapping at her for no reason.

On assessment, Charlotte was uncommunicative, slumped in her chair and answered questions monosyllabically. Charlotte's mother attempted to fill in the gaps. When the AOD worker continued the assessment privately, Charlotte told her to 'butt out', and mind her own business. When the AOD worker asked about Charlotte's use of Valium, she told her that she needed it to help her to calm down and sleep. The AOD worker noted that Charlotte was visibly jittery, was bouncing her legs, and fidgeting. When asked about her noticeable agitation, Charlotte admitted that she had been taking stimulants every day, which she said were to help with her university work.

The AOD worker conducted some MI, and Charlotte agreed to come back and talk to the AOD worker.

Box 8: Case study H: What does comorbid ED and AOD use look like? Charlotte's story (continued)

Key points:

- What are the primary concerns for Charlotte?
- Where to next?

Case study H continued in Chapter B6.

What are personality disorders?

Personality traits refer to a person's individual patterns of thinking, feeling, and behaving. These patterns of thinking and behaving usually begin in childhood and continue through to adulthood. Our personality traits make us who we are – they are what make each of us unique. However, personality traits can be a problem when they cause problems with relationships, education or employment, and sometimes with the law. If patterns of thinking, feeling, or behaving are creating lots of problems in many areas of a person's life, he/she may have a personality disorder [115].

There is a wide range of personality disorders (see Table 14). All of them involve pervasive patterns of thinking and behaving, which means that the patterns exist in every area of a person's life (i.e., work, study, home, leisure, and so on). The most significant feature of personality disorders is their negative effect on personal relationships. A person with an untreated personality disorder often has difficulty forming long-term, meaningful, and rewarding relationships with others. Individuals with a personality disorder are generally not upset by their own thoughts and behaviours, but may become distressed by the consequences of their behaviours [115].

AOD use disorders may cause fluctuating symptoms that mimic the symptoms of personality disorders (e.g., impulsivity, dysphoria, aggressiveness and self-destructiveness, relationship problems, work dysfunction, engaging in illegal activity, and dysregulated emotions and behaviour) making it difficult to determine whether a person has a personality disorder.

What are the different types of personality disorders?

Based on their similarities, personality disorders are grouped into three clusters (see Table 14):

- **Cluster A:** Individuals with these personality disorders often appear to be odd or eccentric. They have significant impairment but infrequently seek out help. Cluster A includes paranoid, schizoid, and schizotypal personality disorders.
- **Cluster B:** Individuals with these personality disorders tend to be dramatic, emotional, and erratic. Generally they experience significant impairment and they are of considerable concern to health care providers. Of all the personality disorders, people with Cluster B disorders are the ones that most commonly present to services. Cluster B includes antisocial, borderline, histrionic, and narcissistic personality disorders.
- **Cluster C:** Individuals with these personality disorders tend to be anxious and fearful and are generally less impaired than those with Cluster B personality disorders. Cluster C includes avoidant, dependent, and obsessive-compulsive personality disorders.

Among those with AOD use disorders, two Cluster B personality disorders, ASPD and BPD, are most prevalent and tend to impact most upon treatment [116–118]. These are discussed in turn.

Table 14: Personality disorders

CLUSTER A
<p>Paranoid personality disorder is characterised by a pattern of distrust and suspiciousness such that others' motives are interpreted as malevolent.</p> <p>Schizoid personality disorder is characterised by a pattern of detachment from social relationships and a restricted range of emotional expression.</p> <p>Schizotypal personality disorder is characterised by a pattern of acute discomfort in close relationships, cognitive or perceptual distortions, and eccentricities of behaviour.</p>
CLUSTER B
<p>Antisocial personality disorder (APSD) is characterised by a pattern of disregard for and violation of the rights of others. Individuals with this personality disorder are typically aggressive, unlawful and impulsive.</p> <p>Borderline personality disorder (BPD) is characterised by a pattern of instability in interpersonal relationships, self-image, and feeling states, with marked impulsivity and chaos.</p> <p>Histrionic personality disorder is characterised by a pattern of excessive emotionality including being dramatic, attention-seeking, and seductive.</p> <p>Narcissistic personality disorder is characterised by a pattern of grandiosity and self-centredness and thus lacking empathy for others.</p>
CLUSTER C
<p>Avoidant personality disorder is characterised by a pattern of social inhibition with feelings of inadequacy and hypersensitivity to negative evaluation. Individuals tend to be needy but scared of relationships. There is some debate that this is a form of long-term social phobia.</p> <p>Dependent personality disorder is characterised by a pattern of submissive and clinging behaviour related to an excessive need to be taken care of. These individuals tend to be indecisive and fear abandonment.</p> <p>Obsessive-compulsive personality disorder is characterised by a pattern of preoccupation with orderliness, perfectionism, and control; thus, these individuals are rigid and inefficient.</p>

Antisocial personality disorder (APSD)

The main feature of ASPD (previously known as 'psychopathy' or 'sociopathy') is a pattern of complete disregard for the rights of others. Deceit and manipulation are central features of this disorder. ASPD begins in childhood or early adulthood and continues into adulthood. For a diagnosis of ASPD to be made, the individual must be at least 18 years old, and have had a history of some symptoms of 'conduct disorder' before age 15. The behaviours characteristic of conduct disorder fall into the following characteristics: aggression to people and animals, destruction of property, deceitfulness or theft, and serious violation of rules. This pattern of antisocial behaviour then continues into adulthood.

The main characteristics of ASPD are:

- Failure to conform to social norms with respect to lawful behaviour. Individuals with ASPD may repeatedly be involved in actions that are grounds for arrest (e.g., destroying property, harassing others, stealing, or pursuing illegal occupations). They tend to have disregard for the wishes, rights, and feelings of others.
- Being deceptive and manipulative in order to gain personal profit or pleasure (e.g., to obtain money, sex, or power). Individuals with ASPD may repeatedly lie or con others.
- Reckless disregard for their own or other's safety (e.g., recurrent speeding, driving while intoxicated, multiple accidents, or high-risk sex).
- A tendency for impulsive behaviour due to a failure to plan ahead. Decisions may be made on the spur of the moment, without forethought, and without consideration of the consequences for themselves or others. This may lead to sudden changes of jobs, residences, or relationships.
- Irritability and aggression; repeated involvement in physical fights or assaults.
- Consistent and extreme irresponsibility. Behaviour that is indicative of this may include irresponsible work behaviour; for example, long periods of unemployment despite several job opportunities, abandonment of jobs without a plan for getting another, or repeated unexplained absences from work. Financial irresponsibility may include acts such as defaulting on debts and failing to provide child support.
- The absence of remorse for the consequences of their actions. Individuals with ASPD tend to provide superficial excuses for having hurt, mistreated, or stolen from someone. They may blame the victims of their actions for being foolish, helpless, or deserving their fate. They generally fail to correct their wrongdoings, or to apologise or show remorse for their behaviour.

A case study example of how comorbid ASPD and AOD use disorder may present is illustrated in Box 9.

Borderline personality disorder (BPD)

BPD is marked by persistent patterns of instability in relationships, mood, and self-image. BPD is also characterised by marked impulsivity, particularly in relation to behaviours that are self-damaging. The main characteristics of BPD include:

- Extreme efforts to avoid rejection or abandonment (these threats of rejection may be real or imagined).
- A pattern of unstable and intense relationships, whereby the person alternates between idealising a person and completely devaluing him/her.
- Unstable self-image or sense of self (e.g., the individual may suddenly change his/her goals or values in life, jobs or career aspirations, sexual identity, friends).
- Impulsivity, particularly in relation to behaviours that are self-damaging (e.g., spending money irresponsibly, binge eating, substance abuse, unsafe sex, and reckless driving).
- Recurrent suicidal behaviour, gestures, threats, or self-mutilating behaviour (e.g., cutting or burning) are also common.
- Unstable mood (e.g., intense dysphoria, irritability, or anger usually lasting only a few hours).
- Chronic feelings of emptiness.
- Inappropriate intense anger or difficulty controlling anger.
- Transient, stress-related paranoid thoughts or severe dissociative symptoms (i.e., where the person temporarily loses touch with where he/she is in time and/or space).

Box 9: Case study I: What does comorbid ASPD and AOD use look like? Luke's story

Case Study I: What does comorbid ASPD and AOD use look like? Luke's story

Luke is a 28-year-old man who was referred into AOD treatment from his local court as part of a diversionary program. Luke was assessed on the day of his court appearance, where he was to face charges for burglary. Luke was assigned to AOD treatment through the referral program, and his burglary charges adjourned pending his involvement in the program. Luke had a history of heroin use dating back at least 10 years. He had been on methadone a number of times in the past, but his compliance was always short lived.

Luke had an abusive stepfather and at times, experienced abuse from his mother. He spent some time in foster care before being returned to his mother when he was around 10 years old. Luke began sniffing solvents and smoking cannabis, frequently wagged school before leaving school early (during year 9), and worked casually on building sites. He joined a boxing club and later indicated that he would often look for people to fight on nights out, and that he enjoyed inflicting injury on others. He told his therapist that he often acted impulsively, destroying public property, and getting into fights.

Over the past 10 years, Luke had been in two long-term relationships, both with women who also used heroin. During these relationships, Luke was sometimes violent towards his partner, but showed little remorse. Following the breakup of his latest relationship, Luke had been sleeping in shelters and 'couch surfing' at friends' houses. He continued to have sporadic part-time work in the building industry but much of his income was derived from shoplifting and opportunistic theft of mobile phones, wallets, and so on

Key points:

- What are the primary concerns for Luke?
- Where to from here?

Case study I continues in Chapter B6.

What are substance-induced disorders?

Substance-induced disorders are disorders that occur as a direct physiological consequence of AOD intoxication or withdrawal. For a diagnosis of a substance-induced disorder to be made, symptoms of the disorder must only be present following intoxication or withdrawal. If the person displays symptoms of the disorder in the absence of intoxication or withdrawal, it is possible that they have an independent mental health disorder. Symptoms of substance-induced disorders tend to reduce over time with a period of abstinence [119].

Symptoms of mood, anxiety, and psychotic disorders may all be induced as a result of AOD use or withdrawal. For example, alcohol use and withdrawal can induce symptoms of depression or anxiety [29]; manic symptoms can be induced by intoxication with stimulants, steroids, or hallucinogens; and psychotic symptoms can be induced by withdrawal from alcohol, or intoxication with amphetamines, cocaine, cannabis, LSD, or PCP [32]. Other disorders that may result from AOD use include substance-induced delirium, amnesic disorder, dementia, sexual dysfunction, and sleep disorder.

Substance-induced psychotic disorder

It is often extremely difficult to distinguish substance-induced psychosis from other psychotic disorders. With substance-induced psychosis, symptoms (usually delusions and/or hallucinations) tend to appear quickly and last a relatively short time, from hours to days, until the effects of the drug wear off. For some, however, psychosis can persist for days, weeks, months, or longer [34]. It is possible that these individuals were already at risk for developing a psychotic disorder which has been triggered by substance use [120].

Visual hallucinations are generally more common in substance withdrawal and intoxication than in primary psychotic disorders [121]. Stimulant intoxication, in particular, is more commonly associated with tactile hallucinations, where the patient experiences a physical sensation that they interpret as having bugs under the skin. These are often referred to as 'ice bugs' or 'cocaine bugs'. Tactile hallucinations can also occur in alcohol withdrawal; however, auditory and visual hallucinations are more common [121].

Those with stimulant psychosis will sometimes be more agitated, hostile, energetic and physically strong, more challenging to contain in a safe environment, and more difficult to calm with sedating or psychiatric medication, than people with psychosis not related to the use of stimulants [122, 123]. Other features that differentiate substance-induced psychosis from schizophrenia include higher likelihood of polysubstance dependence, a forensic history, ASPD, trauma history, and a lack of negative and cognitive symptoms with a return to normal inter-episode functioning during periods of abstinence [122]. A case study example of how substance-induced psychosis may present is illustrated in Box 10.

It is important to differentiate between symptoms of psychosis and delirium. Delirium presents as a disturbance of consciousness and cognition that represents a significant change from the person's previous level of functioning. The person has a reduced awareness of his/her surroundings, his/her attention wanders, questions often have to be repeated, he/she has difficulty concentrating, and it may be difficult to engage him/her in conversation. Changes in cognition may include short-term memory impairment, disorientation (in regards to time or place), and language disturbance (e.g., difficulty finding words, naming objects, writing). Perceptual disturbances (e.g., hallucinations) may also occur. Delirium develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day. For example, a person may be coherent and co-operative in the morning but in the afternoon may be disruptive and wanting to go home to a partner who died years ago. The identification of substance-induced delirium is particularly important for clients undergoing alcohol withdrawal as delirium may progress to delirium tremens, a serious complication that may result in death [124].

Box 10: Case study J: What does substance-induced psychosis look like? James' story

Case Study J: What does substance-induced psychosis look like? James' story

James is a 28-year-old graphic designer who was brought by ambulance to Emergency. He and his girlfriend had been on holiday to celebrate their two-year anniversary, and celebrated the occasion by getting new tattoos. After leaving the tattoo studio, James and his girlfriend had a few drinks at a nearby pub and then walked to the beach where they both smoked some cones.

Over the next hour, James's behaviour became increasingly erratic: he began to believe that the symbols in his new tattoo had hidden meaning and power, that it was trying to control him, and that the tattoo artist was having an affair with his girlfriend. When they arrived back at their hotel, James went through his girlfriend's bags and searched her phone, looking for evidence of her affair. He threatened to kill himself and attempted to jump out of the window. His girlfriend managed to calm James down and convinced him to go to sleep, believing that the episode would resolve and he would sleep it off.

Box 10: Case study J: What does substance-induced psychosis look like? James' story (continued)

The next morning, however, James appeared to be both paranoid and delusional, again threatening to jump out the window. He also threatened to kill his girlfriend the next time she was asleep. Frightened, she rang for an ambulance, and James was taken to Emergency, and later admitted to an acute inpatient psychiatric unit.

James had been smoking cannabis on and off from the age of 18, daily for the past five years. He maintained that he had not used any other illicit substances, and rarely drank alcohol. In the past year, James has been hospitalised twice for symptoms of mania and once for suicidal ideation. He was prescribed lithium, and had been functioning well for the past three months. His father had a bipolar disorder and his paternal grandfather committed suicide.

After two days of hospitalisation, James realised that his tattoo did not have any hidden messages or power over him, and his girlfriend wasn't cheating on him. The following day, he recognised that his paranoia was the result of cannabis intoxication, and was discharged with an appointment to see his psychiatrist.

Key points:

- Symptoms of psychosis emerged within hours of AOD use, which were followed by suicidal and homicidal ideation. Following AOD withdrawal, the psychotic symptoms dissipated within a few days, and James regained insight into the situation.
- This pattern of symptoms corresponds with DSM-5 substance-induced psychotic disorder, which requires delusions or hallucinations that develop during or soon after substance intoxication or withdrawal. The fact that James's symptoms resolved within three days further supports a cannabis-induced psychotic disorder – this would not be the case for an independent psychotic disorder.

Adapted from American Psychiatric Association [125].



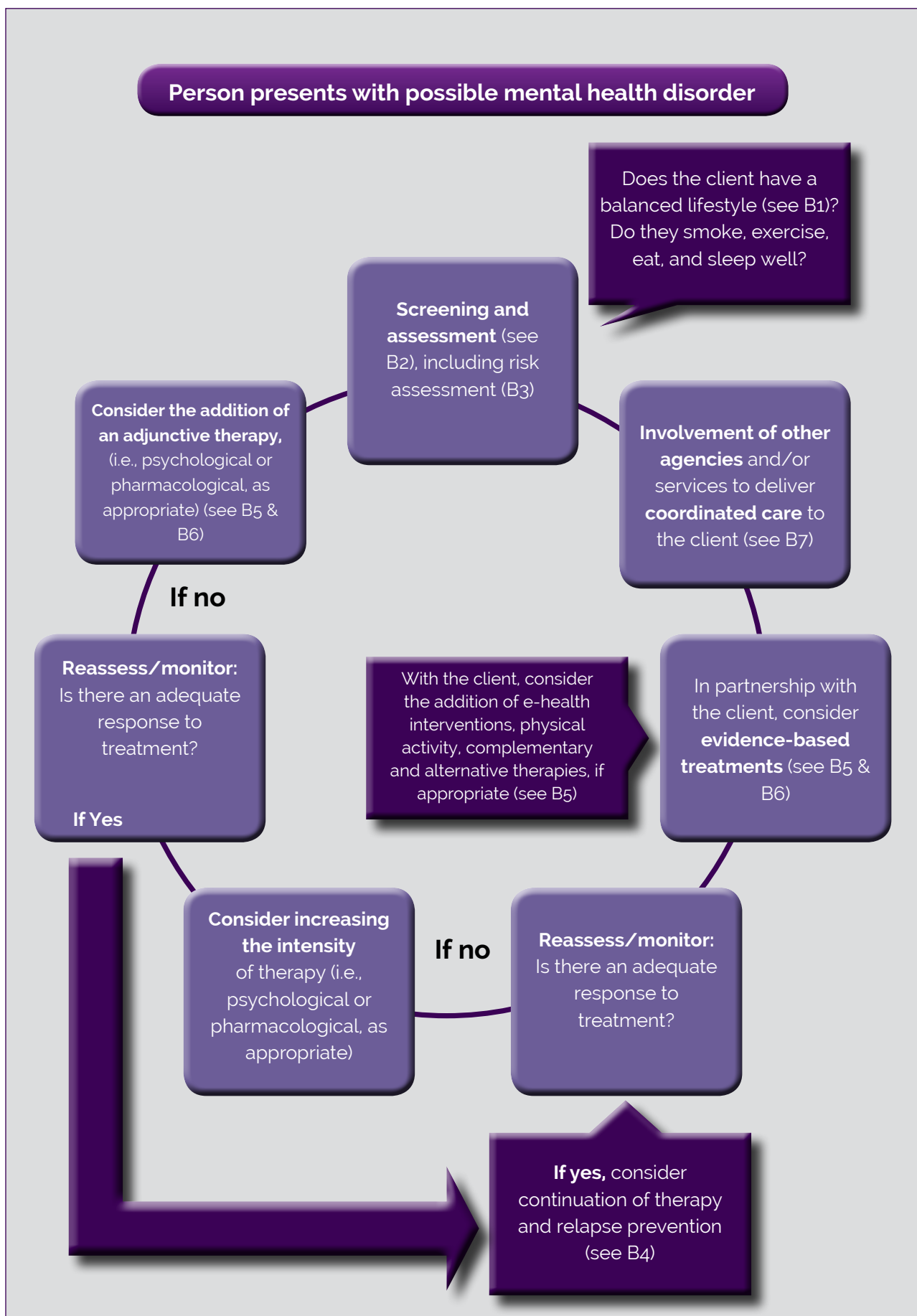
Part B: Responding to comorbidity

B. Responding to comorbidity

This section of the Guidelines aims to provide workers with a range of options for managing and treating mental health symptoms within a holistic health care approach that involves multiple services and integrated care coordination. Mental health symptoms can be identified through screening and assessment processes (see Chapter B2), or they may arise spontaneously during the client's treatment. There is a distinction between the management of comorbid mental health conditions and their treatment. The goal of management is to allow AOD treatment to continue without mental health symptoms disrupting the treatment process, and to retain clients in treatment who might otherwise discontinue such treatment. Without further treatment, these techniques on their own may not provide long-term relief from symptoms; however, they may allow the client's AOD use to be treated in the interim. Both the management and treatment of specific comorbid disorders are discussed in Chapter B6.

It is essential to consider the whole person and accept that one approach is not necessarily going to work for all clients. Different clients present with unique psychological and sociodemographic backgrounds and it is important to take these factors into consideration when responding to comorbidity. It is also critical to remember that the process of assessments, screenings, monitoring, cooperation, collaboration, and partnerships are indeed processes, which should be ongoing throughout all stages of management and treatment. Figure 8 illustrates a pathway through care model, highlighting the continuing stages of reassessment, monitoring, and client involvement.

Figure 8: Pathway through care model





B1: Holistic health care

B1: Holistic health care

Key Points

- People with comorbid AOD and mental health conditions are at increased risk of physical health problems, with higher mortality rates than the general population.
- Those with comorbidity are at particular risk of developing CVD, due to high rates of smoking, overweight and obesity, diabetes, poor diet, physical inactivity, high alcohol consumption, and the use of some antipsychotic medications.
- Recent research has highlighted the need for interventions that focus on overall wellbeing, including reducing smoking, improving dietary habits, increasing physical activity, and sleep patterns.
- Crucial to this approach is the inclusion of multiple service providers who reflect the complex needs of clients, and are able to deliver the right care, to the right person, at the right time.

The co-occurrence of poor physical and mental health has been well documented in recent years, with greater attention paid to the role that mental health plays in increasing vulnerability to physical disability and poorer outcomes [126-130]. Consumers of mental health services have more than double the mortality rate than the general population [126], especially due to CVD [131].

Risk factors for CVD are prominent among people with AOD and mental health conditions [132]. These include high rates of smoking [133-135], overweight and obesity [136-138], diabetes [127], poor diet [131, 139, 140], physical inactivity [141-143], excessive alcohol consumption [144], and use of some antipsychotic medication [130].

Furthermore, these risk factors also place individuals at risk for metabolic syndrome. Metabolic syndrome is the presence of three or more of the following risk factors [145]:

- Elevated waist circumference (or central obesity).
- Raised triglycerides.
- Increased blood pressure.
- Increased glucose.
- Lowered high-density lipoprotein cholesterol.

One third of Australians are currently diagnosed with metabolic syndrome [146], which has been found to be directly affected by sleep, physical activity, and dietary behaviours [147, 148]. Research has found that people with mental health disorders (e.g., schizophrenia, bipolar disorder, depression, PTSD, BPD) should be considered a high-risk group for metabolic syndrome and associated morbidity and mortality, particularly those prescribed antipsychotics [149-152].

What is a holistic health care framework?

Given the multitude of risk factors for premature mortality and poor physical health among those with AOD and mental health conditions, recent research has highlighted the need for interventions that focus on overall wellbeing. There has been some reluctance on the part of service providers to address multiple health behaviours due to the belief that making too many lifestyle changes will undermine a person's recovery from AOD use, which has been particularly evident in relation to efforts to introduce smoking cessation [153]. However, this view is not sustained by the evidence which supports the use of multiple health behavioural changes [154, 155]. For example, a meta-analysis of smoking cessation interventions found that addressing smoking during AOD treatment actually enhanced long-term AOD treatment outcomes [156]. AOD service providers have a significant opportunity to address multiple risk behaviours of comorbid clients, and help reduce the risk factors and incidence of chronic disease. There are four primary behavioural risk factors with which AOD workers should be familiar:

- Smoking.
- Diet.
- Physical activity.
- Sleep.

Smoking

Smoking rates among those attending AOD treatment are substantial, ranging between 74-98% [157]. People with AOD and mental health conditions also smoke substantially more cigarettes per day, and are more likely to be nicotine dependent, than the general population [158]. Despite tobacco accounting for the highest rate of mortality among people with AOD and mental health conditions, the focus of treatment has primarily centred on substances other than tobacco [159]. This reluctance to address smoking by AOD workers may be due to the belief that doing so might exacerbate other AOD use [155], and increase psychiatric symptoms and aggression [160, 161]. However, this view is not supported by the evidence, which indicates no adverse outcomes on symptoms of psychosis [162]. On the contrary, smoking cessation is associated with improvements in depression [163]. Two recent Cochrane reviews have been conducted to examine the evidence pertaining to the treatment of nicotine dependence in schizophrenia [164] and depression [165]. The findings indicate that rates of smoking abstinence were increased by the use of bupropion among people with schizophrenia, without threat to their mental health [164], and by the inclusion of a psychosocial mood management component to standard smoking cessation treatment among those with current and past depression [165].

Nicotine is known to interact with the metabolism of some medications and drugs. Changes in how some medications are metabolised (particularly clozapine and olanzapine) can occur following the cessation of smoking or nicotine replacement therapy (NRT) [166, 167]. If AOD clients are withdrawing from nicotine, they

should be made aware of the potential for changes in metabolism, and increased absorption of caffeine (i.e., in coffee, tea, chocolate, soft drinks), which can lead to restlessness and lack of sleep [168].

NRT can be used to minimise the physiological symptoms of nicotine withdrawal, and is available in patches, gum, inhalers, lozenges, and microtabs [169]. NRT is not recommended without a clinical assessment, or as first line of treatment for AOD clients who [168]:

- Are pregnant or likely to become pregnant.
- Are currently breastfeeding.
- Have significant cardiac or active vascular disease.
- Have nicotine sensitivities or allergies.

Clinicians managing clients on NRT should regularly monitor clients' withdrawal so as to tailor the NRT dose, and address triggers, cravings, and stress through accompanying psychosocial interventions.

There have been several trials of healthy lifestyles interventions among people with mental health disorders, all of which have included a smoking component. Baker and colleagues [170] conducted a pilot trial to reduce CVD risk in 43 people with acute psychotic disorder, using MI with cognitive behavioural therapy (CBT), accompanied with NRT. The study found significant reductions in CVD risk and smoking, and participants indicated high levels of satisfaction with the program.

More recently, Baker and colleagues [171] provided up to 24-weeks supply of NRT to smokers with stable psychotic disorder. This was accompanied by feedback provided to each participant on their smoking and levels of dependence, and a case formulation developed with participants, focusing on individual risk factors for CVD and unhealthy behaviours, utilising a MI approach and CBT approaches. The study found that both NRT plus a telephone based intervention for smoking cessation (focused on monitoring smoking and discussing CVD risk factors) and NRT plus an intensive face-to-face *Healthy Lifestyles* intervention were effective in reducing smoking among people with severe mental health disorders.

Kelly and colleagues [153] are currently conducting the first study to address multiple CVD risk factors within an AOD treatment setting, which will include health-focused psychoeducation, goal setting, monitoring, MI, and CBT to help clients reduce smoking, increase fruit and vegetable intake, and increase levels of physical activity.

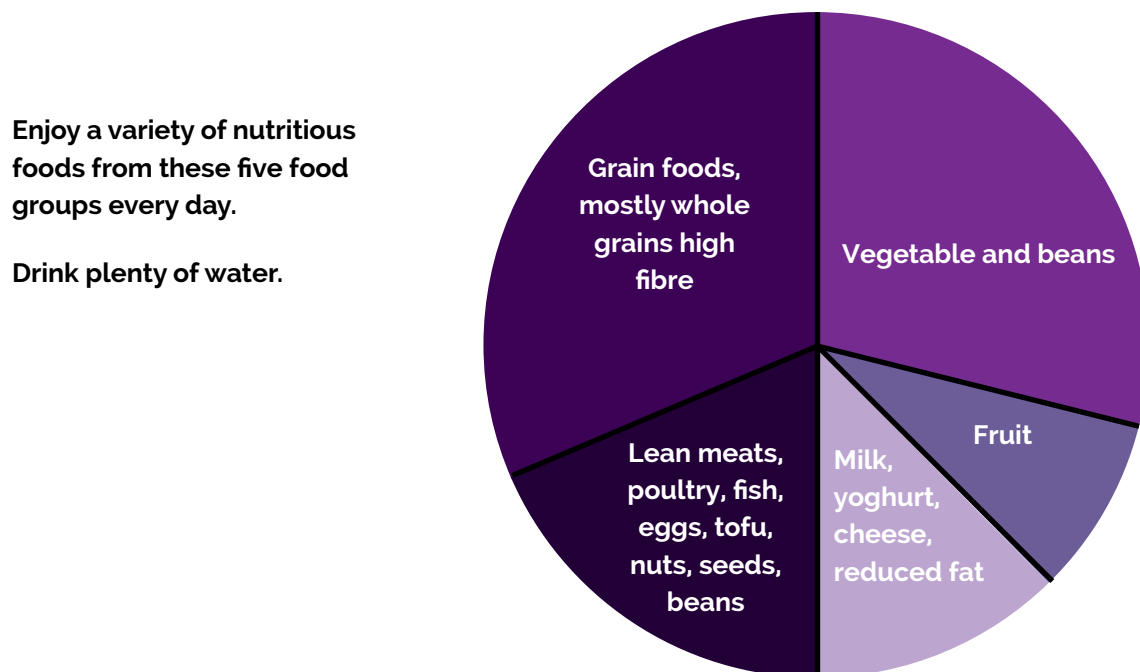
Despite evidence to suggest that smoking can be effectively addressed in clients of AOD and mental health services, there have been inconsistencies with the implementation of smoking interventions in AOD agencies. A greater number of AOD staff smoke in comparison to the general population, and sometimes smoke with clients in order to promote a therapeutic relationship [172]. Negative attitudes among treatment staff have been acknowledged as potential barriers to effectively targeting nicotine dependence [173], with staff who smoke themselves less likely to initiate smoking cessation among clients, and be less successful when they do [174-176].

Diet

Clients of AOD treatment services tend to have poor dietary habits, electing to eat nutrient-poor, energy-dense food, often to excess [143]. It is common for those accessing AOD treatment to report unhealthy eating patterns, weight gain, and obesity, which suggests that energy-dense diets are sometimes used to substitute AOD during recovery [136, 177]. Programs targeting the preparation of nutritional food can produce lasting weight loss among people with mental health conditions [178], and AOD workers can assist by encouraging adherence to Australian dietary guidelines (see Figure 9). Specifically, clients should be encouraged to [171]:

- Eat a variety of foods that are high in fibre and low in fat.
- Eat seven or more fruits and vegetables per day.
- Drink plenty of water.
- Make healthy food choices and eat regularly.
- Manage healthy eating patterns (e.g., ensuring that breakfast is eaten every day, and eating patterns are maintained on weekends and weekdays).

Figure 9: Australian dietary guidelines



Adapted from the NHMRC [179].

AOD workers may also find the spending structure displayed in Table 15 useful. Developed under the Foodcents program to promote healthy eating on a limited budget, the spending structure is designed to be utilised alongside the Australian Government Department of Health's healthy eating guidelines [180]. It is recommended that 60% of food budget is allocated to food from the 'eat most' group, and 10% to the 'eat least' group.

Table 15: Food spending structure guide

Category	Examples	Recommended spending
Eat most	Bread, cereals, rice, pasta, flour, fruit, vegetables, baked beans, lentils	60% of budget
Eat moderately	Lean meat, chicken, fish, eggs, nuts, milk, cheese, yoghurt	30% of budget
Eat least	Butter, oil, sugar, biscuits, cake, chocolate, chips, soft drink, coffee, salad dressing, sauce	10% of budget

Source: Western Australian Network of Alcohol and other Drug Agencies [181], Foodcents [180].

Physical activity

Although the physical and psychological benefits of physical exercise have been well established, it is estimated that a quarter of adults are inactive, with few achieving the recommended 30 minutes of moderate intensity exercise most days [182, 183]. Insufficient physical activity accounts for approximately 9% of premature mortality worldwide [184], and an increasing amount of research has focused on the potential benefits of exercise in AOD and mental health treatment [185]. Physical activity is highlighted as a safe alternative behaviour, that is naturally rewarding and engaging, with various health benefits [186-188]. Physical activity and exercise have been associated with improved health [189-192], improved depression and mood [193-198], reduced levels of anxiety [199, 200], reduced effects of withdrawal [201-205], and are considered to be safe when exercises have been properly tailored for individuals [189, 190]. Taken in combination, these factors make physical activity an appealing, adjunctive intervention to assist with relapse prevention among those in treatment for AOD use.

Physical activity has shown to be inversely related to smoking status (i.e., non-smokers are more physically active than smokers) [182], number of cigarettes smoked, and nicotine dependence, and recent evidence suggests that exercise may be an effective complementary intervention to smoking cessation strategies [182, 188, 202, 203, 206-211]. Physical activity improves cardiovascular, pulmonary, and immune functioning, which can in turn assist with the prevention of chronic disease [134]. Smoking cessation is more successful for those who exercise during their attempts to quit smoking [203, 206, 209], and exercise can assist with the prevention of relapse [206, 209]. Physical activity can also alleviate symptoms of smoking withdrawal, such as irritability, depression, restlessness, and stress [182, 188, 202, 206-208, 210, 211].

Research suggests that although people with AOD use disorders may be interested in increasing their levels of physical activity [212], it is unclear how frequently those in AOD treatment regularly engage in moderate to vigorous levels of exercise, with few treatment programs incorporating dedicated time for exercise [185, 213-215]. Although treatments for AOD use are focused on addressing behavioural patterns, it is up to the person to avoid automatic behaviours (e.g., drinking or using other drugs) when they are faced with a craving or desire to drink or use [185]. Particular social settings, activities, or times of day associated with AOD use can become environmental cues, which can increase the risk of relapse [216, 217]. Rather than using AOD when cravings or urges to use arise, engaging in an immediately rewarding, accessible, sustainable, and safe behaviour, such as exercise and physical activity, can reduce the likelihood of relapse [185]. Regular exercise is also often associated with other positive behaviours, such as healthy diet and sleep patterns [218, 219], and overall feelings of wellbeing, vitality, high energy, and motivation to maintain healthy lifestyle practices [220]. A systematic review of the literature examining the effects of exercise-based interventions for AOD use on recovery, physical fitness, and psychological health found that exercise is a potentially promising accompanying treatment for AOD use, with reductions in AOD use, improvements in depression, anxiety, and stress, as well as significant fitness improvements in the exercise groups [186].

Despite this, the ideal dose (i.e., type of exercise, duration, and intensity) of exercise to maximise the effects of potential health and psychological benefits is not clear, and is still the subject of research. Evidence to date suggests that the ideal dose varies considerably between people, and depends on individual preferences, as well as baseline physical fitness levels [221]. However, given that many people with AOD use are fairly inactive, an initial program of light to moderate intensity exercise is likely to be more beneficial than vigorous exercise, which may also assist with program adherence and retention [203, 212, 222]. Supervised physical activity may be useful, to ensure information about safe exercise (e.g., importance of warm-up, cool-down, and stretching) and exercise intensity are provided (e.g., using heart-rate monitors) [185]. Encouraging the pursuit of home-based exercise is likely to be important for clients to establish and maintain exercise levels after the conclusion of the activity program, and integrating exercise into psychotherapy may enhance treatment outcomes [185].

A study examining the exercise attitudes and behaviours of individuals in AOD treatment identified that although the majority of those in treatment were interested in participating in physical activities as part of their AOD recovery, many were reluctant due to perceived barriers which included financial costs and lack of motivation [214]. As such, techniques such as self-monitoring, goal setting, contingency management, and relapse prevention planning may be useful [223–225]. Devices that track physical activity (e.g., pedometers, heart-rate monitors, fitness trackers) can be used as motivational tools, but have not been tested as exercise interventions among AOD populations [226, 227]. Cardiovascular (e.g., running), resistance (e.g., weight training), yoga, and isometric exercise have all been successfully piloted as aids to assist smoking cessation, but need further testing in larger randomised controlled trials (RCTs) among AOD populations [228]. Education and behaviour change strategies focused on diet and exercise among those with mental health disorders [229] and preventing olanzapine-related weight-gain have been shown to be effective [230].

Research has also highlighted the importance of physical activity and exercise among comorbid populations. Anxiety and depression have been associated with AOD relapse and treatment retention, particularly in the early stages of recovery [187, 231, 232]. A study examining the effects of an 8-week structured exercise program (treadmill and weight training) on depression and anxiety symptoms among newly abstinent methamphetamine users in treatment found that those in the exercise group had significantly greater reductions in depression and anxiety symptoms than the control group (health education sessions) [233]. Further, a dose effect was found, whereby those who had attended more exercise sessions during the 8-week program illustrated greater reductions in depression and anxiety compared to those who had attended fewer sessions [233]. These findings support the important role of physical exercise in improving mood symptoms among comorbid AOD populations.

There are six physical activity and sedentary behaviour guidelines for adults, outlined in Table 16.

Table 16: Physical activity and sedentary behaviour guidelines for adults

Physical activity and sedentary behaviour guidelines for adults (aged 18–64 years)
<ul style="list-style-type: none"> Any physical activity is better than none. If there is currently none, start with a small amount and gradually build up to the recommended amount. Be active most days, and preferably all days, of the week. Accumulate 150–300 minutes (2 ½–5 hours) of moderate intensity physical activity (i.e., out of breath but can still say a few words) or 75–150 minutes (1 ¼–2 ½ hours) of vigorous intensity physical activity (i.e., out of breath, difficulty talking), or a combination of both, each week. Incorporate muscle strengthening exercises each week. Minimise the amount of time spent in prolonged sitting. Break up long periods of sitting as often as possible.

Adapted from the Australian Government Department of Health 2014 [234].

Despite the overwhelming evidence of poor physical health among those with mental health conditions, relatively few workers address the physical health of their clients as part of their practice [235]. This may in part be due to clinicians questioning whether health and wellness are achievable goals for people with mental health conditions, due to perceived lack of motivation, lifestyle challenges, and the side effects and complications of many medications (e.g., weight gain, glucose and lipid abnormalities, and cardiac side-effects) [130, 131, 235]. Although some research suggests that clients may prefer to make simultaneous behavioural changes [236, 237], clinicians may feel ill-prepared to manage the physical health of clients, particularly with standard screening tools and assessments not addressing the importance of health screening in mental health patients [235]. AOD workers may find the food and physical activity diary located in the Worksheets section of these Guidelines useful.

Sleep

Sleep problems can be experienced in many ways, and range from difficulty falling asleep, maintaining sleep throughout the night, or waking too early or too often. Most people will experience some trouble sleeping at some point in their lives, with less sleep associated with long work days, commuting times, increases in evening or night work, and overuse of television, computers or the internet [178, 238]. Sleep disturbances have been associated with the use of, and withdrawal from, AOD; in particular, alcohol [239, 240], marijuana [241], tobacco [242], caffeine [243], and cocaine [244]. Although some report the use of substances to promote sleep [245], in general, the direction of the relationship is not well understood. It remains unclear as to whether sleep problems are an additional risk factor contributing to an individual's AOD use, or whether the use of AOD contributes to sleep disturbances [246-249].

Better understood are the poor health outcomes associated with insufficient sleep duration. The quality and duration of sleep has been linked to chronic disease, with insufficient sleep associated with higher body mass [250], weight gain [251, 252], obesity [253], diabetes [254], CVD [255] and premature mortality [256]. Recent research suggests that the ideal amount of sleep varies with age. For adults aged between 18–64 years, the recommended duration of daily sleep is between seven and nine hours [257]. The increased risk of chronic diseases, obesity, diabetes, hypertension, and CVD, however, is associated with both too little (i.e., less than 6 hours) and too much sleep (i.e., more than 9 hours) [255, 258].

The American Academy of Sleep Medicine recommends the healthy sleep habits outlined in Table 17:

Table 17: Healthy sleep habits

Sleeping tips
<ul style="list-style-type: none">• Maintain a regular sleeping schedule, on weekdays and weekends (i.e., go to bed around the same time each night, and wake at the same time each morning).• Ensure at least seven hours sleep.• Do not go to bed unless tired.• Get out of bed if not asleep within 20 minutes.• Practise relaxing bedtime rituals (e.g., mindfulness, meditation, relation exercises).• Only use the bed for sleep and sex.• Ensure the bedroom is calm and relaxing, and maintain a cool, comfortable temperature.• Limit exposure to bright lights before bedtime.• Do not eat large meals before bedtime. If hungry, have a light, healthy snack.• Exercise regularly.• Avoid caffeine in the late afternoon and evening.• Avoid alcohol before bedtime.• Reduce fluid intake before bedtime.

Adapted from the American Academy of Sleep Medicine [259].

What does this mean for AOD workers?

There is strong evidence that supports the need for holistic approaches to health care that deliver the appropriate services to clients at the right time. This includes the involvement of multiple services in a coordinated client-centred approach. AOD workers should be prepared not only to address the mental and physical wellbeing of their clients, but also involve, and partner with, other services that can provide complete, individualised care.

From an AOD worker's perspective, it should be remembered that physical and mental health are fundamentally entwined. As such, be prepared to take steps to manage clients' physical and mental health: consult with clients and assist with strategies to reduce smoking; assist with the planning of healthy meals incorporating fruits and vegetables; encourage clients to become more physically active; and recommend healthy and regular sleep patterns. A case study example of the interrelatedness of physical and mental health is provided in Box 11.

Box 11: Case study K: Managing comorbid physical, mental, and AOD use disorders: Sarah's story

Case study K: Managing comorbid physical, mental and AOD use disorders: Sarah's story

Sarah is a 38-year-old woman who has lived in a large city for much of her life. She has a history of psychosis dating back to her teenage years. Around the time she first noticed symptoms, she was using cannabis, ecstasy, and methamphetamine. Although she had periods of further education and worked on and off in hospitality, she has been largely unemployed since she was 25 years old.

The pattern of Sarah's psychosis has been unpredictable. While she had some periods of stability, her auditory hallucinations, paranoid ideas, and mood fluctuations have recently become more frequent. Although Sarah had a number of admissions to inpatient psychiatric units in her early 20s, since that time she has been managed within the community mental health care services. However, Sarah's recent lifestyle has been chaotic, and she has moved across the city several times. As such, Sarah has been under the care of several different community mental health services, with no single clinician knowing her well. Due to her frequent moves, Sarah has also been under the care of several different GPs.

Sarah presented to the emergency department of an inner city hospital because of injuries suffered during an argument with another resident in the hostel where she was staying. Her injuries were relatively minor, but the doctor and nurse who assessed her noted that she had high blood pressure and that she was overweight (with a body mass index (BMI) of 32). It was also noted that Sarah had a cough, which she attributed to her smoking 20 cigarettes a day. When asked about her blood pressure, Sarah told the doctor that her GP had prescribed her medication, but she had not taken it, and had not attended any follow-up appointments. This information was brought to the attention of the community mental health service who were caring for Sarah. At the first opportunity, her current community mental health nurse made an assessment not only of her mental state and AOD use, but also attempted to gather as much information as possible about Sarah's physical health.

Sarah asked the community mental health nurse why there were so many questions about her physical health, saying that nobody had ever asked these questions before. The community mental health nurse explained that it was important to ensure that, apart from her psychiatric care, all her health needs were being met. Sarah's nurse contacted her GP to explain that she wished to conduct a comprehensive assessment of need, including not just psychiatric matters but also physical health. The GP was very pleased to be involved, as he had been concerned having not seen Sarah for a while. This was a relief to Sarah, as she thought the GP might be angry with her as she had missed several appointments. The nurse helped Sarah to make an appointment and showed her how to put a reminder in her phone the day before, and morning of, her appointment.

Over many years Sarah had been prescribed various antipsychotic medications and mood stabilisers and it became clear that she had put on a great deal of weight. Despite her long-term use of antipsychotic medication and high BMI, Sarah could not recall having been tested for type II diabetes, or undergoing routine blood glucose measurement. More generally, the GP also noted that Sarah had not previously received routine blood tests to cover matters such as liver function, thyroid function, and haemoglobin (for anaemia), nor had she ever had any cervical smears, although she had been offered these.

Key points:

- What are the primary concerns for Sarah?
- Where to from here?

Case study K continues in Chapter B4.



B2: Identifying comorbidity

B2:

Identifying comorbidity

Key Points

- Given the high rates of co-occurring mental health conditions among clients of AOD treatment services, it is essential that routine screening and assessment be undertaken for these conditions as part of case formulation.
- Screening and assessment set the scene for the future client-worker relationship and need to be conducted in a friendly and empathic manner.
- It is important to consider a range of aspects in the process of case formulation, not only AOD and mental health issues (e.g., sociocultural factors, motivation, living situation, and medical and personal history).
- Full assessment should ideally occur subsequent to a period of abstinence, or at least when not withdrawing or intoxicated. Multiple assessments should be conducted throughout a person's treatment as symptoms may change over time.
- It is important to provide assessment feedback to the client in a positive, easily understood manner.

Despite high rates of mental health conditions among clients of AOD services, it is not unusual for these comorbid conditions to go unnoticed by AOD workers [100, 260]. This is mostly because they are not routinely looking for these conditions. Many of the signs and symptoms of common mental health conditions (e.g., depression) are not immediately obvious or visible, and may be overlooked if not specifically asked about. As mentioned in Chapter A3, all clients should be screened and assessed for

comorbidity as part of routine clinical care. This chapter describes methods of screening and assessing for mental health conditions, which should form part of the case formulation process for all clients.

Assessing and identifying the client's needs is the first step. It is important to recognise whatever needs the client may have as they will undoubtedly impact upon AOD treatment. Early diagnosis and treatment of mental health disorders can improve treatment outcomes [261-263]. Identification does not necessarily mean that the AOD worker has to personally treat the difficulty the client is experiencing; however, they do need to consider the impact of these difficulties, manage them accordingly, and engage other services where necessary. It is often difficult to determine which symptoms are attributable to which disorders. Once symptoms are identified, more specialised assessment may be required by mental health providers, psychologists, or psychiatrists to determine whether the person has a diagnosable disorder (care coordination is discussed further in Chapter B4). It is equally important that other issues identified (e.g., problems involving employment, housing, medical care) are dealt with appropriately, which may also require consultation with other services.

Case formulation

Case formulation involves the gathering of information regarding factors that may be relevant to treatment planning, and formulating a hypothesis as to how these factors fit together to form the current presentation of the client's symptoms [264, 265]. The primary goal of AOD treatment services is to address clients' AOD use. However, in order to do so effectively, AOD workers must take into account the broad range of issues that clients present with. As discussed in Chapter A2, clients of AOD treatment services, and those with comorbid conditions in particular, often have a variety of other medical, family, and social problems (e.g., housing, employment, welfare, or legal problems). These problems may be the product of the client's AOD and mental health conditions, or they may be contributing to the client's AOD and mental health conditions, or both. According to stress-vulnerability models (e.g., Zubin and Spring [266]), the likelihood of developing a mental health condition is influenced by the interaction of these biological, psychological, and social factors. These factors also affect a person's ability to recover from these symptoms and the potential for relapse.

After developing a case formulation, the AOD worker should be aware of:

- What problems exist, how they developed, and how they are maintained.
- All aspects of the client's presentation, current situation, and the interaction between these different factors and problems.

This information is the first step to devising (and later revising) the client's treatment plan. There is no standardised approach to case formulation [267], but it is crucial that a range of different dimensions be considered, including history of present illness, AOD use history (amount and frequency, presence of disorder), physical/medical conditions, mental state, psychiatric history, trauma history, suicidal or violent thoughts, readiness to change, family history, criminal history, and social and cultural issues. Consideration also needs to be given to the client's age, sex, sexual orientation, ethnicity, spirituality, socioeconomic status, and cognitive abilities.

Given the high rates of co-occurring mental health conditions among clients of AOD treatment services, it is essential that routine screening and assessment be undertaken for these conditions as part of case formulation. Screening is the initial step in the process of identifying possible cases of co-occurring mental health conditions [268]. This process is not diagnostic (i.e., it cannot establish whether a disorder actually exists); rather, it identifies the presence of symptoms that may indicate the presence of a disorder. Thus, screening helps to identify individuals whose mental health requires further investigation by a professional trained and qualified in diagnosing mental health disorders (e.g., registered or clinical psychologists, or psychiatrists).

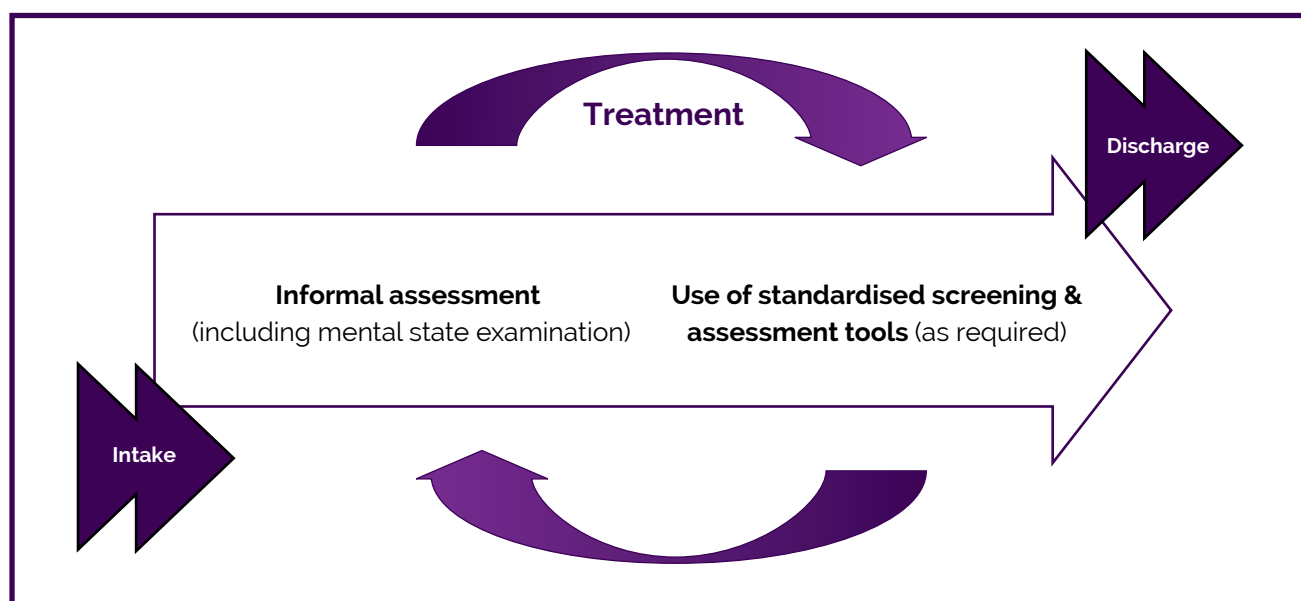
The potential clinical issues that these conditions can present suggest that screening for co-occurring mental health conditions should always be completed in the initial phases of AOD treatment. Early identification allows for early intervention, which may lead to better prognosis, more comprehensive treatment, and the prevention of secondary disorders [261, 262, 269].

Diagnostic assessment should ideally occur subsequent to a period of abstinence [270, 271], or at least when the person is not intoxicated or withdrawing. While the length of this period is not well established, a stabilisation period of between two to four weeks is recommended [272]. A lengthier period of abstinence is recommended for longer-acting drugs, such as methadone and diazepam, before a diagnosis can be made with any confidence, whereas shorter-acting drugs such as cocaine and alcohol require a shorter period of abstinence [270]. If symptoms persist after this period, they can be viewed as independent rather than AOD-induced. In practice, however, such a period of abstinence is rarely afforded in AOD treatment settings and, therefore, to avoid possible misdiagnosis, it has been recommended that multiple assessments be conducted over time [80, 94, 273]. This process allows the AOD worker to formulate a hypothesis concerning the client's individual case and to constantly modify this formulation, allowing for greater accuracy and flexibility in assessment.

Screening forms the first part of the assessment process. Unlike screening, assessment is a process rather than a one-off event, which involves the ongoing monitoring of clients' mental health symptoms. Ongoing assessment is important because clients' mental health symptoms may change throughout treatment. For example, a person may present with symptoms of anxiety and/or depression upon treatment entry; however, these symptoms may subside with abstinence. Alternatively, a person may enter treatment with no mental health symptoms, but symptoms may develop after a period of reduced use or abstinence, particularly if the person has been using substances to self-medicate these symptoms.

Groth-Marnat [274] suggests that a combination of both informal and standardised assessment techniques is the best way to develop a case formulation. Figure 10 depicts how these techniques work together. In addition to these assessments, with the client's consent, it may be useful to talk with family members, friends, or carers; they can provide invaluable information regarding the client's condition which the client may not recognise or may not want to divulge (see Chapter A3) [275].

Figure 10: The ongoing case formulation process



Note: Figure 10 illustrates the need for assessment to be repeated throughout treatment, from intake through to discharge, to inform the ongoing revision of a person's treatment plan.

Informal assessment

The informal assessment takes the form of a semi-structured interview and should cover the following:

- Mental state.
- Source of referral and current health care providers.
- Presenting issues.
- AOD use history.
- Current situation.
- Personal, medical, and family history.
- Trauma history.
- Psychiatric history.
- Risk assessment.
- Criminal history.
- Strengths and weaknesses.
- Readiness for change.

For an effective assessment, it is important to provide a non-judgemental, empathetic, private, and confidential environment. Any limits to confidentiality should also be explained.

Mental state

A crucial component of the assessment process is the evaluation of the client's mental state and presentation. An assessment of mental state should include:

- Appearance.
- Behaviour.
- Speech and language.
- Mood and affect.
- Thought content.
- Perception.
- Cognition.
- Insight and judgement.

The type of information sought in each of the above domains is outlined in Table 18. It should be noted that all of the aforementioned factors may be affected by intoxication or withdrawal from substances. The mental state examination should not consist of a series of direct questions, but rather should be based on an overall evaluation of the client during the assessment (or preferably a number of assessments). A record of the mental state examination should be completed after (rather than during) conversations with the client. In addition to noting unusual or abnormal client behaviours, it is also good practice to record normal behaviours (e.g., no speech disturbances noted, no unusual thought content noted) [276]. Appendix F presents a form which may be useful in guiding note-taking for the mental state examination.

Table 18: Assessment of mental state

Appearance
<p>How does the client look?</p> <p>Posture – slumped, tense, bizarre.</p> <p>Grooming – dishevelled, make-up inappropriately applied, poor personal hygiene.</p> <p>Clothing – bizarre, inappropriate, dirty.</p> <p>Nutritional status – weight loss, not eating properly.</p> <p>Evidence of AOD use – intoxicated, flushed, dilated/pinpoint pupils, track marks.</p>
Behaviour
<p>How is the client behaving?</p> <p>Motor activity – immobile, pacing, restless, hyperventilating.</p> <p>Abnormal movements – tremor, jerky or slow movements, abnormal walk.</p> <p>Bizarre/odd/unpredictable actions.</p>
<p>How is the client reacting to the current situation and assessor?</p> <p>Angry/hostile towards assessor/others.</p> <p>Uncooperative or withdrawn.</p> <p>Over familiar/inappropriate/seductive.</p> <p>Fearful, guarded, hypervigilant.</p>
Speech and language
<p>How is the client talking?</p> <p>Rate – rapid, uninterruptible, slow, mute.</p> <p>Tone/volume – loud, angry, quiet, whispering.</p> <p>Quality – clear, slurred.</p> <p>Anything unusual about the client's speech?</p>

Table 18: Assessment of mental state (continued)

Speech and language
<p>How does the client express himself/herself?</p> <p>Incoherent/illogical thinking (word salad: communication is disorganised and senseless and the main ideas cannot be understood).</p> <p>Derailment (unrelated, unconnected, or loosely connected ideas; shifting from one subject to another).</p> <p>Tangentiality/loosening of associations (replies to questions are irrelevant or may refer to the appropriate topic but fail to give a complete answer).</p> <p>Absence/retardation of, or excessive thought and rate of production.</p> <p>Thought blocking (abrupt interruption to flow of thinking so that thoughts are completely absent for a few seconds or irretrievable).</p>
Mood and affect
<p>How does the client describe his/her emotional state (i.e., mood)?</p> <p>Down/depressed; angry/irritable; anxious/fearful; high/elevated.</p>
<p>What do you observe about the client's emotional state (i.e., affect)?</p> <p>Depressed – flat, restricted, tearful, downcast.</p> <p>Anxious – agitated, distressed, fearful.</p> <p>Irritable, hostile.</p> <p>Labile – rapidly changing.</p> <p>Inappropriate – inconsistent with content (e.g., laughs when talking about mother's death).</p> <p>High/elevated – excessively happy or animated.</p>
Thought content
<p>What is the client thinking about?</p> <p>Delusional thoughts (e.g., bizarre, grandiose, persecutory, self-referential).</p> <p>Preoccupations: paranoid/depressive/anxious/obsessional thoughts; overvalued ideas.</p> <p>Thoughts of harm to self or others.</p> <p>Does the client believe that his/her thoughts are being broadcast to others or that someone/thing is disrupting or inserting his/her own thoughts?</p>

Table 18: Assessment of mental state (continued)

Perception
<p>Is the client experiencing any misinterpretations of sensory stimuli?</p> <p>Does the client report auditory, visual, olfactory, or somatic hallucinations? Illusions?</p> <p>Are they likely to act on these hallucinations?</p> <p>Do you observe the client responding to unheard sounds/voices or unseen people/objects?</p> <p>Any other perceptual disturbances, such as derealisation (feeling one is separated from the outside world), depersonalisation (feeling separated from one's own personal physicality), heightened/dulled perception?</p>
Cognition
<p>Level of consciousness</p> <p>Is the client alert and oriented to time, place, person?</p> <p>Is the client attentive during the interview (drowsy, stuporous, distracted)?</p> <p>Does the client's attention fluctuate during the interview?</p> <p>Does the client present as confused?</p> <p>Is the client's concentration impaired? (Can he/she count from 100 or say the months of the year backwards?)</p>
<p>Orientation</p> <p>Does the client know:</p> <p>Who he/she is? Who you are?</p> <p>Where he/she is?</p> <p>Why he/she is with you now?</p> <p>The day of the week, the date, the month, and the year?</p>
<p>Memory</p> <p>Can the client remember:</p> <p>Why he/she is with you? (Immediate)</p> <p>What he/she had for breakfast? (Recent)</p> <p>What he/she was doing around this time last year? (Remote)</p> <p>Are they able to recall recent events (memory and simple tasks; e.g., calculation)?</p>

Table 18: Assessment of mental state (continued)

Insight and judgement
How aware is the client of what others consider to be his/her current difficulty?
Is the client aware of any symptoms that appear weird/bizarre or strange?
Is the client able to make judgements about his/her situation?

Adapted from NSW Department of Health [277] and Marsh et al. [276].

Source of referral and current health care providers

Clients may have various sources of referral to treatment. For instance, they may be referred by their GP, family or friends, or corrective services. In general, the most common form of referral is self-referral [278].

In addition to identifying the source of referral, it is important to identify all health care providers currently involved in the person's care (e.g., counsellors, psychiatrists, prescribers, GP, probation/community offender service officers, case workers, social workers). Consistent with a coordinated approach to client care, with the client's permission the AOD worker should liaise with these providers regarding the person's treatment to ensure care coordination and continuity of care (see Chapter B4).

Presenting issues

Ascertain what the client perceives to be his/her biggest issues and the reasons why he/she is in treatment. This is usually broader than the AOD issue (e.g., psychological, social, health, legal, accommodation, financial).

AOD use history

It is important to gain an understanding of the range of substances currently used, the quantity and frequency of use, duration of use, previous AOD-related problems, circumstances of use, risk behaviours related to use, and previous treatment/attempts to change (and why these were successful or unsuccessful). Clinicians should also gain an understanding of the development of the client's AOD use over time, including periods of abstinence, and how these were supported [276].

Enquire also about the use of any non-traditional or new psychoactive substances (substances produced to mimic the effects of illegal drugs), which may be referred to by a range of names including legal highs, herbal highs, research chemicals, analogues, and synthetics (more information can be found through the Drug Trends monitoring program [279, 280]).

It can be useful to ask the client to describe a normal day, in order to try to help the client evaluate the ways in which his/her AOD use affects his/her health, relationships, legality, and livelihood (e.g., finances, work). The typical day situation is explained in greater detail in Appendix E on MI.

Current situation

Enquire about the client's current accommodation, living arrangements, children, family and friends, social and other support networks, significant relationships, physical health, study, work commitments, legal, and financial issues.

Personal, medical, and family history

Exploring and discussing the client's background, from birth to the present, can help both the client and AOD worker to understand the beginnings of AOD use and mental health symptoms, and the impact on the client's life [276]. Enquire about:

- Family context (including family history of AOD use and mental health disorders).
- Child and adolescent experiences.
- School experiences (e.g., academic performance, social experiences, bullying).
- Traumatic experiences.
- Work history.
- Leisure pursuits and personal interests.
- Financial and housing information.
- Sexual/marital adjustment.
- Legal issues and illegal behaviour.
- Medical history (including current and past medications, psychiatric medication).
- Current and past pharmacological/psychological treatment.

Trauma history

It is important to identify whether the client has experienced any traumatic events in his/her life [276, 281, 282]. As described in Chapter A4, traumatic events do not refer to any event that the person has found upsetting. Rather, they are events where the individual perceived his/her own (or someone else's) life or physical integrity to be at risk. The trauma may be a one-off event or it may have occurred over a period of time [24].

A history of trauma exposure may be integrally linked with the person's current AOD use; a number of people with AOD use disorders who have experienced trauma describe their use as an attempt to self-medicate the thoughts and feelings they have had since the trauma. The presence of a trauma history also indicates that further investigation is required to determine whether the person may have symptoms of PTSD (described in Chapter A4).

While identification of past trauma is important, questioning needs to be sensitive and should not be pursued if the client does not wish to discuss it. In some circumstances, it may be better to raise the issue of trauma several weeks after the initial assessment interview, once the client feels safer and has developed a therapeutic relationship with the AOD worker [276]. Before conducting trauma assessments, workers should seek training and supervision in dealing with trauma responses. Some AOD workers may be reluctant to discuss trauma with their clients due to events that have happened in their own lives. These workers should seek assistance from their colleagues and should not be forced to conduct trauma assessments if they are not comfortable doing so.

Before questioning the client, the AOD worker should:

- Seek the client's permission to ask him/her about exposure to traumatic events, and advise the client that he/she does not have to talk about these experiences or provide any detail if he/she does not want to. Clearly communicate the reasons for asking about past trauma. It may not be readily apparent to the client that his/her current situation may be related to his/her past [281]. For example, clearly explaining to the client that the questions relating to trauma will help contextualise his/her drug use, which will also help gain a better understanding of the interplay between AOD use and trauma symptoms [276]. Ensure that the client has the opportunity to say if they feel uncomfortable.

- Advise the client that talking about traumatic events can be distressing; even clients who want to talk about their trauma history may underestimate the level of emotion involved [282]. It should be noted that studies have found that while some people may become upset when talking about these events, talking about the trauma does not overwhelm or re-traumatise the majority of people. On the contrary, most people describe the process as a positive experience [283-286].
- Advise the client of any restrictions on confidentiality; for example, in relation to the mandatory reporting of children at risk or serious indictable offenses.

When broaching the subject of trauma, ask the client if he/she has ever experienced any traumatic events such as witnessing or experiencing: car accidents or other types of accidents, natural disasters, war, adult/childhood physical or sexual assault, having been threatened. Reliable reporting of events is best obtained by asking about specific event types. Under-reporting of exposure tends to occur when people are asked only broad questions such as 'Have you ever experienced a traumatic event?' [287]. Standardised screening tools such as the Traumatic Life Events Questionnaire (TLEQ) and Trauma History Questionnaire (THQ) described in Appendix H may be used to assess for a history of trauma exposure. Some clients find it easier to complete a self-report screener than to say aloud to the assessor that they have, for example, been raped [282], and research suggests that verbal disclosure of trauma via interview evokes more distress than completing written questionnaires [286]. However, such screeners should always be completed with an AOD worker present and should never be given to the client to complete at home.

It is important to understand that clients may be uncomfortable answering questions relating to past trauma because of the personal nature of such questions. Client discomfort may also be associated with distrust of others in general (or of service providers in particular), a history of having their boundaries violated, or fear that the information could be used against them [281].

During the trauma assessment it is essential that the AOD worker questioning the client does not 'dig' for information that is not forthcoming, as this may result in destabilisation [282]. For those who have experienced interpersonal trauma in particular, such pressure from an authority figure may imitate the interpersonal dynamics that were evident in an abusive relationship and exacerbate trauma symptoms. There is an inherent power imbalance in the helper–helped relationship and AOD workers must do their best to reduce this inequity [281]. Trauma and AOD use are both characterised by the loss of control and it is important that a sense of control be re-established. The following are some additional guidelines on discussing traumatic experiences with clients [288]. Further information regarding the management of trauma symptoms is provided in Chapter B6.

- **Create a safe, welcoming environment.** Let clients know what to expect and avoid surprises. Sometimes clients who have experienced trauma may be physically and mentally 'on guard', so use slow, calm movements, and a gentle tone of voice, and don't encroach on their personal space.
- **Adopt a non-judgemental attitude.** People who have experienced trauma often feel a great deal of shame and guilt either in relation to the trauma itself or how they reacted to the trauma. Sometimes clients may have experienced stigmatisation from others due to their trauma experiences, mental health, and/or AOD use. The client needs to feel that the AOD worker does not consider them in a negative way (e.g., weak, immoral). It is important not to judge how the person reacted during or after the trauma. It is easy to judge people harshly with the benefit of hindsight, but even if they did make a mistake in judgement, they did not deserve to suffer.
- **Display a comfortable attitude if the client describes their trauma experience.** Some clients will have had experiences that people do not want to hear about, especially the gruesome or horrific details. They need to know that they can tell you anything.

- **Praise the client for having the courage to talk about what happened.** The client needs to know that you appreciate how difficult it is for him/her to talk about his/her trauma. Make it clear to the client that you respect and admire his/her strength in coming through the traumatic experience and in seeking help, but do not patronise them.
- **Normalise the client's response to the trauma and validate their experiences.** Many people who have experienced trauma (especially those with PTSD) feel that they are 'going crazy' because of the feelings they may have had since the trauma (e.g., re-experiencing the event, avoidance, hypervigilance). Just hearing from a professional that the reactions they are experiencing are common helps to normalise their experience, and also alleviate possible shame or guilt about not recovering sooner. Normalisation and validation are discussed in further detail in Chapter B6.

Psychiatric history

Enquire as to whether the client has any current mental health symptoms (such as depression, anxiety, psychosis), whether he/she has experienced these in the past, whether he/she has ever been diagnosed with a mental health disorder, and whether he/she has ever received any treatment. If the client has experienced mental health symptoms or has been diagnosed with a mental health disorder, ask about the timing and context of these symptoms:

- When did the symptoms start (did they start prior to AOD use)?
- Do they only occur when the person is intoxicated or withdrawing?
- Have the symptoms continued even after a period of abstinence (approximately one month)?
- Do the symptoms change when the client stops using substances (i.e., do they get better or worse, or stay the same)?
- Is there a family history of the particular mental health condition?
- What kind of treatment did the person have? Did it work well?

If symptoms arise only in the context of intoxication or withdrawal, it is likely that they are substance induced [289], and will resolve with a period of abstinence without the need for any direct intervention [35, 119, 290]. It is nonetheless important for these symptoms to be managed to prevent the client from relapsing in the early stages (see Chapter B5). The duration of abstinence may vary depending on substances used; however, most should start to see considerable improvement over a period of one month [270, 291].

If the mental health symptoms started prior to the onset of AOD use, symptoms persist even during periods of abstinence, or there is a family history of the particular mental health condition, the client may have a mental health condition that is independent of his/her AOD use.

Criminal history

Enquire about past and present criminal behaviour, arrest history, any impending court cases or outstanding warrants.

Strengths and weaknesses

A client's strengths and weaknesses can usually be deduced from other information collected during the assessment process. Some examples of strengths may include good social support, high self-esteem, and insight. Some weaknesses may be unemployment, risk-taking behaviour, or negative self-image.

Readiness for change

It may be helpful to ascertain how motivated the client is to change his/her current AOD use. This involves an exploration of the client's perception of the positive and negative aspects of continued AOD use. Prochaska and DiClemente [292] suggest that clients fall into one of six stages of change. Table 19 summarises these stages and outlines some useful interventions to use at each stage of change. The choice of treatment type can be informed in part by the client's readiness to change; for example, harm reduction may be an appropriate treatment for someone in the pre-contemplation stage, whereas goal setting or relapse prevention may be more suitable for someone in later stages (e.g., preparation or action stages) [276].

The stages of change model is also relevant in assessing motivation to receive treatment for comorbid mental health conditions. Just because a person has presented for treatment for his/her AOD use, does not necessarily mean that he/she has the same readiness to receive mental health treatment. For example, just because the client is willing to consider reducing AOD use, this does not automatically mean that he/she is also ready to deal with the trauma-related symptoms they experience due to abuse suffered as a child. Appendix G provides a useful matrix for assessing motivation for both AOD and mental health treatment.

Although we include the stages of change model, it is important to note that this model has been subject to some criticism. Some researchers and clinicians have questioned the divide between stages, the distinction between stages, and the focus on conscious decision making (rather than the involvement of other factors, such as unconscious motivations) [293-295].

Table 19: Readiness for change

Stage	Description	Interventions
Pre-contemplation	Client shows no interest in behaviour change.	Aim to raise doubt about perceptions. Link behaviour with consequences. Reduce harm. Highlight negative consequences. Build confidence and hope.
Contemplation	Change is being considered, with negative concerns rising in awareness but ambivalence remains.	Motivational interviewing can assist in resolving ambivalence. Elicit reasons for change and risks of not changing.
Preparation or determination	Client is committing to and preparing for change.	Goal setting, match to needs. Identify risks for relapse. Build self-efficacy. Discuss treatment options.
Action	Active behavioural change occurs.	Support self-efficacy. Assist with coping and education. Reinforce positive behaviour. Avoid exposure to AOD use environment.

Table 19: Readiness for change (continued)

Stage	Description	Interventions
Maintenance	Changes are consolidated and maintained.	Reinforce positives and assist with lapses. Self-help groups. Provide relapse prevention techniques. Emphasise client alertness. Work towards longer-term goals.
Relapse	Not so much a stage in itself, but rather any slip or lapse into any of the previous stages.	Avoid demoralisation. Remain positive. Normalise the process of lapsing. Help the client to learn from mistakes.

Adapted from Clancy and Terry [296].

Standardised screening and assessment

The informal assessment process can be aided by a range of standardised screening and assessment tools. Standardised tools can be a useful means of gathering data by providing a reliable and valid view of the client's difficulties and current life situation [297, 298]. Furthermore, when conducted appropriately, the process of standardised assessment can be a source of rapport building [299].

Groth-Marnat [274] suggests that when conducting standardised assessment, it is important to:

- Provide the client with the reasons for assessment and the purpose of each instrument.
- Explain that it is a standard procedure.
- Explain how standardised assessment can be useful in helping clients achieve their goals (e.g., by providing an objective measure).
- Provide appropriate and timely feedback of the results of the assessment.

Standardised assessment should be completed upon entry into and exit from treatment, as well as at follow-up [94, 300]. Test results can provide useful clinical information (for both the client and AOD worker) on the client's case and an evaluation of how effective treatment has been. A variety of different tools are used, some of which are empirically established instruments, whilst others are purpose-built, internally designed tools with increased practicality and utility but unknown validity and reliability [267]. Some helpful screening tools have been included in Appendices I–R.

Standardised tools cover a range of areas that may be relevant to AOD services. **The Camberwell Assessment of Need (CAN)** is one of the most widely used needs assessment and treatment outcome tool [301] and has evidence to support its use among people with mental health conditions. It has also been validated for use in Australian populations [302], and can be used in clinical practice without staff training. The CAN assesses need in 22 domains, including accommodation, food, self-care, capacity to look after the home, daytime activities, physical health, psychotic symptoms, mental health and treatment, psychological distress, risk to self and others, AOD use, social relationships, child care, education, transport, budgeting, and benefits [303]. Several versions of the CAN exist, including:

- **Camberwell Assessment of Need Short Appraisal Schedule (CANSAS):** For use in clinical work. The CANSAS allows the perspective of staff, clients and carers to be separately recorded. However, due to discrepancies in clinician and client assessments of need, a client rated short-form measure has been developed and evaluated (CANSAS-P).
- **CANSAS-P:** A two-page version for clients, to complete. Evaluation of the CANSAS-P found it was able to better identify the needs of clients, particularly unmet needs [302].
- **CAN-Clinical (CAN-C):** Detailed 22-page assessment, measuring the need rating, help received, and action plan for each domain.
- **CAN-Research (CAN-R):** Detailed 22-page assessment, measuring the need rating, help received and satisfaction for each domain [304].

The CANSAS-P has been recommended as the preferred needs assessment measure for client completion [302], and is available in Appendix I. Further information about each version can be obtained through the CAN webpage: www.researchintorecovery.com/CAN.

There are also a wide range of standardised tools that can be used to screen and assess specifically for co-occurring mental health conditions. Here we provide an overview of some of these tools, with focus given to those that require minimal training to use and are freely available. A range of additional screening tools are described in Appendix H. It should be noted that some of these tools require specialist training, or else mislabelling, misinterpretation, or inappropriate use may occur [274]. Some tools are copyright protected and need to be purchased, and/or require the user to have specific qualifications. The requirements of each tool described here (and in Appendix H) are explained accordingly. It is important that workers are aware of what they are and are not trained to use, and seek training where required. Readers are also referred to Deady's [301] comprehensive review of screening tools for use in AOD settings. This document is available online at www.nada.org.au.

It should be noted that following the release of the DSM-5, and at the time of writing, new measures were in the process of being developed and validated. As such, the measures below and in Appendix H include assessments validated for DSM-5, and where none are available, we have included measures developed with DSM-IV-TR criteria. Further disorder-specific assessment measures can be found on the DSM-5 website: www.psychiatry.org/practice/dsm/dsm5/online-assessment-measures.

As mentioned earlier in this chapter, screening is designed only to highlight the existence of symptoms, not to diagnose clients. Most of the measures described are self-reporting (i.e., they may be self-completed by the client). Others, however, need to be administered by the AOD worker. Aside from the McLean Screening Instrument for Borderline Personality Disorder (described briefly in Appendix H), there are few brief measures with established reliability and validity for the identification of possible personality disorders. The possible presence of these disorders needs to be assessed by a health professional who is qualified and trained to do so (e.g., a registered or clinical psychologist, or psychiatrist).

Kessler psychological distress scale (K10)

The **Kessler psychological distress scale (K10)** [305] is a widely used, simple self-report measure of psychological distress which can be used to identify those in need of further assessment for anxiety and depression (Appendix J). This measure was designed for use in the general population; however, it may also serve as a useful clinical tool. The K10 comprises 10 questions that are answered using a five-point scale (where 5 = all of the time, and 1 = none of the time). For all questions, the client circles the answer truest for them in the past four weeks. Scores are then summed with the maximum score of 50 indicating severe distress, and the minimum score of 10 indicating no distress. A guide to interpreting K10 scores is provided in Table 20.

A number of studies have been conducted to test the reliability and validity of the K10, and its brief version, the K6. Good reliability and validity have been found when these measures have been used with individuals with AOD use disorders [306-308].

Table 20: Severity of psychological distress according to K10 score

K10 score	Level of psychological distress
10–15	Low
16–21	Moderate
22–29	High
30–50	Very high

Adapted from Andrews and Slade [309].

PsyCheck

The Australian **PsyCheck** screening tool (Appendix K) has been shown to be a valid and useful resource for clinicians [310]. The screening tool has three sections:

- A general mental health screen, including history of treatment.
- Suicide/self-harm risk assessment.
- The Self Reporting Questionnaire (SRQ) [311], that assesses for current symptoms of depression and anxiety.

The PsyCheck manual [310] includes training on how to administer, score, and interpret the results of each section, and the subsequent steps to take according to the screening results. If the results of the screening tool indicate high levels of symptomology, further assessment may be warranted. The PsyCheck screening tool has been shown to have good test-retest reliability in drug-using samples [312]. More information on the PsyCheck screening tool is available at www.psycheck.org.au.

The Depression Anxiety Stress Scale (DASS)

The **Depression Anxiety Stress Scale (DASS)** [313] has been shown to be a valid and reliable measure of the dimensions of depression, anxiety, and stress separately but also taps into a more general dimension of psychological distress [314]. The DASS is available in two forms: the DASS-21 and the DASS-42. The use of either test is sufficient in the screening process (i.e., the use of both is unnecessary). The two forms have 21 and 42 items respectively, and are each rated on a 4-point scale of how much each particular statement applies to the individual. The DASS is a self-report instrument, and no special skills are required to administer or score it. However, decisions based on particular score profiles should be made only by experienced clinicians who have carried out an appropriate clinical examination [313]. Nevertheless, it is a useful tool for screening and assessment and the DASS-21 is included in Appendix L. A guide to interpreting DASS scores is provided in Table 21.

Currently, no studies have been conducted to validate the DASS as a measure of depression and anxiety among people with AOD use disorders. However, one study has shown that the DASS can be used as a reliable screen for symptoms of PTSD among people with AOD use disorders [315].

Table 21: Interpreting DASS scores

DASS scale score	Level of psychological distress
0–77	Normal
78–87	Mild
87–95	Moderate
95–98	Severe
98–100	Extremely severe

Adapted from Lovibond and Lovibond [313].

The Primary Care PTSD Screen (PC-PTSD)

The **Primary Care PTSD Screen (PC-PTSD)** [316] is a very brief 4-item screen designed for use in primary care and other medical settings to screen for PTSD [316]. The screen includes an introductory sentence to cue respondents to traumatic events; however, it does not include a list of potentially traumatic events. Among patients with AOD use disorders, a score of three or above has been shown to indicate the presence of PTSD [317]. Among people with AOD use disorders, the PC-PTSD has been shown to be a reliable and valid measure to use when screening for PTSD [317, 318]. This scale is included in Appendix M.

Trauma Screening Questionnaire (TSQ)

The **Trauma Screening Questionnaire (TSQ)** [319] is a 10-item screening tool for PTSD which has shown promising results in preliminary investigations. Respondents endorsing at least six items should be assessed for the presence of PTSD [319]. The TSQ has been shown to be superior to a range of other PTSD screening measures [320]. At present, the TSQ has not been validated among individuals with AOD use disorders. The scale is included in Appendix N.

The Psychosis Screener (PS)

The **Psychosis Screener (PS)** [321] is an interview-style questionnaire rather than self-report and is therefore administered by the AOD worker (Appendix O). It uses elements of the Composite International Diagnostic Interview (CIDI) to assess the presence of characteristic psychotic symptoms. The PS has been shown to have a moderate ability to discriminate between those who meet diagnostic criteria for psychotic disorders and those who do not in community and prison samples [321, 322]. The PS consists of seven items; the first six items cover the following features of psychotic disorders: delusions of control, thought interference and passivity, delusions of reference or persecution, and grandiose delusions. The final item records whether a respondent has ever received a diagnosis of schizophrenia.

The Indigenous Risk Impact Screen (IRIS)

The **Indigenous Risk Impact Screen (IRIS)** [323] was developed by an expert group of Indigenous and non-Indigenous researchers in Queensland to assist with the early identification of AOD problems and mental health risks. This screen has been shown to be reliable, simple, and effective [324]. It has also been validated for use in Indigenous prison populations [325]. The IRIS consists of 13 items which are asked by the AOD worker. The IRIS is made up of two sets of questions, with items 1–7 forming the 'AOD risk' component and items 8–13 forming the 'mental health and emotional well-being risk' component. The items assessing mental health and emotional well-being focus on symptoms of anxiety and depression. The client chooses the answer from a list of response options which best describes his/her current situation. After tallying up the corresponding numbers, a score of 10 or greater on the AOD component indicates problematic use of AOD is likely, while a score of 11 or greater indicates the need for further

assessment or brief intervention regarding mental health and emotional well-being [324]. The IRIS is included in Appendix P.

Adult ADHD Self-Report Scale (ASRS)

The World Health Organisation developed the **Adult ADHD Self-Report Scale (ASRS)** as a means of assessing symptoms of ADHD in adults. The full version of the scale contains 18 items, but the short screener version contains 6 items and has been shown to outperform the original 18-item scale [326]. The 6-point scale involves respondents assessing the frequency of ADHD symptoms over the past six months, on a 5-item scale ranging from 'never' to 'very often'. The 6-item screener has been validated for use in AOD populations [327], demonstrating that it is an appropriately sensitive tool for screening for the presence of ADHD in this population group. The ASRS is included in Appendix Q.

The Eating Disorder Examination (EDE) and Questionnaire (EDE-Q)

The **Eating Disorder Examination (EDE)** [328] is a diagnostic interview, which has been modified to reflect current DSM-5 diagnoses. The **EDE-Q** is the questionnaire form of the EDE, and both are considered the 'gold standard' measures of ED psychopathology [329, 330]. As an interview, the EDE is designed to be administered by a clinician, and the developers recommend clinician training to ensure all concepts being assessed are well-understood [331]. However, the EDE-Q is a self-report measure, which can be completed individually, or with the help of a clinician (explaining concepts such as binge eating).

Both measures assess past month cognitive subscales related to ED: restraint, eating concern, shape concern, and weight concern, as well as behavioural symptoms related to these concerns (e.g., frequency of binge eating, vomiting, use of laxatives or diuretics, and overexercise) [329]. The EDE-Q has been validated for use in samples with AOD use disorders [332]. Both instruments are available for free download from <http://www.credo-oxford.com/7.2.html>.

Feedback

Following completion of assessment procedures, it is important to interpret the results for the client in a manner that the client can understand (i.e., not just giving them numerical test scores). When feeding back assessment results, consider the following [299]:

- Focus first on the client's strengths.
- Gently and tactfully outline the client's difficulties.
- Focus on the pattern of results rather than just an overall score.
- Pull the assessment results together and offer hope for the future by discussing a treatment plan.

Again, it is important to stress that these screening measures are not diagnostic; therefore, it is important not to label a client as having a diagnosis of a disorder unless it has been made by a suitably qualified mental health professional (e.g., a registered or clinical psychologist, or psychiatrist). Rather, it is best to focus on the symptoms displayed by the client.

If mental health symptoms are identified, it is important to discuss with the client what they may expect to experience in relation to these symptoms should he/she reduce or stop AOD use. As discussed in Chapter A4, if these symptoms are substance-induced, they are likely to dissipate if the person reduces or stops his/her use. On the other hand, the client's mental health symptoms may increase when he/she reduces or stops using, particularly if he/she has been using to self-medicate these symptoms. The latter scenario is especially common among people who have a history of PTSD symptoms. It is important that the client knows that you will be monitoring these symptoms to determine whether further treatment may be required.



B3: Risk assessments

B3: Risk assessments

Key Points

- This chapter focuses on two areas of risk: suicide and domestic or family violence.
- Clients of AOD treatment services are at high-risk of suicide, which is further increased by the presence of comorbid mental health disorders.
- Risk of suicide may increase in response to significant life events, and may fluctuate throughout treatment.
- It is vital that suicide risk assessments are an ongoing process, with all AOD staff trained to detect the direct and indirect warning signs of suicide, as well as the assessment and management of suicidality. AOD workers should utilise their clinical skill and expertise when incorporating screeners and assessments into their practice.
- Clients of AOD treatment services are also at increased risk of domestic or family violence.
- Risk of domestic and family violence should be incorporated into assessment practices, and AOD workers should be familiar with organisational policies and procedures for responding to family violence.
- Responding to domestic and family violence within AOD services requires a broad, comprehensive, coordinated approach involving multiple services.

Risk assessment

It is important to assess the risk a client poses to him/herself or others in the informal assessment interview (described in Chapter B2) and to monitor this throughout treatment. This chapter focuses on two areas of risk: suicide and domestic or family violence. It should be borne in mind, however, that there are several other areas of risk that should be assessed and monitored throughout treatment, including self-harm, homicidal thoughts/attempts, and child welfare, as well as the evaluation of safety regarding sexual practices, injecting practices, and other high-risk behaviours as appropriate. In any situation where the risk of harm to self or others is perceived to be significant, other services may need to be enlisted (e.g., police, ambulance, crisis teams).

Suicidality

The term 'suicide' is used in reference to any self-inflicted injury resulting in death, where death was the deliberate intention [333]. Suicidality therefore relates to any behaviours, thoughts, or intentions which precede this act or suggest that death may be desired (e.g., self-harming, risk-taking behaviour, suicidal thoughts, previous attempts, current plans).

Clients of AOD treatment services are at high-risk of suicide [334]. The presence of comorbid mental health disorders further increases this risk [335-337]. A thorough assessment of suicide risk should take place in the initial consultation phase and be monitored throughout treatment. How to assess for suicide risk, and appropriate responses to varying levels of risk, is explained in depth below. Table 22 outlines the dos and don'ts in regard to the management of suicidality.

Table 22: Dos and don'ts of managing a client who is suicidal

Do:

- ✓ Ensure the client has no immediate means of self-harm; remove weapons and potentially dangerous objects.
- ✓ Talk to the client alone – without any family or friends present.
- ✓ Allow sufficient time to discuss the issue.
- ✓ Discuss limits of confidentiality.
- ✓ Introduce suicide in an open, yet general way.
- ✓ Be non-judgemental and empathetic.
- ✓ Emphasise that there is help available.
- ✓ Validate the client's feelings and emphasise the fact that speaking with you is a positive thing.
- ✓ Consider what the predominant concern is for the client, and how you might be able to help remedy this concern (e.g., removal of stresses, decreasing social isolation).
- ✓ Contact the local mental health crisis team if the client appears to be at high-risk.

Don't:

- ✗ Invalidate the client's feelings (e.g., 'All you have to do is pull yourself together', 'Things will work out').
- ✗ Panic if someone starts talking about their suicidal feelings. These feelings are common and talking about them is an important, encouraging first step.
- ✗ Be afraid of asking about suicidal thoughts. Most clients are quite happy to answer such questions.
- ✗ Worry that questions about suicide may instil the idea in the client's mind.
- ✗ Leave a high-risk client unattended.

Adapted from NSW Department of Health [277].

The assessment of suicide risk is a process through which an AOD worker directly enquires about suicidal thoughts (frequency, intensity, plans, intent), history of suicidal behaviour and self-harm, current stressors, hopelessness, and protective factors (e.g., family, friends, other services). Discussing suicide with clients is vital and does **not** increase the risk of suicidal behaviour [338, 339]. Rather, sensitive questioning by a worker can be a relief for clients who have been harbouring thoughts of self-harm, and provides an opportunity to manage this risk appropriately, either within the AOD service, or in collaboration with mental health and emergency services [123].

Despite the need for suicide risk assessments, research suggests that many AOD services either have no written suicide risk assessment policy, unclear procedures regarding assessment and/or intervention, or policies and procedures of which AOD staff are not aware [340].

In response to the need for AOD staff to have access to resources that will assist with the identification and management of suicide risk, the *Suicide Assessment Kit (SAK)* was developed [341]. The *SAK* is a comprehensive assessment and policy package, specifically developed to help AOD services assess and manage suicide risk. It contains three key resources for AOD staff and managers (see Table 23):

- A suicide risk screener.
- A suicide risk formulation template.
- A suicide policies and procedures pro forma.

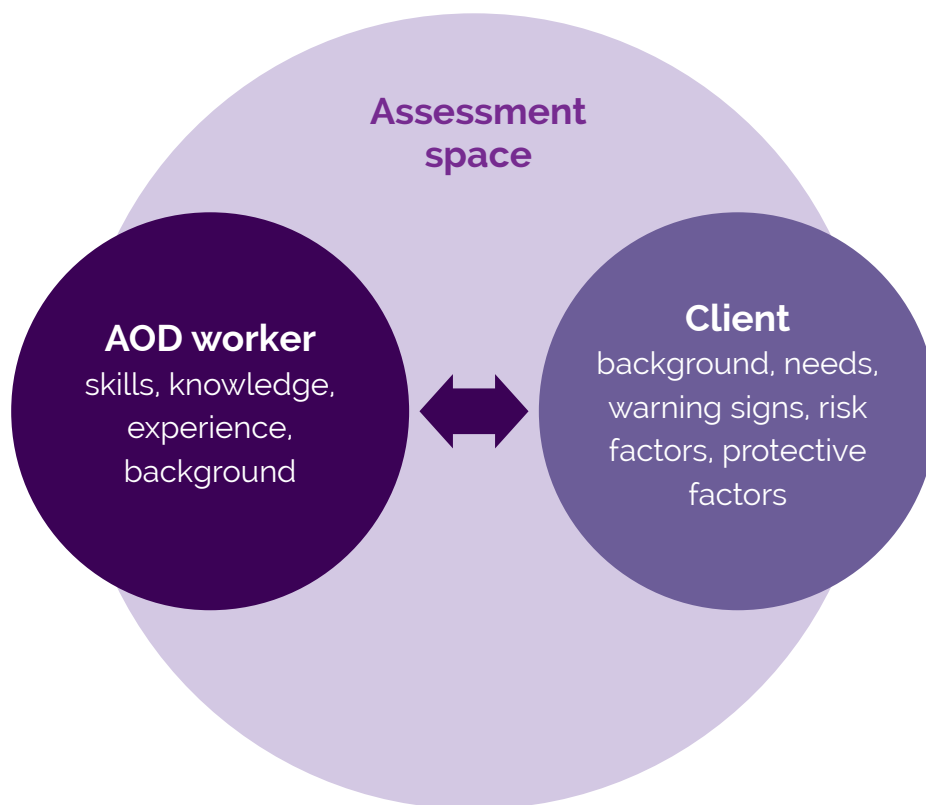
Table 23: *Suicide Assessment Kit* key resources

Resource	Purpose
Suicide risk screener	Designed for use at specific time points in treatment (i.e., admission, transition points, discharge), or when the client is suspected to be at increased risk of suicide.
Suicide risk formulation template	Designed to help AOD workers develop a comprehensive picture of background factors that may contribute to a client's risk of suicide, as well as strengths and protective factors that can be incorporated into management and treatment.
Suicide policies and procedures pro forma	Designed to help agencies develop policies and procedures for the assessment and management of suicide risk, as well as documentation regarding file and resource sharing, referral sources, and procedures.

A number of other supporting resources are included in the *SAK*, which may be useful to AOD workers in the identification and management of suicide risk. These, along with the full *SAK* resource (including training videos), may be downloaded from the *SAK* webpage: <https://ndarc.med.unsw.edu.au/suicide-assessment-kit>.

It should be emphasised that although these resources can be incorporated into AOD workers' everyday practice, it is vital that risk assessments are not conducted according to a checklist or flowchart procedure. All clinicians bring a wealth of knowledge, background, skills, and experience, all of which should inform the evaluation and assessment of an individual client's level of risk. The screeners and templates included in this section (and in Appendix R) rely on AOD workers incorporating their knowledge, judgement, expertise, and skill in the assessment of risk. Figure 11 illustrates a shared assessment space, where both the AOD worker and client bring their respective backgrounds, and the AOD worker draws upon their expertise to conduct the assessment.

Figure 11: Shared risk assessment space between AOD workers and AOD clients



Suicide Risk Screener

As mentioned, the Suicide Risk Screener was developed as part of the SAK in response to research that highlighted the need for improved assessment and management of suicide risk in AOD residential rehabilitation programs Australia-wide [340]. It can be used to assist in ascertaining clients' level of risk, determine what intervention and management strategies are required, and develop a safety plan to reduce risk [341]. The Suicide Risk Screener, scorer, and interpretation are located in Appendix R.

When to complete the Suicide Risk Screener

It is vital that suicide risk assessment be conducted at various points throughout treatment, and should not be viewed as a one-off event. Assessing risk should be conducted at particularly significant transition points within treatment (e.g., intake, discharge), as well as times when crisis is clearly visible [341]. In addition to conducting risk assessments at fixed points throughout treatment, it is important that AOD workers respond to their own informal assessment and conduct additional screening depending on a client's presentation, behaviour, personal situation and/or circumstances, or ominous statements [341].

Warning signs for suicide

Research has identified the importance of both warning signs and risk factors for suicide in conducting suicide risk assessments [342]. Warning signs for suicide are specific to the current state of the person (e.g., behaviours preparing for suicide), and indicate a heightened risk in the near-term (e.g., minutes, hours, or days). In contrast, risk factors are often long-lasting and increase suicide risk over time (e.g., lifetime psychiatric diagnoses, past suicide attempts) [342].

Warning signs may be immediately apparent at intake or may arise during treatment. The presence of warning signs indicates that screening and information gathering regarding suicidality is required. Warning signs can be either direct, requiring immediate attention, or indirect, which are less identifiable [342]. Direct signs include [341]:

- Suicidal communication: A client threatening to hurt or kill him/herself, or talking about wanting to do so. This also includes speaking ominously, such as talking about going away, or of others being better off without them.
- Seeking access to a method: A client looking for ways to kill him/herself by seeking access to pills, rope, or other means.
- Making plans: A client talking or writing about death, dying, or suicide, when these are out of the ordinary for the person.

Indirect warning signs are less easily identifiable, and require a heightened level of awareness, particularly as many indirect signs may also occur in AOD clients who are not suicidal [341]. Regardless, they are critical in assessing level of suicide risk. The mnemonic 'IS PATH WARM' (see Table 24) may be useful in assisting AOD workers remember these signs [343], with each letter corresponding to a specific warning sign experienced or reported in the last few months [344].

Table 24: IS PATH WARM: Suicide warning signs and explanation

Mnemonic	Warning sign	Explanation
I	I deation	Has the client expressed desire to kill him/herself, with a method that he/she has access to, or can access (e.g., weapon, pills), or an intention to obtain a method for the purposes killing of him/herself?
S	S ubstance use	Has the client's AOD use changed (i.e., frequency, severity)? Has he/she recently relapsed?
P	P urposelessness	Does the client express a lack of purpose in life, or reason for living?
A	A nger	Does the client express feelings of rage, uncontrolled anger, or revenge-seeking?
T	T rapped	Does the client feel trapped in a terrible situation from which there is no escape?
H	H opelessness	Does the client have a negative sense of self, others, and the future, with little chance of positive change?
W	W ithdrawal	Does the client indicate a desire to withdraw from significant others, or has he/she already begun withdrawing?
A	A nxiety	Does the client feel anxious, agitated, unable to relax, and/or report disturbances in sleep?
R	R ecklessness	Does the client act recklessly without thinking or considering the consequences?
M	M ood changes	Does the client report experiencing dramatic shifts in emotions?

Adapted from Juhnke et al. [344] and Deady et al. [341].

The risk of suicide can increase during times of significant events, stress, upheaval, or trauma. It is likely that warning signs will be more pronounced during such times. These might include [341]:

- Relationship break-up/significant relationship problems.
- Trauma.
- Impending legal event.
- Child custody issues.
- Past history/family history of suicide or suicide attempt, or recent suicide of friend.
- Loss of a loved one.
- Financial crisis, job loss, employment set back.
- Family conflict or breakdown.
- Chronic pain or illness.
- AOD relapse.
- AOD intoxication.
- Recent discharge from treatment service.

Direct warning signs indicate a need for immediate assessment and intervention, and although the presence of indirect warning signs may not indicate acute suicide risk, there is the need for follow-up questions to determine whether suicidality is indicated. This requires a degree of judgement and skill by the AOD worker. Careful elicitation of suicidal ideation does not increase the risk of suicide [338, 339]. When in doubt, it is critically important that workers ask clients directly.

As mentioned previously, it is critical that suicide risk assessment be an ongoing process and not a one-off event. Clients' suicidality may change throughout treatment to reflect the changes in his/her AOD use, mental health, or personal circumstances, and there is a need for AOD workers to monitor and assess for any such changes. Whenever suicide risk is at all suspected, it is essential that AOD workers enquire as to the presence of suicidal thoughts and/or feelings. Regular assessment of suicidality and a therapeutic relationship in which a client feels they can talk openly will help clinicians gather the best possible estimate of suicide risk [345].

Responding to chronic suicidality

An additional challenge for AOD workers is managing and responding to chronic suicidality, which is experienced by some clients, particularly those who have experienced complex trauma [346]. Chronic suicidality may vary in intensity over time, and the difficulty for clinicians is to determine when to intervene. It is important for clinicians to be able to identify and distinguish the differences between acute and chronic suicidality, as chronic suicidality is managed slightly differently [346]. The NHMRC [345] suggests:

- It can be unhelpful, or even escalate behaviour, if chronically suicidal clients are hospitalised or closely observed in attempts to prevent suicide.
- As quality of life improves, intensity of suicidality may lessen. As such, counselling should focus on factors that may improve quality of life.
- People who are at immediate, acute high-risk of suicide are likely to need interventions to ensure their immediate safety (e.g., short-term hospitalisation).

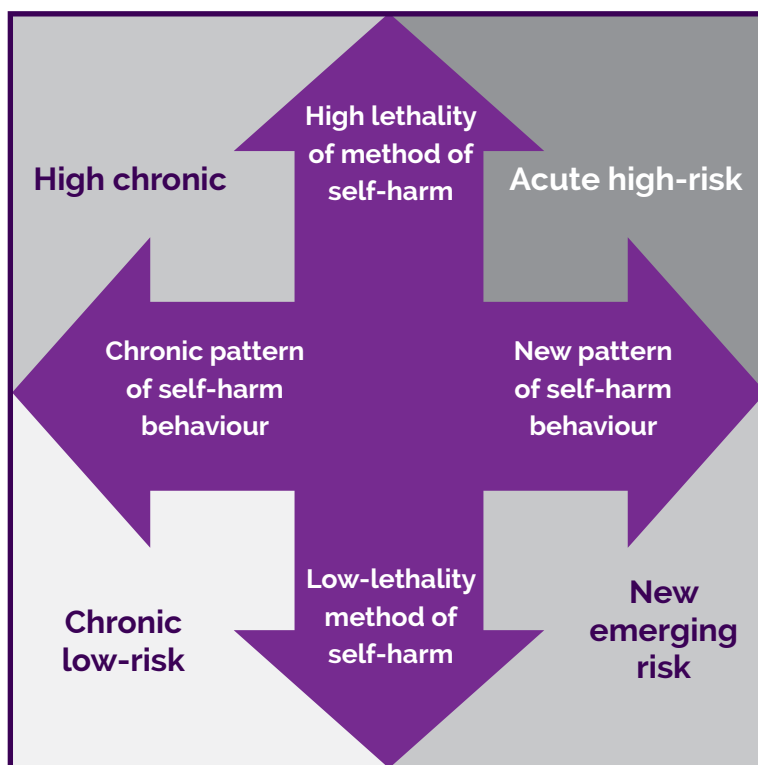
Strategies that might assist workers to determine whether the risk of suicide in a person with chronic suicidality might escalate to becoming acute include [345]:

- Changes in the usual pattern or type of self-harm.
- Significant change in mental state (e.g., sustained and severe depressed mood, worsening of a major depressive episode, severe and prolonged dissociation, appearance of psychotic states).

- Worsening of AOD use disorder.
- Presentation to health services in a highly regressed, uncommunicative, or withdrawn state.
- Recent discharge from psychiatric facility (within last few weeks).
- Recent discharge from psychiatric treatment due to breach of treatment contract.
- Recent adverse life events (e.g., loss of breakdown of significant relationship, legal, employment or financial problems).

Figure 12 provides a guide to help estimate the level of risk in chronically at-risk clients. Changes to levels of risk are indicated by changes in the pattern of risk behaviour (i.e., frequency, type, or severity).

Figure 12: Estimating the probable level of suicide risk



Source: NHMRC [345], adapted from Spectrum: www.spectrum.bpd.com.au

In terms of responding to the differing levels of risk presented in Figure 12 [345]:

- If a client is at chronic low-risk (the bottom left-hand quadrant of Figure 12), they are at relatively low-risk of suicide and workers should focus on factors associated with improving quality of life.
- If a client at chronic low-risk begins to use more lethal methods of self-harm over a longer term, they become at chronic high-risk of suicide (top right-hand quadrant of Figure 12). Hospitalisation at this point will probably not be appropriate, because the chronic high-risk will likely continue beyond the conclusion of hospital admission. Rather, clinicians should focus on improving quality of life and assisting clients to manage issues that are driving their suicidality.
- If a client who has been chronic low-risk begins to demonstrate new symptoms or behaviours (bottom right-hand quadrant of Figure 12), they should be closely assessed, additional risk factors should be assessed, and clinicians should focus on improving quality of life. Hospitalisation is not appropriate unless new behaviours suggest immediate risk of suicide.
- If a client at high chronic risk of suicide begins to demonstrate new symptoms (behavioural or mental health issues that indicate immediate risk of suicide; top right-hand quadrant of Figure 12), the person's immediate safety should be ensured. A brief period of inpatient admission may be indicated, followed by counselling on discharge focused on improvement of quality of life and monitoring suicidality.

Domestic and family violence

AOD use has been associated with both the perpetration and victimisation of domestic and family violence [347-350]. Evidence suggests that up to 80% of women attending AOD treatment have experienced violence [351]. Although domestic and family violence is commonly characterised as males using violence against females, this is not the only form of family violence. Other relationships can experience family violence, including same-sex, non-spousal, and carer relationships, and can involve children [350].

The high prevalence of AOD clients who have experienced domestic and family violence highlights the need for AOD workers to conduct thorough and effective assessments, and respond to the problem. Key factors that have implications for AOD workers are illustrated in Table 25.

Table 25: Key issues in domestic and family violence and implications for AOD workers

Key factor	Significance	Implication for AOD workers
AOD use	Among women in AOD treatment, the relationship between AOD use and family violence is thought to be bi-directional (i.e., AOD use can increase the risk of violence and vice versa) [352, 353].	Attempt to identify power and control strategies employed by those using violence, whilst supporting and preserving the abused person's safety [354].
Gender	In general, women and children are victimised more than men, and men are more likely than women to use violence in relationships. Women are also more likely than men to be injured through family violence, and therefore express fear [351, 355, 356].	Family violence also occurs in non-spousal, same-sex, and carer relationships, and can involve children. Risk assessment is warranted for all clients, which should include exposure to, and use of, violence in relationships [350].
Comorbidity	Not all families with AOD and mental health conditions have family violence, but families with AOD and mental health conditions and family violence are at increased risk of experiencing other problems, such as psychiatric comorbidity, physical health problems, housing and/or employment problems, socioeconomic disadvantage, and social isolation [350].	Responding to AOD and mental health conditions needs to be broad, comprehensive, and involve multiple services in a cohesive, coordinated response (see Chapter B4).

AOD workers should also have an understanding of the dynamics and complexities involved in domestic and family violence, and the reasons why many people remain in violent relationships. These include [357]:

- Fear, arising from the violent person's threats or behaviour, that the person subjected to violence will face further violence, increased danger, or loss of life.
- Fear of stalking or abduction.
- Isolation or rejection from family, friends, and community.
- Loss of home, income, pets and possessions, or having a reduced standard of living.
- Negative impacts on children such as loss of school, friends, community, relationship with parent or family.

- Grief for loss of partnership.
- Feelings of guilt and self-blame.
- Fear of losing children or having children removed.

The strategies listed in Table 26 may be helpful for AOD workers managing clients experiencing domestic or family violence. AOD workers should be familiar with their organisational policies and procedures relating to domestic and family violence, with access to supervision if needed, and knowledge of appropriate referral and clinical pathways. Further information on domestic and family violence and child protection guidelines specific to each Australian jurisdiction can be found via state and territory websites.

Table 26: Dos and don'ts of managing a client experiencing domestic and family violence

Do:

- ✓ Be open, approachable, and trustworthy.
- ✓ Take the client seriously. Tell them you believe them, and emphasise that it is not their fault.
- ✓ Let the client know how much you appreciate how difficult it is to talk about.
- ✓ Seek to build the client's confidence and empower them – it takes courage and strength to survive violence.
- ✓ Let the client dictate the pace, and encourage their progress.
- ✓ Listen to what the client says about what they want, and how they view their level of danger. Most people only reveal a small amount of the abuse they have endured – only they know how much danger they are in.
- ✓ Explore options and choices, including ways of increasing the client's safety – whether they choose to leave the situation or not.

Don't:

- × Undermine the client by making them feel inadequate for not seeking help earlier. Remember he/she may have sought help earlier, or may not have been able to.
- × Patronise or speak down to the client.
- × Give your own opinion, be judgmental, or decide who in the relationship is to blame.
- × Rush the client, or tell them what they should do.
- × Give up or become frustrated if things are taking longer than you think they should. It may be frustrating seeing the client hurt or subjected to violence, but their actions and choices are their decision. They must not sense your frustration.
- × Act as a go-between, provide details to his/her partner, pass on letters or messages, or facilitate contact in any way. This is not only unethical, but places you both in danger.

Adapted from the Stella Project [357].

The background of the slide features a vibrant orange sunburst pattern emanating from the top left corner. Overlaid on this are several large, semi-transparent triangles in varying shades of orange and yellow, creating a geometric, layered effect.

B4: Care coordination

B4: Care coordination

Key Points

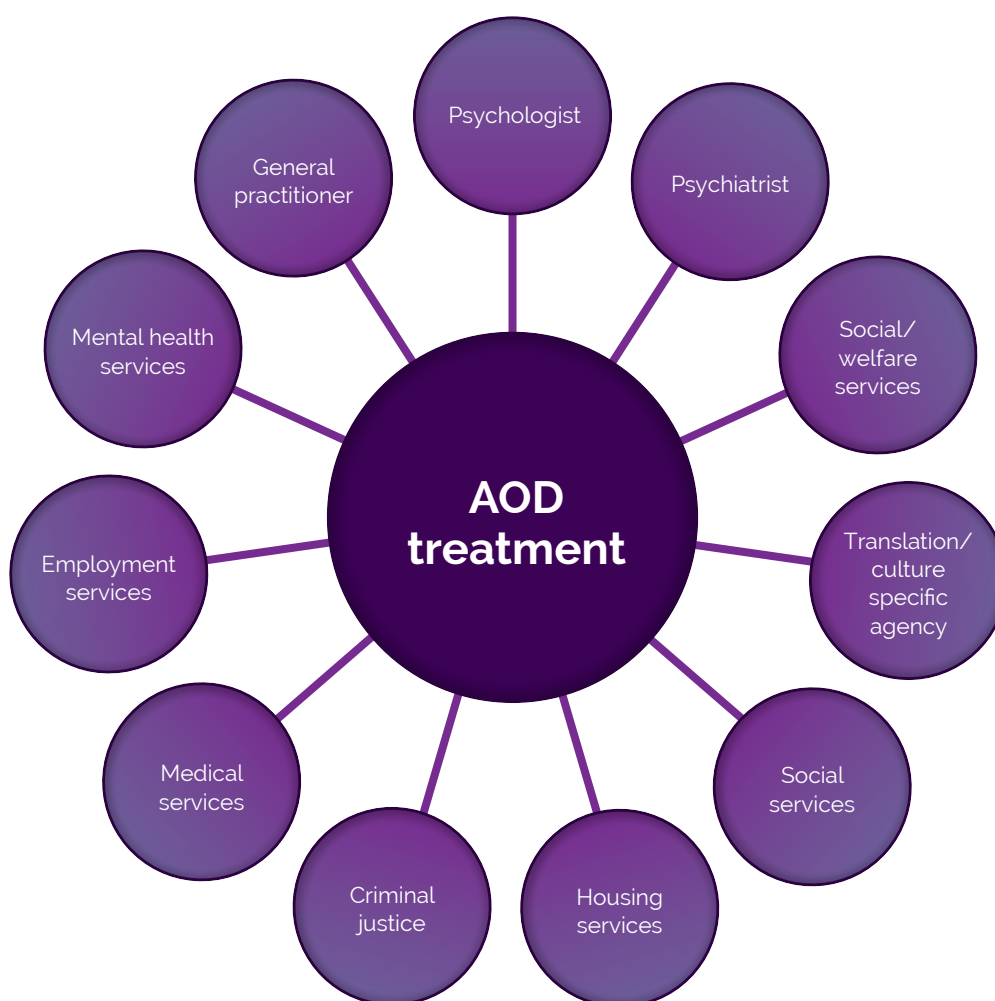
- People with comorbid mental health and AOD use disorders often present to treatment with various issues that need to be addressed during the course of treatment (e.g., physical health, housing, employment, education and training, legal issues, and family situations).
- Evidence has linked coordinated care with improved treatment outcomes. Specifically, the coordination of health responses into a cohesive approach has been found to prolong client retention, increase treatment satisfaction, improve quality of life, and increase the use of community-based services.
- Although coordinated care may be facilitated by a coordinator or case manager, they are not expected to provide all of the necessary services themselves, but rather refer to, and manage the engagement of, appropriate services.
- The principles of coordinated care can be adopted into referrals and discharge practices, with an emphasis placed on the importance of communication, consultation, and interagency support.
- AOD services and AOD workers should develop links with a range of local services and engage them in clients' treatment where appropriate.
- Discharge planning in close consultation with the client is integral to the treatment process.

Care Coordination

There has been increased recognition of the need for a holistic approach to health care, which is better able to incorporate services that reflect a person's need for housing, employment, education, training, community, justice, and other support services in the delivery of appropriate mental health care [358]. As described in Chapters B1 and B2, people with comorbid mental health and AOD use disorders often present to treatment with numerous additional issues that need to be addressed during the course of treatment, including physical health, housing, employment, education and training, legal issues, and family situations. Failing to address these issues as part of treatment may hinder the client's progress in relation to their mental health and AOD use goals [276].

Engaging with other services is best thought of as a consultative process. GPs are of particular importance as, in many cases, they have a prior relationship with the client and they are often the client's only consistent form of contact with the health care system. Most importantly, consultation with other services should be based on the most essential and desired needs of the client. Although some clients may benefit from treatment by mental health professionals, they may not be ready for such treatment and it should not be forced at the risk of alienating them (unless they pose a risk to themselves or others). MI (discussed in Appendix E) can help clients gain willingness to receive treatment but others may not be ready even after such attempts are made. Each client is different and will manage his/her situation differently – the key is to support and guide clients and facilitate treatment and access to services as required. Figure 13 illustrates some of the services that may need to be incorporated into a coordinated approach to clinical care.

Figure 13: Services that AOD workers may need to engage in client care



Coordinated care increases the likelihood that clients will receive specialised assistance where it is needed, and facilitates client engagement in treatment. There is evidence to suggest that care coordination is effective in prolonging client retention, increasing treatment satisfaction, improving quality of life, and increasing the use of community-based services [359]. Treatment retention has been consistently associated with better treatment outcomes among people with AOD use disorders [359].

Evidence suggests that clients place a high degree of importance on interagency cooperation in terms of coordinated care and case management, with higher levels of service integration associated with clients reporting that their needs have been better met [360]. Clients have described the optimal service as one that delivers a coordinated, holistic approach, where staff are aware of the needs of clients and are proactive in following them up, and work with other services to deliver seamless care [360]. Conversely, a lack of coordinated care and service integration can have a negative impact on clients. Distress may arise from the need for clients to continuously retell upsetting stories or rehash details to multiple service providers. Confusion may also result from having a number of different health care workers involved in the care of one person without coordination [360].

Despite the need for integrated service approaches to respond to complex problems, the practical implementation may not be so straight-forward. The primary challenge may lie in structural barriers, service silos, and older models of mental health support, which prevent the effective provision of holistic care [361]. In turn, many people with mental health conditions experience a lack of coordinated care, or service integration, and consequently fall 'between the gaps' [98].

What is coordinated care?

Innovative models of health care are not only focused on providing physical or mental health care, but seek to incorporate services that are reflective of a person's broader needs (e.g., employment, housing, education, training, community, and justice health services) [362]. The actual definition of coordinated care can vary between services, and can include case management, collaborative care, shared care, team coordination, and multidisciplinary care [362]. In practice, coordinated care should involve the coordinated delivery of individual services across multiple sectors, which is perceived as a seamless service system by clients, and results in overall improved client outcomes [360]. Despite differences in terminologies, the core elements remain the same. Figure 14 illustrates the core elements of care coordination.

Although coordinated care is facilitated by an identified coordinator or case manager, they are not expected to provide all of the necessary services themselves, but rather refer to, and manage the engagement of, appropriate services. The challenge for a holistic health care approach to comorbidity is in the active engagement of multiple services and service providers, with a mixture of professional and non-professional support [362]. AOD workers in particular, are in primary positions to coordinate care, and incorporate the many services that reflect the particular needs of clients, to deliver the best quality mental health services. Box 12 illustrates the continuation of case study K, following Sarah's story as one community mental health nurse attempts to coordinate her physical and mental health care.

Figure 14: Core elements of a coordinated care



Adapted from McDonald et al. [363], Ehrlich et al. [364], Brown et al. [365], NSW Mental Health Coordinating Council [366].

Box 12: Case study K: Managing comorbid physical, mental, and AOD use disorders: Sarah's story continued

Case study K: Managing comorbid physical, mental, and AOD use disorders: Sarah's story continued

On assessment, it was evident that Sarah had a range of unmet health needs. The community mental health nurse liaised with Sarah's GP and organised a number of physical health exams and screening measures (including an electrocardiogram to assess for any potential side effects related to the use of antipsychotics or identify any cardiac problems, as well as cervical screening, mammography, and blood tests). The community mental health nurse arranged to meet Sarah at her home on the day of the various tests and investigations, to ensure that she kept these appointments, and met Sarah on the day she had an appointment with her GP to discuss the results.

Over the course of the next few months, Sarah's community mental health nurse attempted to coordinate the care between Sarah and her GP, ensuring Sarah remained in contact with her GP and attended follow-up appointments. The nurse also encouraged Sarah to attend an exercise class at her local fitness centre, and the GP made a referral to a dietician, who provided Sarah with nutritional advice

Box 12: Case study K continued: Managing comorbid physical, mental, and AOD use disorders: Sarah's story (continued)

and developed a healthy eating plan. The GP worked out a smoking cessation program for Sarah, part of which involved NRT.

The physical health assessments revealed the presence of a long-term sexually transmitted infection, for which Sarah was treated. She told the nurse that during periods of AOD use, or in periods when her mood was 'high', she'd had unprotected sex, and felt guilty and ashamed by her sexual activity. Although Sarah's physical health needs were being addressed, she and the nurse developed a long-term plan for following up appointments and repeating various physical health assessments (e.g., weight and blood pressure) at regular intervals. The nurse copied Sarah's notes to the other agencies involved in her care. One central continuing need was for Sarah to have assertive support and follow-up (including her notes being passed on in the case of another move), and the acknowledgement that without this support, there was the possibility for Sarah to 'drift on', and stop attending appointments. Sarah's nurse reminded her of her health care appointments via text message.

Key points:

- There is a need for AOD workers to place more emphasis on physical health as a priority (bearing in mind the years of life lost in this population).
- Once the health needs of clients are recognised, holistic health care interventions such as physical activity, smoking cessation, healthy eating, and healthy sleep patterns can follow. The importance of compliance with physical health medications (e.g., blood pressure and diabetes medications) should also be emphasised.
- Many clients may require more assertive follow-up, including long-term practical support (e.g., phone or text reminders, or someone to accompany the client to appointments).
- Communication between AOD workers, mental health services, and GPs is essential.

Barriers to effective coordinated care

Despite the need for holistic approaches to complex problems, there are several practical barriers that prevent effective care coordination between services. These include structural barriers, lack of clear communication and competition between traditionally separate services, all of which make collaboration difficult.

With coordinated approaches requiring the involvement of services and service providers in working partnerships, there is the potential for a lack of clarity regarding roles and responsibilities of different stakeholders [367], making communication between services even more important. Further, the nature of competitive tendering arrangements between services to determine government funding, and focus on occupied bed days, creates tension and competition between agencies who must work together to provide collaborative health care [362]. For some services, this working environment may foster creativity; others may find their collaborative efforts stifled, and the associated difficulties overwhelming [362].

An additional barrier that may prevent effective collaboration between services is the lack of an existing model to follow. Some common principles that can be incorporated into care coordination include [368]:

- Cross-disciplinary training and involvement of external service providers in case review meetings.
- Communication between services and service providers.
- Shared respect for the client and their health needs, and a common work culture that incorporates collaboration as a key aim.
- Recognition that co-location alone does not result in effective service coordination or increase communication.
- Recognition of barriers to referral pathways, which include staff turnover, client confidentiality, and competition between services and service providers, which in turn requires dedication and commitment to overcome.

Referrals

Some circumstances may necessitate the consideration of referring a client to other clinicians or services. This may be to obtain additional services, or because the clinician feels that the client requires responses that are beyond their own level of skills and expertise [276]. As mentioned in Chapter A3, it is vital that AOD workers can appreciate their level of expertise and training but also have the ability to recognise their own limits and work within their own capacity. Referring a client to a more suitable clinician is an ethical practice that ensures appropriate treatment needs will be met, and requesting supervisor support can be useful in this process [276].

Where possible, however, clients should be retained in AOD treatment whilst accessing other services, rather than excluded from AOD services and referred to others. For example, a client entering residential rehabilitation who has been identified as having a bipolar disorder may be retained in AOD treatment, but it may be useful to obtain a short appointment with a psychiatrist who can undertake an assessment, provide a diagnosis, and prescribe medications; the client's condition can then be managed while he/she is in the residential service. Increasingly, a number of employment, welfare, and medical services are providing consultation times within AOD services to facilitate client access to these services.

In some cases, however, it may be necessary to refer clients to external services. For example, in cases of acute psychosis and suicidality, it may be necessary to contact the local mental health crisis assessment and treatment service to come and assess the client for admission to appropriate mental health services. AOD workers should be aware that in instances where the client needs to leave the AOD treatment setting to have more immediate needs met prior to addressing their AOD use (e.g., acute mental health or medical issues), their relationship with the client should not cease. The client will still require AOD treatment after these issues have been addressed and it is important to follow-up with the client and referral agency regarding the provision of this treatment.

One of the biggest risks in the referral of clients to external services is the potential for clients to 'fall through the gaps' and disappear from treatment altogether. People with comorbid conditions in particular often have difficulty navigating their way through the available services. The act of trying to navigate the health care system has been likened to a roundabout with many points of entry and many options regarding the direction to be taken [80]. Therefore, it is crucial that the referral process focuses on linking the client with services as smoothly as possible. This may be assisted by the development of formal links between services regarding consultation, referral pathways, and collaboration, such as a memorandum of understanding.

Where referral is non-urgent (e.g., they do not require urgent medical or psychiatric attention), the referral process may be passive, facilitated, or active (see Table 27). In the case of clients with comorbid conditions, active referral is recommended over passive or facilitated referral. When referring a client to an outside service, it is crucial that AOD workers consult with the referral agency to determine whether the client kept the appointment, whether assistance was provided and what progress was made. This process of assertive follow-up is particularly crucial in cases where the referral is related to a high-risk situation (e.g., suicidal intent).

With clients' permission, families and carers should be involved in the referral process wherever possible, as they will often need to facilitate clients' access to other services. Families and carers should also be informed of services available to them in the form of advocacy and support groups.

Table 27: Referral processes

Passive referral
Passive referral occurs when the client is given the details of the referral agency in order to make his/her own appointment. This method is almost never suitable for clients with comorbidity.
Facilitated referral
Facilitated referral occurs when the client is helped to access the other service; for example, with the client's permission, the worker makes an appointment with the other service on his/her behalf.
Active referral
Active referral occurs when the worker telephones the other agency in the presence of the client and an appointment is made. The worker, with the client's consent, provides information that has been collected about the client with his/her professional assessment of the client's needs. Such referral is necessary when clients are unmotivated, unlikely, or unable to do so themselves. This method of referral is recommended for clients with comorbidity.

Adapted from Clemens et al. [369] and Rastegar [370].

Communicating with other services

Good communication and sharing information between all health professionals involved in the care of people with comorbid conditions is essential to adequate care. Ensure that:

- You obtain the client's consent before sharing any information.
- The client is kept informed during this process.
- Confidentiality is maintained (e.g., obtain client's written permission for release of case notes and avoid faxing confidential information).

When consulting with or referring clients to other services, assessment reports are often requested by those services. When writing an assessment report for an external party the following should be considered [276]:

- Include only relevant and important information, including reasons for referral.
- Write in a clear, simple, and objective writing style.
- Include mental state examination report if necessary.
- Be concise.
- Always cite the source of the information. For example, 'Andrew stated that...; his parents revealed that...'
- Consider all sources of information in your conclusions.
- Avoid jargon.
- Eliminate any ambiguous, biased, or judgemental wording.
- Mark all reports 'STRICTLY CONFIDENTIAL'.
- Avoid faxing confidential information.

A pro forma which may be useful in the referral process is included in Appendix S.

In an attempt to increase communication, teamwork, and safety, a model of standardised communication has been introduced in various healthcare settings, modelled on aviation approaches to standardised safety processes [371]. The model, ISBAR, is a standardised cross-professional tool for enhancing communication, organised in a clear and concise format (see Figure 15) [372]. Although commonly used in clinical handover, ISBAR may also be useful in referral and discharge, with clinicians communicating with other services and agencies about client care.

Figure 15: ISBAR model of effective communication



Adapted from Scotten et al. [373] and SA Health [374].

South Australia Health has developed an ISBAR toolkit to assist with the safe transfer and handover of client information in handover and discharge. They recommend that ISBAR be adapted for use to fit within each clinical practice, and is an opportunity for different health care teams to determine which client information is always handed over and discussed as routine practice [374].

Some examples of how to modify ISBAR to your clinical practice include [374]:

- **Identify**: Include client's medical record number if available, their full name and date of birth
- **Situation**: What was the reason for the client's initial presentation? What is their diagnosis? Are they on current pharmacotherapy? What other treatments have they had, and when?
- **Background**: Include relevant previous history (e.g., homeless, unemployed, living with abusive ex-partner).
- **Assessment**: When was their last clinical assessment/investigation? What do you think they may be at risk for?
- **Recommendation**: Actions required after handover/discharge.

The NSW Ministry of Health have made ISBAR a mandatory component of referring patients to hospital drug and alcohol clinical liaison services [375], and have developed an ISBAR app which is available for free download on the iTunes and Android app stores.

Communicating with the client about referral

Referral to other services should involve openness with the client regarding the reasons for referral. To assist the client in attending a referral appointment, it can be useful to discuss issues such as:

- Name, phone number, and address of the referral service.
- Directions and transportation to and from the service appointment.
- What the client can expect upon arrival at the service, along with the nature, purpose and value of the referral.
- Written material about the service (if available).
- A method of contacting the AOD worker.
- Any other concerns the client has about the referral.

Continue to provide support to the client until an appointment with the new clinician or agency has been arranged [276].

Discharge planning

It is important to prepare clients ahead of time for the cessation of treatment. This is known as the process of discharge planning, and is focused on equipping the client with the skills and contacts to continue the positive progress of treatment and avoid relapse. It is important to involve clients in their discharge planning and make them fully aware of their options [169]. It is useful to arrange or plan follow-up consultations to monitor how well the client is maintaining the progress made during therapy; however, a client has the right to refuse further follow-up; if this occurs, note the refusal in the client's record and avoid judgemental reactions [169].

Attempt to link the client with further treatment or support and provide emergency assistance numbers. Communicate with relevant service providers where necessary as outlined above. As with all other steps in the treatment process, the discharge plan should be documented in the client's record. Research has indicated that the increasing number of health workers involved in managing complex clients creates challenges for maintaining effective communication between all involved [376]. The likelihood of an adverse event is increased when clients are frequently handed over, transferred or discharged, making the importance of effective communication and accurate case notes even more vital [377]. Challenges for busy health care staff include [378]:

- Multitasking.
- Shift changes.
- Gaps in information transfer.
- Interruptions.
- Previous handover lacks detail or was inconsistent.

It is also important to consider such aspects as stability of accommodation and social support when planning for discharge and, with the client's consent, to involve family and carers as they will play an important role in maintaining treatment outcomes [276, 379]. It is useful to discuss relapse prevention and other strategies (e.g., problem solving, goal setting, and relaxation) with the client during discharge planning and provide the client with skills to manage high-risk situations, lapses and symptoms of mental health conditions that may occur. Chapter B5 provides useful information regarding relapse prevention, support and self-help groups, and other management techniques that clients may benefit from. Appendices T and U provide useful CBT and anxiety management strategies.



B5: Approaches to comorbidity

B5:

Approaches to comorbidity

Key Points

- Four models of care have been identified in the treatment of comorbidity: sequential treatment, parallel treatment, integrated treatment, and stepped care.
- Integrated treatment presents a number of advantages over other treatment approaches; however, there is limited evidence to suggest that any one model is better than another.
- Both psychological and pharmacological interventions have been found to have some benefit in the treatment of many comorbidities.
- When pharmacotherapy is used, this should be accompanied by supportive psychosocial interventions.

This chapter aims to provide AOD workers with an overview of models of care and approaches that are commonly used in the treatment of both AOD and mental health disorders. In Chapter B6 we discuss the evidence regarding the efficacy of these approaches in relation to the management and treatment of specific comorbid mental disorders.

Models of care

Prior to discussing specific treatment options, mention needs to be made of the various models that have been proposed to treat comorbid conditions. Four approaches have been suggested (see Table 28):

- Sequential treatment.
- Parallel treatment.
- Integrated treatment.
- Stepped care.

There has been much discussion of models of care for clients with comorbid conditions, but very little research is available to determine which models may suit which comorbidities. AOD workers need to make pragmatic decisions as to which model is most appropriate for individual clients.

The idea of integrated treatment for two disorders has considerable intuitive appeal, and presents a number of advantages over other treatment approaches. Integrated treatment by a single service helps to ensure that there is a single point of contact (the client does not ‘fall through the gaps’), there are common objectives, treatment is internally consistent, the relationship between AOD use and mental health conditions may be explored, and communication problems between agencies do not interfere with treatment [32].

While applying an integrated treatment approach to comorbidity is appealing, there has been very little research undertaken comparing the different models [380]. Many studies examining the efficacy of integrated treatments compare them with a ‘treatment as usual’ control group, so these designs cannot establish the efficacy of integrated treatment relative to parallel or sequential treatment. However, there is some emerging evidence to suggest that integrated treatments may be superior to parallel or sequential treatments in terms of improving outcomes for mental health and substance use [381-384]. There is also growing support for the use of a stepped care approach to treating comorbidity [385-387].

Table 28: Approaches to treating comorbid AOD and mental health conditions

Sequential treatment
The client is treated for one condition first which is followed by treatment for the other condition. With this model, the AOD use is typically addressed first then the mental health problem, but in some cases it may be whichever disorder is considered to be primary (i.e., which came first).
Parallel treatment
Both the client’s AOD use and mental health condition are treated simultaneously but the treatments are provided independent of each other. Treatment for AOD use is provided by one treatment provider or service, while the mental health condition is treated by another provider or service.
Integrated treatment
Both the client’s AOD use and mental health condition are treated simultaneously by the same treatment provider or service. This approach allows for the exploration of the relationship between the person’s AOD use and his/her mental health condition.
Stepped care
Stepped care means the flexible matching of treatment intensity with case severity. The least intensive and expensive treatment is initially used and a more intensive or different form of treatment is offered only when the less intensive form has been insufficient.

Approaches to comorbidity

This section provides a brief introduction to different approaches to the treatment of comorbid AOD use and mental health disorders. It does not attempt to provide detailed information relating to the implementation of these approaches, but rather, an overview of the options available. Where appropriate, readers are referred to existing literature and resources for more detail about the use of particular interventions.

AOD workers are likely familiar with traditional psychological and pharmacological approaches to the treatment of comorbidity. Other approaches include self-help groups, e-health interventions, physical activity, and complementary and alternative therapies. It is essential to consider the whole person and accept that one approach is not necessarily going to work for all clients. Different clients present with unique biological, psychological, and sociodemographic backgrounds and it is important to take these factors into consideration when deciding on an approach, or combination of approaches, with the client.

Psychological approaches

There are a number of psychological treatment approaches that are commonly used in the treatment of many mental health disorders [94]. These approaches include:

- Motivational interviewing (MI).
- Cognitive behavioural therapy (CBT).
- Dialectical behavioural therapy (DBT).
- Relapse prevention.
- Mindfulness.
- Contingency management.
- Psychosocial group therapy.

Many AOD workers would be familiar with these approaches as they are also used in the treatment of AOD use disorders. In some cases, it may be necessary for a substantial reduction in AOD use and withdrawal symptoms to occur before more intensive psychotherapies can be effective. Some clients may be more able to respond to cognitive interventions if they are taking pharmacotherapies for their AOD use which free them from distracting cravings and physiological withdrawal symptoms (e.g., acamprosate or naltrexone for alcohol use disorders).

Motivational interviewing (MI)

MI for AOD use disorders involves a non-judgemental collaborative discussion, which explores specific medical, social, interpersonal, or psychiatric effects that AOD use has had on the client's life. Just as clients may be resistant to the idea of changing their AOD use, they may also be resistant to the notion of addressing their comorbid mental health disorder (see Chapter B2 for a discussion of readiness to change). MI may be used to increase the client's motivation in this regard [388].

MI is a directive, client-centred counselling process aimed at increasing a person's motivation and commitment to change [389]. The strategy involves a non-confrontational conversation seeking out the ambivalence in the client's attitudes that can be used as encouragement for him/her to think about further change. For example, a client may say he/she is not really interested in dealing with his/her social anxiety, but agree that it is a problem. Probing around this 'problem' and exploring ambivalence may lead to the client contemplating further ways to address the problem. The strategy is to use available openings to help the client advance towards a decision to have his/her mental health condition treated. Examples of MI strategies and techniques are provided in Appendix E, along with a number of useful resources for MI.

An MI strategy assumes equity in the client-AOD worker relationship and emphasises a client's right to define his/her problems and choose his/her own solutions. It is, in this sense, a counselling style (as opposed to a set of techniques) based on collaboration rather than confrontation, evocation rather than education, and autonomy instead of authority [388, 389].

Cognitive behavioural therapy (CBT)

CBT emphasises the important role of thinking in how we feel and how we behave. There is considerable evidence supporting the use of CBT for the treatment of depressive, anxiety, and AOD use disorders [263, 390-392]. Appendix T describes a number of CBT techniques that may be used in the management and treatment of AOD use and mental health conditions, including cognitive restructuring, pleasure and mastery events scheduling, goal setting, and problem solving. A more detailed discussion of CBT may also be found in Baker and colleagues [393] and Graham [394]. A number of the interventions designed for specific comorbid disorders, such as *Seeking Safety* (for PTSD and substance use [395]) and *Dual Focus Schema Therapy* (for personality disorders and AOD use [396]), are in part based on these CBT techniques. Interventions for specific comorbidities are discussed in more detail in Chapter B6.

Dialectical behavioural therapy (DBT)

DBT combines behaviour-change strategies from CBT and acceptance strategies from Zen philosophy into an approach that focuses on client validation and behavioural change [397]. Originally developed for the treatment of adults with BPD who were also chronically suicidal, DBT has become the 'gold standard' evidence-based treatment for both BPD and suicidality [398]. Strategies to address changes in behaviour consist of behavioural analyses, skills training, contingency management, cognitive restructuring, and exposure-based strategies to reduce avoidance. Acceptance strategies include mindfulness and validation. DBT has been found to be efficacious in treating personality disorders (including those comorbid with AOD use) [399], and there is emerging research supporting its use for ED that are comorbid with AOD use disorders [400] (see Chapter B6).

Relapse prevention

Clients with both mental health conditions and AOD use disorders can potentially experience a relapse of either condition, which is likely to worsen the symptoms of the other. Even after full remission, clients with co-occurring conditions are vulnerable to relapse due to various risk factors, including exacerbation of mental health symptoms, a lack of social support, social pressures within neighbourhoods or AOD-using networks, a lack of meaningful activity, or a lack of treatments for co-occurring mental health and AOD use disorders [401].

Relapse prevention strategies that are already used in AOD treatment can also be used to reduce risk of relapse of the mental health condition. Some simple strategies that can be useful in helping a client reduce the risk of relapse include [299, 401-403]:

- Discuss and normalise the issue of relapse in therapy – this helps the client prepare and self-monitor.
- Enhance the client's commitment to change – regularly review costs of use and benefits of change in order to strengthen commitment.
- Explain that lapses are a temporary setback and that they do not need to lead to relapse. Feelings of shame, failure, and guilt are likely to follow single lapses in AOD conditions, which is likely to be detrimental to mental health. This presents the risk of complete relapse. To avoid this, it can be useful to normalise lapses and explore the events that lead to a lapse, and how this could be avoided.
- Encourage the client to practise and use any of the strategies he/she has learnt about managing his/her mental health condition.

- Identify and plan for high-risk situations – this includes emotions, thoughts, places, events, and people which are likely to make the client vulnerable to mental distress or substance use; plan ahead to anticipate these situations, monitor warning signs, and develop coping strategies to deal with them.
- Consider social factors and support – relapse is more likely when social factors are difficult and support levels are low. Support the client in making changes in his/her life to develop healthy and protective environments. It can be useful to discuss this with the client and plan for any foreseeable issues (e.g., housing, family, relationship). It may be useful to provide the client with information on services and organisations that can assist in such situations.

Mindfulness training

Clients with AOD use disorders often have thoughts about using or cravings to use. These thoughts are often automatic and tend to escalate when the client becomes aware of them. Similarly, clients who experience depression or anxiety may find that these negative or anxiety-provoking thoughts automatically occur and give rise to further negative or anxiety-provoking thoughts. For clients with comorbidity, this automatic thinking may result in a cycle of negative thoughts and cravings to use.

Mindfulness is a meditative technique that encourages the person to pay attention in the present moment, without judgement, rather than allowing the mind to wander automatically (often to negative thinking) [404, 405]. Regular practice of mindfulness allows an individual to develop the capacity to interrupt automatic thought patterns, and be accepting, open, and curious of that experience [406]. Although mindfulness can be a useful practice for everyone, it can be particularly helpful for people with comorbid AOD and mental health disorders by assisting with the development of greater awareness of automatic thinking patterns which can often maintain the mental-health-AOD-use cycle [98]. There is evidence of the efficacy of mindfulness in the treatment of mental health disorders [407, 408], and in assisting with relapse prevention in AOD use [409].

In general, mindfulness practices involve deliberately focusing on the physical sensations associated with routine activities that are carried out automatically (e.g., walking, eating, and breathing). Mindfulness-based stress reduction and mindfulness-based cognitive therapy are two specific group therapies based on mindfulness techniques [410]. For a more detailed discussion of mindfulness, readers are referred to Segal and colleagues [404].

Contingency management

Contingency management for people with AOD use disorders involves rewarding or reinforcing desired behaviour in the client in a supportive manner [411]. Examples are vouchers for negative urine samples, for treatment attendance, or for medication compliance. There is evidence that contingency management techniques can be used successfully to treat problematic AOD use [412-417]. Studies have also found contingency management to be effective in promoting cocaine and opiate abstinence amongst buprenorphine-maintained clients with comorbid major depression [418], in promoting abstinence in a cocaine-abusing, comorbid homeless group [419], and in reducing substance use and psychiatric symptoms in stimulant users with serious mental illness [420].

Psychosocial group therapy

Psychosocial groups within the AOD treatment setting are also much appreciated by clients with comorbid conditions [421]. Evidence suggests that clients who attend groups consistently and for a longer time period achieve the best results (e.g., for a year), although positive outcomes can nonetheless be achieved by attending shorter-term groups [422]. It is important that such groups are facilitated in such a way as to avoid confrontation. Sustained emotional distress can worsen a number of mental health conditions and a confrontational treatment approach may be harmful to clients with comorbidity [54]. It is important to assess

whether the client experiences social anxiety or impairments in social judgement and social skills, as they may appear and feel awkward in group settings [422]. Readers are referred to Mueser and Pierce [422] for a more detailed discussion on the use of group interventions for comorbid disorders.

Pharmacological approaches

The use of pharmacotherapies is common practice in the treatment of both AOD use and mental health disorders. It is recommended, however, that when pharmacotherapy is used, this should be accompanied by supportive psychosocial interventions [423, 424]. Symptoms are less likely to return on completion of psychological treatment compared to pharmacotherapy, where relapse upon cessation is common [425]. Pharmacotherapies are beneficial, however, in helping people to manage symptoms and obtain maximum benefit from psychotherapeutic interventions.

The introduction of pharmacotherapies must be carried out in consultation with a medical practitioner, preferably a psychiatrist. Initial intake should establish past medication history as well as any current medications (see Chapter B2). When prescribing medications, the following should be taken into account:

- Possible interaction effects with other prescribed and non-prescribed substances.
- The possible presence of medical problems such as liver dysfunction related to long-term AOD use or hepatitis.
- The abuse potential of the medication being prescribed.

If clients are placed on medication, it is important that they understand the reason for the medication being prescribed, and the likely benefits and risks as well as its interactions with AOD. Clients should also be made aware of the possibility of delayed responses to the medication, potential side effects, as well as the possibility of trying other medications if the one prescribed does not suit them.

Medication adherence

Many clients who have been identified as having a comorbid mental health disorder will have been prescribed medication for that disorder (such as antidepressants, mood stabilisers, anti-anxiety agents, and antipsychotics). Medications can be extremely helpful in managing mental health symptoms; however, some people experience unpleasant and distressing side effects from these medications which may lead to reduced compliance. Indeed, some people with a mental health disorder choose to live with some symptoms of the disorder rather than take medication [426].

It is important for clients to be aware that in most instances there is a choice of medication but it may take time to establish which medication is best suited to his/her needs. Finding the best fit is particularly important for individuals with severe mental disorders such as psychotic, bipolar, and severe depressive disorders, as psychosocial interventions alone can prove ineffective.

When medications have been prescribed, it is important to assist the client to adhere to medication scheduling. In other illnesses such as diabetes and hypertension, medication compliance is recognised as an important issue in regaining good health and it is addressed proactively by the use of simple techniques to remind the client when he/she needs to take medication.

MI, contingency management and cognitive behavioural techniques have been shown to be particularly useful in improving medication compliance [427]. The SIMPLE model [428] is a useful tool for remembering different evidence-based interventions that can enhance medication adherence:

S

Simplifying regimen characteristics. Adjust timing, frequency, and dosage. Match regime to client's daily activities (e.g., meal times). Use adherence aids (e.g., pill boxes, alarms).

I

Imparting knowledge. Clearly discuss the medication with the client using simple everyday language. Don't overwhelm the client with information or instructions. Supplement verbal information with written materials or pamphlets.

M

Modifying patient beliefs. Assess the client's beliefs, intentions, and perceived ability to adhere to the medication regime. Encourage this behaviour change by ensuring that the client perceives their condition to be serious, believes in the positive effects of the treatment, perceives themselves to have the skills required to stick to the medication regime, and has channels to express fears or concerns.

P

Patient and family communication. Include the client in decisions about treatment. Send reminders via mail, e-mail, or telephone. Actively listen to the client and avoid interrupting them. Involve family or social networks where appropriate.

L

Leaving the bias. Studies have found small or no relationships between medication adherence and race, sex, education, intelligence, marital status, occupation, income, and ethnic or cultural background.

E

Evaluating adherence. Ask the patient simply and directly, without judgement, about their medication adherence. Pill counting or measuring serum or urine drug levels can also be used.

Adapted from Atreja et al. [428].

Medication interactions

It is important for AOD workers to be aware of the complex and dynamic relationship between AOD use, mental health disorders, and prescribed psychiatric medication. During the assessment phase, workers should explore the influence of medication on AOD use and vice versa, as well as the influence of AOD use on mental health symptoms. This clarification will contribute to a comprehensive management and treatment plan, with appropriate goals [276].

AOD workers should also be aware of the potential interactions between AOD use and prescribed medications. Table 29 provides some of the interactions between AOD and prescription medication, but this list is not exhaustive. AOD workers should also note that polydrug use is common among AOD clients, and it may be difficult to clarify potential drug interactions [429]. Similarly, many drugs are composed of many substances (e.g., amphetamines), which makes the potential for interaction difficult to assess [277].

Although Table 29 does not provide a comprehensive list of potential AOD and medication interactions, AOD workers need to be aware of the ways in which AOD use and prescribed medication can affect each other. For example, the selective serotonin reuptake inhibitors (SSRIs) fluoxetine and fluvoxamine have been shown to affect the metabolism of methadone and buprenorphine, with the discontinuation of fluvoxamine associated with opiate withdrawal [430]. In cases where this is unexpected, it is possible that the client may engage in other AOD use (or decrease treatment compliance) to cope with withdrawal symptoms, highlighting the need for worker awareness of the potential for such interactions. Similarly, central nervous system depressants not only increase the potential for overdose and respiratory depression when taken with each other (e.g., benzodiazepines, alcohol, opiates), but also increase the risk of overdose when taken with medication [429].

Table 29: Drug and medication interactions

Drug type	Potential medication interaction	Implications
Depressants		
Central nervous system depressants <ul style="list-style-type: none"> Alcohol Benzodiazepines Opiates Antipsychotics 	TCAs MAOIs SSRIs	The likelihood of overdose is significantly increased. The sedative effects of benzodiazepines are increased with concurrent use of alcohol. Possibility of reduced effects of prescribed medications.
Alcohol intoxication or withdrawal	Lithium carbonate	Potential for electrolyte imbalances. Potential for lithium toxicity for those with bipolar disorder.
Benzodiazepine or alcohol withdrawal	Antipsychotics Antidepressants	Lowered seizure threshold with increased potential for seizures.
Stimulants		
Stimulants (e.g., amphetamines, tobacco, caffeine, cocaine, ecstasy)	MAOIs	Can lead to hypertension (high blood pressure) crisis.
Stimulants	Antidepressants	Effects can be inhibited.
Ecstasy	Antidepressants	Linked to high levels of serotonin, associated with hallucinations, mania, hypertension, nausea, muscle rigidity, tremor (serotonin syndrome).
Cannabinoids		
Cannabinoids	Antipsychotics	Increases intensity and frequency of psychosis.
Cannabis	TCAs Benzodiazepines	Increases the sedative effects.
Cannabis	Newer (atypical) antidepressants	Can cause symptoms of mania, confusion, and psychosis.

TCAs = tricyclic antidepressants; MAOIs = monoamine oxidase inhibitors; SSRIs = selective serotonin reuptake inhibitors. Adapted from NSW Department of Health [277].

As such, when managing and treating clients with comorbid AOD and mental health conditions, AOD workers need to take into account the level and type of AOD used (especially alcohol), as these may [431]:

- Alter the metabolism of prescribed medication.
- Decrease the effectiveness and/or increase the potential for side effects.
- Warn the client about potential interactions between substances of misuse and prescribed medication.
- Discuss the problems and potential dangers of using non-prescribed AOD to counteract the effects or side effects of prescribed medication.

Self-help groups

Reviews in the research literature suggest that some clients of AOD services will benefit from joining a self-help group such as Alcoholics Anonymous, Narcotics Anonymous, SMART Recovery, or alternative self-help groups [424, 432]. 'Dual diagnosis' support groups are also an option, specifically for people with co-occurring mental health and AOD use disorders [433, 434]. It is possible that one group may not suit the client but the next will – even in the same type of self-help group.

As mentioned with regard to psychosocial groups, it is important to assess whether the client experiences social anxiety or impairments in social judgement and social skills, as they may appear and feel awkward in group settings [422]. It should be noted that some groups, particularly those that adopt a 12-step philosophy, may be disapproving of the use of any medication; yet clients with comorbid mental health disorders are often prescribed medication to help treat their mental health condition [432]. Some clients with comorbidity, particularly those who experience religious delusions, may also have difficulty with the strong spiritual focus of many self-help groups [422]. As with other psychosocial groups, there is evidence that longer attendance at self-help groups has a positive impact on outcome, as does social support, with clients who have higher levels of social support achieving better outcomes [435].

E-health interventions

E-health is the provision of health services and/or information via the Internet or associated technologies [98]. Since its relatively recent appearance, it has been referred to as one of the most important revolutionary additions to modern healthcare [436]. E-health interventions provide the opportunity to overcome traditional barriers to treatment that often prevent people seeking help, including social or cultural prejudices, stigma, difficulties accessing services, finding appropriate available services, as well as financial and geographical barriers [437-439]. E-health interventions have the capacity to overcome difficulties associated with face-to-face treatment, including gender differences [440], the inclusion of more marginalised socioeconomic and cultural groups [441], and reducing the costs and increasing the standardisation of traditional treatments [438, 442].

Advances in technology over the past decade have enabled e-health interventions to include strategies such as self-monitoring and assessment, psychoeducation, goal setting, skill building, and feedback through the use of telephone and videoconferencing, mobile phones, sensors, social media, virtual reality, and gaming [443]. E-health interventions can also be used to supplement psychotherapy, or as an alternative for people who do not want, or are not suitable for pharmacotherapy [444]. Therapy can be conducted at home, and has 24-hour availability. Research has demonstrated that e-health interventions allow for the delivery of clinically effective, cost effective treatment, based on gold standard programs, which are highly engaging [445-449]. A number of e-health interventions have been developed for AOD and specific mental health disorders. These are described in Chapter B6.

Physical activity

As discussed in Chapter B1, people with AOD use disorders are at increased risk of physical health problems, such as cardiovascular, respiratory, metabolic, and neurological diseases [450, 451], which have all been associated with unhealthy lifestyles (e.g., smoking, obesity, lack of exercise, poor diet) [452]. As such, treatment interventions that are either based on nutrition, or exercise, or include these as adjunctive interventions, are promising approaches for addressing physical comorbidities [453]. Research has found that people with psychiatric conditions who engaged in regular exercise, report better health-related quality of life [454].

General population studies have also found significant relationships between mental health and physical activity, with regular exercise significantly associated with decreased prevalence of major depression,

panic disorder, agoraphobia, social anxiety, specific phobia, and AOD use disorders [455-457]. People who engaged in regular physical activity were more likely to experience symptom improvement over a three-year follow-up study [457].

Although the mechanisms of action are not entirely clear, research findings indicate that exercise induces changes in neurotransmitters (e.g., serotonin and endorphins) [458, 459] which relate to mood, and can improve reactions to stress [460, 461]. Exercise has also been associated with several psychological benefits, including changes to body and health attitudes and behaviours, social reinforcement, distraction, and improved coping and control strategies [213, 462]. A number of physical health interventions for AOD and specific mental health disorders are described in Chapter B6.

Complementary and alternative therapies

Complementary and alternative therapies are practices and products that are traditionally outside the realm of conventional medicine, but are more natural and economical than traditional pharmacotherapy, sometimes with fewer side effects [463]. They include yoga, dietary and nutritional supplements, and herbal remedies. Research has indicated that there has been an increase in the use of complementary and alternative therapies, particularly among people seeking to treat their depression or anxiety, often in combination with conventional medication [464]. It is beyond the scope of these Guidelines to provide an extensive and comprehensive list of available alternative and complementary therapies; however, attention is drawn to some promising interventions for which there is emerging evidence (see Chapter B6).



B6: Managing and treating specific disorders

B6: Managing and treating specific disorders

Key Points

- Symptoms of comorbid mental health conditions can be managed and controlled while the client undergoes AOD treatment.
- Good treatment requires a good therapeutic alliance.
- Motivational enhancement, simple CBT-based strategies, relaxation and grounding techniques can be useful in managing AOD use as well as mental health conditions.
- Some interventions have been designed for the treatment of specific comorbidities; however, these interventions have generally not been well researched.
- Where there is an absence of research on specific comorbid disorders, it is generally recommended that best practice is to use the most effective treatments for each disorder. In some cases this can be carried out at the same time for both disorders, but in others it must be carefully calibrated.
- Both psychological and pharmacological interventions have been found to have some benefit in the treatment of many comorbidities.
- When pharmacotherapy is used, this should be accompanied by supportive psychological interventions, and workers should be aware of the potential of interactions between medications, and other substances.
- E-health interventions, physical activity, as well as complementary and alternative therapies may also be considered in developing a person's treatment plan.

This chapter provides a discussion of current best practice and evidence regarding the management and treatment of the more common comorbid mental health disorders seen among clients of AOD services. Symptoms of mental health disorders may be identified through screening and assessment processes (described in Chapter B2), or they may arise spontaneously during the client's treatment. There is a distinction between the management of comorbid mental health conditions and their treatment. The goal of management is to allow AOD treatment to continue without mental health symptoms disrupting the treatment process, and to retain clients in treatment who might otherwise discontinue such treatment. Without further treatment, these techniques on their own may not provide long-term relief from symptoms; however, they may allow the client's AOD use to be treated in the interim. One advantage of managing mental health symptoms is that no diagnosis is required prior to their use (i.e., symptoms are managed rather than disorders being treated). Readers are encouraged to read Chapter A4 of these Guidelines to familiarise themselves with the signs and symptoms of mental health disorders.

AOD workers have widely varying roles, knowledge and experience; therefore, it is not expected that all AOD workers should be able to implement the treatments described. We do not provide detailed information relating to the implementation of these treatment options, but rather an overview of the available options. Where appropriate, readers are referred to existing literature and resources for more detail about the use of particular interventions. This information may nonetheless be used by all AOD workers to improve their understanding of best practice, and it may encourage workers to consider further training to improve their skills in these approaches.

It should also be remembered that the provision of treatment for AOD use alone has positive effects for those with comorbid mental health disorders [66, 92–95, 105]. As discussed previously, it is important to note that, for many people, symptoms of depression and anxiety will subside after a period of abstinence and stabilisation, without the need for any direct intervention [35, 290, 299]. However, if the mental health symptoms started prior to the onset of AOD use, if symptoms persist even during periods of abstinence, or if there is a family history of the particular disorder, the client may have a condition that is independent of his/her AOD use, which may require treatment [263].

In terms of clients' AOD use, the goal of abstinence is usually favoured, particularly for those whose mental health conditions are exacerbated by AOD use. Abstinence is also preferred for those with more severe mental disorders (or cognitive impairment) as even low-level substance use may be problematic for these individuals [54]. Those taking medications for mental health conditions (e.g., antipsychotics, antidepressants, mood stabilisers) may also find that they become intoxicated even with low levels of AOD use due to the interaction between the drugs. Although abstinence is favoured, many people with comorbid conditions prefer a goal of moderation. In order to successfully engage with the client, AOD workers should accommodate a range of treatment goals and adopt a harm reduction approach [104].

It is fundamentally important to discern the client's preferences regarding treatment for his/her mental health. Just because the client has sought treatment for his/her AOD use does not necessarily mean that he/she is ready to address his/her mental health condition. It is important that the client is not forced to undergo treatment for his/her mental health if he/she is not ready to, as this may jeopardise the therapeutic relationship. Ultimately, it is up to the client to decide whether he/she wants to address the issue and how he/she would like to go about doing so.

The recommendations in this section are based on a combination of expert opinion and evidence from research. People with AOD use disorders are commonly excluded from trials of psychotherapies and pharmacotherapies for mental health disorders. Some interventions have been designed for the treatment of specific comorbidities; however, these interventions generally have not been well researched. In the absence of specific research on comorbid disorders, it is generally recommended that best practice is to use the most effective treatments for each disorder. It should be noted that the research evidence is based

on trials of treatments for mental health disorders (see Chapter A4 for disorder descriptions); however, these treatments may also be useful for those who do not meet diagnostic criteria but have symptoms that cause significant distress or impairment.

Psychological and pharmacological interventions have been found to have some benefit in the treatment of many comorbid mental health disorders. As mentioned in Chapter B5, it is recommended that when pharmacotherapy is used, this should be accompanied by supportive psychological interventions [423, 424]. Symptoms are less likely to return on completion of psychological treatment compared to pharmacotherapy, where relapse upon cessation is common [425]. Pharmacotherapies are beneficial, however, in helping people to manage symptoms and obtain maximum benefit from psychotherapeutic interventions.

Pharmacotherapies for mental health disorders can only be prescribed by a medical practitioner, preferably a psychiatrist. However, it is important that AOD workers establish clients' past medication history as well as any current medications (see Chapter B2). AOD workers should also be aware of:

- Possible interaction effects between prescribed and non-prescribed substances.
- The presence of medical problems such as liver dysfunction related to long-term AOD use or hepatitis, which may be exacerbated by certain medications.
- The abuse potential of medications prescribed.

ADHD

Attention-deficit/hyperactivity disorder (ADHD)

ADHD and AOD use frequently co-occur, and there is evidence to suggest that the presence of ADHD is a primary risk factor for the development of AOD use disorders [465-467]. Research has found that untreated ADHD is associated with a more problematic course of AOD use disorder, with clients less likely to gain benefits from treatment, adhere to treatment, and achieve and maintain abstinence [468, 469]. ADHD has also been associated with earlier age of first substance use, greater substance dependence and increased risk of relapse [470, 471]. However, evidence suggests that responding early to ADHD through the provision of appropriate evidence-based treatments can prevent the development of AOD use disorders among adolescents and reduce the risk of AOD relapse among adults [472].

Difficulties can be faced when assessing and screening for the presence of comorbid ADHD, as symptoms can be masked or even resemble symptoms of intoxication or withdrawal (see Chapter A4) [473-475]. Some recommend an abstinence period of one month or more to assist with diagnosis [476, 477], but this is not supported by the broader evidence base or the majority of experts [7, 471, 478, 479].

To assist with clinical decision making, it may be useful to involve family members or friends, who can provide further information and clarification regarding the presence of attention problems, impulsivity, and restlessness over the person's lifetime [471, 480].

Clinical presentation

ADHD represents a persistent pattern of developmentally inappropriate levels of inattention, hyperactivity, and/or impulsivity [24]. It has been estimated that approximately 60% of children will continue to experience symptoms of ADHD as adults, whilst at least 30% will carry the full disorder through to adulthood [481, 482]. Research indicates that attentional difficulties are more likely to persist into adulthood, whilst impulsivity and hyperactivity tend to diminish over time [483, 484]. Adult symptoms are expressed differently to the way in which they are expressed in childhood. These may include [485, 486]:
Difficulties with time management.

- Disorganisation.
- Procrastination.
- Lack of motivation.
- Difficulties sleeping.
- Irritability, frustration, or anger.
- Fatigue.
- Difficulties concentrating or studying (which may present as academic underachievement).
- Occupational or workplace difficulties.
- Problems forming and maintaining relationships.
- Difficulty obtaining and/or maintaining stable employment.
- History of imprisonment or frequent contact with police.

In addition, clients may present with other symptoms which are not unique to ADHD, but are common to many mental disorders (e.g., problems sleeping, irritability, fatigue).

Managing ADHD symptoms

Research indicates that people diagnosed with ADHD in adulthood may require additional psychosocial support to assist them to come to terms with their diagnosis, and reframe their past [487]. The techniques outlined in Table 30 can help AOD workers manage clients with ADHD symptoms.

Table 30: Dos and don'ts of managing a client with symptoms of ADHD

Do:

- ✓ Assist the client plan activities and organise prompts or reminders (e.g., using a smartphone).
- ✓ Encourage stress-reduction methods, such as progressive muscle relaxation.
- ✓ Encourage physical exercise.
- ✓ Monitor closely during times of stress – these may lead to fluctuations in symptoms and may necessitate the adjustment of medication.
- ✓ Involve family members and friends – educating them about the condition and treatment will provide long-term benefits.
- ✓ Offer to help the client engage with education courses or training, which can assist with attention training.

Don't:

- ✗ Get visibly upset or angry with the client.
- ✗ Confuse the client by conducting unstructured, unfocused sessions.

Adapted from Gournay [488] and Zulauf [477].

Treating ADHD

There are several treatment options available for the treatment of ADHD, including psychotherapy, pharmacotherapy, e-health interventions, physical activity, as well as complementary and alternative therapies (e.g., dietary supplements). The evidence base surrounding each of these treatments is discussed below. There is a general consensus that the treatment of comorbid ADHD and AOD use should use an integrated multimodal approach, with components of individual and/or group psychotherapy, as well as peer and family support to enhance the effect of treatment [7, 489]. Reviews have found that combined approaches incorporating both psychotherapy and pharmacotherapy interventions have better outcomes than pharmacotherapy alone [477, 479].

Psychotherapy

Psychotherapy is recommended as a critical component of a multimodal approach targeted towards comorbid ADHD and AOD use [478]. There is evidence from the broader ADHD literature to suggest that an approach that combines CBT and pharmacotherapy may result in better outcomes for ADHD symptoms than pharmacotherapy alone [490, 491]. Although CBT has been found to be the most effective psychological approach for ADHD (when delivered in conjunction with pharmacotherapy) [492], positive outcomes have also been associated with the use of other approaches, such as meta-cognitive group therapy [493], structured skills training [494, 495], and cognitive remediation, both as therapist-led programs [496] and self-directed interventions [497].

Common therapeutic elements include psychoeducation, a focus on problem solving, strategies to improve attention, impulsivity management, and cognitive restructuring [492]. It has been suggested that a structured format of repetitive skill practising and reinforcement of coping strategies for core ADHD symptoms are key components for the effective treatment of ADHD [498, 499]. However, these interventions have yet to be evaluated among people with comorbid AOD use.

To date only one integrated psychotherapeutic approach for comorbid ADHD and AOD has been evaluated [500]. The intervention represents is an integration of the primary elements of the CBT programs for both ADHD and AOD, and includes planning and organisational skills, MI, skills training, and relapse prevention [501]. The results from this trial are yet to be published, but two case presentations with early alcohol and ADHD outcomes from the study indicate that this may be a promising treatment [502].


Pharmacotherapy

There has been substantially more research conducted to examine the efficacy of pharmacological interventions for comorbid ADHD and AOD use disorders, either as stand-alone treatments, or in combination with psychological approaches [503]. Table 31 lists some of the pharmacological treatments for ADHD.

In general, pharmacotherapy for ADHD has been found to be effective in AOD clients but the response is more modest than those with single disorder ADHD [504]. In ADHD as a single disorder, the first line of pharmacotherapy is psychostimulants; methylphenidate first line followed by dexamphetamine if methylphenidate is ineffective [505]. Although psychostimulants are recommended as first line pharmacotherapies for ADHD, it is essential that a medical assessment be conducted prior to prescribing to ensure that the client does not have cardiovascular or other conditions that may contraindicate psychostimulant prescription. Atomoxetine, a noradrenaline reuptake inhibitor, is recommended for individuals who cannot take psychostimulants [7, 506, 507].

Table 31: Pharmacotherapy medications for ADHD

Drug name	Brand names	Drug type
Methylphenidate	Ritalin	Psychostimulant
Dexamphetamine	Sigma	Psychostimulant
Lisdexamfetamine	Vyvanse	Psychostimulant
Atomoxetine	Strattera	Noradrenaline reuptake inhibitor



Adapted from Zalauf et al. [477] and Pérez de los Cobos et al. [479]. For a full list of generic brands available, see the Therapeutic Goods Administration website (<https://www.tga.gov.au/>).

Although evidence supports the pharmacological treatment of those with comorbid ADHD and AOD use, there has been contention about whether psychostimulants should be used among people with AOD use disorder, due to their potential for misuse [508], leading some treatment guidelines to recommend that non-stimulants be used as the first-line pharmacotherapy treatment for people with comorbid ADHD and AOD use, despite limited evidence of their efficacy [505]. However, in view of the fact that non-stimulants are less efficacious than stimulants in treating ADHD, and in the absence of evidence of any misuse of long-acting stimulants in clinical trials, there is a need to balance the potential risk of misuse and diversion, against the risk of untreated or inadequately treated ADHD [504].

Several RCTs have examined the safety and efficacy of psychostimulant treatment among people with comorbid ADHD and AOD use disorders [509–513]. A systematic review examining psychological and pharmacological interventions for people with comorbid ADHD and AOD use found that despite variation between studies, the evidence largely supports the use of methylphenidate, with the majority of studies finding significant reductions in ADHD symptoms following treatment [478]. AOD use either significantly reduced or remained unchanged, with no studies finding any worsening of symptoms [478, 479]. Of note, studies that reported AOD use reduction also included some form of psychotherapy as an adjunctive therapy (e.g., relapse prevention, group or individual counselling, CBT), and no cases of medication misuse or abuse were reported [477–479].

Lisdexamfetamine, another type of psychostimulant, was recently listed on the Pharmaceutical Benefits Scheme for the treatment of ADHD in Australia. One pilot RCT has examined the efficacy of lisdexamfetamine as an adjunctive treatment to NRT, to facilitate smoking cessation among adults with

ADHD [514]. There were no differences in smoking outcomes for lisdexamfetamine relative to placebo; however, significantly better outcomes for clinician-rated and self-rated ADHD symptoms were found, suggesting that lisdexamfetamine might be a promising psychostimulant treatment for this comorbid group, pending further and more conclusive evidence.

The use of atomoxetine, a non-stimulant medication for the treatment of comorbid ADHD and AOD use, has been examined in several RCTs [477, 478]. While atomoxetine has demonstrated efficacy relative to placebo for ADHD symptoms, studies report minimal effects for AOD outcomes [477, 478]. Notably, most studies had also included different psychological interventions which were targeted towards reducing AOD use.

E-health interventions

Emerging e-health programs have combined elements from successful CBT treatments for single disorder ADHD into internet-based interventions. These interventions, aimed at assisting people with ADHD structure and organise their lives, incorporate aids such as calendars, schedules, timers, reminders, shopping lists, and cleaning and laundry schedules, all of which are easily accessible on smartphones [515]. Smartphone features such as text messages, cameras, GPS, and voice memos, may also be useful.

One RCT has evaluated an internet-based course teaching people with single disorder ADHD to use smartphone applications to improve their everyday organisation skills [515]. The course, delivered with therapist support, teaches participants how to effectively use their smartphone applications to better organise their lives. Compared to wait-list control, participants randomised to receive the course illustrated a significantly larger decrease in ADHD symptoms, including inattention and hyperactivity. One-third of participants (33%) were deemed to have made a clinically significant improvement in organisation and attention over the study period, as assessed by clinicians. Although this research has yet to be conducted among people with comorbid ADHD and AOD use, the findings from this RCT are promising.

Physical activity

Although ADHD treatment is primarily focused on psychotherapy and pharmacotherapy, there is emerging evidence to suggest that physical activity may have beneficial effects similar to those of psychostimulant medications [516]. Research indicates that exercise interventions (frequent aerobic exercise in particular) may assist with the management of ADHD symptoms, particularly intrusive thoughts, worry, and impulsivity [517]. As such, exercise may be a useful adjunct to pharmacotherapy and psychotherapy for ADHD, however, this has yet to be rigorously evaluated [517], and has not been examined in people with comorbid ADHD and AOD use.

Complementary and alternative therapies

Dietary supplements

There has been very little research examining the use of dietary supplements for ADHD. However, two meta-analyses have concluded that omega-3 supplementation is associated with modest ADHD symptom improvement for single disorder ADHD in children and adolescents [518, 519]. These findings have yet to be replicated among adults, and among people with comorbid ADHD and AOD use, but point to potential avenues of future research.

Summary

For those with comorbid ADHD and AOD use, reviews of the evidence recommend an integrated, multimodal approach, incorporating psychotherapy focused on comorbid AOD use, as well as pharmacotherapy [477, 478]. The use of structured psychotherapies, including CBT with a focus on goals, with active AOD worker involvement, is likely to be the most beneficial [477], and, as with the treatment of other comorbid disorders, treating both conditions concurrently is more likely to produce a positive treatment outcome than treating either disorder alone [504]. Box 13 illustrates such a multimodal approach through the continuation of case study A, following Ali's story after the identification of his ADHD disorder had been made.

Box 13: Case study A: Treating comorbid ADHD and AOD use: Ali's story continued

Case study A: Treating comorbid ADHD and AOD use: Ali's story continued

Based on Ali's symptoms, the AOD worker thought that it may be beneficial for Ali to see a psychiatrist who specialised in adult ADHD. The AOD worker asked Ali whether he would be open to seeing a psychiatrist who could assess him further and help him decide the best treatment plan. He told Ali that he would be pleased to continue seeing him, and would be happy to liaise with both his GP and the psychiatrist. Ali agreed and gave written consent for his AOD worker to contact his GP and the psychiatrist and for the sharing of information between these services.

After sending this form to the GP and psychiatrist, the AOD worker stayed with Ali while he called to make an appointment with both over the coming weeks. At the AOD worker's suggestion, Ali put these appointments in his phone calendar and also arranged a follow-up appointment following these consultations. With Ali's permission, the AOD worker also informed his family of the dates and times of these appointments so that they could remind him and help him get to the appointments. Ali also agreed to the AOD worker discussing his condition with his parents, as they would be able to provide further information about his condition and help him in his ongoing treatment.

The psychiatrist who assessed Ali made a diagnosis of ADHD, noting that Ali had a range of symptoms of inattention, hyperactivity and impulsivity. The psychiatrist told Ali that his earlier experiences with speed and the way he described feeling calmer after a small amount of the drug was significant. He explained that psychostimulants are one of the central treatments for ADHD, which are carefully prescribed and monitored. Following a medical assessment conducted by Ali's GP, the psychiatrist prescribed psychostimulant medication, and advised Ali that it was very important for him to maintain abstinence from the use of any other drugs, due to possible interaction effects. The AOD worker advised Ali that he would be available for a phone call every day for the first week, to see how he was going.

Ali continued with his treatment. In addition to regular monitoring and minor adjustments to the dosage of the ADHD medication, Ali attended individual sessions with his AOD worker, where he was provided with a range of evidence-based interventions to help him with his speed and cannabis use. These began with psychoeducation and information about the substances Ali had been using, focusing on the way in which they affected his ADHD and how his ADHD symptoms impacted on his substance use. Ali was also given coping strategies for occasions when he became tense and he began to practice and enjoy the relaxation exercises he was taught.

Box 13: Case study A: Treating comorbid ADHD and AOD use: Ali's story continued

One important component of the treatment plan was to help Ali organise activities in his daily life. The AOD worker helped him organise a daily timetable, and, using different functions on Ali's smartphone, alarms for important events, reminders and appointments were set up. Ali's parents helped Ali keep a schedule and maintain his reminders and appointments in his phone.

Before his first presentation to the AOD service, Ali had never been able to maintain employment for more than a few days, and had no meaningful educational qualifications because his school performance was so poor. After several months, the AOD worker was able to help Ali find a place in a community education course, and, because of the improvements in his concentration and attention, he was able to obtain part-time work in a local newsagency. Ali and the AOD worker had also begun talking about a plan for independent living.

Key points:

- Treatment for ADHD and AOD use should be concurrent and multimodal.
- Education about the nature of the condition for the client and the family is essential.
- The treatment of comorbid ADHD and AOD use requires long-term follow-up and more general efforts at rehabilitation, including further education.

Psychosis

Psychosis

Clinical presentation

Acute psychosis represents one of the most severe and complex presentations, and one of the most intrusive when attempting to treat AOD use [520]. During an acute episode of psychosis a person's behaviour is likely to be disruptive and/or peculiar. Psychotic symptoms include [521]:

- Delusions – false beliefs that usually involve a misinterpretation of perceptions or experiences (e.g., thinking that someone is out to get you, that you have special powers, or that passages from the newspaper have special meaning for you).
- Hallucinations – false perceptions such as seeing, hearing, smelling, sensing, or tasting things that others cannot.
- Disorganised speech – illogical, disconnected, or incoherent speech.
- Disorganised thought – difficulties in goal direction such that daily life is impaired.
- Catatonic behaviour – decrease in reactivity to environment (e.g., immobility, peculiar posturing, motiveless resistance to all instructions, absence of speech, flattened affect).
- Rapid or extreme mood swings or behaviour that is unpredictable or erratic (often in response to delusions or hallucinations; e.g., shouting in response to voices, whispering).

It is important to note that mood swings, agitation, and irritability without the presence of hallucinations or delusions does not mean that the person is not psychotic. Workers should respond to these clients in the usual way for such behaviour (described in this chapter), such as providing a calming environment so their needs can be met [123].

Individuals in AOD settings commonly present with sub-acute psychosis, particularly as a result of methamphetamine use. These clients may display a range of low-grade psychotic symptoms such as [123]:

- Increased agitation, severe sleep disturbance.
- Mood swings.
- A distorted sense of self, others, or the world.
- Suspiciousness, guardedness, fear, or paranoia.
- Odd or overvalued ideas.
- Illusions and/or fleeting, low-level hallucinations.
- Erratic behaviour.

Managing symptoms of psychosis

Table 32 presents some strategies for managing acute psychotic symptoms. Some clients may be aware that they are unwell and will voluntarily seek help; others may lack insight into their symptoms and refuse help. Active-phase psychosis can put both the client and others at risk of harm and therefore mental health services should be contacted, whether the client wants such a referral to be made or not.

It should also be remembered that there is much stigma and discrimination associated with both psychotic spectrum disorders and AOD use, and some people may attempt to conceal either one or both of their conditions. Many people with comorbid psychosis and AOD use are frightened of being imprisoned, forcibly medicated or having their children removed. Take the time to engage the person, developing a respectful, non-judgemental relationship with hope and optimism. Use a direct approach, but be flexible and motivational [431].

Table 32: Dos and don'ts of managing a client with symptoms of psychosis

Do:

- ✓ Ensure the environment is well lit to prevent perceptual ambiguities.
- ✓ Ensure discussions take place in settings where privacy, confidentiality, and dignity can be maintained.
- ✓ Try to reduce noise, human traffic, or other stimulation within the person's immediate environment (e.g., reduce clutter).
- ✓ Ensure the safety of the client, yourself, and others.
- ✓ Allow the person as much personal space as possible.
- ✓ Be aware of your body language – keep your arms by your sides, visible to the client.
- ✓ Ignore strange or embarrassing behaviour if you can, especially if it is not serious.
- ✓ Listen attentively and respectfully.
- ✓ Appear confident, even if you are anxious inside – this will increase the client's confidence in your ability to manage the situation.
- ✓ Speak clearly and calmly, asking only one question or giving only one direction at a time.
- ✓ Use a consistently even tone of voice, even if the person becomes aggressive.
- ✓ Limit eye contact as this can imply a personal challenge and might prompt a hostile, protective response.
- ✓ Point out the consequences of the client's behaviour. Be specific.
- ✓ Ensure both you and the client can access exits – if there is only one exit, ensure that you are closest to the exit.
- ✓ Have emergency alarms/mobile phones, and have crisis teams/police on speed dial.
- ✓ If psychosis is severe, arrange transfer to an emergency department for assessment and treatment by calling an ambulance on 000.

Don't:

- ✗ Get visibly upset or angry with the client.
- ✗ Confuse and increase the client's level of stress by having too many workers attempting to communicate with him/her.
- ✗ Argue with the client's unusual beliefs or agree with or support unusual beliefs – it is better to simply say 'I can see you are afraid, how can I help you?'
- ✗ Use 'no' language, as it may provoke hostility and aggression. Statements like 'I'm sorry, we're not allowed to do ____ but I **can** offer you other help, assessment, referral...' may help to calm the client whilst retaining communication.
- ✗ Use overly clinical language without clear explanations.
- ✗ Crowd the client or make any sudden movements.
- ✗ Leave dangerous items around that could be used as a weapon or thrown.

Adapted from NSW Department of Health [277], Jenner et al. [123], and UK NICE Guidelines [431].

Some clients with psychotic disorders may present to treatment when stable on antipsychotic medication and thus may not be displaying any active symptoms. These clients should be encouraged to take any medication as prescribed, and ensure they receive an adequate diet, relaxation, and sleep because stress can trigger some psychotic symptoms [522].

Despite the risk of further psychotic episodes, some people decide to keep using substances that may induce psychosis. In such cases the following strategies may be helpful [123]:

- Educate the client about 'reverse tolerance' (i.e., increased sensitivity to a drug after a period of abstinence) and the increased chance of future psychotic episodes.
- Encourage the client to avoid high doses of drugs and riskier administration methods (e.g., injecting in the case of methamphetamine).
- Encourage the client to take regular breaks from using and to avoid using multiple drugs.
- Teach the client to recognise early warning signs that psychotic symptoms might be returning (e.g., feeling more anxious, stressed or fearful than usual, hearing things, seeing things, feeling 'strange'), and encourage them to immediately stop drug use and seek help to reduce the risk of a full-blown episode.
- Inform the client that the use of AOD can make prescribed medications for psychosis ineffective.

Social stressors can be an added pressure for clients with psychotic conditions and the client may require assistance with a range of other services including accommodation, finances, legal problems, child care, or social support. With the client's consent, it can be helpful to consult with the person's family or carers, and provide them with details of other services that can assist in these areas. Family members and carers may also require reassurance, education, and support. See Chapter B4 for strategies on how to incorporate other service providers in a coordinated response to clients' care.

Treating psychotic spectrum disorders

In general, if a person is well maintained on medication for his/her psychotic disorder, then management for AOD use should proceed as usual. Although AOD workers may feel daunted at the prospect of treating this often severe and complex clinical group, it is crucial to remember that treatment and care should reflect an individual's needs and preferences, whilst taking into account the evidence base. People with comorbid psychotic spectrum and AOD use disorders should have the opportunity to participate and make informed choices about their treatment, in consultation and partnership with their health care providers [431]. The UK NICE Guidelines on the management of comorbid psychosis and AOD use recommend that, when planning treatment, workers take into account the severity of both disorders, the individual's social and treatment context, and their readiness to change [431]. There are several treatment options available for the treatment of psychotic disorders, including psychotherapy, pharmacotherapy, and physical activity. The evidence base surrounding each of these treatments is discussed below.

Psychotherapy

A recent Cochrane review of psychosocial treatments for co-occurring severe mental illness (predominantly psychotic spectrum disorders) and AOD use concluded that there is no clear evidence supporting the use of one treatment approach over another [523]. As noted by Lubman and colleagues [524], however, it is difficult to draw any firm conclusions from the current evidence base due to issues with study design (e.g., inconsistent or absent measures of key outcome variables, significant variation within 'treatment as usual' control groups). Integrated psychosocial treatments have shown some promise - in particular, programs in which clients receive treatments addressing both disorders, in combination with case management, vocational rehabilitation, family counselling and housing, as well as medications [525-527].

The majority of studies examining the efficacy of psychological treatments for people with comorbid psychotic spectrum disorders and AOD use have examined MI, either alone or in conjunction with another therapy. Although study findings have been mixed, there is some support for MI in improving AOD use and, when used in conjunction with CBT, improved mental state [523]. One study which added MI, CBT and a family intervention to usual care for clients with schizophrenia comorbid with AOD use found significant improvements in outcomes for both disorders over care as usual [528]. An Australian study which used a 10-session intervention comprising both MI and CBT for this comorbid group also found modest

improvements in outcomes [529]. In contrast to these positive findings, two studies have reported opposing findings in regards to MI. The first examined CBT plus MI, and found no significant differences between the treatment and treatment as usual comparison groups on some key outcome measures (e.g., AOD use, positive symptoms of schizophrenia) [530]. In the second study, conducted among young people with psychosis and cannabis use, the use of MI did not lead to improved outcomes compared to treatment as usual, for AOD use or symptoms of psychosis [531].

Barrowclough and colleagues [103] suggest that MI techniques may need to be adapted for clients with psychotic disorders because disorganised thoughts and speech may make it difficult for AOD workers to understand what the client is trying to say, and psychotic symptoms (combined with AOD use and heavy medication regimes) may impair clients' cognitive abilities. For this reason it is recommended that therapists:

- Make use of more frequent and shorter reflections to clarify meaning.
- Use frequent and concise summaries to draw together information.
- Avoid emotionally salient material that is likely to increase thought disorder.
- Provide sufficient time for the client to respond to reflections and summaries.
- Ask simple open questions and avoid multiple choices or complicated language.

Several studies have examined the efficacy of CBT on symptoms of psychosis and AOD use [532, 533]; again evidence regarding the efficacy of CBT in treating co-occurring psychotic disorders and AOD problems is mixed. Naeem and colleagues [533] found that although CBT led to better outcomes for symptoms of psychopathology, there were no differences between CBT and treatment as usual groups on AOD use outcomes. Similarly, Edwards and colleagues [532] found no significant differences between the CBT and psychoeducation groups for the key outcomes of cannabis use or psychopathology.

A small number of studies have examined contingency management as a means of treating clients with comorbid psychotic spectrum disorders and AOD use. As discussed in Chapter B5, contingency management involves the use of reinforcement to encourage particular behaviours (and discourage undesired behaviours). In a systematic review of psychosocial interventions for people with comorbid severe mental health (i.e., schizophrenia, schizoaffective disorder, bipolar disorder, or severe depression) and AOD use disorders, Drake and colleagues [534] found that the use of contingency management led to improved outcomes for AOD use. These findings indicate that contingency management may be a useful adjunct to other treatments for psychotic spectrum disorders and AOD use.

Reviews of the literature have also highlighted that residential, 'dual diagnosis' treatment programs may lead to positive outcomes, particularly for people with severe psychosis and AOD use [524, 534]. Long-term residential programs (at least one year) are more likely to be associated with positive outcomes than short-term programs, in terms of increased abstinence from substances, and decreased risk of homelessness [535].

Pharmacotherapy


Despite the high rates of comorbid AOD use among people with psychosis, most trials of pharmacotherapy for psychotic spectrum disorders have excluded individuals with AOD use disorders [524]. The UK NICE Guidelines for comorbid psychosis and AOD use recommend the use of antipsychotics, in line with the UK NICE Guidelines on schizophrenia [536] or bipolar disorder [537], due to the lack of evidence of any differential benefit for one antipsychotic over another for people with this comorbidity. Table 33 lists the names of some of the more common antipsychotics.

It has been theorised that the increased AOD use found amongst those with psychotic disorders relates to dopamine dysfunction which is better addressed by the newer (atypical) antipsychotic agents than the

older (typical) agents [538]. There has been considerable research on the effects of clozapine on AOD use, with generally positive outcomes [539]. Results for other newer antipsychotics in terms of impact on AOD use have been equivocal [540].

There are several reasons why pharmacological interventions for the comorbid AOD use disorder may prove more effective for this group than psychosocial treatments. Problems associated with negative symptoms such as amotivation and cognitive impairment may restrict involvement and outcomes in psychosocial interventions. On the other hand, greater tolerance of medication regimes may render clients with this comorbidity more amenable to pharmacotherapy for AOD use. Caution should be taken when selecting pharmacotherapies for AOD use and some are contraindicated in individuals with psychotic disorders as they may exacerbate symptoms (e.g., disulfiram).

Table 33: Antipsychotic medications

Newer (atypical) antipsychotics		Traditional (typical) antipsychotics	
Drug name	Brand names	Drug name	Brand names
Clozapine	Clozaril, Clopine	Chlorpromazine	Largactil
Olanzapine	Zyprexa	Droperidol	Droleptan
Quetiapine	Seroquel	Fluphenazine	Anatensol, Modecate
Risperidone	Risperdal	Flupenthixol	Fluanxol
Amisulpride	Solian, Sulprix	Haloperidol	Haldol, Serenace
Aripiprazole	Abilify	Pericyazine	Neulactil
Ziprasadone	Zeldox	Zuclopenthixol	Clopixol
Paliperidone	Invega	Prochlorperazine	Stemzine
Sodium valporate	Epilim, Valpro		
Carbamazepine	Tegretol, Teril		
Lithium	Lithicarb		
Asenapine	Saphris		
Trifluoperazine hydrochloride	Stelazine		

Adapted from the Australian Government Department of Health [541]. For a full list of generic brands available, see the Therapeutic Goods Administration website (<https://www.tga.gov.au/>).

E-health interventions

Although research pertaining to the use of e-health interventions for psychosis is in the early stages, findings to date are promising. A review of internet and mobile-based interventions for psychosis concluded that they appear to be acceptable and feasible, and have the potential to improve clinical and social outcomes [542]. Specifically, the interventions reviewed showed promise in improving positive psychotic symptoms, hospital admissions, socialisation, social connectedness, depression, and medication adherence. Interventions included web-based psychoeducation; web-based psychoeducation plus moderated forums for patients and supporters; integrated web-based therapy, social networking, and peer

and expert moderation; web-based CBT; personalised advice based on clinical monitoring; and text messaging interventions. The authors note however, that the poor quality and early state of current research precludes any definite conclusions, and further trials are necessary. Further research examining the use of e-health interventions for co-occurring psychosis and AOD use is also needed.

Physical activity

To date there is no evidence about the use of exercise for psychotic disorders other than schizophrenia, or comorbid psychosis and AOD use disorder. Research conducted among individuals with schizophrenia however, has found that physical exercise may be useful in terms of improving cognitive functioning (e.g., short-term memory), promoting healthy lifestyles, and managing medication side-effects [543, 544]. Studies that have examined the efficacy of exercise interventions among people with schizophrenia have included a range of physical activities, including basketball [545], aerobic exercise [543, 546], and yoga [547, 548]. Based on the evidence to date, aerobic activity has the most support [142, 543, 549-553], but there is also some support for resistance training as an adjunct to other exercise [546, 554, 555]. In particular, endurance programs of at least 12-weeks, 3 sessions per week, of general aerobic endurance training lasting at least 30 minutes duration are recommended [556].

Summary

In summary, existing research suggests that there is no 'one size fits all' approach for treating comorbid psychotic spectrum and AOD use disorders [524], suggesting combinations of different therapeutic approaches may be necessary for each individual client. Further, therapist flexibility is incredibly important in the treatment of this group. Box 14 illustrates the continuation of case study B, following Nick's story after contact was made with the local AOD service for an assessment.

Box 14: Case study B: Treating comorbid psychosis and AOD use: Nick's story continued

Case study B: Treating comorbid psychosis and AOD use: Nick's story continued

Nick's assessment with the AOD worker opened the door for a collaborative approach to his treatment with the community mental health team. The case manager and AOD worker organised an appointment with Nick's psychiatrist to discuss a treatment plan, taking into account both his mental health and AOD use. They also organised for Nick to be seen by a medical doctor to ascertain whether there were any physical conditions that needed to be taken into consideration. With Nick, a plan was devised to address his most pressing needs. This coordinated approach to Nick's care allowed for his needs to be comprehensively addressed and included alterations to his medication regime, psychotherapy, and ongoing support from his case manager. Several physical health problems were identified, leading him to receive treatment for elevated blood pressure. He also attended a dentist for the first time in many years and had some teeth filled and others extracted.

The treatment goals for Nick in the long term were for him to live in supported accommodation, and he began part time work in a supermarket. Improvements in Nick's mental health and AOD use led to improved social functioning, allowing him to engage in a range of activities organised for the supported living complex, which became his permanent home. Nick continued to express bizarre ideas and still hears voices, but he is able to cope better with these phenomena.

Box 14: Case study B: Treating comorbid psychosis and AOD use: Nick's story continued

Key points:

- Chronic illness does not equate to untreatable illness. Psychotherapy may provide symptom relief and improved quality of life, and all treatment approaches need to be carefully integrated.
- Medication compliance needs long-term attention.
- Physical health is often overlooked.
- A holistic approach, assessing a person's accommodation and employment needs in addition to their mental, physical, and AOD use disorders, is vital.

Bipolar

Bipolar disorders

Clinical presentation

It can be particularly challenging to treat people with bipolar disorder due to the broad range of emotions experienced, which can impact on the relationship between the client and the therapist [540]. Depending on which phase of the disorder a client is in, they may present with either symptoms of depression or mania/hypomania. If the person is in between episodes, they appear to be completely well. People with bipolar disorder predominantly present to services during the depressive phases of the disorder rather than during the periods of elation.

If experiencing a depressive episode, the client may present with low mood; markedly diminished interest or pleasure in all, or most activities; sleep disturbances; appetite disturbances; irritability; fatigue; psychomotor agitation or retardation; poor concentration; feelings of guilt, hopelessness, helplessness and worthlessness; and suicidal thoughts. When experiencing mania/hypomania however, a client's mood is persistently elevated, and symptoms of grandiosity, flights of ideas, hyperactivity, decreased sleep, psychomotor agitation, talkativeness and distractibility may be present. Mania and hypomania may lead to a loss of insight, which can place the person at risk, and impact negatively on medication compliance.

Managing symptoms of bipolar

In general, if the client presents during a depressive episode, management of symptoms should follow the guidelines for the management of depressive symptoms (see Table 34). As previously mentioned, negative mood is often a trigger for relapse to AOD use and addressing depressive symptoms is an important component of relapse prevention [557]. If, however, the client is experiencing a manic episode or symptoms of psychosis, consultation with a medical practitioner is recommended for the prescription of appropriate pharmacological interventions.

The techniques outlines in Table 35 may assist in the management of a person experiencing symptoms of mania or hypomania. If the client is experiencing a manic episode or symptoms of psychosis, consultation with a medical practitioner is recommended for the prescription of appropriate pharmacological interventions. Some clients may be aware that they are unwell and will voluntarily seek help; others may lack insight into their symptoms and refuse help. In some instances a person's manic symptoms can put both the client and others at risk of harm. In such circumstances mental health services should be contacted, whether the client wants such a referral to be made or not.

Table 34: Dos and don'ts of managing a client with depressive symptoms of bipolar

Do:

- ✓ Encourage and emphasise successes and positive steps (even just coming in for treatment).
- ✓ Take everything they say seriously.
- ✓ Maintain eye contact and sit in a relaxed position – positive body language will help you and the client feel more comfortable.
- ✓ Use open-ended questions such as 'So tell me about...?' which require more than a 'yes' or 'no' answer. This is often a good way to start a conversation.
- ✓ Constantly monitor suicidal thoughts and talk about these thoughts openly and calmly.
- ✓ Encourage the client to express his/her feelings.
- ✓ Be available, supportive and empathetic.
- ✓ Offer realistic hope (i.e., that treatment is available and effective).
- ✓ Encourage regular sleep, exercise and eating patterns.
- ✓ Keep language clear, specific and simple.
- ✓ Assist the client to identify warning signs that they may become unwell.
- ✓ Provide contact details of counselling services and offer to make referrals if required (many depressed people struggle to do this alone).
- ✓ Encourage participation in healthy, pleasurable and achievement-based activities (e.g., exercise, hobbies, work).

Don't:

- ✗ Make unrealistic statements or give unrealistic hope, like 'everything will be fine'.
- ✗ Invalidate the client's feelings.
- ✗ Be harsh, angry, or judgemental. Remain calm and patient.
- ✗ Lose hope or become frustrated.
- ✗ Act shocked by what the client may reveal.

Adapted from Scott et al. [558], Clancy and Terry [296] and Headspace [559].

Table 35: Dos and don'ts of managing a client experiencing mania/hypomania

Do:

- ✓ Ensure the safety of the client, yourself, and others.
- ✓ Assist the client identify warning signs that they may become unwell.
- ✓ Help to reduce triggers that aggravate the person's symptoms (e.g., reduce stimulation such as noise, clutter, caffeine, social gatherings).
- ✓ Speak clearly and calmly, asking only one question or giving only one direction at a time.
- ✓ Answer questions briefly, quietly, calmly and honestly.
- ✓ Use a consistently even tone of voice, even if the person becomes aggressive.
- ✓ Encourage regular sleep, exercise and eating patterns.
- ✓ Be cautious about becoming swept up by the person's elevated mood.
- ✓ Point out the consequences of the client's behaviour. Be specific.
- ✓ If the person is well enough, discuss precautions they can take to prevent risky activities and negative consequences (e.g., give their credit cards and/or car keys temporarily to a trusted family member or friend to prevent reckless spending and driving).
- ✓ If promiscuity or socially inappropriate behaviour is a problem encourage the person to avoid situations in which his/her behaviour may lead to negative consequences.
- ✓ Encourage the person to postpone acting on a risky idea until their mood is stable.

Table 35: Dos and don'ts of managing a client experiencing mania/hypomania

- ✓ Ensure both you and the client can access exits – if there is only one exit, ensure that you are closest to the exit.
- ✓ Have emergency alarms/mobile phones, and have crisis teams/police on speed dial.
- ✓ If the person is placing him/herself at risk, or they are experiencing severe symptoms of psychosis, arrange transfer to an emergency department for assessment and treatment by calling an ambulance on 000.

Don't:

- ✗ Argue, criticise or behave in a threatening way towards them. Consider postponing or avoiding discussion of issues that aggravate the client for the time being. Try to talk about more neutral topics.
- ✗ Get visibly upset or angry with the client. Remain calm and patient.
- ✗ Confuse and increase the client's level of stress by having too many workers attempting to communicate with him/her.
- ✗ Get drawn into long conversations or arguments with the person as these can be overstimulating and upsetting. People with elevated moods are vulnerable despite their apparent confidence, and they tend to take offence easily.
- ✗ Leave dangerous items around that could be used as a weapon or thrown.
- ✗ Laugh (or let others laugh) at the person.
- ✗ Act horrified, worried or panic.

Treating bipolar disorders

There are several treatment options available for the treatment of bipolar disorders, including psychotherapy, pharmacotherapy, electroconvulsive therapy (ECT), e-health interventions, as well as complementary and alternative therapies (e.g., dietary supplements). The evidence base surrounding each of these treatments is discussed below.

Psychotherapy


Although research on psychological treatments for comorbid bipolar disorder and AOD use is scarce, one group of researchers have developed an integrated, 20-session, psychosocial group treatment program for this comorbidity, which has shown some positive findings in relation to AOD use [560, 561]. The program employs a cognitive behavioural relapse prevention model that integrates treatment by focusing on similarities between recovery and relapse processes in bipolar disorder and AOD use disorder. More recently, a briefer version of integrated group therapy (12 sessions) has been shown to be effective in terms of its positive impact on mood and substance use [562]. When delivered by AOD workers with little or no training in CBT, or prior experience with the treatment of bipolar disorder, this brief version of integrated group therapy had superior outcomes relative to standard group drug counselling. Although psychological treatments appear to have positive outcomes among people with comorbid bipolar disorder, it is not well understood how the improvements work – i.e., whether it is the psychological therapy addressing the AOD use, the bipolar symptoms, or both together, that are associated with positive outcomes [563].

Pharmacotherapy

For comorbid bipolar and AOD use disorders, multiple medications are often used to treat each specific disorder, such as the use of mood stabilisers (see Table 36), antipsychotics (see Table 33), and/or antidepressants (see Table 38) for the bipolar disorder, in conjunction with medication specifically to treat the AOD use disorder (e.g., naltrexone for alcohol use disorder) [540]. A recent update on the treatment of bipolar disorders recommended initiating pharmacological treatment with mood stabilisers and/or

Table 36: Mood stabiliser medications

Drug name	Brand names
Lithium	Lithicarb, Quinolum SR
Sodium valproate	Epilim, Valpro
Carbamazepine	Tegretol, Teril
Olanzapine	Zyprexa
Quetiapine	Seroquel
Risperidone	Risperdal, Risperdal Consta
Aripiprazole	Abilify
Solian	Amisulpride
Lamotrigine	Lamictal
Topiramate	Topamax



Adapted from Black Dog Institute [565]. For a full list of generic brands available, see the Therapeutic Goods Administration website (<https://www.tga.gov.au/>).

antipsychotics, and then later supplementing the treatment with antidepressant medication, due to the possibility of antidepressant-induced mania [564].

The effectiveness of mood stabilisers (e.g., lithium, sodium valproate, lamotrigine) in treating comorbid bipolar disorder and AOD use is yet to be fully established with only a small number of controlled trials in this area. An RCT examining the effectiveness of lithium in treating adolescents with bipolar disorder and AOD use disorders (primarily alcohol and/or cannabis) found that, relative to placebo, lithium had a positive effect on bipolar symptoms and on AOD use [566]. A further study demonstrated that lithium had an impact on reducing cannabis and cocaine use in people with comorbid bipolar disorder, but it is difficult to generalise the findings of this study due to less than one-quarter of the original sample completing the stabilisation phase and continuing into the main portion of the study [567].

Promising findings have also been found relating to the use of sodium valproate (or divalproex). In an uncontrolled study, Salloum and colleagues [568] found beneficial effects from divalproex alone in reducing bipolar symptoms and cocaine use. There is also some evidence to suggest that the addition of sodium valproate may further improve the effects of lithium [540]. In an RCT of people with bipolar disorder and alcohol use disorders, Salloum and colleagues [569] found that those randomised to receive lithium plus valproate had a greater reduction in heavy drinking days relative to those randomised to receive lithium alone. Manic and depressive symptoms improved equally in both groups. However, Kemp and colleagues [567] found no additional benefits for mood and AOD use when using divalproex and lithium, compared with lithium alone. As mentioned previously however, the findings of this study need to be interpreted with caution given the high drop-out rate.

Lamotrigine has been found to be associated with improvements in bipolar symptoms, craving, and AOD use in a number of open-label, uncontrolled trials [570, 571]. However, in a more recent RCT, the effects of lamotrigine on mood and cocaine use were not significantly different to placebo, although money spent on cocaine was reduced in the lamotrigine group [572].

A small number of uncontrolled, open-label trials have examined the use of the anti-psychotic quetiapine in the treatment of bipolar disorder comorbid with AOD use disorders. These studies have found that quetiapine has a positive impact on psychiatric symptoms, but no impact on AOD use [573, 574]. Furthermore, a large RCT examining the efficacy of quetiapine as an adjunct to lithium or divalproex among individuals with bipolar disorder and alcohol dependence found that there was no additional improvement in symptoms of mania or heavy drinking days, relative to a placebo control [575]. Lastly, it should be noted that the potential for the misuse of quetiapine, particularly in prison settings, has been well documented [576].

It is also important to bear in mind that clients with a comorbid bipolar disorder may be less likely to comply with medication if they enjoy their manic episodes. Measures to increase medication compliance may be particularly pertinent among this group (discussed later in this chapter). Other strategies to promote medication compliance among clients with comorbid bipolar disorder include the *Improving Treatment Adherence Program*, which is an adjunctive psychosocial approach designed to improve treatment adherence [577]. The *Improving Treatment Adherence Program* is delivered through individual sessions, a meeting with the client's family member and/or significant other, and follow-up telephone contacts with the client and his/her significant other. Whilst an RCT testing this program is yet to establish the program's efficacy, early results indicate that the intervention appears promising both in terms of feasibility and acceptability to clients, and also in terms of enhancing the benefits of existing treatments.

Electroconvulsive therapy (ECT)

ECT is suggested as a second-line treatment option for bipolar disorder in very severe cases (e.g., in cases of severe depression and suicidality), and in pregnant woman with severe symptoms [578]. However no research studies to date have currently assessed the efficacy of ECT in treating co-occurring bipolar and AOD use disorders.

E-health interventions

There are several online interventions to support the mental health of people with bipolar disorders, including *MoodSwings* [579], *Living With Bipolar* [580], *Beating Bipolar* [581], the *Bipolar Education Programme* [582], and *HealthSteps for Bipolar Disorder* [583]. Most of these interventions are in the early stages of evaluation. Feasibility and preliminary studies of *Living With Bipolar* [580] and *Bipolar Education Programme* [582] are promising. No online interventions have yet been developed for treating comorbid bipolar and AOD use disorders specifically.

Physical activity

A small number of studies with relatively small samples have examined the effect of exercise on bipolar disorders. Ng and colleagues [584] conducted a small, retrospective chart review, and found that depression and anxiety improved among bipolar inpatients who participated in a voluntary 40-minute, supervised group walking activity, every weekday morning, compared to non-walkers. However, there was no clinical difference in overall improvement between walkers and non-walkers [584]. A small open trial examining the short term effects of aerobic training on depression and bipolar disorder found that aerobic training slightly improved symptom severity for those with bipolar disorder [585]. Another small RCT examined the effect of a short-term, maximum endurance exercise program as an accompanying treatment to pharmacotherapy, and found that, relative to control (gentle stretching and relaxation), depression scores were significantly reduced among the exercise group [586].

Although the aforementioned studies provide evidence to suggest that regular physical activity can assist in the reduction of depressive symptoms, there is preliminary research pointing to the existence of possible exacerbation of mania among some people [587, 588]. Although exercise may be beneficial in redirecting

excess energy for some, others found their manic symptoms were aggravated, potentially risking a cycle of manic and hypomanic symptoms [589]. It has been suggested that the exacerbation of manic symptoms may be due to direct effects on mood, or indirectly on excessive goal-focused activities, which can be a risk pathway for bipolar disorder [590, 591]. However, these preliminary findings originate from a small qualitative study and require further empirical evidence, with some participants in the study finding exercise calming [587]. No research has been conducted to examine the efficacy of exercise among people with comorbid bipolar and AOD use; however, given the unknown and potentially risky relationship with mania, physical activity among people with comorbid disorders should be closely monitored.

Complementary and alternative therapies

Dietary supplements

There have been few reviews that have examined the evidence for the safety and efficacy of dietary supplements for bipolar disorders. Although research has found some benefit with regards to both depressive symptoms (e.g., omega-3 supplementation [592, 593]), and mania symptoms (e.g., magnesium supplementation [594-596]), many therapies have the potential to induce mania or interact with pharmacotherapies (e.g., St John's Wort [597-599]); the extent to which needs further in-depth examination.

Summary

Several psychological and pharmacological approaches for the treatment of co-occurring bipolar disorder and AOD use appear promising, however further research is required to establish which therapeutic approaches are particularly effective for this comorbidity. Box 15 illustrates the continuation of case study C, following Layla after the identification of her bipolar disorder.

Box 15: Case study C: Treating comorbid bipolar and AOD use: Layla's story continued

Case study C: Treating comorbid bipolar and AOD use: Layla's story continued

Layla completed her assessment with the AOD worker, commenting that it was one of the only times she had really felt listened to without being judged. The AOD worker emphasised that should Layla wish to work on her AOD use, they would work together with her psychiatrist and any other service that may be of assistance, to help her manage her bipolar disorder. Although sceptical, Layla accepted this offer and began embarking on a plan that involved a concurrent approach to her mental health and AOD use, with very active communication between her health providers. This communication was facilitated by regular meetings involving Layla and the professionals involved in both her mental health care and AOD treatment. In addition, Layla's medications were comprehensively reviewed, and, rather than a process of 'tweaking' and modifying medications, a conference was convened to consider the best medication approach. This conference was attended by Layla, who was for the first time able to freely express her reservations about some of the medications that she was taking; in particular, how a particular mood stabilising drug made her feel overwhelmingly flat.

In addition to the use of psychotherapy and medication, the team identified the need to deal more generally with Layla's lifestyle, and with initial encouragement and support she was able to begin to attend regular training sessions at the gym and, thus, begin the process of losing some of the weight she had gained over the years. She was also able to contact some of her friends she used to swim with, and, with the encouragement of her care coordinator, resumed her interest in music.

Box 15: Case study C: Treating comorbid bipolar and AOD use: Layla's story continued

Key points:

- In cases of bipolar disorder comorbid with AOD use, treatments need to be coordinated and carefully integrated.
- Although there are many effective medications to address disturbances in mood, as with all medications, mood stabilisers can have significant side effects. In particular, mood stabilisers have the potential to make a client feel flat.
- Strategies to address medication compliance, particularly over the long-term, are a pertinent aspect of treatment.
- Without addressing the familial and social consequences of longstanding bipolar disorder, the client's quality of life will remain much diminished. As such, integrating the rehabilitative aspects of treatment may have long-term benefits. Physical activity and exercise have physical and psychological benefits, and may also help address some of the side effects of medications used to treat bipolar disorder.



Depression

Depression

Clinical presentation

Depressive symptoms include low mood; markedly diminished interest or pleasure in all, or most activities; sleep disturbances; appetite disturbances; irritability; fatigue; psychomotor agitation or retardation; poor concentration; feelings of guilt, hopelessness, helplessness and worthlessness; and suicidal thoughts (refer to Chapter A4).

Managing depressive symptoms

Negative mood is often a trigger for relapse, and therefore addressing depressive symptoms is also an important part of relapse prevention [557]. The techniques outlined in Table 37 may help AOD workers to manage clients with depressive symptoms.

A number of simple strategies based on CBT are also useful in managing clients with these symptoms, including [310, 386]:

- Cognitive restructuring.
- Pleasure and mastery events scheduling.
- Goal setting.
- Problem solving.

These techniques are discussed in greater detail in Appendix T.

It is important to note that many depressive symptoms (and many anxiety symptoms) will subside after a period of abstinence and stabilisation [35, 290, 299]. It is useful to explain to clients that it is quite normal to feel depressed (or anxious) when entering treatment but that these feelings usually improve over a period of weeks. During and after this time, constant monitoring of symptoms will allow the worker to determine if the client requires further treatment for these symptoms. If the client has a history of depressive episodes in circumstances when he/she is not intoxicated or withdrawing, he/she may have an independent depressive disorder. For these clients, it is unlikely that their depressive symptoms will resolve completely with abstinence – indeed their symptoms may even increase. In such cases, clients should be assessed for a depressive disorder and the treatment options described in this chapter should be considered.

Table 37: Dos and don'ts of managing a client with depressive symptoms

Do:

- ✓ Encourage and emphasise successes and positive steps (even just coming in for treatment).
- ✓ Take everything they say seriously.
- ✓ Maintain eye contact and sit in a relaxed position – positive body language will help you and the client feel more comfortable.
- ✓ Use open-ended questions such as 'So tell me about...?' which require more than a 'yes' or 'no' answer. This is often a good way to start a conversation.
- ✓ Constantly monitor suicidal thoughts and talk about these thoughts openly and calmly.
- ✓ Encourage the client to express his/her feelings.
- ✓ Be available, supportive and empathetic.
- ✓ Offer realistic hope (i.e., that treatment is available and effective).
- ✓ Provide contact details of counselling services and offer to make referrals if required (many depressed people struggle to do this alone).
- ✓ Encourage participation in healthy, pleasurable and achievement-based activities (e.g., exercise, hobbies, work).

Don't:

- × Make unrealistic statements or give unrealistic hope, like 'everything will be fine'.
- × Invalidate the client's feelings.
- × Be harsh, angry, or judgemental. Remain calm and patient.
- × Act shocked by what the client may reveal.

Adapted from Scott et al. [558] and Clancy and Terry [296].

Treating depressive disorders

There are several treatment options available for the treatment of depressive disorders, including psychotherapy, pharmacotherapy, ECT, e-health, physical activity, as well as complementary and alternative therapies (e.g., omega-3). The evidence base surrounding each of these treatments is discussed below.

Psychotherapy

Research on psychological therapies provides support for the use of integrated psychological treatments for comorbid depression and AOD use disorders [165, 600]. However, the small number of studies, variation in study results, and small sample sizes used in these studies highlight the need for larger trials to be conducted in this area [601].

The majority of studies to date have examined the use of integrated treatments that adopt a CBT approach [272, 386, 432, 602, 603]. In a review of the literature, Hides and colleagues [601] note that CBT appears to yield superior results for symptoms of depression and AOD use when compared to no treatment, but there is little evidence demonstrating that CBT is more effective when compared with other forms of psychological therapy (e.g., relaxation training, MI, integrated MI/CBT). As a way of enhancing CBT, it has been suggested that CBT be combined with other evidence-based psychological approaches, such as contingency management (see Chapter B5). The combination of CBT plus contingency management has been found to be more effective than either CBT or contingency management alone in the treatment of this comorbidity [418, 604, 605].

Baker and colleagues [386] examined the effectiveness of a brief CBT intervention targeting amphetamine use, and found that a reduction in depressive symptoms accompanied a reduction in amphetamine use, suggesting that interventions designed to reduce AOD use may have promising outcomes for symptoms of depression.

Another approach showing promise in the treatment of comorbid AOD use and depression is behavioural activation. Originally developed in the 1970s, behavioural activation is based entirely on behavioural strategies [606]. The therapy is based on the notion that problems in the lives of vulnerable people reduce their ability to experience positive reward from their environments, leading to symptoms and behaviours characteristic of depression. Behavioural activation aims to activate clients in specific ways that will increase rewarding experiences in their lives. It also focuses on processes that reduce activation, such as escape and avoidance behaviours including AOD use.

There is empirical evidence to suggest that behavioural activation is just as effective in treating depression as combined cognitive and behavioural techniques and antidepressant medication [607, 608]. Behavioural activation has the added benefit of being more time efficient and less complex than most other psychotherapies, and can therefore be delivered by less experienced therapists [608]. Another advantage of behavioural activation is that it incorporates some essential components of AOD treatment, such as social support, emotional expression, reordering of life priorities, stress management, avoidance reduction, symptom control and health education [609].

To date, three small RCTs have found support for the use of behavioural activation among people with AOD use disorders. The first examined the efficacy of adding behavioural activation for depression to standard inpatient AOD treatment among a small sample of illicit drug users with depressive symptoms [610]. The authors found that patients who were randomised to receive behavioural activation demonstrated significantly greater improvements in depression at post-treatment compared with standard care alone. They also reported significantly higher treatment satisfaction scores. The same treatment was subsequently compared with an attention control condition among people in residential AOD treatment, and was found to be superior in terms of treatment retention and levels of activation [611]. A third trial examined the efficacy of behavioural activation paired with standard smoking cessation strategies (including NRT) compared with standard smoking cessation strategies alone (including NRT) [612]. Participants randomised to receive behavioural activation demonstrated greater reductions in depressive symptoms and a higher rate of smoking abstinence than did those randomised to receive standard smoking cessation strategies. Collectively, these pilot studies provide promising support for the use of behavioural activation among individuals with comorbid depression and AOD use, however, further trials are needed. A large RCT comparing the efficacy of behavioural activation added to standard AOD treatment with standard AOD treatment alone is currently underway in Australia.

Lastly, although still in the early stages, there is preliminary support for mindfulness-based relapse prevention in the treatment of co-occurring depression and AOD use [613].

Pharmacotherapy

There is consensus amongst experts that pharmacotherapy (i.e., antidepressants; see Table 38) for comorbid depression and alcohol use disorders is effective, provided an individualised approach is used [424, 432]. Unless there are significant contraindications, it appears clinically appropriate to use medication that has been proven efficacious in the treatment of major depression in those depressed patients with an AOD use disorder.

Thase and colleagues [424] comment on the sometimes over-restrictive attitudes towards pharmacological treatments for depressive disorders among people with AOD use disorders, where clients can present in a state of physical and emotional despair that requires immediate intervention. Considering the safety of

most of the newer antidepressants such as SSRIs, such caution as waiting for a minimum number of weeks of abstinence cannot be justified. This would particularly apply where a client has a history of depression during periods of abstinence, or where the person has had successful antidepressant intervention in the past. Clients being commenced on antidepressants should nonetheless be carefully monitored as there have been some well-publicised cases of increased suicidality on commencement of antidepressant treatment [614]. Such incidents are rare and there is much conflicting and contradictory evidence on the clear link between antidepressant-induced suicidality [615, 616]. Thus, although it is suggested that the benefits of antidepressant use outweigh the risks, and appropriate use actually protects depressed patients from suicide [617], it is important to maintain appropriate monitoring of suicidality [618].

Reviews have generally found that among clients with comorbid alcohol and depressive disorders, treatment with tricyclic antidepressants (TCAs) and SSRIs has a significant effect on symptoms of depression, but effects on alcohol use have been equivocal [424, 432, 539]. A more recent review found mixed findings regarding depressive symptoms. Antidepressants were generally found to be effective in treating symptoms of depression however, when the effectiveness of SSRIs were examined separately, there were no significant treatment effects on depressive symptoms, relative to placebo [619]. Iovenio and colleagues [619] speculated that this may be due to high placebo response rates in these trials, and therefore further studies examining the use of SSRIs in this comorbid group are required.

Alcohol use responds well where depressive symptoms have been reduced, but sustained abstinence is not usually achieved [620–623]. There have been some studies which have shown a relatively negative effect on alcohol consumption in alcohol-dependent young men prescribed SSRIs [624–627]. Antidepressants that do not come under the umbrella of SSRIs or TCAs have been found to be effective in single studies [628, 629].

Compared to the newer antidepressants, TCAs are poorly tolerated, potentially lethal in overdose, and cause significant adverse effects when combined with other central nervous system depressants. In contrast, SSRIs are associated with fewer side effects, have better tolerability (resulting in improved compliance) and are safer in overdose [121, 424]. Despite their efficacy, some clients may be reluctant to take SSRIs due to the misconception that they are 'addictive'. SSRIs are not habit-forming; however, users may experience a discontinuation syndrome if the medication is stopped abruptly [121]. Symptoms are similar to some of those experienced during alcohol or opiate withdrawal (e.g., flu-like symptoms, light-headedness, headache, nausea) [121]. When discontinuing SSRIs, the dose should be gradually tapered.

Although studies of comorbid alcohol dependence and major depression support the use of SSRIs, studies of cocaine and opiate dependent clients do not [263]. At present, there is limited evidence to support the use of antidepressants in treating depressed opioid dependent persons currently receiving opioid agonist treatment. In a recent systematic review, Pani and colleagues [631] noted that the evidence in this area was highly limited due to the small number of studies conducted, and methodological limitations within these studies. Whilst there was some evidence of a trend towards improved outcomes for depression symptoms and AOD use for clients receiving antidepressants as well as opioid agonists, there were no statistically significant differences in outcomes between antidepressant and placebo groups.

Table 38: Antidepressant medications

Drug type and name	Brand names
Tricyclic antidepressant (TCA):	
Amitriptyline	Endep
Dothiepin	Dothep, Prothiaden
Nortriptyline	Allegron
Doxepin	Deptran, Sinequan
Imipramine	Tofranil, Tolerade
Clomipramine	Anafranil, Placil
Trimipramine	Surmontil
Monoamine oxidase inhibitor (MAOI):	
Tranylcypromine	Parnate
Phenelzine	Nardil
Reversible inhibitor of monoamine oxidase A (RIMA):	
Moclobemide	Aurorix, Clobemix, Amira
Selective serotonin reuptake inhibitor (SSRI):	
Fluoxetine	Lovan, Prozac, Zactin
Paroxetine	Aropax, Paxtine, Paroxo
Sertraline	Zoloft, Eleva, Seralin
Fluvoxamine	Luvox, Faverin, Voxam
Citalopram	Cipramil, Celapram, Celica
Escitalopram	Lexapro, Escicor, Esipram
Serotonin and noradrenaline reuptake inhibitor (SNRI):	
Venlafaxine	Efexor-XR
Desvenlafaxine	Pristiq
Duloxetine	Cymbalta
Noradrenaline and specific serotonergic agent (NaSSA):	
Mirtazapine	Avanza, Axit, Mirtazon
Tetracyclic antidepressant:	
Mianserin	Tolvon, Lumin
Noradrenaline reuptake inhibitor (NRI):	
Reboxetine	Edronax
Melatonergic antidepressant:	
Agomelatine	Valdoxan

Adapted from Australian Government Department of Health [630]. For a full list of generic brands available, see the Therapeutic Goods Administration website (<https://www.tga.gov.au/>).

Different types of antidepressants seem to be suitable for different types of substance use disorders [416]. In particular, individuals with AOD use disorders tend to respond better to antidepressants that have a similar direct or side effect profile to their substance of abuse. Hence, the more sedating antidepressants such as doxepin or paroxetine are more effective in depressed abusers of alcohol, heroin and sedatives, and the more stimulating antidepressants such as desipramine and bupropion have greater efficacy in depressed abusers of stimulants and nicotine. As there are no guidelines as yet for the treatment of comorbidity with depression in users of psychostimulants such as amphetamines and ecstasy [632], the use of the more stimulating antidepressants for these clients provides the best guidance at this time.

For all AOD clients, extreme caution should be taken when prescribing monoamine oxidase inhibitors (MAOIs). These medications are potentially dangerous because of the dietary and medication restrictions involved [121]. Hypertensive crisis with intracranial bleeding and death can occur if combined with a tyramine-rich diet or contraindicated medications (including opioid and psychostimulant substances, such as over-the-counter cold and flu medications) [121, 263]. For this reason, MAOIs should only be used when other medication options have failed.

It is important to note that it can take up to four weeks for an antidepressant to reach therapeutic levels in the blood. Responses to antidepressants are typically noticeable within two to four weeks, with continued improvement in symptoms for up to 12 weeks [633-635]. If little or no improvement in mood occurs over the induction time specified by the drug manufacturer and the medication is being taken as prescribed, consideration should be given to increasing the dose within the recommended range. If still little or no improvement is observed, switching or augmenting with another antidepressant may be considered. It is recommended that there be at least one within-class switch before considering augmentation or other options, keeping in mind the potential for drug interactions, and the adverse effects of some antidepressants [633-636].

Two medications that have been used for treating alcohol use disorders – naltrexone and acamprosate – have shown moderately positive outcomes in this single disorder [637-641]. Disulfiram can also be an effective treatment for some people with alcohol problems, particularly those who are highly motivated and who can be closely supervised. Research suggests that naltrexone, acamprosate, and disulfiram are all tolerated well in clients with comorbid depression [642].

Naltrexone has been found to be associated with better drinking outcomes in clients being treated with antidepressants for their depression and anxiety [643]. With little support for the use of antidepressants alone to reduce excessive drinking, more recent research indicates that the use of antidepressants combined with naltrexone may lead to improved outcomes. Pettinati and colleagues found that when sertraline and naltrexone were combined in the treatment of co-occurring depression and alcohol dependence, there were better outcomes in terms of abstinence and relapse, relative to either sertraline or naltrexone alone, or placebo [644].

It should also be borne in mind that at least for naltrexone, treatment beyond 12 weeks may not improve drinking outcomes in those with alcohol use disorders alone [645]. While both acamprosate and naltrexone are available on the Pharmaceutical Benefits Scheme for alcohol dependence, disulfiram is expensive and only available with a private prescription. Although only a tentative finding requiring further research, another study found that buprenorphine had better outcomes with opiate abusers with comorbid depression than those who were not depressed [646]. This suggests that buprenorphine may prove to be an especially useful pharmacotherapy for this sub-group.

Electroconvulsive therapy (ECT)

ECT can be an effective treatment for certain patients. There is evidence that ECT is an effective treatment for depression as a single disorder [647]; however, no research studies to date have assessed the efficacy of ECT in treating co-occurring depression and AOD use disorders. The Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of depression note that ECT is a highly efficacious treatment with a strong evidence base, particularly for severe depressive disorders [648, 649]. The UK NICE Guidelines similarly recommend that ECT be considered for treating severe depressive disorders, or after other treatment options have been exhausted [650].

E-health interventions

Research examining e-health interventions for depression based on CBT therapies has found evidence of successful outcomes [449], and their use as the optimal low-intensity treatment for adults experiencing depression has been recommended by the UK NICE Guidelines [444]. Recommended programs include *Beating the Blues* and *MoodGYM* both of which have been found to improve a range of depression outcomes [651-653]. Neither of these programs, however, address comorbid AOD use.

A small number of e-health interventions specifically designed to treat comorbid depression and AOD use have been evaluated. The *SHADE* program, consisting of nine sessions of interactive exercises based on MI and CBT, has been associated with moderate to large effect sizes for alcohol consumption and significant reductions in depression scores over 12-month follow-up [654, 655]. More recently, a brief (4-session) early intervention program called the *DEAL Project* was developed, targeting young people experiencing depression with harmful patterns of alcohol use [656]. The program is undertaken entirely online with no clinician support. In evaluating the intervention, Deady and colleagues [657] found that individuals randomised to receive the *DEAL Project* demonstrated a greater reduction in symptoms of depression and alcohol use compared to individuals randomised to an attention-control condition.

One other study has examined the use of a single-session of online personalised feedback and psychoeducation provided to college students [658]. The study compared alcohol feedback only, depressed mood feedback only, integrated feedback, and an assessment only condition. At 1-month follow-up, no differences in depressed mood or alcohol use were found across the conditions.

Physical activity

There is increasing evidence to suggest that regular physical exercise has psychological benefits, with more active people illustrating lower levels of depression than sedentary people [659-661]. As mentioned previously, exercise is relatively low-risk, is associated with wide physical health benefits, and research has demonstrated exercise to be as effective in reducing depressive symptoms as psychotherapy and antidepressants [185, 195, 662]. A Cochrane review concluded that physical activity (defined as aerobic, mixed, or resistance) was moderately more effective than control interventions for treating depression, with exercise equally as effective as psychotherapy or pharmacotherapy [663]. The UK NICE Guidelines for depression recommend structured, supervised physical activity programs, three times a week (45 minutes to 1 hour duration) for at least 12 weeks [650].

There is much evidence suggesting that physical activity improves levels of depression and anxiety [664, 665], both of which are risk factors for, and have been associated with, AOD use [51, 666]. Despite this association, there is little research that has examined the role of exercise among people with comorbid depression and AOD use disorders specifically. A study examining the effects of an 8-week structured exercise program (treadmill and weight training), on depression and anxiety symptoms among newly abstinent methamphetamine users in treatment, found that more exercise was significantly associated with greater reductions in depression and anxiety symptoms, compared with the control group (health education sessions), and compared with fewer exercise sessions [233].

Another study, examining the effect of a 10-week, 30-minute, exercise program (incorporating walking/running, ball games, strength training) on quality of life in a sample of people attending residential AOD treatment for polydrug use, found a significant reduction in depression (from 78% to 36%) among those who completed the program [667]. This study highlights the difficulty involved in engaging comorbid populations in physical activity, which in general succeed in retaining only those with the fewest physical health problems [668]. However, the fact that 69% of participants completed the exercise component of this study does point to the feasibility of engaging and maintaining people with comorbid depression and AOD use disorders in programs incorporating physical activity [667].

A systematic review examining the effect of exercise-based interventions on AOD use found exercise was associated with overall improvements in depression [185]. Although these findings indicate that exercise is a potentially promising adjunctive treatment for people with comorbid depression, they also highlight the need for further well-conducted research to be undertaken in this area.

Complementary and alternative therapies

Yoga

Yoga is a complex mind–body intervention involving spiritual practice, physical activity, breathing exercises and meditation [669, 670]. Although the traditional goal of yoga is to unite body, mind, and spirit and achieve self-awareness, yoga has become a popular method of maintaining physical and mental health [669–671]. Yoga practice commonly involves postures to improve strength and flexibility, breathing exercises to focus the mind and assist with relaxation, and meditation to calm the mind [671]. Research has demonstrated that yoga can assist with the improvement of co-occurring mental health symptoms in patients with physical conditions such as cancer [672, 673], menopausal symptoms [674], and pain [675].

Several systematic reviews have been conducted to assess the efficacy of yoga as an intervention for depression. These studies have found limited to moderate support for short-term improvements in severity of depression in yoga with meditation-based practice (rather than exercise-based practice) [676–679]. Only one study has examined the effect of yoga breathing (Sudarshana Kriya Yoga) on depressive symptoms among people with alcohol dependence [680]. This study found that the yoga intervention was associated with reduced depressive symptoms compared to the control group. Although the effectiveness of yoga as a treatment for people with comorbid AOD and depressive disorders needs further investigation, these findings indicate that yoga may be considered as an additional treatment for clients with comorbid depression.

Omega-3

There has been much research conducted examining the relationship between omega-3 and depressive disorders, with some evidence that omega-3 fatty acids (primarily found in fish and seafood) are associated with lower rates of depression [681–688]. Although several studies support omega-3 supplementation as an antidepressant for people with depression alone, the role of omega-3 in people with comorbid AOD use and depression has not been rigorously examined.

Research that has included people with comorbid AOD use has been largely focused on aggression, anger, and co-occurring depression. Animal studies have found evidence of associations between omega-3 deficiencies and increased aggressive and depressive behaviours [689]. Beier and colleagues found reduced omega-3 levels among people with comorbid major depression and AOD use, indicating that omega-3 may be used as a therapeutic approach for people with depression and AOD use, and particularly those with aggressive symptoms [690]. Another placebo-controlled study of people with AOD abuse who had histories of aggression and legal problems found that anger improved with omega-3 supplementation [691, 692]. Other studies have also examined the relationship between omega-3

supplementation, depression, and co-occurring anger, aggression, hostility, and impulsivity, but have not included comorbid substance use [693-695]. Although these studies found that omega-3 supplementation improved depression and aggression [693, 694], Beier and colleagues suggest that AOD use (which was not measured) may have played an important underlying role [690].

St John's Wort

St John's Wort is the common name for the plant *Hypericum perforatum*, the extracts of which are commonly used to treat depression, sometimes in order to avoid the side-effects involved with prescription medication [696]. A systematic review of studies examining the efficacy of St John's Wort found significantly greater reductions in mild to moderate symptoms of depression among those taking St John's Wort compared to placebo [697]. However, the efficacy of St John's Wort compared to antidepressants is not known. The long-term side effects, particularly among pregnant women, are also unknown.

Although there is some evidence of efficacy in mild to moderate depression, the use of St John's Wort has been shown to have significant interactions with a range of other medications, including SSRIs and related drugs, oral contraceptives, some anticoagulants, and some cardiac medications [698]. Further, the use of St John's Wort among people with comorbid AOD and depressive disorders has not been examined. As such, AOD workers should ask their clients specifically about their use of St John's Wort and other complementary medicines, taking note of the potential for interactions between medications.

Summary

While these findings indicate that several psychological, pharmacological, and alternative approaches for the treatment of co-occurring depression and AOD use disorders appear promising, further research is required to establish which therapeutic approaches are particularly effective. It is suggested that clinical efforts be focused on the provision of client-centred, evidence-based treatment, taking into account the client's needs and preferences, in a collaborative partnership. Box 16 illustrates the continuation of case study D, following Jack after the identification of his comorbid depressive and AOD use disorder.

Box 16: Case study D: Treating comorbid depression and AOD use: Jack's story continued

Case study D: Treating comorbid depression and AOD use: Jack's story continued

Jack's revelations about his use of cannabis and alcohol led to a change in his treatment plan, and he realised for the first time that both alcohol and cannabis – alone or in combination – made his depression much worse. Jack said that there was a strong family history of depression; his father, one paternal uncle and his paternal grandfather, all experienced severe depression over the course of their lives, and his grandfather committed suicide in his early sixties. Jack went on to say that he had now realised that both he and his doctors had accepted a genetic causation of his recurrent depressive illness, without much thought being given to other factors such as AOD use.

With Jack's consent, the AOD worker spoke with his GP, psychologist, and psychiatrist to devise some treatment options for Jack. After presenting various options to Jack, it was decided that he would continue with his current antidepressant medication (which was working well so far), continue to see his psychologist weekly, and try attending some outpatient AOD group sessions for additional support. Jack was also made aware of the possibility of pharmacological therapies to help reduce his drinking, but he decided that he did not want to try medications at this stage. Jack continued with his antidepressant medication and seeing his psychologist, but decided after trying a few different support groups that it wasn't for him. Jack received regular ongoing monitoring of his physical health from his GP, who paid particular attention to Jack's liver function, respiratory health and blood pressure.

Box 16: Case study D: Treating comorbid depression and AOD use: Jack's story continued

Despite a few lapses, Jack progressed through treatment very well. Initially, he had some trouble abstaining from both alcohol and cannabis, but eventually stopped drinking and used cannabis only once per week. In planning his treatment, Jack had decided that he would take some time off work to concentrate on his mental health. After discussing his options with his psychologist, Jack decided to disclose the details of his condition, in confidence, to his employer who he had known for many years. Jack's manager was understanding and supportive, but he was also naturally concerned about Jack's return to work as several of the firm's clients were somewhat reliant on him.

In consultation with Jack's team of health care providers, it was agreed that he would have a short time off work and then return to work part-time, which in itself might be helpful to Jack in respect to improving his confidence and self-esteem.

Key points:

- People with comorbid disorders do not necessarily present in any obvious way. There is higher prevalence of older people who have continued to use AOD since cannabis and stimulants became more readily available in the 1960s and 1970s. The need for careful history taking regarding AOD use cannot be overemphasised.
- In some cases, mental health conditions may quickly respond to appropriate treatments. However, comorbid mental health and AOD use disorders present a numbers of challenges – in particular the need to address the need to maintain treatment gains in the long term (years rather than days or weeks).

Anxiety

Anxiety

Clinical presentation

Anxiety involves excessive fear or worry, difficulty controlling this worry, and/or repetitive intrusive thoughts or actions. Symptoms include poor concentration, inability to relax, sleep disturbances, depersonalisation, and physical symptoms such as dizziness, faintness, headaches, nausea, indigestion, loss of sexual pleasure, breathing difficulties, sweating, tension and muscle pain, and heart palpitations.

Managing symptoms of anxiety, panic, or agitation

The presence of an anxiety disorder can significantly increase the risk of relapse to AOD use [699]. Techniques for managing clients with symptoms of anxiety are outlined in Table 39. Clients may also be encouraged to try relaxation techniques to manage the distressing and distracting symptoms of anxiety [700, 701].

Some useful relaxation methods include:

- Progressive muscle relaxation.
- Controlled or abdominal breathing.
- Calming response.
- Visualisation and imagery.
- Grounding.

Each method works best if practiced daily by clients for 10–20 minutes; however, not every technique may be appropriate for every client. These techniques are described in detail in Appendix U. Some of the cognitive behavioural techniques described in Appendix T (i.e., cognitive restructuring, structured problem solving, and goal setting) may also be useful in managing symptoms of anxiety [66, 385, 702, 703], but again, no one strategy is effective for all clients. If the client experiences unpleasant effects from any strategy, he/she should discontinue its use.

Like depressive symptoms, many anxiety symptoms will subside after a period of abstinence and stabilisation [35, 290, 299, 704]. It is useful to explain to clients that it is quite normal to feel anxious when entering treatment but that these feelings usually improve over a period of weeks. During and after this time, constant monitoring of symptoms will allow the AOD worker to determine if the client requires further treatment for these symptoms. If the client has a history of anxiety in circumstances when he/she is not intoxicated or withdrawing, he/she may have an independent anxiety disorder. For these clients, it is unlikely that their anxiety symptoms will resolve completely with abstinence – indeed their symptoms may even increase. In such cases, clients should be assessed for an anxiety disorder and the treatment options should be considered.

Table 39: Dos and don'ts of managing a client with symptoms of anxiety

Do:

- ✓ Approach the client in a calm, confident, and receptive way.
- ✓ Move and speak at an unhurried speed.
- ✓ Be patient in order to allow the client to feel comfortable to disclose information.
- ✓ Minimise the number of staff present and attending to the client.
- ✓ Minimise surrounding noise to reduce stimulation.
- ✓ Reassure the client frequently (e.g., 'This won't take much longer').
- ✓ Explain the purpose of interventions.
- ✓ Remain with the client to calm him/her down.

Don't:

- ✗ Crowd or pressure the client.
- ✗ Get frustrated or impatient.
- ✗ Panic. The more relaxed you are the more relaxed the client is likely to feel.
- ✗ Act shocked by what the client may reveal.

Adapted from NSW Department of Health [277] and Clancy and Terry [296].

Treating anxiety disorders

As with depression, much of the anxiety exhibited by clients entering AOD treatment will subside following a period of abstinence and stabilisation without the need for any direct attention [290, 416, 705]. There are several options available for the treatment of anxiety disorders, including psychotherapy, pharmacotherapy, e-health, interventions, physical activity, and complementary and alternative therapies (e.g., dietary supplements). The evidence base surrounding each of these treatments in relation to the different anxiety disorders is discussed below.

Expert reviewers tend to agree that psychological interventions should accompany pharmacological treatments for anxiety disorders [706], and suggest that a combination of psychotherapy and pharmacotherapy may be uniquely effective in the treatment of individuals with comorbid anxiety and alcohol use disorders [432, 705]. In terms of psychotherapy, a Cochrane review concluded that CBT is effective in treating anxiety disorders [707] and, as discussed previously, there is good evidence that CBT and MI are effective psychotherapies for particular types of AOD use disorders.

If the anxiety is acute and disabling and interfering with a response to AOD treatment, then consideration should be given to pharmacotherapy, either for the substance use (in the case of alcohol – naltrexone, acamprosate or disulfiram), the anxiety, or both. Although research examining the treatment of the treatment of comorbid anxiety and AOD use is scarce [708], it would be reasonable to draw similar conclusions for these comorbid groups as for depressed substance abusers – namely, use of a medication such as a SSRI (which has anxiolytic properties), with a good side-effect profile, proven efficacy in the mental health disorder and minimal negative interactions with the substance of abuse [121, 705]. Commonly prescribed anti-anxiety medications include some of the SSRIs (and other antidepressants, e.g., venlafaxine) listed in Table 38, and those listed in Table 40.

Despite their proven effectiveness in relieving anxiety, the use of benzodiazepines is not recommended due to their abuse liability [121, 263, 706]. Benzodiazepines should only be prescribed among patients with a history of problematic AOD use if there is a compelling reason to use them, there is no good alternative (i.e., other psychological and medication options have failed), close follow-up and supervision is provided,

and monitoring for misuse is in place. If benzodiazepines are used, the client should only be prescribed the lowest possible dose for only a short period of time (no more than one month) [121].

Table 40: Anti-anxiety medications

Drug name	Brand names	Drug type
Escitalopram	Lexapro, Lexam	SSRI
Paroxetine	Aropax, Paxtine	SSRI
Sertraline	Zoloft	SSRI
Fluoxetine	Prozac, Lovan	SSRI
Fluvoxamine	Luvox, Moxam	SSRI
Citalopram	Celica, Cipramil	SSRI
Venlafaxine	Efexor-XR	SNRI
Duloxetine	Cymbalta	SNRI
Alprazolam	Xanax, Sandoz	Benzodiazepine
Clonazepam	Paxam, Rivotril	Benzodiazepine
Diazepam	Valium	Benzodiazepine
Lorazepam	Ativan	Benzodiazepine
Clomipramine	Anafranil	TCA
Imipramine	Tofranil, Tolerade	TCA
Phenelzine	Nardil	MAOI
Quetiapine	Seroquel	Antipsychotic



SSRIs = selective serotonin reuptake inhibitors; SNRI = serotonin and noradrenaline reuptake inhibitor; TCA = tricyclic antidepressants; MAOI = monoamine oxidase inhibitor. Adapted from Lampe [709] and the Australian Government Department of Health [630]. For a full list of generic brands available, see the Therapeutic Goods Administration website (<https://www.tga.gov.au/>).

Generalised anxiety disorder (GAD)

Psychotherapy

There is currently very little evidence regarding the effectiveness of psychological therapies for co-occurring GAD and AOD use disorders [600]. Kushner and colleagues [710] developed an integrated group CBT program for comorbid anxiety and alcohol use disorders to address symptoms of anxiety, as well as the association between anxiety and the motivation to drink alcohol. The treatment was evaluated in an RCT of individuals in a residential treatment program for alcohol use disorders with comorbid GAD, panic disorder, or SAD. Those randomised to receive the CBT program treatment experienced considerably better alcohol outcomes relative to the control group who received progressive muscle relaxation training, and both groups demonstrated a reduction in anxiety symptoms.

In the absence of comprehensive research examining psychotherapeutic approaches to comorbid GAD and AOD use, it may be prudent to be guided by other clinical guidelines for the management and treatment of GAD alone. The UK NICE Clinical Guidelines for the management of GAD recommend offering clients the choice of individual non-facilitated self-help, individual guided self-help, or psychoeducation groups as a first line of intervention, followed by individual high-intensity psychological intervention or pharmacological treatment if symptoms have not responded adequately [711]. Further information on the NICE Clinical Guidelines and recommendations can be found at the National Institute for Health and Care Excellence website <http://www.nice.org.uk/>.

Psychotherapy has been found to be equally as efficacious in the treatment of GAD as pharmacotherapies [712]. Although experts suggest that the combined use of psychotherapy and pharmacotherapy may be most beneficial [706], at present there have been too few studies to provide conclusive evidence [713]. As mentioned, it also remains unclear as to whether approaches used for treating GAD as a single disorder are equally efficacious in the treatment of comorbid GAD and AOD use disorders.

Pharmacotherapy

As mentioned, pharmacotherapy and psychotherapy have been found to be equally as efficacious in the treatment of GAD [712], and experts suggest that the combined use of psychotherapy and pharmacotherapy may be most beneficial [706]. Studies have found the use of SSRIs to be associated with reductions in alcohol use [626, 714]; however, their effectiveness has not been studied in individuals with comorbid anxiety and AOD use disorders. The use of SSRIs is considered preferable to benzodiazepines for GAD because they are more effective in treating symptoms such as worry, tension, irritability and concentration problems; and they have a safer side-effect profile [715]. McHugh [716] highlights the dearth of literature addressing the safety and efficacy of benzodiazepine use in this comorbid group, and recommends using alternative treatments as a first line of treatment, only resorting to benzodiazepines once other options have failed.

Some research has found buspirone, a non-benzodiazepine anti-anxiety medication, to be effective in treating anxiety in people with alcohol use disorders as well as increasing treatment retention in this group [263, 717, 718]. Furthermore, buspirone has been found to produce improvements in drinking outcomes as well as in anxiety outcomes [717, 718]. However, one RCT has reported that buspirone did not perform better than placebo in a sample of people with GAD who had recently completed detoxification from alcohol [719]. Additionally, a randomised placebo-controlled trial of buspirone for the treatment of anxiety in people with opioid dependence found that whilst buspirone was associated with a delayed return to substance use, it did not have an effect on anxiety symptoms [720]. At present, buspirone is not subsidised in Australia for non-veterans and is only available at significant cost by private prescription. Buspirone has the added difficulty that it can take up to four weeks at a therapeutic dose to have anti-anxiety effects. This may prove unattractive to clients who want the instant relief from their anxiety that can be provided by alcohol or benzodiazepines.

Panic disorder

Little research has examined the treatment of panic disorder when it co-occurs with AOD use disorders. In the absence of this evidence, the use of similar strategies to those found to be efficacious in the treatment of panic disorder alone is appropriate. The UK NICE guidelines for the management of panic disorder recommend a process of assessment and shared decision making to decide the first line of treatment, which should be psychotherapy (CBT), self-help, or pharmacotherapy (SSRI or TCA antidepressants) [711]. A Cochrane review and meta-analysis have both concluded that, in the treatment of panic disorder alone, it is equally efficacious to use psychotherapy or pharmacotherapy (SSRIs in particular), and that client preference should be taken into account when deciding on a course of treatment [712, 721]. Furthermore,

it appears that the combination of psychotherapy and antidepressants is superior to treatment with antidepressants alone [713]. Behavioural techniques such as exposure and systematic desensitisation have also been shown to be effective, and relaxation and supportive counselling may also be helpful [263]. However, it remains unclear as to whether the same approach for treating panic disorder as a single disorder is equally efficacious in the treatment of comorbid panic disorder and AOD use disorders.

Psychotherapy

Findings from studies examining psychological treatments designed to address symptoms of both panic disorder and AOD use present mixed evidence. In an RCT of people with panic disorder receiving inpatient treatment for alcohol dependence, Bowen and colleagues [722] examined CBT for panic disorder in addition to a regular alcohol treatment program. They found that although there were improvements in anxiety symptoms and alcohol use, there was no additional benefit of the CBT treatment component. In contrast, Schädé and colleagues [723, 724] found the addition of CBT to psychosocial treatment for alcohol dependence yielded superior results for anxiety symptoms, compared to treatment for alcohol dependence alone. More recently, Kushner and colleagues [710] evaluated an integrated group CBT program for comorbid anxiety and alcohol use disorders in a RCT of individuals in a residential treatment program for alcohol use disorders with comorbid GAD, panic disorder, or SAD. Those randomised to receive the CBT program experienced considerably better alcohol outcomes relative to the control group who received progressive muscle relaxation training, and both groups demonstrated a reduction in anxiety symptoms.

Pharmacotherapy

There is a dearth of research exploring the pharmacological treatment of co-occurring panic and AOD use disorders. SSRIs and venlafaxine are the first line pharmacotherapy recommended for the treatment of panic disorder as a single disorder [725]. It has been recommended that caution should be used when treating panic disorder with antidepressants such as SSRIs and TCAs because these agents may cause an initial worsening of panic symptoms [263]. As mentioned previously, TCAs are poorly tolerated, potentially lethal in overdose, and cause significant adverse effects when combined with other central nervous system depressants. In contrast, SSRIs are associated with fewer side effects, have better tolerability (resulting in improved compliance) and are safer in overdose [424]. It is recommended that a low dose be prescribed to start with to avoid activation of panic symptoms [263, 725].

Social anxiety disorder (SAD)

Research that has been conducted on comorbid SAD and AOD use disorders shows mixed findings. Although earlier research indicated either no symptom improvement or deleterious outcomes, more recent research of integrated treatments show promise.

Psychotherapy

Studies of psychological treatments for comorbid SAD and alcohol use disorders suggest that the treatment of both disorders concurrently is no more beneficial than treatments focused on drinking alone [723], and that concurrent treatment may even have a deleterious effect on drinking outcomes [726]. Research by Schädé and colleagues [723, 724] indicated that adding CBT and an optional SSRI to relapse prevention treatment for alcohol dependence yielded superior results for symptoms of anxiety in people with SAD, but did not improve drinking outcomes relative to alcohol relapse prevention treatment alone. Another study examined the efficacy of CBT for SAD and alcohol dependence compared with CBT for alcohol dependence only [726]. The authors found overall improvements in anxiety symptoms with no

significant advantage of the additional CBT treatment, but poorer outcomes for the combined treatment group in regards to alcohol use. It should be noted, however, that neither of these studies examined integrated treatments for SAD and substance use, but treatment administered within a parallel model.

Recently, an integrated treatment has been developed for social anxiety and alcohol use disorders, which combines CBT and MI [727]. Preliminary findings indicate that it may be a promising approach for the treatment of comorbid SAD and alcohol use disorders [728]. Compared to participants randomly allocated to receive CBT for alcohol alone, participants receiving integrated CBT had better outcomes for symptoms of social anxiety, general functioning, and quality of life [729]. Both groups reduced their alcohol use, with no difference between groups.

Pharmacotherapy

In terms of pharmacological treatment for SAD, there is evidence to suggest that treatment with SSRIs can be effective in reducing anxiety symptoms [730, 731]. There is also some evidence that SSRIs can be effective at treating co-occurring SAD and AOD use disorders, although their effectiveness at reducing AOD use may be limited [732-734]. In a double-blind, placebo-controlled trial, paroxetine was found to reduce symptoms of social anxiety and reliance on alcohol for self-medication of anxiety symptoms, but it did not reduce actual quantity and frequency of drinking [732, 734].

E-health interventions

As noted in previous sections, there has been an expansion of research into e-health interventions, with growing evidence to support its use in managing and treating various disorders. A systematic review and meta-analysis examining e-health interventions for GAD found significant post-treatment improvements for generalised anxiety and pathological worry [735]. Indeed, the efficacy of e-health interventions was found to be equivalent to that of CBT interventions delivered face-to-face. The review further concluded that CBT-based interventions have a stronger evidence-base and greater efficacy compared to psychodynamic-based interventions.

Two other meta-analyses have examined the efficacy of internet-based approaches for anxiety [736, 737]. Spek and colleagues [736] evaluated internet-based CBT for anxiety and depressive disorders and found larger effect sizes for anxiety than depression interventions, which was suggested to be related to the amount of therapist support provided alongside the internet-based intervention. Cuijpers and colleagues [737] similarly demonstrated that computer-based psychotherapy was as effective for managing and treating anxiety disorders as face-to-face treatment, regardless of disorder type.

In relation to the management of phobia and panic disorder, the UK NICE Guidelines recommend *FearFighter*, a computer-based psychotherapy, as an evidence-based treatment for anxiety [444]. *FearFighter* is a CBT-based e-health intervention based on self-exposure therapy [738]. Research has found that the *FearFighter* program is as effective as face-to-face interventions in managing and treating panic and phobia [739].

To date, no e-health interventions have been developed for treating comorbid anxiety and AOD use. However, an Australian program called *Anxiety Online* does provide links to psychoeducation surrounding AOD use [740]. *Anxiety Online* comprises five e-therapy programs for GAD, SAD, panic disorder, PTSD, and OCD. Definitive evidence regarding the efficacy of this program is lacking; however, a naturalistic study found that the participation in *Anxiety Online* was associated with significant reductions in severity of all five disorders, and increased confidence in managing one's own mental health care. Significant improvements in quality of life were also observed for the GAD, SAD, OCD, PTSD, and e-therapy programs, but not the panic disorder program. Overall, treatment satisfaction was good across all five e-therapy programs.

Physical activity

The evidence base for the efficacy of physical exercise in reducing anxiety symptoms is smaller than that for depression; but nonetheless indicates that exercise is efficacious in alleviating symptoms of anxiety [711]. Aerobic and non-aerobic exercise have been found to be as effective as CBT [199], with reductions in anxiety, tension, and irritability observed among those with GAD who participated in resistance training and aerobics [664, 741]. Regular walking has also been found to enhance the efficacy of CBT across different anxiety disorders [742]. Regular exercise was been found to produce greater reductions in anxiety than relaxation for those with panic disorder [743], but is less effective than pharmacotherapy [744] or group delivered CBT [745].

Two reviews reporting secondary psychological outcomes of studies examining the effect of physical activity among people with AOD use found improvements in both AOD use and anxiety [185, 186]. Findings indicate that both aerobic and anaerobic training may be effective, over an optimal duration of 9 weeks [746]. However, there is mixed evidence regarding the optimal intensity, with some studies finding support for light to moderate exercise, and others finding larger effect sizes with higher intensity training [186].

Complementary and alternative therapies

Yoga

Although the effectiveness of yoga as an intervention for anxiety has been evaluated in a number of studies, the poor quality of the evidence makes it difficult to draw conclusions. Earlier systematic reviews found minimal evidence for the efficacy of meditation therapy [747] or mindfulness-based meditation [748], but two recent systematic reviews concluded that meditative therapies reduced anxiety symptoms [749, 750]. No research has evaluated yoga for people with comorbid anxiety and AOD use.

Dietary supplements

Some people with anxiety disorders may prefer herbal or nutritional supplements, either in addition to, or instead of, psychological or pharmacological therapies. Systematic reviews have found limited evidence for the efficacy of several 'phytomedicines', including *Passiflora* extract, *Kava*, and combinations of L-lysine and L-arginine [751-753]. Despite its popularity, there is no convincing evidence supporting the use of homeopathy in the treatment of anxiety disorders [754, 755]. Further, none of these supplements have been evaluated among people with comorbid anxiety and AOD use disorders.

Summary

Research concerning both psychological and pharmacological treatments for comorbid anxiety and AOD use disorders is sparse [708, 756] and the evidence for integrated treatments is mixed [716]. In the absence of research examining treatments for comorbid anxiety and AOD use disorders, it may be useful to seek guidance from treatment approaches to single disorders. More rigorous research is required in order to determine whether the same approach for treating single disorders is equally efficacious in the treatment of comorbid disorders. Box 17 illustrates the continuation of case study E, following Alina's story after identification of her anxiety disorder was made. However, as illustrated, the presence of a comorbid AOD use disorder may complicate the management and treatment plan.

Box 17: Case study E: Treating comorbid anxiety and AOD use: Alina's story continued

Case Study E: Treating comorbid anxiety and AOD use: Alina's story continued

Alina's psychologist diagnosed her with GAD, and suggested that they try CBT for the treatment of her anxiety and panic attacks. With the worsening of Alina's symptoms, the psychologist took the view that she might need longer term treatment than provided under the Medicare Better Access Scheme.

The treatment plan developed in consultation with Alina emphasised the need to deal with both her anxiety and alcohol use. The psychologist liaised with Alina's GP, who ordered some blood tests and recommended a short course of medication to help Alina withdraw from alcohol. Both the GP and the psychologist advised Alina that the first few days without alcohol would likely be the worst, but that symptoms typically abate within one week. In particular, they highlighted a possible increase in her anxiety during this period, but reassured Alina that this would likely subside and they would be there to help her through.

Over the next few weeks, Alina began to see a cycle between her anxiety and alcohol use, with alcohol providing temporary relief from her anxiety, which then worsened once the effects of alcohol wore off. Alina began to realise how the vicious cycle led to avoidance behaviours which made her feel depressed because she was no longer engaging in activities that she enjoyed. She also began to appreciate that her alcohol use had become an independent problem, and that although she was acquiring coping strategies to deal with anxiety, the potential for developing an even more serious alcohol problem was a real possibility.

Alina's psychologist arranged for her to attend weekly sessions of a relapse prevention program run by local AOD services. Her psychologist also helped her to deal with avoidance behaviours with a program of gradual exposure to situations that had previously been anxiety provoking. Although Alina responded very well to these treatment initiatives within two to three months, they both agreed that she should remain in contact with her psychologist over a longer term period. The frequency of sessions gradually reduced over time.

Key points:

- Treatments for anxiety and AOD use may require client contact over a period of months, rather than weeks.
- Without addressing AOD use, psychological treatments for anxiety may be rendered ineffective.

OCD

Obsessive compulsive disorder (OCD)

Clinical presentation

As mentioned in Chapter A4, OCD was classified as an anxiety disorder in the DSM-IV-TR, but the DSM-5 has separated OCD (and related disorders) into a separate category of disorder.

A person with OCD may be significantly distressed by their symptoms, and their ability to function may be impaired. They are plagued with persistent thoughts or impulses that are intrusive and unwanted (obsessions) and they may feel compelled to perform repetitive, ritualistic actions that are excessive and time consuming (compulsions). Symptoms of obsessions may include:

- Fear of germs, dirt, or poisons.
- Harm from illness or injury to self or others.
- Intrusive thoughts about sex or sexual acts.
- Excessive concerns with symmetry or orderliness.
- Needing to know or remember things.
- Hoarding or saving and collecting things.

Anxiety about obsessions may lead to vigilance about possible threats, and a compelling need for control. A person may feel annoyed, discomforted, distressed, or panic about their obsessions, and feel driven to perform repetitive mental or physical acts in response. Symptoms of compulsions may include:

- Excessive hand washing, showering, tooth brushing.
- Excessively checking locks, appliances, other safety items.
- Repeating activities or routines (e.g., opening a door, switching a light on and off).
- Applying rules to the placement of objects.
- Inability to throw out excessive collections of items (e.g., newspapers, clothes).

OCD may often go under-detected among people with AOD conditions. This is thought to be due to both a lack of training for AOD workers in the detection of OCD, and a lack of disclosure by clients who may experience shame and embarrassment, and be intent on hiding their symptoms [757].

Managing symptoms of OCD

Many people may have mild symptoms that are associated with stressful life events or situations which often improve without the need for specific treatments. However, those who experience the severity, distress and impairment associated with more chronic and enduring OCD may benefit from some form of treatment [758].

The techniques outlined in Table 41 may help AOD workers to manage clients with obsessive-compulsive symptoms, whether they are transient or more entrenched.

Table 41: Dos and don'ts of managing a client with obsessive compulsive symptoms

Do:

- ✓ Ignore strange or embarrassing behaviour if you can, especially if it is not serious.
- ✓ Approach the client in a calm, confident and receptive way.
- ✓ Move and speak at an unhurried speed.
- ✓ Be patient in order to allow the client to feel comfortable to disclose information.
- ✓ Minimise the number of staff present and attending to the client.
- ✓ Minimise surrounding noise to reduce stimulation.
- ✓ Reassure the client frequently (e.g., 'This won't take much longer').
- ✓ Explain the purpose of interventions.
- ✓ Remain with the client to calm him/her down.

Don't:

- × Crowd or pressure the client.
- × Become frustrated or impatient.
- × Laugh (or let others laugh) at the person.
- × Act horrified, worried or panic.
- × Confuse and increase the client's level of stress by having too many workers attempting to communicate with him/her.
- × Argue with the client's unusual beliefs or agree with or support unusual beliefs – it is better to simply say 'I can see you are anxious, how can I help you?'
- × Use 'no' language, as it may provoke hostility and aggression. Statements like 'I'm sorry, we're not allowed to do ____ but I **can** offer you other help, assessment, referral...' may help to calm the client whilst retaining communication.
- × Use overly clinical language without clear explanations.

Adapted from NSW Department of Health [277] and Clancy and Terry [296], Jenner et al. [123].

Treating OCD

Despite evidence from the general population indicating that roughly one in ten individuals with an AOD use disorder have OCD (see Chapter A2), the treatment of this comorbidity has not been rigorously investigated. Whether or not a person is in need of treatment will largely depend on the intensity and duration of symptoms, the impact of symptoms on their everyday life, whether or not there are any other comorbid conditions (e.g., depressive or anxiety disorders), and whether there have been any other treatment attempts in the past. As with all decisions to treat, this should be informed by the relevant evidence-base, and decisions made in partnership with the client.

Although there is very little evidence regarding the treatment of co-occurring AOD use and OCD, that which does exist suggests that treating both OCD and AOD use leads to better treatment outcomes than treating AOD use alone [759].

There are several treatment options available for the treatment of OCD, including psychotherapy, pharmacotherapy, e-health, physical activity, and complementary and alternative therapies. The evidence base surrounding each of these treatments is discussed below.

Psychotherapy

There is a significant body of research supporting the efficacy and effectiveness of CBT incorporating exposure and response prevention (ERP) for the treatment of OCD as a single disorder [760-768], including two reviews – one systematic and one meta-analysis [769, 770]. Research has found that the effect sizes for ERP are as large as pharmacological treatments [765], with lower rates of relapse [766, 771, 772]. As such, CBT incorporating ERP is recommended as a first line of treatment for single disorder OCD by clinical practice guidelines [773-775].

ERP involves repeated, prolonged and systematic confrontation with certain objects or situations that trigger obsessional responses (exposure), and resisting the compulsive urges that arise in response to the triggers (response prevention) [776]. The nature of the exposure therapy can be in vivo (i.e., physically touching a light switch) or in the imagination (i.e., confronting images of loved ones dying). ERP concurrently weakens the association between the obsessional triggers and anxiety arousal, and compulsive rituals and anxiety reduction (i.e., ERP seeks to weaken the idea that anxiety will only reduce once compulsions are performed [777]). Additional cognitive therapy can help clients address thought patterns that may be underlying their obsessional fear [776]. Although ERP is considered to be the treatment of choice for OCD [775, 778], it has been suggested that the efficacy is highly dependent on ERP being delivered consistent with clinical guidelines [778].

The UK NICE guidelines recommend that low intensity CBT with ERP (i.e., consisting of up to 10 practitioner hours per client) be offered to clients with mild functional impairment and those who express a preference for a low intensity approach [775]. Low intensity treatments may include brief individual CBT with ERP, using structured self-help materials; brief individual CBT with ERP by telephone; or group CBT. Those with mild functional impairment who are unable to engage in low intensity CBT, or have a proven inadequate response to low intensity treatment, should be offered a choice of either a course of SSRI or more intensive CBT with ERP (i.e., more than 10 practitioner hours per client), as these treatments have been shown to have comparable efficacy. Similarly, the UK NICE guidelines recommend that people with OCD with moderate functional impairment should be offered a choice between SSRIs or more intensive CBT with ERP [775]. Despite evidence of its efficacy, ERP is not always the first line of treatment provided to clients with OCD. This is likely due to a combination of factors, including the ease with which medication is prescribed and is available over ERP; the fact that many workers are either unfamiliar with, or reluctant to perform ERP; and the reluctance of some people with OCD to engage with ERP due to the anxiety-evoking nature of the treatment [769].

There are currently no integrated treatments for co-occurring OCD and AOD use disorders and only one RCT has examined the concurrent treatment of OCD among people attending residential rehabilitation for their AOD use [779]. Clients who received concurrent ERP for their OCD remained in treatment longer, and had lower OCD symptom severity and higher abstinence rates during treatment and at the 12-month follow-up, compared to those who received AOD treatment alone or AOD use plus progressive muscle relaxation. Based on the evidence provided from this RCT [779], and evidence pertaining to the treatment of OCD and AOD use as single disorders, Klostermann and Fals [759] recommend five steps for treating people with comorbid OCD and AOD use. The five steps include:

- Assessment of both OCD and AOD use: This can be difficult if clients are attempting to conceal their symptoms for fear of embarrassment, and OCD can often be confused with other psychiatric illnesses (e.g., phobia, depression, and psychosis).
- Assessment of symptom type and quality using validated assessment tools: For example intrusive thoughts, feelings and behaviours, detailed description of the anxiety-provoking stimuli typically experienced, and the ritualistic behaviours performed in response.
- Psychoeducational therapy.
- Creation of a stimulus hierarchy: Listing obsessions, compulsions and anxiety-provoking stimuli, which are then rated based on the amount of anxiety generated.
- Treatment: Concurrent delivery of ERP and AOD use treatment.

Although the findings of Fals-Stewart and Schafer [779] are promising, more evidence is clearly needed. In particular, the cyclical nature between OCD and AOD use suggests there is a need for the development of integrated treatments that simultaneously address both disorders [769, 780]. Stewart and O'Connor [780] suggest that such an integrated approach may consist of psychoeducation to explore the cyclical relationship between OCD symptoms and AOD use; targeting AOD use during ERP treatment if it is identified as a safety behaviour (a behaviour that temporarily relieves the distress associated with obsessions); and therapeutic work focused on increasing self-efficacy, in order to help the client believe they can cope without AOD use [780].

Pharmacotherapy

There has been little research examining the efficacy of pharmacotherapy interventions among people with comorbid OCD and AOD use. A Cochrane review of pharmacotherapy for anxiety and comorbid alcohol use disorders found no rigorously conducted trials of medication treatment for comorbid alcohol misuse and OCD [708]. In view of the lack of evidence for pharmacological interventions for comorbid OCD and AOD use, workers may be guided by the body of research that has been conducted for single disorder OCD.

Systematic reviews and meta-analyses of RCTs examining pharmacotherapy treatments for single disorder OCD have found that the SSRIs (citalopram, escitalopram, fluoxetine, fluvoxamine, paroxetine, and sertraline), and the TCA antidepressant clomipramine, to be associated with reductions in symptom severity and improvements in health-related quality of life [781, 782]. Evidence-based guidelines for the treatment of single disorder OCD recommend that SSRIs be used as the first line of pharmacotherapy, and further suggest that the combination of psychological and pharmacological treatments is likely to be superior to either approach in isolation, though this has yet to be confirmed [758]. The current evidence for a combined approach is conflicting, with some studies finding an enhanced effect from the combination of both psychotherapy and pharmacotherapy (e.g., fluvoxamine enhancing ERP [783], and CBT [784], ERP and SSRIs being superior to SSRIs alone [785], ERP/CBT plus SSRIs being superior to SSRI alone [786]), which is not supported in others (e.g., d-cycloserine hastens the response to CBT, but overall effectiveness of CBT is not enhanced [787-789]). Table 42 provides a list of SSRIs for the pharmacological treatment of single disorder OCD.

Table 42: Selective serotonin reuptake inhibitor (SSRI) medications

Drug name	Brand names
Fluoxetine	Lovan, Prozac, Zactin
Paroxetine	Aropax, Paxtine, Paroxo
Sertraline	Zoloft, Eleva, Seralin
Fluvoxamine	Luvox, Faverin, Voxam
Citalopram	Cipramil, Celapram, Celica
Escitalopram	Lexapro, Escicor, Esipram

Adapted from Australian Government Department of Health [630]. For a full list of generic brands available, see the Therapeutic Goods Administration website (<https://www.tga.gov.au/>).

E-health interventions

Although there have yet to be any e-health interventions developed specifically for comorbid OCD and AOD use, there have been several e-health interventions developed for OCD as a single disorder. Research examining computerised CBT programs for OCD have found evidence of effectiveness [790–794], with effects similar to those found in clinician-delivered CBT sustained to three and four months [790, 793, 795, 796]. There is also evidence to suggest a dose-response relationship in regards to computerised CBT programs, with greater symptom improvements found among those who have completed more homework [792]. However, studies have found that clinician-assisted programs with limited contact are associated with better outcomes than completely computerised programs with no human contact, and the addition of a therapist coach has been linked to treatment adherence and lower dropout rates [797].

A small number of e-health programs based on ERP have also been developed. It has been suggested that the complex nature of OCD coupled with the exposure-based intervention may have deterred researchers from translating treatments into online interventions [798]. Furthermore, the findings from studies examining the efficacy of computerised ERP interventions have been mixed. A computerised ERP intervention called *BT Steps/OC Fighter* was found to be less efficacious in reducing OCD symptoms than a more expensive clinician-delivered ERP, but more efficacious than relaxation training [792]. The findings from this study suggest that the primary benefit of having a clinician was to ensure people maintain their engagement in the exposure process [769]. Given these findings, the UK NICE Guidelines recommend that *BT Steps/OC Fighter* should not be used in the treatment of OCD [444].

Another ERP program, *ICBT*, has been found to be more efficacious in reducing OCD and depressive symptoms, and improving general functioning compared to active control (online, non-directive supportive therapy) [793]. Although encouraging, further research is needed in the area of *ICBT* and OCD [798].

Physical activity

There is preliminary evidence to suggest that physical exercise may be beneficial for people with single disorder OCD. One pilot study of people with OCD maintained on SSRIs found an improvement in self-reported OCD symptoms and depression after six weeks of a walking intervention, which remained stable for one month post-treatment [799]. A second study found that the combination of a 12-week moderate aerobic exercise program with psychotherapy or pharmacotherapy reduced OCD symptom severity, which was maintained at 6-month follow-up [800]. The study found that significantly lower OCD symptoms, anxiety, and negative mood levels were reported immediately following each 20–40 minute exercise session, compared to the beginning of the session [801]. However, there is no evidence to date on the efficacy of physical exercise for the treatment of comorbid OCD and AOD use disorder specifically.

Complementary and alternative therapies

As mentioned previously, SSRIs have been associated with various dose-dependent side effects, including nausea, diarrhoea, dizziness, headaches, insomnia, sedation, anxiety, sexual dysfunction, and decreased libido [802]. As the dose required for a clinically significant improvement in OCD symptoms is typically higher than is required in the treatment of depressive disorders, the potential for unwanted side effects is substantially increased [803]. As such, several studies have examined alternative therapies in the treatment of single disorder OCD.

In a systematic review of these approaches, there was some evidence that mindfulness meditation, electroacupuncture, yoga, nutrient glycine, borage, and milk thistle may have a positive impact on OCD symptoms [804]. However, it is important to note that a number of these studies used methodologically weak designs, and none examined use of these therapies among people with comorbid OCD and AOD use.

Summary

There are currently no integrated treatments for co-occurring OCD and AOD use disorders, and evidence from only one RCT among people with comorbid OCD and AOD use favouring the concurrent treatment of these disorders [779]. Although there is limited evidence for the treatment of comorbid OCD and AOD use, results from single disorder OCD studies suggest there is strong and consistent evidence to recommend the use of ERP or CBT as the first line of treatment in single disorder OCD. Box 18 illustrates the continuation of case study F, following Jenny's story after the identification of her OCD had been made.

Box 18: Case study F: Treating comorbid OCD and AOD use: Jenny's story continued

Case Study F: Treating comorbid OCD and AOD use: Jenny's story continued

The AOD consultant liaison nurse arranged for Jenny to see both a mental health and AOD worker. With Jenny's involvement, they devised a treatment plan. This involved consultation with Jenny's GP, a home visit by a psychologist, comprehensive assessments, and concurrent treatment of Jenny's OCD and alcohol and benzodiazepine use. Although Jenny's AOD treatment was managed by the AOD service and her GP, it became evident that the supply of drugs from the Internet contained medication of varying dosage and qualities, which made it very difficult for clinicians to establish the quantity Jenny had been consuming.

Jenny received concurrent treatment of both pharmacotherapy and CBT with ERP, which addressed her OCD and alcohol and benzodiazepine use. In addition to the gastritis, Jenny had problems with her liver function, which required long-term follow up with a hepatologist. Jenny's treatment for her OCD and AOD use took place over several months and included exposure to her previously avoided situations. When this phase of treatment was completed, a longer-term process of monitoring and support was put in place to ensure that her treatment gains were maintained.

Key points:

- OCD is a condition with a much higher prevalence than had previously been assumed, but symptoms can be mistaken for anxiety.
- People with OCD commonly use substances that reduce their levels of anxiety, but may not necessarily reveal their use of AOD to health professionals.
- There are considerable problems associated with the use of medications obtained from the internet.
- There is a need to monitor ongoing physical health complications of comorbid disorders.

PTSD

Trauma and post traumatic stress disorder (PTSD)

Clinical presentation

Trauma refers to an experience in which a person is exposed to, witnesses, or is confronted with a situation in which they perceive that their own, or someone else's, safety is at risk [24]. Trauma may be a one-off event or it may have occurred over a period of time. Examples of traumatic events include (but are by no means limited to) combat exposure, being in a place of war, experiencing a natural disaster (e.g., fire, flood), actual or threatened physical or sexual assault, being in a life-threatening accident, being kidnapped, taken hostage, or threatened with a weapon, or witnessing any of these events.

Reactions following exposure to a traumatic event are varied, and can include anxiety or fear-based symptoms, aggression or anger-based symptoms, or dissociative symptoms. Although behavioural disturbances following a traumatic event are to be expected, for some people, the reaction to the event can result in prolonged and significant distress, as well as impaired social and occupational functioning [698]. Symptoms may be especially long-lasting when the trauma is interpersonal and intentional (e.g., torture, sexual violence), and if the trauma occurred in childhood [805]. Following exposure to a traumatic event, an individual may experience symptoms of PTSD (described in Chapter A4) such as:

- Recurrent 're-experiencing' of the traumatic event, through unwanted and intrusive memories, recurrent dreams or nightmares, or 'flashbacks'.
- Persistent avoidance of memories, thoughts, feelings or external reminders of the event (such as people, places or activities).
- Persistent negative mood, and feeling a distorted sense of blame of self or others, or feeling detached from others, and less interested in activities.
- Persistent symptoms of increased physiological arousal, including hypervigilance towards distressing cues, sleep difficulties, exaggerated startle response, increased anger and concentration difficulties.

Managing trauma-related symptoms

The importance of providing trauma-informed care in AOD treatment settings has received increasing recognition in recent years [346, 806, 807]. It is common for the frequency of trauma-related symptoms to increase when a person stops drinking or using drugs [808-810]. This is because clients often use these substances to suppress these feelings and control traumatic thoughts [25, 28]. However, it is important to note that avoidance symptoms, rather than re-experiencing symptoms, have been associated with the perpetuation of trauma-related symptoms [811-814]. It is therefore crucial that if a person does become upset due to these traumatic thoughts, that they are not encouraged to avoid or suppress these thoughts or feelings. Telling a person not to think or talk about what happened may also intensify feelings of guilt and shame. For those who have experienced abuse, it may closely re-enact his/her experience of being told to keep quiet about it [281]. This does not mean that clients should be pushed to revisit events or disclose information if they are not ready to do so. Rather, it means that it is understandable that the person may be upset by these thoughts and feelings that may arise, and he/she should be allowed to engage with these feelings in order to help process the trauma emotionally.

As mentioned in Chapter B2, it is crucial that clients are not forced to discuss any details about past events if they do not wish to. It is preferable that clients develop good self-care and have skills to regulate their emotions before they delve deeply into their traumatic experiences or are exposed to the stories of others; however, choice and control should be left to the client [281]. In-depth discussion of a person's trauma experiences should only be conducted by someone who is trained in dealing with trauma responses [346].

Notwithstanding, even without knowing the details of a client's trauma, AOD workers can use the techniques outlined in Table 43 to help clients manage their symptoms (Chapter B2 also provides guidance on how to discuss trauma with clients). Praising clients for their resilience in the face of adversity is important even if past adaptations and ways of coping are now causing problems (e.g., AOD use). Understanding AOD use as an adaptive response reduces the client's guilt and shame and provides a framework for developing new skills to better cope with symptoms [281].

Table 43: Dos and don'ts of managing a client with trauma-related symptoms

<p>Do:</p> <ul style="list-style-type: none"> ✓ Display a comfortable attitude if the client chooses to describe his/her trauma experience. ✓ Give the client your undivided attention, empathy and unconditional positive regard. ✓ Normalise the client's response to the trauma and validate his/her feelings. ✓ Praise the client for his/her resilience in the face of adversity. ✓ Praise the client for having the courage to talk about what happened. ✓ Use relaxation and grounding techniques where necessary. ✓ Educate the client on what to expect if they undergo detoxification (e.g., a possible increase in trauma-related symptoms). ✓ Maximise opportunities for client choice and control over treatment processes. ✓ Monitor depressive and suicidal symptoms. <p>Don't:</p> <ul style="list-style-type: none"> ✗ Rush or force the client to reveal information about the trauma. ✗ Engage in an in-depth discussion of the client's trauma unless you are trained in trauma responses. ✗ Judge the client in relation to the trauma or how he/she reacted to the trauma. ✗ Abruptly end the session. ✗ Encourage the client to suppress his/her thoughts or feelings. ✗ Engage in aggressive or confrontational therapeutic techniques. ✗ Be afraid to seek assistance. ✗ Use overly clinical language without clear explanations.

Adapted from Ouimette and Brown [815], Elliot et al. [281], and Marsh et al. [346].

Brief psychoeducation about common reactions to trauma and symptom management has also been found to be of benefit to AOD clients who have experienced trauma [816]. It is important to normalise clients' feelings and convey that such symptoms are a typical and natural reaction to an adverse traumatic event; they are not 'going crazy.' Letting them know that their reactions are quite normal may also help to alleviate some of the shame and guilt they have been feeling about not recovering from the trauma sooner. It is also important that trauma sufferers hear that what happened was not their fault, especially for those who have experienced sexual assault. An information sheet for clients on common reactions to trauma is provided in the Worksheets section of these Guidelines. Clients may also find the relaxation techniques described in Appendix U useful for managing trauma symptoms.

Elliot and colleagues [281] also identify a number of measures that can be taken at a service level to help prevent the amplification of trauma symptoms. Staff approaches, programs, procedures, and the physical setting can be modified to create a place perceived as safe and welcoming. Such an environment is one in which there is sufficient space for comfort and privacy, the absence of exposure to violent or sexual material (e.g., staff should screen the magazines in the waiting area) and sufficient staffing to monitor the behaviour of others that may be perceived as intrusive or harassing. Many common procedures and

practices may re-trigger trauma reactions. For example, aggressive or confrontational group techniques can trigger memories of past abuse. Such techniques are counterproductive; those who have been exposed to abuse in particular may revert to techniques used to cope during the trauma such as dissociating or shutting down emotionally. This may then lead to the client being labelled as 'treatment resistant' and, consequently, feelings of self-blame. The US Substance Abuse and Mental Health Services Administration also provides guidance on how to create and implement an institutional framework for trauma-informed services in program delivery and staff development, policies and procedures, administrative practices, and organisational infrastructure, which services may find useful [698].

As discussed in Chapter B7, it is also essential that workers attend to their own responses to working with traumatised clients through self-care. Hearing the details of other's trauma can be distressing, and in some cases may lead to vicarious traumatisation or secondary traumatic stress [817]. By attending to one's own self-care and engaging in clinical supervision, the likelihood of developing secondary traumatic stress may be reduced. Chapter B7 provides more detail on strategies for promoting and enhancing AOD worker self-care and reducing burnout.

Treating PTSD

People with co-occurring PTSD and AOD use are often considered more difficult to treat than people with either condition alone [89, 818]. Comorbid PTSD and AOD use is associated with difficulties recruiting and retaining clients in treatment, poor treatment adherence and outcomes, as well as less time spent abstinent post-treatment [89, 819-821].

Due to the inter-relatedness of PTSD and AOD use, experts recommend that these conditions be treated in an integrated fashion [281, 822-824]. Some clinicians maintain the view that the AOD use must be treated first [825, 826], or that abstinence is necessary before PTSD diagnosis and management can be attempted [825]. In practice however, this approach can lead to clients being passed between services with little coordination of care [827]. Ongoing AOD use may impede therapy, but it is not necessary to achieve abstinence before the commencement of PTSD treatment [31]. Improvements can be obtained even in the presence of continued substance use [828, 829].

There are several treatment options available for the treatment of PTSD, including psychotherapy (e.g., past- and present-focused therapies), pharmacotherapy, e-health interventions, physical activity, and complementary and alternative therapies (e.g., yoga). The evidence base surrounding each of these treatments is discussed below.

Psychotherapy

A number of psychotherapeutic interventions have been developed for the treatment of comorbid PTSD and AOD use over the two decades; however, few have undergone rigorous evaluation. Existing approaches may be divided into two types: past-focused and present-focused therapies [824, 830, 831]. A recent Cochrane review concluded that individual past-focused psychological interventions delivered alongside AOD treatment can reduce PTSD severity and AOD use, but that there is very little evidence to support the use of present-focused individual or group-based interventions [832].

Past-focused therapies

Past-focused therapies are typically delivered individually, and include the use of exposure techniques in which the client is exposed to reminders of the trauma. Exposure-based treatments have long been considered the 'gold standard' in treating PTSD [833, 834]. Similar to exposure for phobias, exposure therapy for PTSD involves gradual exposure to the feared object or situation; in this case, traumatic memories. Traditionally, exposure therapy for PTSD was considered inappropriate for people with AOD use

disorders based on beliefs that the emotions experienced may be overwhelming and could lead to more substance use [835]. However, the evidence suggests that this is not the case; exposure therapy does not lead to an exacerbation of AOD use or increase the severity of the AOD use disorder [836]. On the contrary, exposure therapy has been shown to be protective with regards to relapse among people with alcohol use disorders 6-months post-treatment [837].

A number of clinical researchers have begun investigating the efficacy of integrated exposure-based programs that address PTSD and AOD use simultaneously. Typically this involves psychoeducation regarding each disorder and their interrelatedness, coping skills training, relapse prevention, and imaginal and/or in vivo exposure (i.e., exposure to memories and physical reminders of the trauma respectively) [288, 838-840]. Support for these programs is growing, with an increasing number of studies providing evidence for their safety and efficacy. Participants in these studies did not demonstrate a worsening of symptoms or high rates of relapse; on the contrary, they demonstrated improvements in relation to both AOD use and PTSD outcomes [828, 829, 839, 841, 842]. However, the extant research is largely limited to small pilot studies, with only two large RCTs published to date, both of which were conducted in Australia [828, 829].

Mills and colleagues [828] examined the efficacy of an integrated exposure-based therapy called *COPE* among individuals with a range of AOD use disorders. The authors found that *COPE* led to significantly greater reductions in PTSD severity compared to treatment as usual for AOD use, at that this reduction in PTSD symptoms was accompanied by significant reductions in AOD use and severity of dependence. A detailed guide to this treatment has been published by Back and colleagues [288]. Sannibale and colleagues [829] compared the efficacy of integrated CBT for PTSD and alcohol use with supportive counselling for alcohol use. Participants who had received one or more sessions of exposure therapy exhibited a twofold greater rate of clinically significant change in PTSD severity compared to those who receive supportive counselling.

In a more recent RCT, Foa and colleagues [837] examined the efficacy of exposure therapy and concurrent naltrexone in treating PTSD and alcohol use disorders. Exposure therapy was not found to be superior to supportive counselling in reducing PTSD symptoms; however, it was associated with reduced risk of relapse at 6-month follow-up. Although no studies have directly compared concurrent treatment with integrated treatment, the results of these trials indicate that integrated treatment may be more efficacious in the treatment of this comorbidity than concurrent treatment.

Present-focused therapies

Present focused therapies are typically integrated CBT-based treatments which focus on providing clients with coping skills without revisiting the traumatic event [830]. These interventions are typically delivered in individual or group formats. As mentioned previously, a recent Cochrane review concluded that there is very little evidence to support the use of present-focused individual or group-based interventions [832]. Similarly, in their narrative review of integrated treatments for PTSD and AOD use disorders, van Dam and colleagues [831] concluded that there was no convincing evidence for the use of integrated present-focused treatments over routine AOD treatment. Several present-focused treatments have been developed [843], but that which has undergone the most extensive evaluation is *Seeking Safety* [395]. *Seeking Safety* aims to help people attain safety from trauma/PTSD and AOD abuse. The treatment has been conducted in group and individual format in a variety of settings (outpatient, inpatient, residential). Two RCTs have found that the outcomes for individuals who receive *Seeking Safety* are comparable to those who receive relapse prevention or health education in terms of their AOD use and PTSD symptoms [844, 845]. More recently, Boden and colleagues found [846] improved AOD outcomes for *Seeking Safety* relative to treatment as usual, but no difference between groups in regards to PTSD outcomes. Further information and training materials may be found at www.seekingsafety.org.

Eye movement desensitisation and reprocessing (EMDR)

Along with trauma-focused therapies, Australian guidelines on the treatment of PTSD [847] recommend EMDR as a first line treatment for adults with PTSD. EMDR is based on the assumption that, during a trauma, information processing is disrupted by overwhelming emotions, and therefore attempts to help a person process their traumatic memories [847]. In EMDR, a person focuses on the imagery of a trauma, negative thoughts, emotions and body sensations whilst following guided eye movements led by a therapist. Despite EMDR being a first line treatment for PTSD, to date there has only been one small pilot study conducted examining the effectiveness of EMDR among people with comorbid PTSD and AOD conditions [848]. Significantly greater improvements were found following EMDR treatment compared to the control group, but there were no significant changes in AOD use for either condition. Although still in need of rigorous evaluation, these preliminary findings appear promising.

Pharmacotherapy

Australian guidelines for the treatment of PTSD [847] recommend that pharmacotherapies be used as an adjunct to trauma-focused CBT if the person has not gained benefit from psychological treatment. There is, however, little evidence to suggest that combining psychological and pharmacological interventions leads to improved outcomes. When pharmacotherapies are considered, SSRIs are the recommended first line option (see Table 38). The use of mirtazapine and TCAs is recommended only as a second-line option, and phenelzine may be considered for people with treatment-resistant symptoms. However, as noted previously, extreme caution should be used when prescribing TCAs and MAOIs.

Trials of pharmacotherapy for PTSD comorbid with AOD use disorders have examined the use of the antidepressants sertraline, desipramine, and paroxetine, as well as naltrexone and disulfiram, pharmacotherapies for alcohol use disorders [837, 849-853]. Early work by Brady and colleagues examining the use of sertraline provided initial evidence of safety and evidence of efficacy among people with less severe alcohol dependence and earlier onset PTSD [849, 850]. More recently, Hien and colleagues [851] investigated the use of sertraline in combination with the psychotherapy *Seeking Safety*. In this study,

Seeking Safety plus sertraline was found to be superior to *Seeking Safety* with placebo in reducing PTSD symptoms. Improvements in alcohol use and dependence were equivalent between groups.

Petrakis and colleagues [852] conducted an RCT comparing the efficacy of desipramine (a noradrenergic antidepressant) and paroxetine (a serotonergic antidepressant) with and without adjunctive naltrexone among veterans with comorbid PTSD and alcohol dependence. Both groups of antidepressants produced a significant decrease in PTSD symptoms, with greater reductions in alcohol use seen among those who received desipramine. Adjunctive use of naltrexone was associated with a greater reduction in craving, but did not confer any advantage over placebo in terms of alcohol use. These findings are contrary to those found in Foa and colleagues [837] who found naltrexone to be associated with both reductions in craving and alcohol use among individuals with this comorbidity.

Petrakis and colleagues [853] also investigated the use of naltrexone and disulfiram, administered either alone or in combination, compared with placebo. All groups demonstrated equivalent improvement in PTSD symptomology, but the use of either naltrexone, disulfiram, or the combination of these medications led to greater improvements in alcohol use than placebo. However, unwanted side effects were more common among individuals who received the combination of naltrexone and disulfiram.

E-health interventions

There are currently no e-health programs that focus on comorbid AOD use disorders and PTSD. There is, however, some evidence that internet-delivered therapy, either as the sole treatment or with the support of a therapist, can be somewhat beneficial in reducing PTSD symptoms, particularly if supported by low-level clinical care [847]. Internet programs that have been shown to have moderate treatment effects have employed CBT techniques, in the form of psychoeducation, exposure (often in the form of writing about one's trauma experience), anxiety management, and cognitive restructuring. In particular, two Australian programs – *PTSD online* and *PTSD program* – have shown particular promise [740, 854]. Notably, both programs provide links to psychoeducation on AOD use.

PTSD online is a 10-week therapist-assisted CBT program consisting of psychoeducation; anxiety management (i.e., controlled breathing and progressive muscle relaxation); cognitive behavioural strategies to identify, challenge, and change cognitive processes; imaginal (i.e., writing about the trauma) and real-life exposure; and relapse prevention. A number of small uncontrolled trials have found promising results, including significant reductions in PTSD symptoms and psychological distress, improvements in quality of life and high levels of satisfaction with treatment [740, 855, 856].

PTSD program comprises seven online lessons, a summary/homework assignment for each lesson, an online discussion forum for each lesson moderated by the therapist, regular automatic reminder and notification emails, and instant messaging to allow secure messaging with a clinician. In a small RCT, Spence and colleagues [854] found significantly greater reductions in PTSD symptom severity among individuals randomised to receive *PTSD program* compared to waitlist control. Individuals who received *PTSD program* also reported high levels of satisfaction with the treatment.

More recently, mobile apps for PTSD have begun to be developed. *PTSD Coach*, in particular, has demonstrated initial promise. Developed by the US Department of Veterans Affairs to help individuals who have PTSD symptoms better understand and self-manage their symptoms [857], *PTSD Coach* is based on evidence-based CBT principles and can be used both as a stand-alone application as well as a supportive application during therapy. It consists of psychoeducation, self-assessment, information about referral and treatment, CBT-based exercises to reduce negative trauma-related cognitions, and tools to strengthen social support and psychological resilience. An online version of the application is also available (<http://www.ptsd.va.gov/apps/PTSDCoachOnline/>). A study examining user satisfaction, perceived helpfulness, and usage patterns among veterans receiving PTSD treatment found that participants were very satisfied with *PTSD Coach* and perceived it as being moderately to very helpful in managing their PTSD symptoms [858]. These findings offer preliminary support for the acceptability and perceived helpfulness of *PTSD Coach* and suggest that it has potential to be an effective self-management tool for PTSD. Although promising, future research and validation is needed.

Physical activity

A small number of uncontrolled pilot studies have found aerobic exercise to be associated with improvements in PTSD symptoms [859–862]. Promising findings were also provided by a small controlled trial which found greater reductions in PTSD symptoms among individuals randomised to receive exposure therapy with exercise augmentation compared to those randomised to receive exposure therapy alone [863]. A more rigorous evaluation of the impact of exercise on PTSD symptoms was recently completed in Australia. Rosenbaum and colleagues [864] compared the efficacy of a 12-week exercise program (consisting of three 30-minute resistance-training sessions per week and a walking program) provided as an adjunct to inpatient care for PTSD, to inpatient care alone, in an RCT. Individuals randomised to receive

the exercise program demonstrated significantly greater reductions in PTSD symptom severity compared to those randomised to receive inpatient care alone. While further research is needed examining the optimal dose, frequency and intensity of exercise, these findings provide preliminary support for the use of exercise as an adjunct to evidence-based PTSD treatments. Research has yet to examine the impact of physical exercise in people with PTSD and comorbid AOD use disorders.

Complementary and alternative therapies

Yoga

A recent review of the literature concluded that yoga appears to have benefits for individuals with PTSD, particularly in relation to hyperarousal symptoms [865]. The predominance of research to date has consisted of small, uncontrolled pilot studies; however, a recently completed RCT provides stronger evidence in support of yoga as an alternative therapy for PTSD. van der Kolk and colleagues [866] compared the efficacy of a 10-week yoga program to supportive health education (both delivered for one hour per week) among women with chronic treatment resistant PTSD. Significantly greater reductions in PTSD symptom severity were observed among those randomised to undertake yoga compared to the supportive health education program, with effect sizes comparable to those observed for well-established psychological and pharmacological interventions. At the end of the program, 52% of those in the yoga group no longer met criteria for PTSD compared to 21% in the control group. The authors suggest that yoga may improve the functioning of traumatised individuals by helping them to tolerate physical and sensory experiences associated with fear and helplessness and to increase emotional awareness and affect tolerance [866].

Studies examining the efficacy of yoga among individuals with comorbid PTSD and AOD use disorders are lacking; however, there is some evidence to suggest that yoga may be beneficial among individuals with this comorbidity. A small Australian RCT comparing a multicomponent yoga breath program to waitlist control among heavy drinking male veterans found a significantly greater reduction in PTSD symptoms in the yoga group compared to waitlist control, and a corresponding small, non-significant reduction in alcohol use [867]. Another small trial of women with subthreshold and diagnostic levels of PTSD examined the impact of yoga on AOD use. Reductions in risky AOD use were observed; however, this study excluded women with AOD use disorders [868]. Further research among individuals with comorbid PTSD and AOD use disorders is needed, as well as research to determine the best style of yoga, and the optimal frequency and duration of practice.

Summary

The importance of providing trauma-informed care in the context of AOD treatment is now well recognised. Due to the inter-relatedness of PTSD and AOD use, an integrated approach to the treatment of these disorders is recommended. Several psychotherapeutic interventions have been developed for the treatment of comorbid PTSD and AOD use; but few have undergone rigorous evaluation. The evidence to date suggests that individual past-focused psychological interventions delivered alongside AOD treatment show most promise. There is little evidence to support the use of present-focused individual or group-based interventions. Findings from pharmaceutical trials indicate that pharmacotherapies (SSRIs in particular) may be a useful adjunctive treatment if sufficient benefit has not been gained from psychological interventions. E-health interventions, physical exercise and yoga also appear to convey benefit among individuals with PTSD; however, further research is needed to determine efficacy in PTSD populations and individuals with comorbid AOD use disorders in particular. Box 19 illustrates the continuation of case study G, following Emily's story after identification of her PTSD disorder was made.

Case Study G: Treating comorbid PTSD and AOD use: Emily's story continued

While Emily was an inpatient, the psychologist took the opportunity to talk with her a little more about her past trauma, continuing to normalise her symptoms, providing psychoeducation and self-management techniques, and exploring the relationship between her trauma-related symptoms and her substance use. The psychologist suggested that Emily might like to try a residential rehabilitation program for women only, where her trauma-related symptoms could also be addressed. Emily had previously been reluctant to enter residential rehabilitation but she had not ever heard of a women's-only service.

The psychologist organised for a telephone assessment with the residential program, and Emily entered the program following her detoxification. While the program was hard, Emily benefited greatly from the trauma-informed approach taken by the service. Importantly, Emily felt safe and over time gradually opened up more about her life. She engaged in a combination of group and individual therapy. Her individual therapy in particular focused on providing integrated treatment for both her PTSD and AOD use.

It was during one of these sessions that Emily made a link between the onset of her substance use and previous traumatic events. Unbeknownst to the therapist or any other treatment provider, Emily had been sexually abused by a male relative from the age of 5 to 11 years when she left home to live with her grandparents. Emily drank cough medication when she was little as it made her feel good when she was upset. She also reported using her father's Valium. After moving to her grandparents' house, which also involved a change of schools, she started hanging out with new friends who liked to drink and smoke cannabis. Her substance use and truancy from school caused continual fights with her grandparents, who threw her out when she was 16 years old. Emily quit school and moved into a shared house with people who introduced her to heroin around age 17. Within a year she had developed a 'habit'.

As Emily's treatment progressed, she began to open up about numerous assaults, including rapes, which had occurred in the context of the drug-using environment, but did not report any PTSD symptoms in relation to these experiences. While she was clean she was also involved in a car accident. She suffered major injuries and was not able to get into a car for 2 ½ years. She reported residual trauma symptoms, and had previously worked with a psychologist on this. Her therapy continued to concentrate on the domestic violence, for which she was currently experiencing the most distress, and later the sexual abuse she experienced as a child. Emily was aware that it would likely take a long time for her to come to terms with what she had experienced. Emily successfully completed the residential rehabilitation program, and continued to receive ongoing psychological treatment for her PTSD and substance use.

Key points:

- Symptoms of PTSD and other mental disorders may only become apparent during AOD treatment.
- Many clients have experienced multiple traumas and re-victimisation.
- It is recommended that treatments for PTSD and AOD use should be carefully integrated.

The background is a vibrant orange-yellow color with a fine, radial texture resembling a sunburst or a close-up of a flower. Overlaid on this are several large, semi-transparent triangles in a darker shade of orange, arranged in a geometric pattern. Two horizontal lines, one above and one below the text, span the width of the page.

ED

Eating disorders (ED)

ED (i.e., anorexia nervosa, bulimia nervosa, binge eating disorder) and AOD use frequently co-occur [869]. The co-occurrence of ED and AOD use disorders is particularly complex and challenging, in terms of assessment and treatment, associated physical health complications, and the potential negative cognitive impacts of both disorders [870]. Assessment can be made even more difficult by a tendency of people with ED to minimise or deny symptoms, due to deliberate deception or a genuine lack of self-awareness [871]. It is however, important that this comorbidity be identified; the consequences of comorbid ED and AOD use are severe, and can include medical complications [872], additional, severe psychiatric comorbidities [873–875], suicidal ideation and attempts [874, 876], and mortality [877, 878].

It is vital for AOD workers to be able to recognise the clinical and subthreshold signs of ED, and have some knowledge about simple management strategies.

Clinical presentation

ED are characterised by disturbances in eating behaviours and food intake that impair psychosocial functioning and/or physical health. This may involve:

- Food restriction (e.g., limiting the amount of food eaten each day by reducing portion size, eliminating food types such as fats or carbohydrates, or not eating at all).
- Vomiting and purging.
- Overexercise.
- Binge eating (i.e., consuming an objectively large amount of food in a short period of time, accompanied by a sense of feeling out of control).

The majority of the physical symptoms associated with ED are related to the effects of starvation, but are also due to effects of bingeing, purging, or overexercising [879]. People with ED, particularly bulimia nervosa, may show few outwards signs of their disorder [880], and any visible physical signs may be complicated by AOD use. For example, AOD use can influence features that are usually associated with the assessment of EDs, such as weight, appetite and food restriction [880]. Furthermore, people with an ED may experience eating-related symptoms which are similar to those associated with AOD use, such as cravings and patterns of compulsive use [24]. AOD workers should therefore endeavour to maintain a direct, non-judgemental approach during assessment, and seek to obtain as much additional information as possible (e.g., from family and/or friends with the client's consent) [881]. The level of care required will be dependent on illness severity, the presence of any medical complications, dangerousness of behaviours, and any other psychiatric comorbidities (e.g., depression, anxiety) [882].

AOD workers should also be aware of the potential interplay between ED and AOD use, and keep this in mind when conducting assessments. There may be AOD use related to the ED; for example, the use of tobacco, stimulants, diet pills, laxatives, diuretics, or caffeine to control weight or suppress appetite [883]. As such, assessment should include a focus on the use of AOD as a weight loss mechanism, as well as the role it may have in emotion regulation [884].

Symptoms of ED

Anorexia nervosa

The most profound clinical feature of anorexia nervosa is dramatic weight loss. Anorexia nervosa can be conceptualised as a disorder of control and denial; the rigid control of food intake and weight is thought to cause or prevent a life event or mood (e.g., attract romance, reduce anxiety, deter abuse) [885]. Although

not all of the physical symptoms will be noticeable, AOD workers should be aware of the potential medical complications. These are primarily related to starvation and malnutrition and include [879, 882, 886]:

- Fatigue.
- Low blood pressure.
- Abdominal pain or discomfort, constipation.
- Cold sensitivity or intolerance.
- Lethargy or hyperactivity.
- Loss of hair.
- Dry skin.
- Lanugo hair on the body (e.g., fine hairs on the back, face, arms).
- Bruising.
- Loss of menstruation.
- Dehydration.
- Neurological abnormalities.
- Osteoporosis.
- Slowed heart rate.

A thorough assessment of anorexia nervosa needs to include a comprehensive physical exam in order to identify any potential medical complications or other abnormalities that require immediate medical attention [882].

Bulimia nervosa

Bulimia nervosa is characterised by a cycle of binge/purge behaviours. Bingeing is often accompanied by a sense of loss of control, which is followed by compensatory behaviours designed to prevent weight gain (e.g., vomiting, use of laxatives, fasting or excessive exercising). Self-evaluation is disproportionately influenced by body weight, size and shape [24]. The cycle of binge/purge is maintained by the belief that control over eating, weight and shape will increase a person's self-worth, but restricting food intake leads to binge eating which then results in compensatory behaviours [882]. Negative mood states (e.g., sadness, frustration, anger, fear, or loneliness) can exacerbate this cycle [882]. However, unlike many people with anorexia nervosa, those with bulimia nervosa often realise that their behaviour is abnormal and attempt to hide or conceal their symptoms. As such, bulimia nervosa can be an isolating disorder [882]. As with anorexia nervosa, the outward symptoms can be difficult to observe, particularly as people with bulimia nervosa may not display the same dramatic loss in weight. They include [879, 882, 887]:

- Fatigue.
- Bloating and constipation.
- Abdominal pain and distension.
- Calloused knuckles.
- Hoarse voice.
- Delayed digestion.
- Hypokalaemia (low potassium).
- Muscle spasms.
- Heart palpitations.
- Nausea.
- Poor kidney function.
- Dental erosion.

Binge eating disorder

The DSM-5 has classified binge eating disorder as an independent ED [24], for episodes of binge eating which occur without compensatory weight control methods. As with bulimia nervosa, binge eating disorder is accompanied by the sense of loss of control, which can include eating until uncomfortably full, eating more quickly than normal, eating when not physically hungry, eating in isolation, and feeling disgusted or guilty afterwards [24, 882]. Care should be taken not to confuse binge eating disorder (a psychiatric condition) with obesity (a medical condition), even though they may physically resemble each other. Symptoms include [882]:

- Obesity.
- Hyperlipidaemia (elevated lipids in the blood).
- Type 2 diabetes.

Common to anorexia nervosa, bulimia nervosa and binge eating disorder are a dysfunctional system of evaluating a person's self-worth, which, rather than being based on personal qualities and achievements across various domains (e.g., academic accomplishments, athletic ability, work achievements, values, relationship qualities), is focused on weight, size, shape and appearance [888]. People with bulimia nervosa and binge eating disorder experience feelings of loss of control over their eating, and are at increased risk of additional psychiatric comorbidities. In bulimia nervosa, binge eating is thought to result from severely restricting food intake, but those with binge eating disorder do not illustrate the same intake restrictions between binge episodes [882].

Managing ED

Despite the differences between ED in terms of clinical characteristics and observable symptoms, there are some strategies that AOD workers can utilise to manage these disorders. The general principles of managing and treating ED should include the establishment of a trusting, collaborative, therapeutic relationship, taking care to avoid any potential power struggles [889]. The techniques outlined in Table 44 may help AOD workers to manage clients with ED symptoms.

Table 44: Dos and don'ts of managing a client with symptoms of eating disorders

Do:

- ✓ Encourage and emphasise successes and positive steps (even just coming in for treatment).
- ✓ Take everything they say seriously.
- ✓ Approach the client in a calm, confident and receptive way.
- ✓ Be direct and clear in your approach.
- ✓ Use open-ended questions such as 'So tell me about...?' which require more than a 'yes' or 'no' answer. This is often a good way to start a conversation.
- ✓ Constantly monitor suicidal thoughts and talk about these thoughts openly and calmly.
- ✓ Encourage the client to express his/her feelings.
- ✓ Focus on feelings and relationships, not on weight and food.
- ✓ Be available, supportive and empathetic.
- ✓ Encourage participation in healthy, pleasurable and achievement-based activities (e.g., exercise, hobbies, or work).
- ✓ Encourage, but do not force, healthy eating patterns.
- ✓ Assist the client to set realistic goals.
- ✓ Involve family or friends in management or treatment strategies.
- ✓ Be patient in order to allow the client to feel comfortable to disclose information.
- ✓ Explain the purpose of interventions.

Table 44: Dos and don'ts of managing a client with symptoms of eating disorders (continued)

Don't:

- × Act shocked by what the client may reveal.
- × Be harsh, angry, or judgemental. Remain calm and patient.
- × Use statements that label, blame or shame the client.
- × Invalidate the client's feelings.
- × Make comments (either positive or negative) about body weight, appearance or food – these will only reinforce their obsession.
- × Express any size prejudice, or reinforce the desire to be thin.
- × Engage in power struggles about eating.
- × Criticise his/her eating habits.
- × Trick or force the person to eat.
- × Get frustrated or impatient.

Adapted from NSW Department of Health [277], Clancy and Terry [296], and World Health Organisation Collaborating Centre for Evidence in Mental Health Policy [879].

Treating ED

ED are complex psychiatric illnesses that impair psychological, social and physical functioning. It has been argued that the treatment of comorbid ED and AOD use should be provided using an integrated approach to minimise the potential for deterioration in one disorder when symptoms of the other improve [873, 890]. Regardless of the eventual treatment plan, the assessment of ED should involve a multidisciplinary team of health and mental health workers, and include a thorough physical exam (with blood tests) to identify complications that may need immediate attention and/or hospitalisation [882, 883, 891]. There is limited evidence about the concurrent treatment of ED and AOD use disorders [892].

There are several treatment options available for the treatment of ED alone, including psychotherapy, pharmacotherapy, e-health interventions, physical activity, as well as complementary and alternative therapies. The evidence base surrounding each of these treatments is discussed below, in regards to each ED.

Treating anorexia nervosa

The treatment of anorexia nervosa should begin with a comprehensive assessment, evaluating both medical and psychiatric risks. This process should be ongoing throughout treatment, as clinical needs and priorities of the client may change [893]. Clinical practice guidelines on the treatment of ED from the Royal Australian and New Zealand College of Psychiatrists [893, 894] recommend that the initial assessment of anorexia nervosa incorporate the following information:

- Collection of a thorough history (including dietary restrictions, weight loss, disturbances in body image, fears about weight gain, bingeing, purging, excessive exercise, use of medications or AOD to lose weight or suppress appetite).
- Investigate medical complications and assess level of risk (physical exam to assess BMI, heart rate, blood pressure, temperature, metabolic tests).
- Psychiatric comorbidity.
- Cognitive changes due to starvation (e.g., slowed thought processing, difficulty concentrating).
- Possible contributing factors (e.g., family history of ED, developmental difficulties, dieting or other weight loss causes).

It is suggested that these assessment factors be incorporated into a case formulation (discussed in Chapter B2), with treatment priorities based on a thorough risk assessment. Clinical guidelines recommend that treatment priorities follow client engagement (including psychoeducation, with family involvement, and MI), medical stabilisation, reversal of the cognitive effects of starvation, and psychological treatment [893, 895]. Where possible and practicable, it is recommended that people with anorexia nervosa requiring admission be treated at specialist ED units.

Psychotherapy

Currently, there are no evidence-based psychotherapies for the treatment of anorexia nervosa, either as a single disorder or comorbid with AOD use disorders [882]. The efficacy of psychotherapy in the treatment of ED comorbid with AOD use has not been examined [884]. In terms of single disorder anorexia nervosa, the most evaluated interventions, and those with the highest levels of theoretical support, include CBT and CBT-enhanced (CBT-E), focal psychodynamic therapy, interpersonal psychotherapy (IPT), and cognitive analytic therapy [896]. Other treatments include specialist supportive clinical management (SSCM), the Maudsley model of anorexia nervosa treatment for adults (MANTRA), MI, and other psychodynamic approaches [893]. There is, however, limited empirical evidence to support any of these treatments [893].

CBT-E is an extension of CBT and is focused on educating clients about being underweight and starvation, and assists with the initiation and maintenance of regular eating patterns. Included in the therapy are components that focus on self-efficacy and self-monitoring, which are thought to be crucial to the treatment [897]. Focal dynamic therapy focuses on therapeutic alliance, pro-anorectic behaviour, self-esteem, behaviours viewed as acceptable, associations between interpersonal relationships and eating, and the transfer back to everyday life [897]. A large RCT comparing CBT-E and focal dynamic psychotherapy to optimised treatment as usual (defined as outpatient psychotherapy and structured care from a family doctor) over 10 months found that all groups demonstrated substantial weight gains, with no difference between groups in regards to BMI [897]. Despite no treatment differences, those in the focal psychotherapy group had higher rates of recovery compared to optimised treatment as usual at 12 months follow-up.

Another RCT comparing CBT, IPT and SSCM for single disorder anorexia nervosa found that significantly more of those in the SSCM group no longer met diagnostic criteria for anorexia nervosa (36%), compared to those in the CBT group (8%) and IPT group (0%) at the conclusion of treatment [898]. However, at seven years follow-up, there were no significant differences between groups. SSCM combined features of clinical management and supportive psychotherapy including education, care, support, fostering of a therapeutic relationship, praise, reassurance, and advice. A central feature of SSCM is a focus on the abnormal nutritional status and dietary patterns typical of anorexia nervosa. Normalisation of eating and restoration of weight are emphasised, and clients are provided with information on a range of strategies to promote this. IPT is a structured, dynamic intervention, focused on addressing interpersonal and relationship difficulties [898, 899].

MANTRA is a more recently developed social-cognitive IPT that draws on MI, cognitive remediation and the involvement of carers. It focuses on addressing intrapersonal and interpersonal processes that are thought to be fundamental to the maintenance of the disorder. An RCT examining the efficacy of MANTRA found that it was no more effective than SSCM, and recovery rates were low in both groups [900]. Although there is a lack of clear evidence, there are several large RCTs that are currently being conducted for single disorder anorexia nervosa, evaluating the efficacy of CBT, couples-based CBT, ERP (described previously in relation to the treatment of OCD), SSCM, focal psychodynamic therapy, and cognitive remediation therapy [893, 901].

The Australian clinical practice guidelines for single disorder ED recommend the inclusion of psychotherapy as an essential component of treatment for anorexia nervosa [893]. Although highlighting the fact that the limited evidence does not provide clear guidance for clinicians, they suggest that specialist-led manualised-based approaches have the strongest evidence-base and should be first line options [893]. Further, AOD workers are advised to incorporate the client's nutritional, medical and psychological needs into their assessment and treatment, and it is recommended that more intense psychological therapies are initiated after medical stabilisation and the cognitive effects of starvation are improved [893]. Particularly challenging in the treatment of single disorder anorexia nervosa is the fact that evidence suggests that success at post-treatment is less than 25%, largely due to treatment dropout [896]. Strategies to engage the client and maintain the therapeutic relationship throughout treatment may be beneficial.

Pharmacotherapy

Research suggests that pharmacotherapy alone should not be the primary treatment for single disorder anorexia nervosa [893, 902]. Although atypical antipsychotics (see Table 33), SSRIs (fluoxetine), and olanzapine have been used in clinical settings, research indicates there is no conclusive evidence of any effect on the primary psychological features of anorexia nervosa or weight gain [882]. Nonetheless, it has been suggested that olanzapine is currently the best pharmacotherapy available for anorexia nervosa, particularly for those who cannot access other intensive treatments [903]. A comprehensive review of pharmacotherapy for single disorder anorexia nervosa found that olanzapine increased weight gain and improved depression, anxiety, aggression and obsessive-compulsiveness [904]; however, the evidence is weak and there is the possibility of adverse side effects [893]. No studies to date have examined the efficacy of the pharmacological treatment of comorbid anorexia nervosa and AOD use disorders.

Treating bulimia nervosa

As with the approach to treating anorexia nervosa, the Australian clinical practice guidelines for single disorder ED recommend that treatment for bulimia nervosa begins with a comprehensive assessment which includes [893]:

- Inquiry into behaviours; especially binge eating (i.e., uncontrolled episodes of overeating excessive amounts of food), weight control behaviours that may compensate for binge eating (e.g., self-induced vomiting, laxative/diuretic use, restricting food intake, overexercising, use of AOD to control weight).
- Cognitions of weight/shape overvaluation, and preoccupations with body image and/or eating.

The increased risk of medical complications, particularly obesity, Type 2 diabetes, and hypertension, makes physical assessment among those with suspected bulimia nervosa essential [905]. As with the physical assessment of those with anorexia nervosa, this should include weight, height, pulse rate, blood pressure and BMI. Additional tests should be undertaken to assess for hypokalaemia and dehydration (associated with purging behaviours), cardiac function (e.g., electrocardiogram), and glucose levels, as indicated [893]. If psychological treatment is being provided by a clinician without medical training, the Australian clinical practice guidelines for single disorder ED recommend the inclusion of a GP to assist with assessment and ongoing care [893].

Psychotherapy

There is very little evidence about the concurrent treatment of AOD use and bulimia nervosa, due in part to the exclusion of those with AOD use disorders from controlled psychotherapy trials for bulimia nervosa (and ED more broadly) [892, 906]. There is, however, some evidence to suggest that treating a person's AOD use disorder may lead to improvements in bulimia nervosa [892]. O'Malley and colleagues [907] conducted an RCT of treatments for women with alcohol dependence, in which they compared the efficacy

of CBT coping skills therapy with and without adjunctive naltrexone. Although the treatment was focused on alcohol dependence, ED psychopathology and episodes of bulimia nervosa significantly decreased over the 12 weeks of the study.

There are currently three evidence-based treatments for bulimia nervosa as a single disorder, including CBT, IPT, and DBT, in addition to preliminary evidence for integrative cognitive-affective therapy [892]. There is robust evidence supporting a CBT treatment approach [908, 909], with both national and international clinical guidelines recommending the use of CBT as the first line of treatment [893, 902, 910]. On average, an estimated 30–50% of patients treated with CBT attain binge-purge abstinence [911, 912], with treatment usually consisting of 12–20 sessions over 3–5 months. Further, CBT appears to be superior to pharmacotherapy (i.e., antidepressants) for achieving abstinence in single disorder bulimia nervosa, and improvements have also been observed in psychiatric comorbidities such as depression, self-esteem and social functioning [913].

Despite the high rates of remission, some clients with bulimia nervosa remain symptomatic after completing treatment [892]. As such, an enhanced version of CBT (CBT-E, mentioned previously [914]) was developed and found to be more efficacious than other CBT approaches. CBT-E addresses other features that often co-occur with bulimia nervosa, including low self-esteem, clinical perfectionism, mood intolerances, and interpersonal difficulties [888]. The first controlled trial of CBT-E among people with bulimia nervosa suggests that it may be a promising treatment for complex cases of bulimia nervosa [915].

IPT has been found to be as effective as CBT in the treatment of bulimia nervosa and binge eating disorder as single disorders [916]. DBT has also been found to be effective in the treatment of single disorder bulimia nervosa [882], and incorporates cognitive behavioural change strategies with mindfulness strategies to address interpersonal effectiveness, self-acceptance, self-regulation, and distress tolerance. It has been suggested that this treatment has promise for the treatment of other comorbid psychiatric disorders [917], including comorbid AOD use [400].

Integrative cognitive-affective therapy utilises components from CBT, IPT and DBT into the treatment of single disorder bulimia nervosa [918]. The treatment focuses on personality and attitude as well as the symptoms of bulimia nervosa and behavioural change, and addresses interpersonal insecurity, self-perception, low self-esteem and negative affectivity [882]. An RCT comparing integrative cognitive-affective therapy to CBT-E found improvements in both groups with no significant differences between groups at four months follow-up [919].

Pharmacotherapy

Meta-analyses and RCTs have found that TCAs (such as those listed in Table 38) may be efficacious for people with single disorder bulimia nervosa [920, 921], but they are accompanied by side effects which limit their utility. High dose fluoxetine, or other SSRIs, as well as the antiepileptic drug topiramate, have been found to be efficacious for both bulimia nervosa and binge eating disorder [893]. Although the Australian clinical guidelines for the treatment of ED recommend the use of antidepressants or antiepileptics (such as topiramate) when psychological treatment is not available, they highlight the fact that pharmacotherapy trials have rarely followed-up study participants over the long term, suggesting that the consequences of long-term use and duration of recommended pharmacotherapy treatment remain unknown [893]. There is evidence that supports the combination of both psychotherapy and pharmacotherapy [920, 921], although findings are not consistent. Despite the fact that SSRIs have been used to effectively treat people with bulimia nervosa and people with alcohol use disorders [884], there have been no RCTs that have examined the efficacy of pharmacotherapy among people with comorbid bulimia nervosa and AOD use disorders.

Treating binge eating disorder

The Australian clinical practice guidelines for single disorder ED recommend the same comprehensive assessment for binge eating disorder as those described for bulimia nervosa [893].

Psychotherapy

Similar to bulimia nervosa, the first line of recommended treatment for addressing single disorder binge eating disorder is CBT [893]. The Australian clinical guidelines for the treatment of single disorder ED have combined recommendations for both bulimia nervosa and binge eating disorder, and, as with bulimia nervosa include CBT, DBT and IPT [882, 893]. These psychological approaches are argued to be the treatments of choice for binge eating disorder [922, 923], resulting in the greatest rates of remission and improvements in associated psychopathology [911, 924]. As with single disorder bulimia nervosa, CBT has been found to be more effective than pharmacological interventions for the treatment of binge eating disorder [925, 926]. However, to date, no studies have examined psychotherapy for people with binge eating disorder comorbid with AOD use.

Pharmacotherapy

To date, there have been no studies of pharmacotherapy for comorbid binge eating and AOD use disorders and limited evidence among those with binge eating as a single disorder. Emerging evidence suggests that pharmacotherapy may be beneficial for some people with binge eating disorder [927]. RCTs examining the efficacy of SSRIs (fluvoxamine [928], sertraline [929], fluoxetine [930], and citalopram [931]), serotonin and noradrenaline reuptake inhibitor (SNRIs; duloxetine [932]), mood stabilisers (topiramate [933-935]), antiobesity medications (orlistat [936]) and psychostimulants (lisdexamfetamine [937]) have found reductions in the frequency of binge eating episodes BMI decreases, and overall clinical improvement.

The mood stabiliser topiramate has also been evaluated for efficacy and safety for single disorder binge eating disorder in several RCTs [933-935]. Although topiramate has been associated with adverse side effects (e.g., participants dropping out of trials with headache, paresthesias or pins and needles sensations), these studies found that compared to placebo, topiramate was associated with significantly greater reductions in binge frequency, BMI and weight loss. Orlistat, an antiobesity medication, has also been examined for efficacy in three RCTs to date [926, 936, 938]. These trials found that although weight loss was enhanced with orlistat, the frequency of binge eating was not reduced.

Given the lack of clear evidence, the Australian clinical guidelines for the treatment of ED recommend that pharmacotherapy be considered when psychotherapy is not available, or as an adjunctive treatment to psychotherapy. They further recommend that SSRIs be used for binge eating disorder, and topiramate or orlistat be considered for those with comorbid obesity [893].

E-health interventions

Although there are no e-health interventions for comorbid ED and AOD use disorders there has been some research conducted into the use of e-health interventions for single disorder ED. A systematic review of internet-based interventions for single disorder ED (outpatient treatment incorporating an internet-based component) found that, relative to waitlist control, ED symptoms reduced more successfully for binge eating than restrictive eating with the use of an internet-based therapy [939]. There is no clear evidence as to which e-health intervention has the most empirical support, although self-help CBT has been highlighted as an effective, accessible, time and cost effective alternative to clinician delivered CBT [940]. The majority of studies have focused on internet-based CBT for bulimia nervosa (rather than anorexia nervosa), with the online components ranging from e-mail-based therapy, adjunctive internet-based guidance, to online CBT [939]. The review found that internet-based therapies that were bolstered by face-to-face contact via

assessment and clinician support were associated with higher rates of therapeutic compliance and lower attrition from internet-based treatment. Guided self-help and self-help CBT for single disorder bulimia nervosa have also been shown to be effective in reducing the frequency of bingeing and purging, but less effective than face-to-face psychotherapy in achieving abstinence [941]. These findings support the use of e-health interventions in the treatment of ED as an adjunct to other treatments [939].

A systematic review of smartphone applications for ED identified six interventions [942], with varying levels of empirically supported content. A second review [943] identified two approaches that had incorporated empirically supported manual-based psychotherapies, both developed for bulimia nervosa, into technological platforms [944, 945]. Preliminary findings indicate no substantial differences in effectiveness between face-to-face CBT and the applications. However, other research has argued that the provision of self-help via technology without clinical guidance may not be beneficial [946], although the optimal type and amount of guidance is not known.

Physical activity

The role of exercise as adjunctive therapy for people with ED is controversial, despite the fact that physical activity can play an important role in both ED and AOD use, in terms of treatment, recovery, and relapse prevention [947]. The benefits associated with exercise in ED include the promotion of physical activity and weight loss to people with binge eating disorder [948], and the potential prevention and restoration of bone mass in people with anorexia nervosa [949]. However, based on the belief that exercise may interfere with weight gain or reinforce the psychological/pathological symptoms of ED, it is not uncommon for ED treatment providers to limit the amount of physical activity, allowing little or no exercise [947]. There is also the potential that physical activity may lead to compulsive 'overexercising' [950].

Although physical activity has not been evaluated among people with comorbid ED and AOD use, several studies have examined exercise in people with single disorder ED and have found moderate physical activity to be associated with weight gain in underweight people with anorexia nervosa [951, 952]. One small pilot study has been conducted examining a graded exercise program based on ideal body weight and percentage body fat, with exercises ranging from stretching, to strengthening and low-impact cardiovascular exercise three times per week for three months [951]. The exercise group demonstrated improvements in weight gain as well as quality of life, which were substantially greater than the inactive control group, whose quality of life decreased over the study period.

Another study examined the effectiveness of an exercise program on weight gain among women with anorexia nervosa, bulimia nervosa and binge eating disorder in an inpatient treatment facility, and found that 60 minutes of supervised exercise conducted four times per week was associated with 40% more weight gain than the inactive control group [952]. The exercises included stretching, yoga, Pilates, strength training, balance, exercise balls, aerobic exercise (e.g., walking or skipping), recreational games, or other enjoyable activities [952]. It is suggested that moderate physical activity facilitates weight gain by improving emotional well-being, increasing appetite, and reducing body-image and appearance-related distress [947].

Although preliminary evidence supports the positive impact of exercise for people with ED, it remains unclear as to how clinicians should approach physical activity among underweight people, or people who may be normal weight but have been treated for compulsive exercise in the past [947]. Despite promising research, the evidence suggests that caution should be taken when recommending exercise for people with ED, particularly anorexia nervosa, as the presence of behaviours which are indicative of problematic exercise may negatively impact on the long-term course of illness [947, 953], and thus, hinder potential positive outcomes.

Complementary and alternative therapies

Research into complementary and alternative therapies for comorbid ED and AOD use disorders has examined yoga, acupuncture, therapeutic massage, hypnosis, herbal medicine, light therapy, spiritual healing, and art therapy [954]. Despite the breadth of research, no intervention has been identified as an effective, evidence-based treatment for this comorbidity. While the research in this area continues to develop, there are promising preliminary findings relating to the use of yoga [955-957], hypnosis [958-960] and therapeutic massage [961, 962].

Summary

Despite much research, there is little evidence upon which to provide clear guidance on the treatment of comorbid ED and AOD use disorders. Research from single disorder ED suggests that comprehensive assessments conducted by a multidisciplinary team should be followed by psychotherapy as the first line of treatment (CBT-based approaches for both bulimia nervosa and binge eating disorder). Although there is some evidence that pharmacotherapy may be a useful adjunct to the treatment of single disorder ED (particularly binge eating disorder), the evidence is not conclusive and Australian clinical guidelines do not recommend its use in the absence of psychotherapy [893]. Box 20 illustrates the continuation of case study H, following Charlotte's story after she presented to an AOD service for benzodiazepine and stimulant use. As illustrated, the presence of a comorbid ED and AOD use disorder is not easily identifiable, and can be difficult to treat.

Box 20: Case study H: Treating comorbid ED and AOD use: Charlotte's story continued

Case study H: Treating comorbid eating disorders and AOD use: Charlotte's story continued

Over the next few weeks, Charlotte continued to attend sessions with the AOD worker, and, although her mother was still driving her to and from appointments, she would remain in the waiting room. The AOD worker had been using MI and CBT approaches, but Charlotte admitted that she had still been using Valium and stimulants.

After several weeks, in a joint session with Charlotte and her mother, Charlotte's mother mentioned that she was still concerned about Charlotte, particularly about her apparent obsession with running up and down the stairs. When questioned further, Charlotte's mother said that she had been running up and down the stairs repetitively, every evening, sometimes for an hour or more. She often did this after meal times. Earlier in the week Charlotte's mother found her in the kitchen in the middle of the night and suspected she had eaten the lasagne and pavlova she had made for the following day's family meal. She also thought that she had heard Charlotte vomiting soon after eating.

The AOD worker spoke privately with Charlotte, and Charlotte said that she had been exercising to lose weight, as she was unhappy with her size and shape, and had been taking the stimulants to stop feeling hungry. She also said that the stimulants gave her energy throughout the day, although she had trouble sleeping and often felt agitated and on edge. Charlotte said that she liked taking Valium to help her get to sleep and calm down. It also became evident that, instead of going to classes at university, Charlotte had been going to the gym and running on the treadmill. She told the AOD worker that if she was ever unable to get to the gym at her usual time, she felt incredibly anxious and couldn't stop thinking about it. It was not unusual for Charlotte to spend several hours running on the treadmill at the gym every day.

The AOD worker consulted with an ED specialist, who arranged with Charlotte and her mother to attend

Box 20: Case study H: Treating comorbid ED and AOD use: Charlotte's story continued

an assessment. Charlotte was moderately underweight (with a BMI of 17) and the specialist arranged for a complete physical assessment, including her heart rate, blood pressure, temperature, metabolic tests, assessments for any cognitive changes, and contributing factors. Charlotte's family were encouraged to maintain involvement with her ongoing treatment, and the specialist devised a plan that included psychoeducation with her family's involvement, and MI, medical stabilisation, reversal of the cognitive effects of starvation, and psychological treatment. However, because of the complexities involved in Charlotte's bulimia nervosa, including the use of stimulants and benzodiazepines, the specialist recommended inpatient treatment at a specialised ED facility.

Key points:

- ED can be difficult to identify in people with AOD use disorders.
- Once an ED has been identified, it is vital that the client receives a comprehensive physical assessment by a medical professional. The primary focus is on stabilising the client's physical health and restoring cognitive function, and then psychotherapy can begin.
- The AOD worker should maintain client engagement, even if a referral to an ED specialist is made.

Personality

Personality disorders

Clinical presentation

Clients with personality disorders have frequent and enduring problems in coping and interpersonal interaction. Symptoms can include:

- Manipulative behaviour.
- Impulsivity.
- Social impairments.
- Emotional detachment.
- Suspiciousness.
- Difficulty accepting responsibility or accommodating others.
- Emotional instability and hypersensitivity.
- Pervasive and persistent anger/aggression.
- Being overly self-involved.
- Excessive dependence on others.
- Inflexible, maladaptive responses to situations.

Managing symptoms of personality disorders

These symptoms are often present to varying degrees in many clients and do not necessarily indicate a personality disorder; however, they can make the therapeutic process more difficult. Strategies for managing the symptoms of personality disorders are outlined in Table 45. Some of these personality characteristics, impulsivity in particular, place clients at extremely high risk for suicide. It is therefore particularly important to monitor the risk of suicide and self-harm. Assisting clients to develop skills (e.g., breathing retraining, meditation, cognitive restructuring) to manage negative emotions is also fundamental [94].

Clients with personality disorders tend to have difficulty forming a genuinely positive therapeutic alliance. They tend to frame reality in terms of their own needs and perceptions and not to understand those of others. They are also limited in their ability to receive, accept or benefit from corrective feedback; therefore, progress is likely to be slow and uneven [94].

Engagement and rapport building form an intensely important part of therapy and, as a result, these areas may require more time and attention than they do in other clients. Clients with personality disorders may have trouble engaging in treatment due to a history of poor relationships with AOD and other health professionals, a bias towards suspiciousness or paranoid interpretation of relationships, or a chaotic lifestyle, making appointment scheduling and engaging in structured work more difficult [103]. Structure and firm boundaries are very important components of the therapeutic process when managing clients with symptoms of personality disorders.

Table 45: Dos and don'ts of managing a client with symptoms of personality disorders

Do:

- ✓ Place strong emphasis on engagement to develop a good client–worker relationship and build strong rapport.
- ✓ Set clear boundaries and expectations regarding the client's role and behaviour. Some clients may seek to test these boundaries.
- ✓ Establish and maintain a consistent approach to clients and reinforce boundaries.
- ✓ Anticipate compliance problems and remain patient and persistent.
- ✓ Plan clear and mutual goals and stick to them; give clear and specific instructions.
- ✓ Help with the current problems the client presents with rather than trying to establish causes or exploring past problems.
- ✓ Assist the client to develop skills to manage negative emotions (e.g., breathing retraining, progressive muscle relaxation, cognitive restructuring).
- ✓ Take careful notes and monitor the risk of suicide and self-harm.
- ✓ Avoid judgement and seek assistance for personal reactions (including frustration, anger, dislike) and poor attitudes towards the client.
- ✓ Listen to and evaluate the client's concerns.
- ✓ Accept but do not confirm the client's beliefs.

Don't:

- ✗ Reward inappropriate behaviour (such as demanding, aggressive, suicidal, chaotic or seductive behaviour).
- ✗ Get frustrated and angry with the client. Remain firm, calm and in control.
- ✗ Assume a difficult client has a personality disorder; many do not, and many clients with these disorders are not difficult.

Adapted from NSW Department of Health [277] and Davison [963].

Treating personality disorders

As discussed in Chapter A2, the most common personality disorders seen in AOD services are BPD (most frequently occurring in females) and ASPD (usually male). Workers may find it difficult to treat personality disorders, and feel pessimistic about treatment outcomes [964, 965], making the use of evidence-based interventions even more important among this group [966]. Despite the challenges involved in treating comorbid personality and AOD disorders, there are promising treatment options.

There are several treatment options available for the treatment of personality disorders, including psychotherapy, pharmacotherapy, e-health interventions, as well as complementary and alternative therapies (e.g., omega-3). The evidence base surrounding each of these in regards to the treatment of BPD and ASPD is discussed below.

Borderline personality disorder (BPD)

Psychotherapy

In general, research on psychological treatments for BPD is promising. The Cochrane collaboration reviewed psychological treatments for BPD [967] and reported that studies of DBT have generally found few differences between DBT and treatment as usual in terms of BPD symptoms and hospitalisations.

However, there have been some findings of decreased self-harm and suicidal behaviour due to DBT treatment and indications that it may impact positively on alcohol outcomes.

DBT treatments may be too time-consuming and technically demanding for staff and clients in AOD treatment settings. For clients with alcohol use disorders, it has been suggested that good outcomes are possible using alcohol-focused treatments alone. However, it is acknowledged that opiate and cocaine abusers with a personality disorder present a more severe client profile. There is evidence that a diagnosis of BPD makes retention in residential AOD treatment difficult, as people with BPD are significantly more likely to drop out of treatment, even after taking into account other relevant factors [968]. Experts agree that AOD clients with personality disorders should be given more intensive psychological attention in order to promote the therapeutic alliance and retain them in treatment [969]. However, although it is important to address the client's maladaptive personality traits, this will not be effective unless carried out in a long-term treatment program.

Three programs have been designed and evaluated for clients with comorbid BPD and AOD use disorders: *Dialectical Behaviour Therapy-S (DBT-S)* [399, 970-973], *Dual Focus Schema Therapy (DFST)* [396, 974], and *Dynamic Deconstructive Psychotherapy (DDP)* [975, 976], all of which show promise.

DBT-S [970] is a complex, skills-based, psychological intervention based on DBT (modified for people with comorbid BPD and substance use), which was developed using some of the same principles of CBT. The client is supported with strategies to promote abstinence, and remain engaged in treatment. A systematic review examining the efficacy of interventions for comorbid BPD and AOD use [966] found four studies had tested *DBT-S* among this group [399, 977-979]. Findings indicated that *DBT-S* led to improved BPD symptoms and more AOD abstinent days than community-based treatment, greater treatment retention and reductions in self-harm.

DDP [975] is a modified form of psychodynamic psychotherapy, and was initially developed for particularly challenging cases of BPD, including those with co-occurring AOD disorders. In a systematic review of the literature, Lee and colleagues [966] found three studies had evaluated *DDP* among those with co-occurring BPD and AOD use. These studies found that *DDP* had a significantly greater effect on symptoms of both BPD and alcohol use disorder compared to treatment as usual (i.e., treatment in the community), which were maintained over 30 months [976, 980, 981].

DFST is a combination of relapse prevention and therapy focused on early maladaptive schemas (such as continuing negative self-beliefs, negative beliefs about others or events), as well as coping styles [966, 982]. In their systematic review, Lee and colleagues [966] found one study had examined the efficacy of *DFST* for co-occurring BPD and AOD use [983]. The study findings did not show any benefit of *DFST* over individual drug counselling for BPD or AOD use, with greater reductions in AOD use found among those in individual drug counselling.

Although these treatments have been evaluated among people with comorbid BPD and AOD use disorders, the evidence is limited by the small sample sizes of studies which have evaluated these treatments [966, 984].

Pharmacotherapy

Although pharmacotherapy has been used in practice to treat BPD, there is a dearth of research examining its efficacy [984]. A Cochrane review of pharmacotherapies for BPD found little support for the use of pharmacotherapies for BPD but concluded that more trials are needed, especially to ascertain the usefulness of antidepressants [985]. A more recent review concluded that whilst mood stabilisers (such as those listed in Table 36) and antipsychotics (such as those listed in Table 33) can be effective at treating some specific symptoms of BPD, the evidence does not support effectiveness for overall severity of BPD

[986]. However, individuals with AOD use disorders have been excluded from most trials and as such, the generalisability of these findings to people with comorbid BPD and AOD use is likely to be compromised. There are currently no published studies that have examined the efficacy of pharmacotherapy for managing comorbid BPD and AOD use.

E-health interventions

There are some initial findings from a pilot study suggesting that mobile phone applications can be used as an effective adjunct to DBT for individuals with co-occurring BPD and AOD use disorders. Rizvi and colleagues [987] developed and tested the feasibility, acceptability, and effectiveness of *DBT Coach*, a mobile phone application designed to improve the generalisation of a specific skill taught in DBT. Participants found *DBT Coach* to be helpful and easy to use, and over the course of the pilot study there was a decrease in depression, emotion intensity, and urge to use AOD. As people with comorbid BPD and AOD use are at increased risk of relapse, treatment non-adherence and poorer outcomes compared to those with either disorder alone [969, 988, 989], these preliminary findings represent an innovative way of assisting and improving treatment compliance.

Complementary and alternative therapies

Although there has been some preliminary research with promising results for the treatment of BPD with omega-3 [990], at present there is no further evidence to support the use of complementary or alternative approaches in the management or treatment of BPD, either as a single disorder or comorbid with AOD use.

Nonetheless, physical exercise may be a useful part of a treatment approach for people with BPD, with research indicating that obesity among people with BPD increases over time, escalating the risk of obesity-related chronic medical conditions [991]. BPD has been associated with arteriosclerosis, hypertension, liver disease, and CVD [992]. Although there has been no research examining the effect of physical activity on symptoms of BPD, one study recommends initial interventions include improved sleep and scheduled exercise. It should be noted however, that this recommendation is based on theory, and lacks supportive evidence [993]. As such, while it may be prudent for people with BPD to maintain healthy living practices, which may include physical activity, a healthy diet, and adequate sleep (see Chapter B1), to date there is no evidence regarding the effect of these practices on symptoms of BPD.

Antisocial personality disorder (ASPD)

There is a dearth of research regarding the psychological and pharmacological treatment of both ASPD as a single disorder, as well as comorbid ASPD and AOD use. More research has been conducted among incarcerated populations, which may be reflective of the difficulty accessing and engaging those with ASPD in treatment within the community [994]. Further, many studies focus on changes to symptoms and behaviour of ASPD, rather than changes to personality [994].

Psychotherapy

A Cochrane review of psychotherapies for ASPD with and without comorbid AOD use disorder examined 11 studies and was unable to draw firm conclusions from the available evidence [995]. Of the 11 studies included in the review, eight were conducted among people with comorbid ASPD and AOD use disorders [974, 996-1002]. No study found significant changes to specific ASPD behaviours (e.g., offending, aggression, impulsivity); however, several found significant reductions in AOD use following treatment. The addition of contingency management and/or CBT to standard methadone maintenance was found to be superior compared to standard methadone maintenance alone [998]. Further, contingency management plus standard methadone maintenance has been associated with significantly greater counselling session attendance and improvements in social functioning compared to standard methadone maintenance alone

[997]. A driving whilst intoxicated program plus incarceration has also been shown to produce greater improvements compared to incarceration alone [1002].

Pharmacotherapy

Although several studies have examined pharmacological interventions among people with ASPD as a single disorder, the limited evidence does not provide enough support for conclusive recommendations. These studies have investigated the use of antiepileptics (carbamazepine [1003], phenytoin [1003-1005], sodium valproate [1003], and divalproex sodium [1006]); antidepressants (desipramine [1007, 1008] and nortriptyline [1009]); dopamine agonists (bromocriptine [1009], and amantadine [1008]); and opioid antagonists (naltrexone [1010]).

Despite the limited evidence, there has been some research conducted among people with comorbid ASPD and AOD use. A Cochrane review examining pharmacological treatments for ASPD found that two drugs (nortriptyline and bromocriptine) were associated with improved outcomes compared to placebo control conditions among those with comorbidity [1011]. Compared to placebo, those with ASPD and AOD use disorder who were taking nortriptyline illustrated a greater reduction in alcohol use and dependence [1009]. In the same study, the use of bromocriptine was found to reduce anxiety symptoms for those with depression/anxiety and AOD use disorders [1009]. However, no changes to ASPD symptoms were observed.

Based on the lack of consistent evidence, the UK NICE Guidelines do not recommend treating ASPD, nor comorbid ASPD and AOD use disorders, with pharmacological interventions. They also advise against treating underlying behavioural symptoms with pharmacotherapy [1012].

E-health interventions

At the time of writing, there was no internet-based treatment for ASPD either as a single disorder or comorbid with AOD use.

Complementary and alternative therapies

At the time of writing, there has been no research to support the use of complementary or alternative therapies among people with co-occurring ASPD and AOD use, or ASPD as a single disorder. Similarly, no research has examined the effects of exercise interventions among this group.

Summary

In general, there is relatively little research to guide treatment for comorbid personality and AOD use disorders. The first line of treatment for those with comorbid BPD and AOD use should be psychotherapy, with several interventions having been specifically developed for this group. Similarly, psychological interventions should be the first line of treatment for those with comorbid ASPD and AOD use, although the evidence is less well-developed.

Without evidentiary support, pharmacological intervention is not recommended for the treatment of either comorbid BPD and AOD use, or ASPD and AOD use, highlighting the need for further well-conducted studies to be undertaken in this area.

Box 21 illustrates the continuation of case study H, following Luke's story after the AOD worker consulted with a forensic psychologist. As illustrated, it may be necessary to involve multiple services in the delivery of care to a person with comorbid personality and AOD use disorders.

Box 21: Case study I: Treating comorbid ASPD and AOD use: Luke's story continued

Case Study I: Treating comorbid ASPD and AOD use: Luke's story continued

Luke's AOD worker liaised with a forensic psychologist and Luke was comprehensively assessed. The forensic psychologist reported that Luke met criteria for a diagnosis of ASPD. His AOD worker had also arranged for Luke to undergo a physical health assessment, and Luke was found to have hepatitis C.

Over several meetings, Luke developed a reasonable relationship with the psychologist and indicated that he had reached a point where he 'needed to turn things around'. In consultation with his AOD worker, Luke decided to begin suboxone treatment for his heroin dependence, while at the same time receiving psychological treatment for his ASPD. The AOD worker contacted housing services in an attempt to help find Luke stable accommodation, and Luke began treatment for his hepatitis C.

Luke's treatment plan also included his attendance at a group program for people with ASPD which was based on cognitive behavioural principles. Most of the others in this group also had histories of problematic AOD use. The treatment plan emphasised the need for long-term contact with Luke and his family. After three months, Luke had reached a stable dose of suboxone, was regularly attending his group cognitive behavioural sessions, as well as individual CBT sessions with his psychologist and AOD worker. The AOD worker arranged for treatment to continue and provided a report to the court with favourable recommendations.

The long-term treatment plan emphasised the need for continued multi-agency cooperation and preparing to deal with factors that could jeopardise long-term stability. These included plans to address life and relationship stressors, and manage the several occasions when Luke failed to attend for appointments.

Key points:

- Where the ASPD is associated with AOD use, both sets of problems should be addressed concurrently and the approaches carefully coordinated.
- The need for multi-agency cooperation and information sharing is important and, in the case of comorbidity, interventions need to be planned over months and years rather than weeks.

Confusion or disorientation

On occasion a client may present with no specific symptoms but is generally confused or disorientated. This may be the result of intoxication, or a physical or mental health condition. In such cases the AOD worker should [1013]:

- Provide frequent reality orientation (e.g., explain where the person is, who they are, and what your role is).
- Provide reassurance.
- Attempt to involve family, friends or carers.
- Attempt to have the client cared for by familiar healthcare workers, in familiar surroundings.

Cognitive impairment

In the process of treatment, it may become clear that the client has impaired or poor functioning in one or many areas of cognition, such as verbal or non-verbal memory, information processing, problem-solving, reasoning, attention and concentration, decision-making, planning, sequencing, response inhibition and emotional regulation. Sometimes these cognitive impairments can result in behaviour that is mistakenly interpreted as the result of poor motivation or lack of effort. These cognitive difficulties often bear no relation to mental illness and are frequently the result of heavy AOD use or intoxication [276].

When a client is experiencing some level of cognitive impairment, the effectiveness of therapeutic approaches can be diminished unless care is taken to adapt the approach to address these difficulties. Table 46 presents some simple techniques which can be useful in overcoming cognitive impairment [276].

Table 46: Techniques for managing cognitive impairment

Techniques to address attention problems
<ul style="list-style-type: none">• Have a clear structure for each session.• Consider shorter but more frequent sessions.• Avoid overloading by limiting the content of each session.• Keep sessions focused on relevant topics.• Reduce session pace and provide breaks.• Conduct sessions in a quiet, non-distracting environment.• Provide written handouts of important information.
Techniques to address learning and memory problems
<ul style="list-style-type: none">• Present information to be remembered both verbally and visually (e.g., draw diagrams).• Repeat and summarise key information.• Ask client to recall information from previous sessions, and suggest techniques to improve recall (e.g., writing things down, using memory aids).• Review key points from previous sessions at the start of each session to compensate for poor memory.• Remind client of appointment times and keep appointments at routine times.

Table 46: Techniques for managing cognitive impairment (continued)

Techniques to address difficulties with mental flexibility, problem-solving, planning, and organising
<ul style="list-style-type: none">• Encourage routines and daily planning.• Explain step-by-step problem solving and how to break goals into smaller, more manageable tasks.• Discuss and practice responding to high-risk situations.• For impulsive clients, encourage self-monitoring and use of cue cards with strategies to use.

Adapted from Marsh et al. [276].

Grief and loss

There is a multitude of different sources of grief and loss, and clients in AOD settings are often highly likely to experience these emotions for a variety of reasons. Feelings of grief or loss are often associated with traumatic experiences. It is also common for AOD clients to have lost partners, family members or friends as a result of drug use. Finally, receiving treatment for AOD issues is likely to cause feelings of loss due to the heavy role AOD use plays in the client's life [1014]. Symptoms of grief and loss fall into a number of categories including [1014]:

- **Emotional** – feelings of shock, numbness, disbelief, loss of control, fear, panic, confusion, anger, sadness, guilt, desire to blame, or hostility. The person is likely to fluctuate between different emotional states.
- **Psychological** – in addition to these emotions, clients may also have a preoccupation with the deceased, or a sense of the presence of the deceased. Temporary cognitive impairments are also common (e.g., concentration and memory complaints).
- **Physical/behavioural/social** – inappropriate behaviour (e.g., laughter), gastro-intestinal complaints, decreased sex drive, tension, headaches, sleep disturbances, fatigue, lethargy, avoidant or absentminded behaviour, withdrawal, social interaction changes, appetite changes, restlessness, crying, or obsessive behaviour.

Managing grief and loss

Table 47 presents strategies for managing these symptoms. The main issue in grief management is to normalise the process for the client. That is, encourage and support the grieving process, and remind the client that this process is natural [1014]. Everyone deals with grief and loss differently and therefore not all approaches work for all individuals. An information sheet for clients on grief and loss reactions is provided in the Worksheets section of these Guidelines.

Table 47: Dos and don'ts of managing a client with symptoms of grief or loss

Do:
<ul style="list-style-type: none">✓ Encourage the acceptance of the reality of the situation (e.g., discuss the loss, encourage client to attend gravesite), as well as the identification and experience of feelings (positive and negative) associated with loss.✓ Help the client find a suitable way to remember, but also reinvest in life.✓ Continually monitor levels of depression and suicidal thoughts and act accordingly; risk is increased during periods of grief (e.g., the first 12 months after a death, anniversaries, holidays).✓ Be aware and understanding of feelings associated with grief, including anger.

Table 47: Dos and don'ts of managing a client with symptoms of grief or loss (continued)

- ✓ Give both practical and emotional support.
- ✓ Give the client your undivided attention and unconditional positive regard.
- ✓ Be aware that concentration may be affected, therefore repeat instructions, write down instructions and so on.
- ✓ Encourage healthy avenues for the expression of grief (e.g., physical activity, relaxation, artistic expression, talking, writing) rather than AOD use.
- ✓ Encourage the client to seek social support. This may include bereavement services.

Don't:

- ✗ Avoid the reality of the situation or the feelings associated with it (e.g., use the name of deceased).
- ✗ Judge or be surprised at how the client reacts – every person is different.
- ✗ Time-limit the client when discussing grief, it can be a slow process.
- ✗ Be afraid to seek assistance.

Adapted from Marsh et al. [1014].

Aggressive, angry, or violent behaviour

Problems relating to anger and aggression are not uncommon in AOD services and should be managed appropriately. Anger and aggression may occur regardless of whether a person has a comorbid mental health condition. In general, episodes of aggression are usually triggered by a particular event, which may involve circumstances that have led the client to feel threatened or frustrated.

The following signs may indicate that a client could potentially become aggressive or violent [277]:

- **Appearance:** intoxicated, dishevelled or dirty, bloodstained, bizarre, carrying anything that could be used as a weapon.
- **Physical activity:** restless or agitated, pacing, standing up frequently, clenching of jaw or fists, hostile facial expressions with sustained eye contact, entering 'off limit' areas uninvited.
- **Mood:** angry, irritable, anxious, tense, distressed, difficulty controlling emotions.
- **Speech:** loud, swearing or threatening, sarcastic, slurred.
- **Worker's reaction:** fear, anxiety, unease, frustration, anger.

If a client becomes aggressive, threatening or potentially violent, it is important for AOD workers to respond in accordance with the policies and procedures specific to their service. It is also important for AOD workers to have knowledge of how to respond to challenging behaviour, including physical threats or actual violence, in their work with AOD clients. Table 48 outlines some general strategies for managing aggressive clients.

Table 48: Dos and don'ts of managing a client who is angry or aggressive

Do:

- ✓ Stay calm and keep your emotions in check.
- ✓ Adopt a passive and non-threatening body posture (e.g., hands by your side with empty palms facing forward, body at a 45 degree angle to the aggressor).
- ✓ Let the client air his/her feelings and acknowledge them.
- ✓ Ask open-ended questions to keep a dialogue going.
- ✓ Be flexible, within reason.
- ✓ Use the space for self-protection (position yourself close to the exit, don't crowd the client).
- ✓ Structure the work environment to ensure safety (e.g., have safety mechanisms in place such as alarms and remove items that can be used as potential weapons).
- ✓ Make sure other clients are out of harm's way.

Don't:

- ✗ Challenge or threaten the client by tone of voice, eyes or body language.
- ✗ Say things that will escalate the aggression.
- ✗ Yell, even if the client is yelling at you.
- ✗ Turn your back on the client.
- ✗ Rush the client.
- ✗ Argue with the client.
- ✗ Stay around if the client doesn't calm down.
- ✗ Ignore verbal threats or warnings of violence.
- ✗ Tolerate violence or aggression.
- ✗ Try to disarm a person with a weapon or battle it alone.

Adapted from NSW Department of Health [277] and Marsh et al. [276].

Phases of aggression

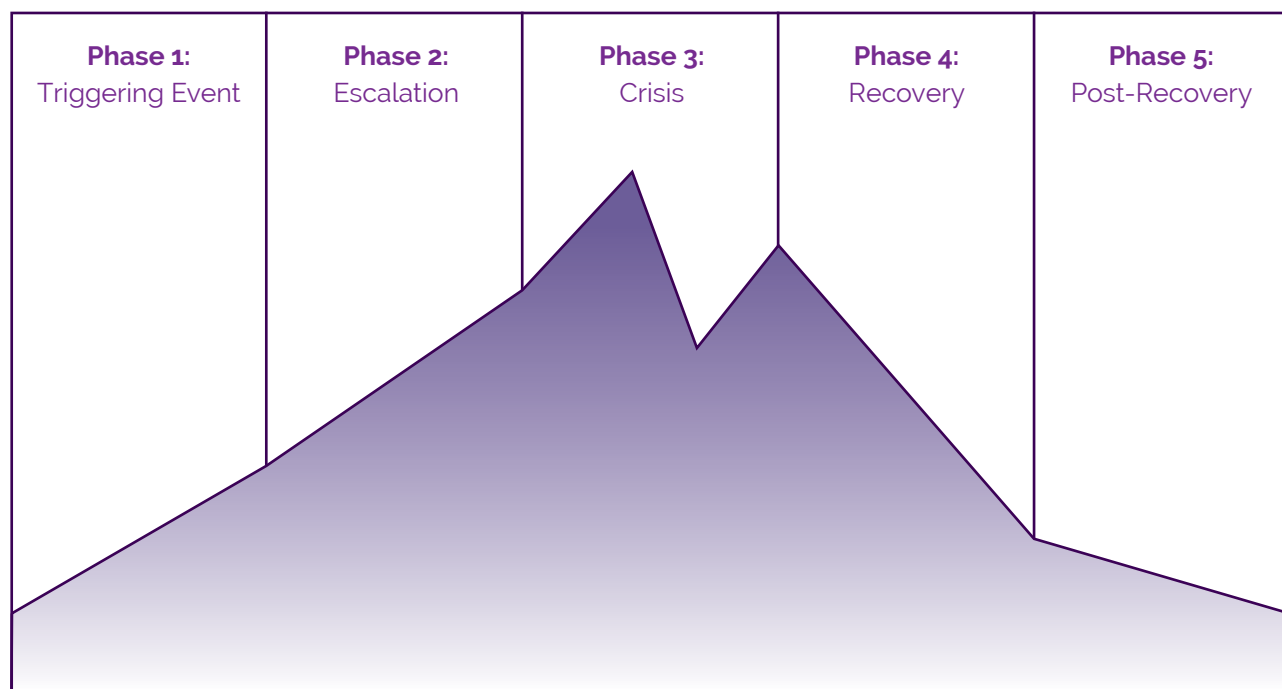
This section has been adapted from information provided by Sunshine Coast Mental Health Service [1015] and NSW Department of Health [277]. Aggressive episodes may be broken down into more detailed phases. Gaining an understanding of these phases and some of the symptom-control strategies is useful in controlling anger and aggression. Figure 16 outlines these phases of aggression.

Phase 1: Triggering event

Phase 1 is the initial triggering event which elicits the aggression. This can be any number of things that are perceived by the client as threatening or frustrating. Some useful ways to avoid this primary phase include:

- Allowing the client personal space of up to six metres if possible.
- Avoiding standing over the client (e.g., if they are sitting, sit as well).
- Maintaining minimal eye contact (direct eye contact is confronting).
- Informing the client of anticipated delays.
- Keeping the environment relaxed, non-stimulating and non-stressful.
- Keeping your own posture and body language non-threatening (e.g., open stance and palms).
- Allowing the client to talk and be empathetic to his/her concerns.

Figure 16: Phases of aggression



Source: NSW Department of Health [277].

Phase 2: Escalation

Phase 2 is the escalation phase. It is important to recognise and address signs of distress or conflict and use appropriate techniques to try and de-escalate the situation. Common signs of escalation include pacing, voice quivering, quick breathing, flushed face, twitching, dilated pupils, tense appearance, abusive, intimidating and derogatory remarks, and clenched fists.

The LASSIE model is a useful tool for communication and de-escalation of the situation in this phase:

L	Listen actively: allow the client to run out of steam before you talk.
A	Acknowledge the problem/situation: validate the client's feelings, empathise.
S	Separate from others: to ensure the safety of others if escalation occurs.
S	Sit down: symbolises readiness to negotiate.
I	Indicate possible options: give alternatives to alleviate the situation.
E	Encourage the client to try these options: assist the client to follow through.

The following strategies may also be useful in managing escalating aggression:

- Provide a safe environment for the client, yourself and others.
- The presence of a familiar person may help to calm and reassure the client.
- Do not assume aggressive behaviour is necessarily associated with mental illness.
- Know your own limits and refer/seek help if necessary.
- Be warm, friendly and non-judgemental; reassure the client.
- Stay focused on the current situation but anticipate problems.
- Carefully monitor the physical and psychological condition of the client.
- If the client's behaviour escalates, withdraw and seek assistance immediately.
- Try to maintain a quiet, non-stimulating environment for the client (excessive noise or people may contribute to aggression).

Phase 3: Crisis

Phase 3 is the crisis phase, in which the client reacts with aggressive behaviour. The aggression can often be released indiscriminately and it is best for workers to remove themselves and any clients during this stage unless the service has other policies on dealing with violence, aggression, self-defence and/or restraint.

Phase 4: Recovery

Phase 4 is the recovery phase in which tension tends to reduce; however, the person is still in a state of high arousal and, if this phase is not handled properly, aggressive behaviour may reignite. It is important to be supportive and empathic to the client at this stage, but do not crowd or threaten him/her. It is important that workers be given the opportunity to debrief. Any violence should be documented in the client's file.

Phase 5: Post-crisis depression

Phase 5 is the post-crisis depression stage. Generally the client feels fatigued and exhausted and may show feelings of guilt and dejection at having had an outburst. Support may be required from workers during this stage.

Concluding remarks

Although much of this review of treatments leaves many questions to be answered, there are some guiding principles that tend to be repeated throughout. It is clear that much more research is needed before definitive practices that will improve outcomes for both mental health and AOD use disorders can be prescribed. Despite this, it can be generally concluded that treatments that work for a single disorder will lead to some improvements in comorbid clients, if not in both disorders. Although integrated treatments appear beneficial for some disorders, further investigation is needed [756].

For most comorbidities, both psychotherapy and pharmacotherapy interventions have been found to have some benefit. Both of these require some basic knowledge or qualifications on the part of the AOD worker. In particular, psychosocial interventions tend to be based on motivational and cognitive behavioural approaches and AOD workers will benefit significantly if trained in these intervention styles. It is generally acknowledged that manual-based psychological interventions are easy to administer and are the most effective for CBT-style treatments. For pharmacological interventions, an important role of AOD workers is to inform themselves of the benefits, interactions and possible side effects of the medications prescribed for their clients. Workers can assist their clients with suggestions for medication scheduling as well as providing compliance therapy.



B7: Worker self-care

B7: Worker self-care

Key Points

- Working directly with clients with comorbid AOD and mental health conditions can be an incredibly rewarding and satisfying experience, but is not without considerable challenges. AOD workers often experience high levels of stress and are at risk of burnout.
- The most common workplace stress for AOD workers is the stress associated with workload and time pressures, but other stressors include concerns about whether your work is making a difference, whether you have the necessary skills and are effective in your role, whether your work is valued and adequately remunerated, workplace conflict, lack of supervisory and collegial support, and job uncertainty.
- As such, it is important that AOD workers ensure they take the time for self-care. Strategies incorporating a holistic approach to AOD worker self-care reduce psychological responses to client trauma and workplace stress, and increase the capacity to respond to workplace situations.
- Active coping strategies can help reduce the risk of clinical burnout, and include physical, emotional, and professional self-care. Further, workplace engagement and appreciating the impact and value of your work can reduce the risk of burnout.
- Clinical supervision can also help reduce workplace stress and burnout by providing a mechanism of support for staff.

Working with clients who have co-occurring AOD and mental health conditions can be a fulfilling and satisfying experience. Having the opportunity to work directly with clients, and to observe and share the triumphs and tribulations of their personal journeys, can be extremely professionally rewarding. However, working in this area is not without considerable challenges. Although a manageable level of workplace stress is normal and can even be motivating, AOD workers often experience high levels of stress, and in

some cases burnout. As such, it is critically important that AOD workers set aside time to manage and pay attention to their self-care.

Holistic self-care: AOD workers

The importance of AOD worker self-care cannot be understated. Applying a holistic approach to self-care may assist in reducing AOD workers' psychological responses to distressing events, lessening workplace stress, and increasing capacity to respond to workplace situations. There are a number of holistic self-care strategies that can be utilised by AOD workers, including [276, 277]:

- Maintaining a balanced diet.
- Allowing time every day for lunch and physical exercise.
- Scheduling regular holidays and other breaks from work (e.g., conferences, education seminars, clinical supervision).
- Maintaining contact with peers and avoiding professional isolation.
- Maintaining balance between work commitments and family/personal life.
- Being aware of one's own AOD use.
- Being aware of tobacco use and not smoking around clients.
- Using relaxation skills.
- Allocating time for relaxation and leisure activities.

Burnout

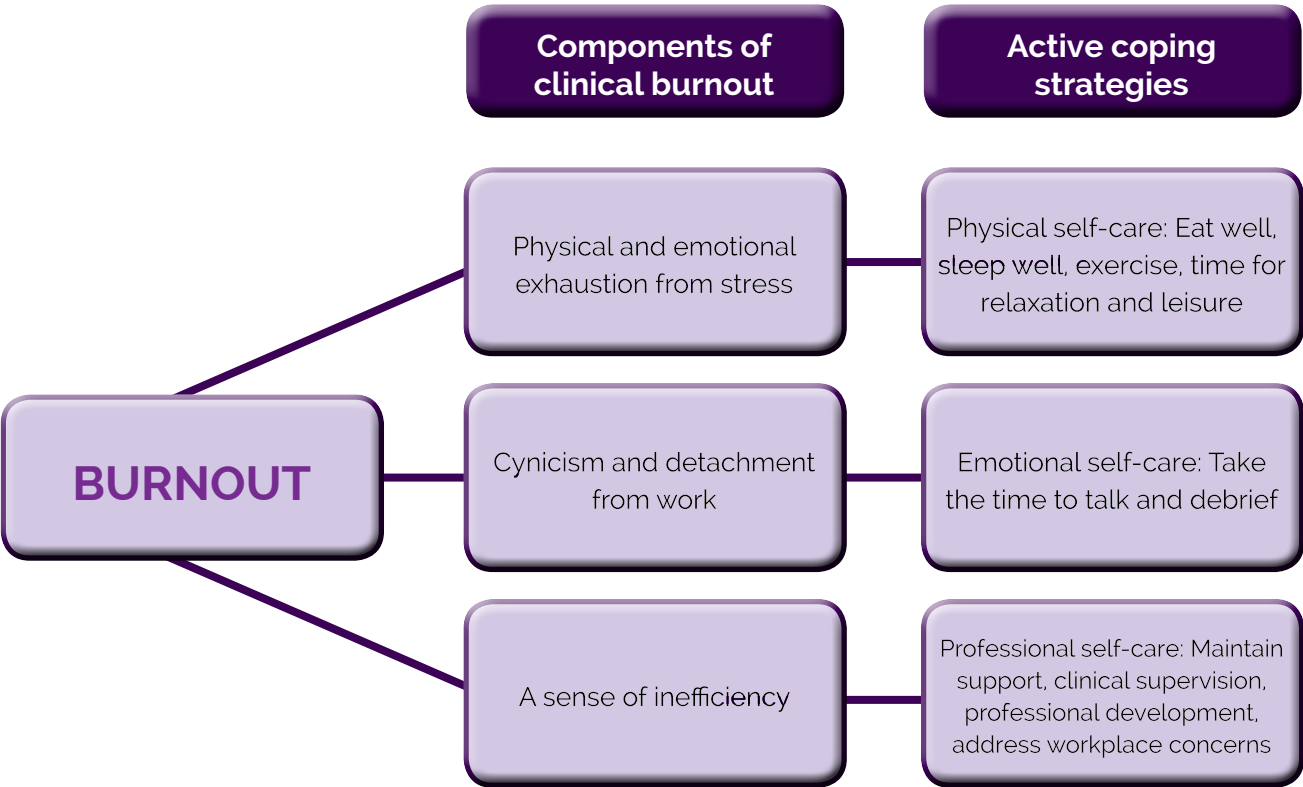
Burnout is the term used to describe the experience of long-term strain and exhaustion. It is typically a response to work overload when there is prolonged and intense stress, accompanied by ineffective coping strategies [276]. Components of burnout and active coping strategies are illustrated in Figure 17.

Burnout can lead to reduced job satisfaction and performance, and may lead AOD workers to become exhausted, detached from clients, and feel ineffective and cynical about the profession [276, 277].

Workplace stress and risk factors that have been associated with burnout include [276]:

- Excessive workload and time pressure.
- Role conflict from different job demands.
- Role ambiguity due to lack of resources and unclear goals.
- Lack of support from co-workers and supervisors.
- Lack of feedback about performance.
- Lack of control and involvement in decision-making.
- Concern about whether you are making a difference.
- Concern about whether you are doing your job effectively.
- Concern about whether you are valued and adequately remunerated.
- Distressing outcomes for clients.
- Workplace conflict.
- Lack of support for training or adequate clinical supervision.
- Job uncertainty.

Figure 17: Components of clinical burnout



It is important that AOD workers who believe that they are at risk of burnout approach their supervisors, and seek arrangements for support including the use of relevant Employee Assistance Programs where available. Further, active coping has been associated with reduced levels of stress and reduced likelihood of burnout [276]. Active coping strategies are similar to holistic self-care strategies (see Figure 17) and include the following [276]:

- Physical self-care: Maintaining a balanced, healthy diet, sleeping well, exercise, ensuring there is time for relaxation and leisure activities.
- Emotional self-care: Ensuring opportunities to talk and debrief.
- Professional self-care: Maintaining support, clinical supervision, professional development, time-management, and taking the opportunity to address work-related concerns, demands, unfairness, or inequity.

Research suggests that workplace engagement and appreciation of the value of work can reduce the risk of burnout, particularly for AOD workers [1016].

Secondary traumatic stress

As detailed in Chapter A2, a high proportion of clients of AOD services have experienced trauma, and it is important that symptoms of trauma-related disorders such as PTSD be managed, and if appropriate treated, while the person is undergoing AOD treatment. Clinicians who work with traumatised clients describe their work as being extremely rewarding [818]; however, hearing the details of clients' trauma can be distressing, and in some case, leads to vicarious traumatisation or secondary traumatic stress. A survey of AOD workers from across Australia found that 20% were suffering from secondary traumatic stress [817]. Importantly, this study found that secondary traumatic stress could be prevented by monitoring of workers' caseloads and the provision of adequate clinical supervision.

Clinical supervision

Clinical supervision can help reduce work stress and burnout by providing a mechanism of support for staff, debriefing, and managing stress. Supervision may also provide opportunities for professional development, skill enhancement, identifying new ways of working with clients, validating existing clinical skills, and increasing job satisfaction [277]. Although definitions between workplaces differ, in general, clinical supervision means [1017, 1018]:

- Quality assurance and clinical safety.
- A method of improving clinical practice, which involves the worker learning new skills, problem solving effectively, and obtaining suggestions for improving practice (not line management).
- Professional support.
- Workforce development.

Evidence indicates that mental health and AOD workers who receive quality supervision are better able to function across multiple domains, manage their stress more effectively, and are less likely to experience burnout. Some of the demonstrated benefits of clinical supervision include greater job satisfaction, confidence and self-capacity [1019-1021], reduced staff turnover [1022], improved development of complex clinical skills and delivery of evidence-based practice [1018, 1023, 1024], reduced stress and burnout [1020, 1025, 1026], better communication between staff [1019, 1021], and the transfer of newly acquired skills from training into practice [1027, 1028]. Further, less experienced AOD workers can benefit from clinical supervision by receiving feedback on their interpersonal style, counselling skills, and ongoing appraisal [1029]. As such, clinical supervision can improve the quality of client–AOD worker relationships and enhance treatment outcomes [1029].

In 2011, NSW Health updated their clinical supervision guidelines for AOD services. These may also be useful for clinicians in other states. The guidelines are not prescriptive, but make recommendations for best practice. They are intended to be applicable across disciplines, to all workers in AOD services who are responsible for providing services to clients. As such, the guidelines are designed to provide a comprehensive framework for local operations, and encourage some degree of consistency [1018]. These guidelines are accessible via the NSW Health website: www.health.nsw.gov.au.

The background of the page features a repeating pattern of large, overlapping triangles in two shades of orange. Overlaid on this pattern is a subtle, light-colored wood-grain texture. The text 'Part C: Specific population groups' is positioned on the left side, underlined.

Part C: Specific population groups

C: Specific population groups

Key Points

- Cultural and contextual factors, such as the client's cultural background, age, sex, gender, sexual orientation, stability of accommodation, whether he/she lives in remote locations, and whether treatment is coerced, need to be taken into account when treating clients.
- Overall, treatments and services for AOD use and comorbidity have arisen from research on the dominant culture of city-dwelling Westernised adults. This is not to say that these techniques will not work with clients from different backgrounds, but rather that approaches may need to be adapted depending on individual clients' characteristics.

A number of social groups require special consideration with regard to the management and treatment of comorbidity. It is important that AOD workers are aware of specific factors that may affect the management and treatment of people belonging to these groups so that they may tailor treatment appropriately. Much of what is discussed below applies to those with single AOD or mental health disorders as well as those with comorbid conditions.

Indigenous Australians

The standards of physical and mental health among Indigenous Australians are poor in comparison with the wider Australian community. Research shows that although there are proportionately more Indigenous people than non-Indigenous people who refrain from drinking [1030], those who do drink are more likely to do so at high-risk levels [1030, 1031]. Between 2008–2012, Indigenous men died from alcohol-related causes at a rate four and a half times higher than their non-Indigenous counterparts, while this rate was six times higher for Indigenous women [1032]. As a result, it is possible that heavy drinking may be normalised within some communities and this could act as a barrier to people seeking treatment [1033].

However, alcohol is not the only substance that presents a major concern for Indigenous people. In 2008, 23% of Indigenous Australians over the age of 15 years reported using an illicit substance in the previous 12-months, and 43% reported lifetime use [1030]. Substances most commonly used included cannabis (17%), non-prescription analgesics (5%), and amphetamines (4%). Reports of ever having used illicit substances increased slightly from 40% in 2002 to 43% in 2008 [1030]. Further, d'Abbs and MacLean [1034] have highlighted the devastating effects of volatile substance misuse and petrol-sniffing among Indigenous communities in the remote areas of Central Australia. Research has also found that Indigenous Australians are more than twice as likely to be current daily cigarette smokers as non-Indigenous Australians. The percentage of current smokers increased from 33% in 2002 to 45% in 2008, and the proportion of people who had never smoked decreased from 49% to 31% over the same period [1030].

Indigenous people are also over-represented in inpatient mental health services, with twice as many Indigenous than non-Indigenous people hospitalised for a mental illness between 2008–2010 [1030]. Across Australia, the most common mental health conditions requiring hospitalisation were substance-induced mental and behavioural disorders (36%), schizophrenia spectrum and other psychotic disorders (25%), depressive and bipolar disorders (15%), and anxiety disorders (14%). Further, in 2012–13, Indigenous people were almost three times as likely to report high or very high levels of psychological distress [1035]. In 2008–2012, the suicide rate for Indigenous people across all age groups was double the non-Indigenous suicide rate, and five times as high for young Indigenous Australians aged 15–19 years [1035].

It has been suggested that the factors which contribute to elevated rates of psychiatric morbidity in Indigenous communities include the destruction of social infrastructure, rapid urbanisation and poverty, cultural, spiritual and emotional alienation, loss of identity, family dislocation, and increased AOD consumption [1036–1040]. Lee and colleagues [1041] conducted a study of Indigenous women accessing treatment for co-occurring mental health and AOD use disorders. They found that women perceived negative early life events (e.g., domestic violence, physical and sexual abuse) as being associated with the onset of their AOD and mental health conditions. They reported that comorbidity led to severe and wide-ranging negative outcomes, such as general poor health, diminished social networks, unemployment, and financial instability; and they also reported that it had a serious negative impact on their ability to care for themselves and others (e.g., with some women reporting children being removed from their care).

The trauma suffered by the stolen generations as a result of the assimilation policies of the Australian Government has direct relevance to the psychological adjustment of Indigenous Australians by severely disrupting and damaging the quality of early parent–child attachment. A number of studies have found evidence of a direct link between the quality of early relationships and the development of depression in adulthood [1042–1046]. Indigenous people may be at increased risk of poor treatment outcomes due to poor physical health, social disadvantage, comorbidity, and the burden of grief through suicide, homicide, and incarceration [1047, 1048].

Although only limited data exists regarding comorbidity specifically among Indigenous communities, Roxbee and Wallace [1049] report that there are high rates of comorbidity, along with complexities in causality and treatment, which are unique to Australian Indigenous populations. Studies have shown an association between depression, anxiety, suicide, and alcohol dependence in Indigenous communities [1050, 1051]. In addition, frequency of alcohol consumption in Indigenous communities has been found to be correlated with hallucinations, paranoia, self-mutilation, and panic [1038, 1052, 1053]. A survey of Aboriginal admissions to Bloomfield hospital in 1995 showed significant rates of comorbidity [1054]. There is also more recent evidence to suggest that substance use and self-harm behaviour are rising in the Indigenous community [1055, 1056]. Moreover, Indigenous Australians who experience comorbid disorders are likely to have poorer outcomes than those experiencing a mental health or AOD use disorder alone [1057]. However, there is some emerging evidence that interventions for comorbid conditions can lead to beneficial outcomes in Indigenous populations. An RCT conducted by Nagel and colleagues [1058] found

that a brief intervention (motivational care planning) for Indigenous people experiencing comorbidity led to reduced symptoms of mental health and AOD use disorders.

Existing mainstream models of practice in the AOD field have overwhelmingly been developed within Western systems of knowledge. As a result, they are not necessarily generalisable to other cultures and may ignore important Indigenous perspectives and needs. Therefore, despite Indigenous Australians having a heterogeneous mix of diverse languages and customs, it is important that AOD workers be aware of general issues and try to familiarise themselves with more specific information regarding the Indigenous population in their community. Reports on this particularly vulnerable group emphasise the need for access to culturally appropriate and comprehensive services to address these problems, and the need for local links with Indigenous services and consultants [99, 1051].

There are a number of general issues to be aware of when working with Indigenous clients [169, 1031, 1060-1065]:

- The concept of family (including extended family and relatives) and community in Indigenous culture is very important and includes immediate and extended relations. With the permission of the client, family members should be included in therapy as much as possible, and the client should be treated within the context of their community. Families are a strength that can be drawn upon to complement mental health and AOD treatment [1041]. Community and Indigenous support groups may also be useful services.
- Many Indigenous Australians have a holistic concept of health, which is often referred to as social and emotional wellbeing [1059]. This multifaceted concept reflects the Indigenous cultural concept of health, which includes physical, psychological, social, cultural, and spiritual health and the importance of connections to land, culture, family, spirituality, ancestry, and community. These connections are maintained through generations, and contribute to an individual's wellbeing. As such, incorporation of these factors is essential during treatment. Integrated or coordinated services are therefore particularly important for addressing AOD and mental health conditions [1041, 1048].
- There are high rates of trauma, grief, and loss in Indigenous communities as Indigenous people are faced with death and serious illness within their extended family more often than non-Indigenous people, and at a younger age. There are also issues of unresolved grief, continued cultural loss and intergenerational trauma regarding the European colonisation and mistreatment since then (e.g., stolen generations). Approaches should address underlying issues of repeated trauma, stress, and grief [1060].
- Stigma and victimisation continue to exist today, and are likely to impact on mental health and AOD use. Issues of domestic violence, poverty, and family AOD use are also likely to play a key role.
- When working with Indigenous clients with apparent psychotic symptoms, it is important to clarify the cultural appropriateness of such symptoms. For example, it is not uncommon for some Indigenous people to hear recently departed relatives and see spirits representing ancestors. This kind of spiritual experience is culturally valid and therefore is not a symptom of psychosis.
- Workers should be aware of the impact of intensely distressing levels of shame that many Indigenous clients experience. This shame can be exacerbated when dealing with a non-Aboriginal worker. Involving an experienced Aboriginal worker in the client's care can help achieve the best outcomes.
- Use appropriate language (e.g., avoid jargon, or technical or medical terminology, use culturally appropriate terms to describe AOD) and include appropriate written materials to reinforce key verbal messages.
- Consider that you may be viewed as a member of a culture that has caused damage to Indigenous culture. Anticipate and prepare a plan to deal with issues of anger, resentment and/or suspicion. Engagement is likely to require increased attention.
- Enclosed spaces may increase anxiety in Indigenous clients.
- Direct questioning can be perceived as being threatening and intrusive and therefore should be kept to a minimum. A method of three-way talking may often be helpful, in which a client uses a third person (such as a family member) as a mediator to exchange information with the service provider.

- Watch the client's body language and mirror it if possible. For instance, direct eye contact is often viewed as impolite in Indigenous communities and is often avoided. Speaking softly with brief answers may be a sign of shyness or good manners.
- Be respectful of cultural prohibitions such as:
 - Referring to a dead person by name.
 - Referring to certain close relatives by name (e.g., a Torres Strait Islander male may not refer to his brother-in-law by name).
 - Appearing to criticise elders or family members.
 - Confiding personal information to a member of the opposite sex – men's and women's business are usually kept separate (this may require a same sex AOD worker).
- Consultation may take longer so set aside extra time.
- Be aware that levels of literacy may be low.
- It is important to be clear about your role and the types of things you would like to cover in the consultation.
- Assessment of Indigenous clients should occur within their own cultural context.
- Act as an advocate for the client where necessary in guiding them through the health care system.
- Understand that developing relationships with clients and communities will take time and that establishing these relationships is often necessary prior to engaging in treatment and learning more about how to appropriately interact with clients.
- Be proactive in engaging with the local community rather than waiting for them to access AOD or mental health services.

Workers should also be aware of the cultural diversity within Indigenous populations, which is often overlooked [1066]. Differences in cultural identity extend to different languages, accessing traditional lands, practising traditional culture, laws and governance, as well as family and kinship structures [1067]. Recognising and responding to the complexities of Indigenous identity involves acknowledging the significance of diverse language and family groups, as well as the differences in gender relationships, all of which can involve complex relationships which determine the level of interaction between family and kin [1059]. The different forms of distress experienced by Indigenous people, as well as the different pathways to recovery, need to be identified, which depend on a diverse range of beliefs and experiences [1068].

Following interviews with Indigenous women experiencing comorbidity, Lee and colleagues [1041] identified a number of improvements that could be made to services to better address the needs of Indigenous people with mental health and AOD use disorders, including:

- Better integration of mental health and AOD services, and greater collaboration between these services and other organisations (e.g., housing, education).
- More promotion of available services (e.g., active presence of mental health/AOD workers at local community events).
- More information and group family support for families and carers of people with co-occurring AOD and mental health conditions.
- Support groups to be run at local services to allow clients to share experiences with others in similar situations and to reduce isolation [1069].
- More childcare options available for clients seeking help from inpatient services.
- Greater use of outreach services in remote areas as a means of simplifying access to relevant services (e.g., rehabilitation, mental health, withdrawal management) and creating a less 'medicalised' environment.
- Services better addressing factors that make it difficult for people to get appointments (e.g., inflexible appointment times, unreliable transportation to services).

AOD workers may find the IRIS (described in Chapter B2) useful in assisting to identify Indigenous clients with AOD and mental health conditions and mental health risks [323].

Culturally and linguistically diverse groups

Little research has been carried out in Australia on culturally and linguistically diverse (CALD) groups in AOD services – let alone on those with comorbid mental health conditions. It is not clear whether comorbidity is more common in CALD than other groups. Ethnic groups are under-represented in AOD services, but not because they have a lower prevalence of AOD use disorders [439, 1070-1072]. Rather, their under-representation is a product of many barriers to treatment including [276]:

- Strong feelings of shame and guilt.
- Fear of stigmatisation/judgement surrounding treatment.
- Cultural differences between client and therapist.
- Confusion and lack of education or exposure to public health campaigns.
- Different expectations of treatment and difficulty clarifying these due to language barriers.
- Lack of familiarity with what AOD treatment services are available, and how to access services.
- Language difficulties which make participation in AOD treatment programs difficult.

Due to the multicultural nature of Australian society, it is imperative that AOD workers develop an awareness of issues pertaining to working with people who belong to CALD groups. Each geographic area has its own unique cultural mix and AOD workers should learn as much as possible about the cultures represented in their treatment populations. In particular, AOD workers should be aware of conventions of interpersonal communication (e.g., communication style, interpersonal interactions), expectations of family, understanding of healing, views of mental illness, and perceptions of substance use. However, it is fundamental not to make assumptions based on the client's culture – just because he/she is from a certain cultural background, that does not mean that he/she necessarily subscribes to the values and beliefs of that culture [94]. Reid and colleagues [1071] recommend consultation with the separate ethnic communities to develop culturally relevant strategies for AOD treatment.

It has been suggested that information about three aspects of clients' lives is of crucial importance when treating CALD clients [276]:

- **Context of migration:** If the client migrated to Australia, why they left their country of origin, how they got to Australia, their legal status, whether they have residency, any trauma experiences in the context of their country of origin or migrating to Australia (e.g., refugees of war). Helping clients to place their AOD and mental health conditions in the context of such experiences can help to reduce shame and increase self-compassion.
- **Subgroup membership:** Ethnicity, gender, sexual orientation, area in which they live, refugees or immigrants, religious affiliation.
- **Degree of acculturation:** Traditional (client adheres completely to beliefs, values, and behaviours of his/her country of origin); bicultural (client has a mix of new and old beliefs, values, and behaviours); acculturated (client has modified his/her old beliefs, values, and behaviours in an attempt to adjust); assimilated (client has completely given up his/her old beliefs, values and behaviours and adopted those of the new country).

Even migrants from English-speaking countries are likely to struggle with cultural confusion and stresses associated with changes in environment, jobs, social supports, and lifestyle. Migrants may experience a loss in social and occupational status if their qualifications are not recognised in Australia or face issues such as high unemployment levels, overcrowded living conditions, isolation, poverty, racial discrimination, and family conflict.

Rickwood [1073] provides a general summary of the types of problems that are specific to CALD groups in the community and makes recommendations regarding the provision of treatment services. These recommendations (such as cultural and religious awareness and the appropriate use of interpreters) would also apply to those with comorbid mental health conditions. They emphasise that there are few screening tools that have been validated for these groups. As with Indigenous clients, screening tools should be validated for CALD groups and need to be administered and interpreted with care.

Below is a range of useful points which may improve assessment and treatment in CALD clients generally:

- Where possible, and with the client's permission, involve the family in treatment. Allow the client to pick who from his/her family or community participates.
- Try to find out before the session if the client requires an interpreter, and allow the client to make decisions about if/when an interpreter is needed. Keep in mind that even clients with basic English proficiency might benefit by having an interpreter because describing symptoms, especially feelings, can be very difficult when English is a second language. Be sure the dialect is correct and be aware that some clients may have a preferred gender for the interpreter. Allow the interpreter to brief the client on the role that they will play. Even when families are involved in the client's treatment, it is inappropriate to use family members as interpreters. The client may not wish to divulge certain information to his/her family, or family members may not want certain information disclosed to people outside the family, and may edit what is being said. When using interpreters, be aware that some meaning can be lost in translation and address issues of confidentiality.
- Be sure to address the client appropriately and pronounce his/her name correctly.
- Discuss the client's expectations of treatment.
- Ensure that all treatment options are clearly explained, including rationale, and processes.
- Keep what you know about mental illness in mind but ensure that you try to understand the client's cultural understanding of his/her problems. People from different cultures often have different views on what constitutes mental illness. The DSM-5 [24] makes it clear that diagnoses can only be made if the person's behaviour is abnormal within his/her culture. While there are similarities in the forms of illnesses across different cultures, the specific symptoms and signs vary for different societies. For example, a man in Australia with psychosis may talk of aliens controlling his thoughts, while a man in Fiji might blame black magic. It is also not uncommon for people from some cultures (particularly South-East Asian countries) to express psychological distress through somatic (physical) symptoms [277].
- Be aware that some CALD clients may come from collectivist cultures (in which greater emphasis is placed on group identity, goals, and concerns than is placed on individual ones) and may require a greater involvement of family and community for successful treatment.
- Be aware of gender and age. Some cultures may have specific concerns about appropriate gender and age relations, such as talking about some subjects with a member of the opposite sex or a younger person.
- Maintain a focus on healing, coping, or rehabilitation, rather than on cure.
- Set aside at least twice the usual time, especially if you need to use an interpreter.
- Be mindful of embarrassment and cultural taboos.
- Be clear, concrete, and specific.
- Look for verbal and non-verbal signs of discomfort or confusion. Do not take silence as consent or agreement. The client may have had negative experiences in the past when accessing services, so consider making time to discuss these experiences and learn about any discrimination they may have experienced, as this may help to build trust.
- Support the client and his/her family in accessing other relevant services. CALD clients may not have knowledge of services that are available to them, so be aware of other services that could be helpful and offer to connect them directly by making a referral and help coordinate their care (see Chapter B4) [277, 1074].

Gay, lesbian, bisexual, transgendered, and intersex individuals

There is a lack of research into the impact of comorbidity on gay, lesbian, bisexual, transgendered, and intersex (GLBTI) communities in Australia [1075]. On the whole, there is evidence that GLBTI individuals experience comorbid AOD and mental health disorders at rates higher than heterosexual individuals [1076]. However, only five peer-reviewed studies of GLBTI individuals with a heterosexual comparison group have examined comorbidity of mental health and AOD use [1077], all of which found higher rates of comorbidity in the GLBTI sample relative to the heterosexual sample [1078-1082]. Across studies, the evidence indicates that GLBTI people are approximately between three and six times more likely to have a comorbid AOD and mental health disorder than their heterosexual counterparts, and are at particularly increased risk of suicidal ideation and suicide attempts, and multiple disorders [1077].

Fundamentally, treatment for GLBTI individuals is the same as for any other client group and should focus on the specific needs of the client [402]. GLBTI clients represent a diverse group of people from varying backgrounds; thus, like all other clients, a holistic view should be adopted considering all aspects of the client's presentation. While all GLBTI clients are different, it is important to be aware of the context in which GLBTI clients' problems may develop. For instance, the development of a same-sex attracted identity usually occurs within a context of stigma and internal pressure [1083]. This can produce feelings of shame, isolation, guilt, lying, maladaptive sexual patterns, and loss of social support among other things, all increasing the risk of mental health and substance use problems. Thus, comorbidity among GLBTI individuals is likely to be a consequence of being in a minority group within the community, rather than being same-sex attracted. Ritter and colleagues [1077] identified several key features for working with GLBTI clients that are associated with positive outcomes:

- A welcoming, non-judgemental, and respectful environment.
- An accepting and affirming approach to the client's GLBTI status.
- Appropriate use of culturally sensitive language.
- Staff awareness of GLBTI support services.
- Appropriate education and training for staff.
- Presence of GLBTI staff and positive GLBTI role models.
- A high regard for confidentiality around personal information.
- Affirmation of non-traditional family networks.
- Teaching the client strategies for dealing with stigma, discrimination, and stress.

Sexuality and related issues require sensitive exploration and may require the AOD worker to assist the client with safety, support, accommodation, harm reduction, and education needs that may arise. It is important to consider and use professional judgement in raising and discussing issues of sexual orientation; for instance [1084]:

- How comfortable is the person with his/her sexuality and with talking about it with others?
- Has he/she told family/friends? How have these people reacted (or how will they)?
- Is it his/her decision to tell someone or is he/she being forced?
- How much support does he/she have?
- Is he/she financially, physically, or emotionally independent?

Engagement is fundamentally important as well as confidentiality issues. AOD workers should also be aware that, for some clients (especially young clients), issues surrounding gender and sexual orientation may be a principal concern and may demand increased attention during treatment.

Rural/remote communities

People living in rural/remote communities suffer a variety of social, attitudinal, economic, geographic, and community barriers which means that they are likely to have difficulties accessing treatments and specialist care [1085-1088]. Youth in these communities are at particularly high-risk [1089], and alcohol and rural stressors are likely to play a role in high male suicide rate [1090]. The lack of specialists in these regions tends to result in heavy reliance on primary and AOD health care providers. Compared to major cities, rural areas have significantly less access to specialised mental health care, with per-person supply of employed medical practitioners decreasing according to remoteness [1085]. Although there is a national focus across Australia to increase the supply of health workers to rural and remote areas, it is estimated that rural areas access 33% of psychiatrists, 85% of mental health nurses, and 54% of psychologists compared to major cities, with even poorer access for remote areas [1085, 1086]. Moreover, Medicare expenditure on mental health services in inner regional and remote areas is considerably less than that in major cities [1086]. The health of rural and remote Australians is comparatively poorer than those in major cities [1085], and the lack of resources and health care workers makes working in these settings particularly challenging.

Research has found that people living in remote areas are less likely than major city residents to endorse evidence-based interventions as useful for mental health treatment, and are less likely to perceive psychologists, psychiatrists, GPs, and social workers as helpful in the treatment of mental health conditions [1091]. There is also evidence that people living in remote areas are also more likely than those living in major cities to identify non-evidence-based treatments (e.g., alcohol and painkillers) as helpful interventions for mental health conditions, highlighting the need for effective communication focused on best-practice treatment and management of mental health in rural and remote areas [1091].

Although accessing treatment has been identified as a particular challenge in this population group, recently developed self-guided approaches, such as bibliotherapy or e-health interventions, have proven to be effective as have alternatives to face-to-face methods (e.g., telephone, email, internet) where geographical isolation and lack of specialist services are obstacles [1092]. For example, *MoodGYM* is a free online CBT self-help program for depression (www.moodgym.anu.edu.au) that has been shown to be effective in treating symptoms of depression [653], and *Anxiety Online* comprises five e-therapy programs for GAD, SAD, panic disorder, PTSD, and OCD (www.mentalhealthonline.org.au) [740]. Although definitive evidence regarding the efficacy of *Anxiety Online* is lacking, a naturalistic study found that the participation in the program was associated with significant reductions in severity of all five disorders, and increased confidence in managing one's own mental health care.

In terms of feasibility and acceptability of these approaches, there is evidence that clinicians working in rural areas are optimistic about the use of e-health interventions; however, there was a preference for these approaches to be integrated alongside existing services, and used as an adjunct rather than alternative to more traditional face-to-face approaches [1093]. The Rural Mental Health Study found that one in five (18%) people with internet access (75% of the total sample) would consider using e-health interventions, which was associated with being younger, male, a carer, having a 12-month mental health problem, and having used internet-based treatments in the past [1094]. These findings suggest that e-health interventions have the potential to address the limitations of service accessibility among people living in rural and remote areas, and resistance to e-health may be overcome by enhancing community education and program familiarity [1094]. In an RCT examining participants with comorbid depression and AOD use, the efficacy of computerised CBT/MI was compared to face-to-face treatment with both urban and rural participants [1095]. Similar improvements were observed in depression, alcohol, and cannabis use when compared with face-to-face treatment, and the computerised delivery was acceptable to people in both urban and rural locations, even among people who indicated a preference for face-to-face therapy.

Patterns of AOD use and the types of stressors experienced are likely to vary across rural and remote areas. For example, inhalants are a particular problem in some rural and remote areas, especially within Indigenous populations [1034], whereas cocaine is more likely to be used in major cities and inner regional areas [1096]. The proportion of individuals drinking at risky levels increases with increasing remoteness, with certain occupational groups (in particular, farming communities) at particularly high risk, and hospitalisation and mortality associated with alcohol consumption is considerably higher for rural communities relative to urban communities [1097]. Significantly more people living in rural and remote areas smoke tobacco, and whilst smoking rates have fallen over the past 15 years in major cities, outer regional and remote areas have not seen this reduction [1098].

AOD workers need to be aware of the particular issues related to AOD use in their communities. Professional networking with local health providers, and fostering trust, non-judgemental acceptance, and confidentiality with clients, may be particularly important in rural/remote communities. In small rural communities, anonymity is very difficult to maintain, presenting a range of additional challenges for the AOD workers. Therefore issues of confidentiality are particularly crucial.

Homeless persons

Homelessness refers not only to sleeping rough. It also includes staying with friends or relatives with no other usual address (e.g., couch surfing), staying in specialist homelessness services, and living in boarding houses or caravan parks with no secure lease and no private facilities. As highlighted in the Australian Government White Paper on homelessness, homelessness does not simply mean that people are without shelter. A stable home provides safety and security as well as connections to friends, family, and a community [1099].

There tend to be higher rates of AOD use and mental health conditions among homeless people as compared to the Australian general population (see Table 49) [42, 1100, 1101]. A 2007–2008 survey of homeless individuals from Sydney reported complex AOD use histories and extensive polydrug use [1102]. Forty-two percent of participants reported severe levels of depression and 57% screened positive for current PTSD. More than one third (37%) had received a lifetime diagnosis of schizophrenia or another psychotic disorder.

People who are homeless present with a range of physical, financial, housing, substance, social, and psychological problems, and they are at high risk of victimisation [1102, 1103]. Hence it is important to adopt a holistic and pragmatic view when identifying treatment needs (see Chapter B4). The complexity of problems experienced by people who are homeless is compounded by having reduced access to services and resources [1104], and it is very difficult to provide mental health or AOD treatment to those without access to stable housing [1101]. Attention to immediate basic needs is often more important than diagnosing a specific condition, as successful treatment is difficult if basic needs are not met [1104]. Do they have access to primary care and from whom? Is the client likely to be able to follow through with treatment and recommendations? Will they seek help in the future? Can they afford specific treatments/medications? Thus, treatment should be guided by the perceived needs of the client, as well as AOD worker judgement.

Recent evidence indicates that homeless clients from less integrated services are more likely to experience additional difficulties accessing help due to the lack of coordination between homelessness, mental health, and AOD services [360]. Services working together and coordinating care into a cohesive approach has been identified by clients as an area of great importance. Clients from more integrated services are more likely to have a case coordinator and report positive outcomes than those from less integrated services [360]. Lack of integration between services can not only result in clients 'falling through the gaps' and being bounced between homelessness, AOD, and mental health services, but can also result in a need for clients to continuously retell details of distressing stories, confusion, and lack of client and service awareness [360]. Chapter B4 contains further information about care coordination and working with other services.

Table 49: Prevalence of mental health disorders among homeless people in inner Sydney and the general Australian population

	Homeless in inner Sydney		Australian population
	Men %	Women %	All people %
Psychotic disorders			
Schizophrenia	23	46	0.5
AOD use disorders			
Alcohol dependence-abuse	49	15	6
Opiate dependence-abuse	34	44	3
Cannabis dependence-abuse	22	18	2
Sedative dependence-abuse	10	13	0.5
Stimulant dependence-abuse	8	10	0.3
Other AOD dependence-abuse	9	13	-
Mood disorders			
Any mood disorder	28	48	7
Any major depression	22	38	6
Dysthymic disorder	4	8	1
Anxiety disorders			
Any anxiety disorder	22	36	6
Any panic disorder	7	19	1
Social phobia	8	10	3
Generalised anxiety disorder	8	10	3
Any mental disorder	73	81	18

Source: Teesson et al. [1100].

Being homeless involves additional stigmatisation to the already marginalising attitudes directed towards individuals with AOD and mental health conditions. It is important to recognise the additional difficulties faced by these clients and be patient and attentive during treatment despite obvious difficulties [1105]. The following strategies may be useful when working with homeless clients [360, 1104]:

- Become familiar with any street outreach programs or resettlement services operating in your area.
- Help the client establish skills and knowledge in obviously deficient areas, as this may provide practical living abilities. It may be necessary to read documents for the client, and assist in the filling out of forms, and other basic tasks due to low literacy levels or other difficulties.
- Be patient and flexible, and aware that homeless people are unlikely to attend all appointments or complete homework tasks. AOD workers need to remain optimistic, non-judgemental, process-oriented, and focused on long-term treatment goals.
- Where possible and beneficial, encourage clients to consider family relationships, and engage with clients' families. Be aware that this may not be easy or practicable, and ensure clients are engaged in the decision to contact their family.
- Be proactive in following up clients, and work with other services to coordinate care.

Women

The psychological, social and physical contexts of AOD use and mental health are quite different for women as opposed to men [1106]. There is increased stigma associated with female AOD use (particularly among those who are pregnant) which is likely to lead to greater guilt and shame [276, 1106, 1107]. This stigma may lead some women to delay treatment seeking, so that by the time they enter treatment their AOD problem is quite severe. Childcare considerations, fear of the removal of children, and financial issues have also been identified as barriers for women seeking treatment [1107-1109].

Women who misuse substances are more likely than men, or non-misusing women, to have experienced sexual, physical, or emotional abuse as children, as well as domestic violence [1109-1112]. In addition, AOD use can often lead to revictimisation via dangerous or risky situations such as unsafe sex and prostitution [1109]. Among women engaging in AOD treatment, the rates of depression, anxiety, and personality disorders are particularly high [1113]. Poor self-esteem and self image, high rates of suicide attempts, and comorbid ED are also particularly common to women with AOD use issues [1114, 1115]. Because of the high rates of trauma in female clients, often perpetrated by men, it is imperative to provide a treatment environment in which women feel safe and secure [276]. The following strategies can be helpful in working with female clients [276, 1108]:

- Provide the client with the option of a female AOD worker.
- If attending group therapy, offer a women-only group if possible.
- If attending rehabilitation services, offer information and/or referral to women-only AOD services.
- Ensure that treatment is gender-sensitive and addresses gender-specific issues and barriers to treatment.
- If appropriate, consider facilitating access to childcare, which can enable female parents and caregivers to attend treatment.
- Where appropriate, consider family inclusive practice, which incorporates the client's family and community relationships.
- Where appropriate, ensure sexual health and safety are incorporated into the treatment plan.

Men

In contrast to women, it is important to be aware that men may be less forthcoming with information concerning mental health, which may affect their help-seeking behaviour. There are a number of barriers that may prevent men accessing mental health treatment, including [1116]:

- Feeling uncomfortable and/or finding it difficult to discuss problems and feelings.
- Not wanting to appear weak, feeling embarrassed or ashamed of their distress.
- Feeling very aware of stigma associated with mental health difficulties and accessing services.
- Not recognising feelings of emotional distress.
- Having a preference to work things out for themselves.
- Not considering their mental health a high priority.
- Not being aware of available services, and/or not considering the services 'male friendly'.
- Having a tendency to manage emotional issues through silence or avoidance.
- Preferring 'acceptable' male outlets such as alcohol abuse or aggression to release feelings.

Physical, sexual, and emotional abuse are highly prevalent among men accessing AOD treatment settings, and, as with female clients, treatment should be trauma-informed, bearing in mind feelings of shame, guilt, and powerlessness that can be the result of abuse [276]. Men are also at considerably higher risk of completed suicide than women, and are more likely to choose lethal means for suicide attempts, which highlights the need for risk assessments (see Chapter B3) [276]. There are also strong associations between

AOD use (alcohol in particular) and violence, and it is important for treatment to address AOD-related violence, including family and domestic violence. Where appropriate, anger management strategies should be integrated into treatment [276].

Coerced clients

Clients may be coerced into treatment through a variety of channels; for instance, through the judicial system, via family and friends, schools or workplaces, or through child protection or other services. However, AOD workers should not assume treatment will be ineffective as a result [1117]. In fact, coercion into treatment may present an opportunity which the client may never have previously considered, and evidence suggests that some individuals who have been legally coerced to participate in treatment stay in treatment longer and do equally as well, or better than, people not under legal coercion [1118]. It is important for the AOD worker to present it as a positive opportunity from which the client may experience some benefit. A positive attitude on behalf of the AOD worker and efforts in engaging a coerced client are key to a productive outcome. The role of educational and motivational interventions may require more attention.

Nevertheless, there are some special considerations that AOD workers ought to be aware of when dealing with coerced clients. First, confidentiality may be complicated and needs to be clarified from the outset of treatment, both with the referrer and the client. Open communication is required regarding the boundaries, rights and obligations concerning confidentiality, and these should be clarified prior to the commencement of treatment [276]. Similarly, conflicts of interest between the views of the AOD worker and the conditions under which the client accesses treatment may arise and should be addressed [96, 1087].

Harm reduction is also an important consideration when dealing with coerced clients [276]. This may often be a more satisfactory goal for clients but court orders and familial requests are likely to be based on an expectation of abstinence [96]. The AOD worker, however, can play an important role in clarifying what the realistic goals are for each client. Often, a lack of knowledge and understanding of dependence and treatment results in unrealistic expectations, particularly in relation to the opioid treatment program (i.e., methadone and buprenorphine substitution) and the need to be abstinent from all drugs.

Coerced clients may be accessing treatment services for the first time, or may be accessing a different type of service. This provides the opportunity for a thorough assessment which may identify previously undiagnosed comorbid disorders, and presents an opportunity for treatment. AOD workers should focus on building a therapeutic relationship, and avoid overly intrusive questions that might be perceived as judgemental [276]. Barber [1119] suggests that in cases of coercion the worker should adopt a negotiation or mediation role and follow six steps in this process. These steps are:

- Clear the air with the client (including a positive attitude and efforts with engagement).
- Identify legitimate client interests.
- Identify non-negotiable aspects of intervention.
- Identify negotiable aspects of intervention.
- Negotiate the case plan.
- Agree on criteria for progress.

When working with justice health specifically, appropriate referrals and consultation with corrective services need to take place. A client being released from custody should be reviewed to ensure that he/she has all medications post-release and that he/she is aware of services, referred to and accepted by service providers where necessary [1120].

Young people

Young people are a severely at-risk population, with at least five of the top 10 causes of disability-adjusted life-years directly related to mental health or AOD use disorders [1121]. Young people are commonly undertreated [62, 1122], with one study reporting that although more than one-quarter of Australians aged between 16–24 years experienced a 12-month mental disorder, less than 25% accessed health services in a 12-month period [1123].

Comorbidity across disorders is common [42, 269, 1124–1126]. A number of epidemiological studies and government initiatives have identified adolescents and young adults as a group at risk for comorbid AOD and mental health conditions [42, 67, 1127–1131]. The US National Comorbidity Survey reported that the co-occurrence of AOD use disorders and mental illness was highest amongst those aged 15–24 years [1132]. In addition, the Australian National Comorbidity Project [109] identified young people as being at increased risk of poor treatment outcomes and social disadvantage as a result of having comorbid AOD and mental health conditions [1133]. A review of community studies of adolescent AOD use, abuse, and dependence revealed that 60% of children and youth with an AOD use disorder had a comorbid diagnosis, with conduct disorder and oppositional defiant disorder the most common, followed by depression [1130].

An Australian study among substance-abusing youth (aged 16–22 years) attending community drug treatment services found high rates of lifetime and current mental health disorders (69% and 50%, respectively) [67]. Almost half the sample (49%) fulfilled criteria for a current mood or anxiety disorder, and this was more pronounced in female participants (61%). Rates of major depression and PTSD were particularly high, and were both associated with significant morbidity. Not only does research suggest that there is an increased prevalence of comorbidity among young people but there is evidence to suggest that adolescents with AOD and co-occurring mood and anxiety disorders also display greater severity of AOD use and associated problems, including increased disability and suicidal behaviour, and reduced academic performance and social abilities [1134–1139].

Adolescence and young adulthood can be a difficult, turbulent time for many people, with issues of change, development, identity formation, experimentation, rebellion, and uncertainty impacting upon an individual's thoughts, feelings, and behaviour [276]. Thus, it is a vulnerable time for mental health and substance use. It is also often the time in which the first presentations of psychosis and symptoms of depression and anxiety emerge [402]. It should be noted that the presentation of mental illness may be different in young people compared to adults. For example, children who have experienced trauma may not have a sense of reliving the trauma, but rather they may engage in repetitive play activities that re-enact the event. AOD workers who work with children or adolescents should refer to the DSM-5 [24] and be aware of possible variations of symptom expression.

It is important to recognise that AOD and mental health conditions take place in different physical, attitudinal, psychological, and social contexts for young people, and treatment needs to be tailored accordingly [94, 1140]. For instance, treatment should be 'youth friendly' and include follow-up for missed appointments, ease of access, prompt screening and assessment, drop-in capability, flexibility, strong links to other relevant agencies to ensure holistic treatment, and interventions that recognise different cognitive capacities and developmental/maturational lags [402]. AOD workers may need to modify the treatment process to avoid client distraction and rebellion (e.g., creating a more active and informal environment) and place special emphasis on engagement (patience and skill is required in addition to the use of appropriate language and questioning and relating to young people on their level).

In regards to confidentiality, most young people would be considered to be 'mature minors' by the age of around 14 or 15 years. In this case there is no obligation to provide information to the parents unless other legal and reporting constraints operate, and confidentiality must be respected [276]. In most circumstances,

however, it is helpful to involve families (especially parents or carers) and this should be discussed with the young person at the outset of treatment and his/her consent for involvement sought. Parents and carers may require support, education, and empowerment in order to assist with continued care and help prevent client relapse upon discharge [297, 1141].

It may be particularly useful to provide young clients with practical and concrete strategies concerning mental health and AOD use (particularly relapse prevention and urge control). For instance, a behavioural treatment program consisting of stimulus control, urge control, social contracting, problem solving, relationship enhancement, anger management, and communication skills training has been shown to be particularly effective in continued abstinence in adolescents with AOD issues [1142], while cognitive and behavioural therapies have indicated positive outcomes for mental health disorders [1143-1146]. Towers [1147] argues that it is unrealistic to expect many young people to completely cease using all substances and engaging in other risk-taking behaviours (such as driving at high speeds, promiscuity), at least initially. Therefore, it is particularly important to include harm reduction strategies when working with young people.

As young people are fundamentally different from adults in ways that are likely to affect treatment utilisation, adherence, and outcomes [1148-1151], it would be inappropriate to simply replicate adult-focused treatment for young people. Rather, this group requires specialised treatment, focused on meeting developmental and engagement needs. These should include [98, 402]:

- Youth-friendly approach.
- Follow-up for missed appointments.
- Focus on accessibility.
- Prompt screening and assessment.
- 'Drop-in' capacity.
- Flexibility.
- Strong links with other services, and provision of coordinated care (see Chapter B4).
- Treatments that reflect different cognitive capabilities and developmental differences.

E-health interventions, described in Chapter B5, may be particularly useful for this population [98, 1152-1155]. AOD workers should also be aware that it may take longer to establish rapport and trust within therapy, and adopting a more flexible approach (e.g., consider working outside traditional treatment settings, by talking and playing pool or going to a café), may help build rapport [276].

Older people

The world's population is ageing rapidly, with the proportion of adults aged over 60 years expected to double from around 605 million to 2 billion people between 2000 and 2050 [1156]. Increased life expectancy, better health care and decreased infant mortality across Australia are contributing to the increasing proportion of older people in the Australian community, and there is a need for AOD workers to be aware of the presentation and management of comorbid mental health disorders among older people, and how these differ from younger populations [277].

More than 20% of adults aged over 60 years have a mental health or neurological condition, the most common of which are dementia and depression, and one-in-four deaths from self-harm are among this age group [1156]. However, mental illness is often difficult to identify due to comorbidity with physical health problems, injuries, and disabilities. Older people may have many contributing risk factors for mental illness, including bereavement, loss of social roles due to ill health or retirement, social isolation, financial difficulties, diminishing cognitive function, and reduced capacity to self-care and manage their affairs [277]. Depression and suicide are also easily overlooked among older adults, and people who are socially isolated without supportive networks are at particular risk [277].

Similarly, AOD and mental health conditions are often overlooked or misdiagnosed among older adults, who are uniquely at risk of AOD-related harms. The ageing process can enhance the brain's sensitivity to adverse effects of AOD use [1157], and older adults are significantly more likely to be prescribed medication with abuse potential, with one-in-four adults prescribed psychoactive medication [1158]. This is particularly problematic for people with dementia or cognitive impairment, and specialised medical practitioners in mental health services for older people need to maintain a proactive role in reviewing medications and advising appropriate prescribing practices for older people [277]. Other factors that may contribute to the increased risk of AOD use problems in older adults include [1159]:

- Reduced capacity to metabolise, distribute, and eliminate drugs; as such, the risk of AOD-related harm may increase if AOD use is not reduced as a person becomes older.
- An increase in disposable income, which may increase AOD consumption and associated problems.
- Life changes including new patterns of socialising, retirement, bereavement, and social isolation.
- More medications available for a range of conditions, which may be a contributing factor in the increased use of psychoactive substances.
- Opioids and hypnotic sedatives are increasingly used by older Australians, which can be harmful when used with other substances (e.g., alcohol).
- Increased use of opioid substitution programs, needle and syringe programs, and treatments for blood-borne viruses has prevented many premature AOD-related deaths, and, as a result, many long-term illicit drug users survive into older age and thus require ongoing treatment.

In general, older adults may be less likely to seek help for comorbid mental health and AOD use disorders [1160]. Several barriers that may prevent older adults from accessing treatment include [1161]:

- Transport, mobility, language, visual, or hearing difficulties, particularly for those who are frail or housebound, in rural or remote areas.
- Social isolation.
- Lack of time – older people may have other time commitments, including the need to care for others (e.g., spouse, friends, or grandchildren).
- The unappealing and unwelcoming nature of mixed-age clinical services, which older people may find chaotic.
- Ageism, negative stereotypes, attributing problems to the aging process.
- A lack of awareness about mental health and AOD use problems among older people
- Reluctance to ask older people sensitive questions that may be embarrassing.
- The perception that older people are too old to change their behaviour.
- The belief that it is wrong to 'deprive' older people from their final pleasures in life.
- Inability to identify symptoms of AOD and mental health conditions in older people.
- Social isolation which can result in serious problems going undetected.

It is critical to be aware that older adults with comorbid mental health and AOD disorders are not a homogenous group, and AOD workers and other health care providers will play a vital role in ensuring access to interventions. The following may be useful for AOD workers managing and treating older adults [1161]:

- Ensure AOD programs are age-specific, supportive, non-confrontational, aim to build self-esteem and foster an environment of respect.
- Ensure risk assessments are conducted (see Chapter B3), and depression, loneliness, and loss are addressed. Assist the client to take steps to rebuild their social networks.
- Be flexible and conduct sessions at an appropriate pace.
- Where appropriate, involve families and carers.
- With the client's consent, involve staff members who are interested and experienced in working with older adults.

- Practise care coordination (see Chapter B4), and take care to foster links with medical, aging, and other relevant services. Be proactive with follow-up and care coordination.
- Take a holistic approach to treatment (see Chapter B1), and incorporate age-specific psychological, social, and health problems.

Appendices

Appendix A: Other guidelines

Other Australian guidelines
<p>Australian Department of Health and Ageing. (2007). <i>Alcohol treatment guidelines for Indigenous Australians</i>. Canberra, Australia: Australian Government Department of Health and Ageing.</p> <p>http://remoteaod.com.au/sites/default/files/images/alc-treat-guide-indig%5B1%5D.pdf</p>
<p>Australian General Practice Network. (2007). <i>Management of patients with psychostimulant use problems: Guidelines for general practitioners</i>. Canberra, Australia: Australian Government Department of Health and Ageing.</p> <p>http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/publishing.nsf/Content/9BFD29DFA6DE474CA2575B4001353B2/\$File/psygp07.pdf</p>
<p>Cash, R. & Philactides, A. (2006). <i>Clinical treatment guidelines for alcohol and drug clinicians. No. 14: Co-occurring acquired brain injury/cognitive impairment and alcohol and other drug use disorders</i>. Fitzroy, Australia: Turning Point Alcohol and Drug Centre Inc.</p> <p>https://www2.health.vic.gov.au/</p>
<p>Crane, P., Buckley, J., & Francis, C. (2012). <i>Youth alcohol and drug good practice guide 1: A framework for youth alcohol and other drug practice</i>. Brisbane, Australia: Dovetail.</p> <p>http://dovetail.org.au/media/40155/dovetail_guide01doutput.pdf</p>
<p>Croton, G. (2007). <i>Screening for and assessment of co-occurring substance use and mental health disorders by alcohol and other drug and mental health services</i>. Wangaratta, Australia: Victorian Dual Diagnosis Initiative Advisory Group.</p> <p>http://www.nada.org.au/media/14706/vddi_screening.pdf</p>
<p>Encompass Family and Community. (2014). <i>Youth alcohol and drug practice guide 4: Learning from each other: Working with Aboriginal and Torres Strait Islander young people</i>. Brisbane, Australia: Dovetail.</p> <p>http://dovetail.org.au/media/101008/guide%2004%20learning%20from%20each%20other.pdf</p>
<p>Gordon, A. (2009). <i>Comorbidity of mental disorders and substance use: A brief guide for the primary care clinician</i>. Canberra, Australia: Commonwealth Department of Health and Ageing.</p> <p>www.nationaldrugstrategy.gov.au/internet/drugstrategy/Publishing.nsf/content/FE16C454A782A8AFCA2575BE002044D0/\$File/mono71.pdf</p>
<p>Jenner, L., Baker, A., Whyte, I., & Carr, V. (2004). <i>Psychostimulants: Management of acute behavioural disturbances: Guidelines for police services</i>. Canberra, Australia: Australian Government Department of Health and Ageing.</p> <p>http://nceta.flinders.edu.au/files/2514/3130/6038/Guidelines_for_Police_Services.pdf</p>

Other Australian guidelines (continued)

Jenner, L. & Lee, N. (2008). *Treatment approaches to users of methamphetamine: A practical guide for front line workers*. Canberra, Australia: Australian Government Department of Health and Ageing.

[http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/Publishing.nsf/content/8D2E281FAC2346BBCA25764D007D2D3A/\\$File/tremeth.pdf](http://www.nationaldrugstrategy.gov.au/internet/drugstrategy/Publishing.nsf/content/8D2E281FAC2346BBCA25764D007D2D3A/$File/tremeth.pdf)

Lee, K., Freeburn, B., Ella, S., Miller, W., Perry, J., & Conigrave, K. (2012). *Handbook for Aboriginal alcohol and other drug work*. Sydney, Australia: University of Sydney.

http://nceta.flinders.edu.au/files/1613/5847/3861/handbook_online-version2.pdf

Marsh, A., Dale, A. & Willis, L., O'Toole, S., & Helffott, S. (2013). *Counselling guidelines: Alcohol and other drug issues*. Perth, Australia: Drug and Alcohol Office.

<http://remoteaod.com.au/sites/default/files/images/Counselling%2BGuidelines%2B2013.pdf>

Marsh, A., Towers, T. & O'Toole, S. (2012). *Trauma-informed treatment guide for working with women with alcohol and other drug issues (2nd edition)*. Perth, Australia: Improving Services for Women with Drug and Alcohol and Mental Health Issues and their Children Project.

McIver, C., McGregor, C., Baigent, M., Spain, D., Newcombe D. & Ali, R. (2006). *Guidelines for the medical management of patients with methamphetamine-induced psychosis*. Parkside, Australia: Drug and Alcohol Services South Australia.

<https://www.sahealth.sa.gov.au/wps/wcm/connect/cbad29804178755b94d1ff67a94f09f9/Guidelines+methamphetamine-induced+psychosis-DASSA-Oct2013.pdf?MOD=AJPERES&CACHEID=cbad29804178755b94d1ff67a94f09f9>

Network of Alcohol and Other Drugs Agencies. (2015). *NADA practice resource for women engaged in in alcohol or other drug treatment*. Sydney, Australia: Network of Alcohol and Other Drugs Agencies.

http://www.nada.org.au/media/75320/working_with_women_engaged_in_aod_treatment.pdf

NSW Health Department. (2009). *NSW clinical guidelines for the care of persons with comorbid mental illness and substance use disorders in acute care settings*. Sydney, Australia: NSW Department of Health.

<http://www.health.nsw.gov.au/mhdao/programs/mh/Publications/comorbidity-report.pdf>

NSW Department of Health. (2007). *Mental health reference resource for drug and alcohol workers*. Sydney, Australia: NSW Department of Health.

<http://www.nada.org.au/media/8033/mhrr.pdf>

NSW Department of Health. (2008). *NSW Health drug and alcohol psychosocial interventions*. Sydney, Australia: NSW Department of Health.

www.health.nsw.gov.au/policies/gl/2008/pdf/GL2008_009.pdf.

Other Australian guidelines (continued)

NSW Department of Health. (2015). *Guidelines to consumer participation in NSW drug and alcohol services*. North Sydney, Australia: NSW Department of Health.

http://www0.health.nsw.gov.au/policies/gl/2015/pdf/GL2015_006.pdf

Victorian Dual Diagnosis Initiative. (2012). *Our healing ways: Putting wisdom into practice: Working with co-existing mental health and drug and alcohol issues: Aboriginal way*. Melbourne, Australia: Victorian Dual Diagnosis Initiative Education and Training Unit.

http://nceta.flinders.edu.au/files/8113/5847/3546/Healing_Ways_Manual.pdf

Western Australian Network of Alcohol and other Drug Agencies. (2011). *Healthy eating for wellbeing: A nutrition guide for alcohol and other drug agency workers*. Perth, Australia: Western Australian Network of Alcohol and other Drug Agencies.

<http://www.wanada.org.au/Download-document/496-Healthy-Eating-for-Wellbeing-A-Nutrition-Guide-for-Alcohol-Other-Drug-Agency-Workers.html>

Winstock, A. & Molan, J. (2007). *The patient journey: KITz: Supporting GPs to manage comorbidity in the community*. Sydney, Australia: NSW Department of Health.

<http://www.health.nsw.gov.au/mhdao/Documents/pj-kit2.pdf>

Appendix B: Other useful resources

Other useful resources
Back, S., Foa, E., Killeen, T., Mills, K.L., Teesson, M., Cotton, B.D., Carroll, K.M., Brady, K.T. (2015). <i>Concurrent treatment of PTSD and substance use disorders using prolonged exposure (COPE): Therapist guide</i> . Oxford, UK: Oxford University Press.
Baker, A., Kay-Lambkin, F., Lee, N. K., Claire, M. & Jenner, L. (2003). <i>A brief cognitive behavioural intervention for regular amphetamine users</i> . Canberra, Australia: Australian Government Department of Health and Ageing.
Baker, A. & Velleman, R. (2007). <i>Clinical handbook of co-existing mental health and drug and alcohol problems</i> . London, UK: Routledge.
Clancy, R. & Terry, M. (2007). <i>Psychiatry and substance use: An interactive resource for clinicians working with clients who have mental health and substance use problems</i> [DVD-ROM]. Newcastle, Australia: NSW Health.
Graham, H. (2003). <i>Cognitive-behavioural integrated treatment (C-BIT): A treatment manual for substance misuse in people with severe mental health problems</i> . Chichester, UK: Wiley.
Lee, N., Jenner, L., Kay-Lambkin, F., Hall, K., Dann, F., Roeg, S., et al. (2007). <i>PsyCheck: Responding to mental health issues within alcohol and drug treatment</i> . Canberra, Australia: Commonwealth of Australia. http://www.psychcheck.org.au
<i>Mental health statement of rights and responsibilities</i> . http://www.mentalhealth.wa.gov.au
Miller, W. and Rollnick, S. (2013). <i>Motivational interviewing: Helping people change (3rd Edition)</i> . New York, NY: Guildford Press.
Comorbidity information booklets by Mills K.L., Marel C., Baker A., Teesson M., Dore G., Kay-Lambkin F., Manns L., Trimmingham T. (2011). Sydney, Australia: National Drug and Alcohol Research Centre. <ul style="list-style-type: none"> • <i>Anxiety and substance use.</i> • <i>Mood and substance use.</i> • <i>Trauma and substance use.</i> • <i>Psychosis and substance use.</i> • <i>Personality and substance use.</i> http://www.comorbidity.edu.au
<i>National practice standards for the mental health workforce</i> . http://www.health.gov.au/
<i>National practice standards for social workers</i> . http://www.aasw.asn.au/document/item/4551
Reilly, P. M. & Shopshire, M. S. (2002). <i>Anger management for substance abuse and mental health clients: A cognitive behavioural therapy manual</i> . Rockville, MD: US Department of Health and Human Services.

Other useful resources (continued)		
Agency Name	Contact	Service
Alcohol and other Drugs Council of Australia (ADCA)	www.adca.org.au	The peak, national, non-government organisation (NGO) representing the interests of the Australian AOD sector, provides a number of useful resources.
Alcohol, Tobacco, and Other Drug Association ACT (ATODA)	www.atoda.org.au	Peak body representing government and non-government alcohol and other drug sector in the Australian Capital Territory.
Alcohol, Tobacco and Other Drugs Council of Tasmania Inc (ATDC)	www.atdc.org.au	The peak body representing the NGO, not-for-profit Alcohol, Tobacco and Other Drug (ATOD) sector in Tasmania.
Association of Alcohol and Other Drug Agencies NT (AADANT)	www.aadant.org.au	Peak body for the alcohol and other drug sector in the Northern Territory.
Australian Association of Social Workers (AASW)	www.aasw.asn.au	Professional body for social workers in Australia.
Australian Drug Foundation (ADF)	www.adf.org.au	Information on drugs and services.
Australian Drug Information Network (ADIN)	www.adin.com.au	Search directory for information on alcohol and other drugs and mental health.
Australian Indigenous Alcohol and Other Drugs Knowledge Centre	www.aodknowledgecentre.net.au	Alcohol and other drugs information resource for Aboriginal communities.
Australian Indigenous HealthInfoNet	www.healthinfonet.ecu.edu.au	Information and resources for Indigenous health.
Australasian Professional Society on Alcohol and Other Drugs (APSAD)	www.apsad.org.au	Professional body for individuals working in the alcohol and other drugs field.

Other useful resources (continued)		
Agency Name	Contact	Service
Australian Psychological Society (APS)	www.psychology.org.au	Professional body for psychologists in Australia.
Australian Therapeutic Communities Association (ATCA)	www.atca.com.au	Peak body representing therapeutic communities in Australia.
Beyond Blue	www.beyondblue.org.au	A national, independent, not-for-profit organisation working to address issues associated with depression, anxiety and related substance misuse disorders in Australia.
Black Dog Institute	www.blackdoginstitute.org.au	A not-for-profit research, education, and training institute with expertise in diagnosis, treatment, and prevention of mood disorders.
DepNet	www.depnet.com.au	Depression website offering help, support and emergency contacts for mental illness
Drug and Alcohol Multicultural Education Centre (DAMEC)	www.damec.org.au	Non-government organisation providing support, education, research, and training about drug and alcohol issues for CALD groups in NSW.
Drug and Alcohol Nurses of Australia (DANA)	www.danaonline.org	Peak body representing alcohol and other drug nursing in Australia.
DrugNet	www.drugnet.bizland.com	Useful drug education website.
Dual diagnosis Australia and NZ	www.dualdiagnosis.org.au/home	An online community of people interested in contributing to better outcomes for persons with co-occurring substance use and mental health disorders.
eheadspace	www.eheadspace.org.au	Online and telephone support service for young people experiencing mental health issues.
Family Drug Support Australia	1300 368 186 www.fds.org.au	Assists families throughout Australia to deal with drug issues and achieves positive outcomes.

Other useful resources (continued)		
Agency Name	Contact	Service
GROW Fellowship	1800 558 268 www.grow.net.au	A 12-step fellowship for people experiencing mental illness. Services include meetings across Australia and a residential service in Australia.
Headspace	www.headspace.org.au	A government-funded youth mental health information site.
Hepatitis Australia and the National Hepatitis Infoline	1300 437 222 http://www.hepatitisaustralia.com	The peak, national, non-government organization (NGO) representing the interests of the Australian viral hepatitis community sector, provides a number of useful resources and referrals to state-based organisations.
Homelessness Australia	www.homelessnessaustralia.org.au	Peak body for homelessness in Australia.
Mental Health Association QLD	www.mentalhealth.org.au	Non-government organisation promoting awareness of mental health and advocating for the welfare of people with mental illness in QLD.
Mental Health Australia	www.mhaustralia.org	The peak, national NGO representing and promoting the interests of the Australian mental health sector.
Mental Health Coalition of South Australia	www.mhcsa.org.au	The peak body promoting the interests of non-government organisations supporting people with a psychiatric disability in SA.
Mental Health Community Coalition ACT (MHCC ACT)	www.mhccact.org.au/cms/index.php	The peak body representing the non-profit community mental health sector in the ACT.
Mental Health Coordinating Council (MHCC)	www.mhcc.org.au	The peak body for community mental health organisations in NSW.
Mental Health Council of Tasmania (MHCT)	www.mhct.org	The peak body representing the interests of non-government mental health consumer organisations, carer organisations and service provider organisations.
Mental Health First Aid	www.mhfa.com.au	Provides evidenced-based mental health first aid education to all.

Other useful resources (continued)		
Agency Name	Contact	Service
MoodGYM	www.moodgym.anu.edu.au	A CBT self-help training program for depression.
Motivational Interviewing	www.motivationalinterview.net	Motivational interviewing education.
National Comorbidity Initiative	http://www.aihw.gov.au/publication-detail/?id=6442467722	A review of data collections relating to people with coexisting substance use and mental health disorders.
Network of Alcohol and Drug Agencies Inc (NADA)	www.nada.org.au	A peak organisation for the alcohol and drug non-government sector throughout NSW.
Northern Territory Council of Social Service (NTCOSS)	http://www.ntcoss.org.au/	The peak body for the social and community sector in the Northern Territory.
NT Mental Health Coalition	http://www.ntmhc.org.au	The peak body representing the community-based mental health sector in the NT.
Psychiatric Disability Services of Victoria (VICSERV) Inc	www.vicserv.org.au	The peak body for community managed mental health services in Victoria.
Psychiatry Online: DSM-5 library	http://dsm.psychiatryonline.org/doi/book/10.1176/appi.books.9780890425596	An online resource for the DSM-5.
Queensland Network of Alcohol and other Drugs Agencies (QNADA)	www.qnada.org.au	The peak organisation for non-government alcohol and drug agencies throughout Queensland.
ReachOut!	au.reachout.com	An online service providing information and referrals to young people with a variety of problems including AOD and mental health problems.
ReachOutPro	au.professionals.reachout.com	Online resource for youth mental health and AOD workers.
SMART recovery Australia	www.smartrecovery.org/australia_website/index.htm	A peer-managed self-help group that assists recovery from AOD dependencies.
Society for Mental Health Research (SMHR)	www.smhr.org.au	National body for individuals engaged in research relating to mental health

Other useful resources (continued)		
Agency Name	Contact	Service
Somazone	www.somazone.com.au	Develops, collects and disseminates information on promotion of mental health, prevention of mental disorder, early intervention in mental illness, and suicide prevention.
South Australian Network of Drug and Alcohol Services (SANDAS)	www.sandas.org.au	The peak body for non-government organisations working in the AOD field in South Australia.
The Mental Health Services (TheMHS)	www.themhs.org	Learning network aimed at improving mental health services in Australia and New Zealand.
Victorian Alcohol and Drug Association Inc. (VAADA)	www.vaada.org.au	The peak body representing AOD services in Victoria.
Western Australian Association for Mental Health (WAAMH)	www.waamh.org.au	The peak mental health representative body in Western Australia for non-government non-profit agencies.
Western Australian Network of Alcohol and Other Drug Agencies (WANADA)	www.wanada.org.au	The peak body for the non-profit AOD sector in Western Australia.
Ybblue	www.beyondblue.org.au/ybblue	Aims to aid young people (as well as their family and friends) in talking about and seeking help for depression.
Youth Coalition for the ACT	www.youthcoalition.net	The peak youth affairs body in the ACT and responsible for representing the interests of people aged between 12–25 years of age, and those who work with them.

Appendix C: Research and information organisations

Australian Centre for Addiction Research	www.acar.net.au
Australian Drug Foundation	www.adf.org.au
Australian Hepatitis Council	www.hepatitisaustralia.com
Australian Injecting and Illicit Drug Users League	www.aivl.org.au
Australian Institute of Criminology	www.aic.gov.au
Australian Institute of Health and Welfare	www.aihw.gov.au
Burnet Institute	www.burnet.edu.au
Centre for Accident Research and Road Safety	www.carrsq.qut.edu.au
Centre for Research Excellence in Mental Health and Substance Use	www.comorbidity.edu.au
Centre for Rural and Remote Mental Health	www.crrmh.com.au
Centre for Youth Substance Abuse Research	www.cysar.health.uq.edu.au
Community Mental Health Drug and Alcohol Research Network	www.cmhdaresearchnetwork.com.au
Drug and Alcohol Services South Australia	www.dassa.sa.gov.au
Hunter Institute of Mental Health	www.himh.org.au
Illawarra Institute for Mental Health	www.socialsciences.uow.edu.au/iimh
Menzies School of Health Research	www.menzies.edu.au
National Cannabis Prevention and Information Centre	www.ncpic.org.au
National Centre for Education and Training in Addiction	www.nceta.flinders.edu.au
National Drug and Alcohol Research Centre	www.ndarc.med.unsw.edu.au
National Drug Research Institute	www.ndri.curtin.edu.au
National Health and Medical Research Council	www.nhmrc.gov.au
ORYGEN Youth Health	www.orygen.org.au
Phoenix Australia: Centre for Posttraumatic Mental Health	www.phoenixaustralia.org
Queensland Alcohol and Drug Research and Education Centre	www.sph.uq.edu.au/qadrec

Appendix C: Research and information organisations (continued)

Substance Abuse and Mental Health Services Administration, US	www.samhsa.gov
Telethon Kids Institute	www.telethonkids.org.au
Telethon Institute for Child Health Research	www.ichr.uwa.edu.au
The Australia Institute	www.tai.org.au
The Kirby Institute	www.kirby.unsw.edu.au
The National Institute for Health and Care Excellence, UK	www.nice.org.uk
Turning Point Alcohol and Drug Centre	www.turningpoint.org.au
Young and Well Cooperative Research Centre	www.youngandwellcrc.org.au
Youth Substance Abuse Service	www.ysas.org.au
Youth Support and Advocacy Service	www.ysas.org.au

Appendix D: DSM-5 and ICD-10 classification cross-reference

DSM-5 disorder classification	ICD-10 classification	ICD-10 coding
Attention-deficit/hyperactivity disorder (ADHD)	Disturbance of activity and inattention	F90 (specifier needed)
Schizophrenia	Schizophrenia	F20.9
Schizophreniform disorder	Schizophreniform	F20.8
Schizoaffective disorder	Schizoaffective disorders	F25 (specifier needed)
Brief psychotic disorder	Acute and transient psychotic disorders	F23
Delusional disorder	Delusional disorder	F22
Bipolar I disorder	Bipolar affective disorder	F31 (specifier needed)
Bipolar II disorder	Bipolar II disorder	F31.8
Cyclothymic disorder	Cyclothymia	F34.0
Major depressive disorder	Depressive episode	F32 (specifier needed)
Dysthymic disorder	Dysthymia	F34.1
Premenstrual dysphoric disorder	Premenstrual tension syndrome	N94.3
Generalised anxiety disorder (GAD)	Generalised anxiety disorder	F41.1
Panic disorder	Panic disorder (episodic paroxysmal anxiety)	F41.0
Agoraphobia	Agoraphobia	F40.0
Social anxiety disorder (SAD)	Social phobias	F40.1
Specific phobia	Specific phobias	F40.2 (specifier needed)
Obsessive-compulsive disorder (OCD)	Obsessive-compulsive disorder	F42
Post traumatic stress disorder (PTSD)	Post traumatic stress disorder	F43.1
Acute stress disorder	Acute stress reaction	F43.0
Avoidant/restrictive food intake disorder	Other eating disorders	F50.8

Appendix D: DSM-5 and ICD-10 classification cross-reference (continued)

DSM-5 disorder classification	ICD-10 classification	ICD-10 coding
Anorexia nervosa	Anorexia nervosa	F50.0 (specifier needed)
Binge eating disorder	Other eating disorders	F50.8
Antisocial personality disorder (ASPD)	Dissocial personality disorder	F60.2
Borderline personality disorder (BPD)	Emotionally unstable personality disorder	F60.3

Appendix E: Motivational interviewing

A useful tool in AOD client management is motivational interviewing (MI), irrespective of whether the client suffers co-occurring mental health conditions. MI can be beneficial for clients with comorbidity by increasing treatment motivation, adherence and behaviour change [528, 1162-1165], although it may not prove effective in all cases [1166]. A number of useful resources for MI are given in Appendix B, including Miller and Rollnick [389], Baker and Velleman [1167], and Clancy and Terry [296] from which this section draws upon.

MI is a directive, non-confrontational, client-centred counselling strategy aimed at increasing a person's motivation to change. This strategy assumes equity in the client-AOD worker relationship and emphasises a client's right to define his/her problems and choose his/her own solutions. It is, in this sense, a counselling style based on collaboration rather than confrontation, evocation rather than education and autonomy instead of authority, as opposed to a set of techniques [388].

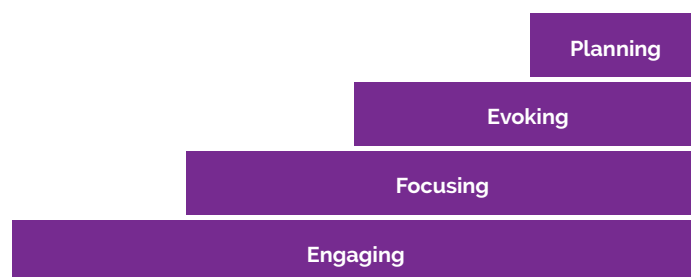
Principles of MI include:

- **Avoid argumentation.** Confrontation is unhelpful to change and is likely to increase resistance.
- **Express empathy, warmth, and genuineness** in order to facilitate engagement and build rapport.
- **Support self-efficacy.** Build confidence that change is possible.
- **Roll with resistance.** Arguing, interrupting, negating and ignoring are signs a client is resistant to change.
- **Develop discrepancy.** Generate inconsistency between how the client sees his/her current situation and how he/she would like it to be. This strategy is based on the notion that discomfort motivates change and internal inconsistency or ambivalence is a cause of human discomfort.

Thus MI aims to rouse feelings of ambivalence and discomfort surrounding current behaviour in order to motivate change. In the first two editions of MI, Miller and Rollnick conceptualised MI as having two phases: building motivation (Phase 1) and consolidating commitment (Phase 2). In the current (third) edition however, the sequential phases of MI have been relaxed, and reconceptualised as four overlapping processes (Figure 18, Table 50) [389]:

- **Engaging:** the establishment of a meaningful connection and therapeutic relationship between the client and AOD worker, and is a prerequisite for everything that follows.
- **Focusing:** the development and maintenance of a specific direction in conversation about change.
- **Evoking:** the elicitation of the client's own motivations for change, which has always been at the heart of MI. It can be achieved when there is a focus on a particular change and the client's own ideas and feelings about how to achieve it are harnessed (i.e., the client talks themselves into changing).
- **Planning:** involves developing commitment to change and formulating a specific plan of action. It is often the point where a client begins to talk about when and how to change, as opposed to whether and why.

Figure 18: Four processes of MI



Source: Miller and Rollnick [389].

Table 50: Questions regarding each MI process

Engaging <ul style="list-style-type: none">• How comfortable is the client talking with you?• How supportive/helpful are you being?• Does this feel like a supportive/collaborative partnership?
Focusing <ul style="list-style-type: none">• What goals for change does the client really have?• Are you working together with a common purpose?• Does it feel like you're moving together or in opposing directions?
Evoking <ul style="list-style-type: none">• What are the client's own reasons for change?• Is the reluctance about confidence or importance of change?• Are you pushing the client too far or too quickly in a particular direction?
Planning <ul style="list-style-type: none">• What would be a reasonable next step towards change?• Are you remembering to evoke rather than prescribe a plan?• Are you offering advice or information with permission?

Source: Miller and Rollnick [389].

Core communication skills

Miller and Rollnick [389] identify five core communication skills that are used throughout the different processes of MI:

- Asking open questions.
- Affirming.
- Reflective listening.
- Summarising.
- Informing and advising.

Asking open questions

This technique involves a questioning method that does not invite short answers; this increases information flow and trust, and invites the client to reflect and elaborate. In the engaging and focusing processes of MI, open questions help the AOD worker understand the client's frame of mind, find a clear direction for change, and strengthen the relationship between client and AOD worker [389]. Certain kinds of open questions are particularly suited to the different processes involved in MI (e.g., engaging, evoking). AOD may also find the range of open questions provided in Table 51 useful [402], which have been grouped according to the stages of change model [292]. The goal of these questions is to elicit self-motivational statements from the client [402].

In clients displaying symptoms of co-occurring mental health conditions, these questions should be simplified. Compound questioning (two questions in one sentence) should be avoided [1168].

Affirming

The client, rather than the AOD worker, produces change in MI, and as such, the process of MI relies on the client's own personal strengths, efforts and resources. Affirmation can be general (the AOD worker respects the client as a person of worth, who has the capacity for growth, change, and the choice about whether to do so), and specific (recognition of the client's strengths, abilities, intentions, and efforts) [389]. Affirming involves accentuating the positive (rather than attempting to produce change through making the client feel bad) [389], with direct compliments and statements of appreciation and understanding. This helps build rapport, self-efficacy and reinforces open exploration. In clients displaying symptoms of co-occurring mental health conditions, this can be inspiring and build rapport enormously [1168].

Examples include [389]:

- 'I appreciate that you took a big step in coming here today.'
- 'That's a great suggestion.'
- 'Your intention was really good, even though it may not have turned out as you would have liked.'
- 'You were discouraged this week, but you still came back. You're persistent.'
- 'Welcome back! It's good to see you.'

Reflective listening

This technique involves listening to what the client is saying, forming an understanding of what the client is talking about and then giving voice (reflecting) to that understanding. This can be a mere substitution of the client's words, a guess at the unspoken meaning, an observation about the client's emotions or suggesting the next sentence in the client's paragraph (known as *continuing the paragraph*). Good reflective listening keeps the client talking, exploring, and considering. It is also specific in the sense that the AOD worker selects specific information on which to reflect.

The depth of reflection increases with the level of the AOD worker's experience and expertise. Simple reflections can be useful, but can sometimes lead to slower progress if the AOD worker is not able to add complexity and depth by interpreting the spoken and unspoken content, anticipating what may come next [389]. Some examples of how to initiate reflective listening include [389]:

- 'It sounds like you...'
- 'And that worries you...'
- 'You are...'
- 'Would it be correct to say that you...'

In clients displaying symptoms of co-occurring mental health conditions, these statements should be simple, concise and frequent. Avoid repeated reflecting of the client's negative statements and allow him/her time to consider these reflections [1168].

Summarising

Summaries are useful in collating, linking and reinforcing information discussed during the interviewing process, and offer a 'what else' opportunity for the client to add any information that may be missing. This should be done often to promote meaningful relationships and contrasts between statements to enhance motivation to change [1168]. Some examples of summarising techniques include:

- Linking – making associations between two parts of the discussion.
- Collecting – gathering a few themes from what the client has said.
- Transitioning – shifting focus from one area to another.

Table 51: Example of open questions according to elicit self-motivational statements

Stage of change	Self-motivational statement	Open question examples
Pre-contemplation	Problem recognition (e.g., 'I guess there might be more of a problem that I thought')	<ul style="list-style-type: none"> • What things make you think that this is a problem? • What difficulties have you had in relation to your AOD use? • What difficulties have you had in relation to your mood? • In what ways has this been a problem for you? • How has your use of AOD stopped you from doing what you want to do?
Contemplation	Expression of concern (e.g., 'I'm worried about this')	<ul style="list-style-type: none"> • What worries do you have about your AOD use? • What can you imagine happening to you? • Tell me more about preventing a relapse to using... why is that so important to you... what is it like when you are ill?... And how about your family – what effect did it have on them? How important are these issues to you? • Can you tell me some reasons why drinking or using may be a health risk? Would you be interested in knowing more about the effects of drinking/using? How important are these issues to you? • What would your best friend/mum say were your best qualities? Tell me, how would you describe the things you like about yourself?... And how would you describe you the user?... How do these two things fit together?... How important are these issues to you?
Action	Intention to change (e.g., 'This isn't how I want to be')	<ul style="list-style-type: none"> • You seem a bit stuck at the moment. What would have to change to fix this? • What would have to happen for it to become much more important for you to change? • If you were 100% successful and things worked out exactly as you would like, what would be different? • The fact that you are here indicates that at least a part of you thinks it is time to do something. What are the reasons you see for making a change? What would be the advantages of making a change? • What things make you think that you don't need to worry about changing your AOD use? • And what about the other side... What makes you think that it's time to do things a bit differently? • If you were to decide to change what might your options be?
Maintenance	Optimism (e.g., 'I think I can do this')	<ul style="list-style-type: none"> • What would make you more confident about making these changes? • Are there ways you know about that have worked for others? Is there anything you found helpful in any previous attempts to change? • What are some of the practical things you would need to do to achieve this goal? Do they sound achievable? • What encourages you that you can change if you want to? • What makes you think that if you did decide to make a change, you could do it?

Adapted from NSW Department of Health [402].

Informing and advising

Although MI adopts a client centred approach, this does not mean that offering advice or information to clients is inappropriate. There are some circumstances where it is certainly appropriate (e.g., if the client requests information). However, MI does not involve dispensing unsolicited information in a directive style. Instead, MI involves [389]:

- Offering information or advice with permission.
- When advice is provided, the perspective of the client is explored, particularly in terms of the relevance of the information to them, and helping them to reach their own conclusions.

Miller and Rollnick [389] recommend using the 'elicit-provide-elic' approach when exchanging information with a client.

Elicit

- Ask permission: 'May I...?'
- Clarify the client's information needs and gaps: 'What do you know about...?', 'Is there any information I can help you with?'

Provide

- Prioritise: what does the client most want/need to know?
- Be clear: avoid jargon.
- Support autonomy: don't offer too much information at once; allow the client time to reflect.
- Don't prescribe the client's response: acknowledge their freedom to disagree or ignore, present what you know without interpreting its meaning for the client.

Elicit

- Ask for the client's interpretation, understanding, or response: ask open questions, use reflection, allow the client time to process and respond to the information.

Additional strategies

In addition to these five core communication skills, some key strategies have been developed to build intrinsic motivation for change and resolve ambivalence. This is achieved by assisting the client to present his/her own arguments for change in order to [389]:

- Recognise the disadvantages of current behaviour.
- Recognise the advantages of change.
- Express optimism about change.
- Express intent to change.

These strategies include:

Typical day

Often a client deems certain aspects of his/her life irrelevant to treatment or they are insignificant to the client and overlooked and therefore not disclosed during therapy. However, knowing these things can help a worker engage with the client. It can also provide a more holistic view of the person as well as invaluable information concerning daily habits, significant environments, important relationships and people in the

client's life. Furthermore, this can highlight to the client aspects of his/her life that he/she had not been aware of (e.g., 'I hadn't realised I was drinking that much').

In order to attain this information it can be useful to ask the client to explain how he/she spends an average day. Encourage the client to pick an actual day (e.g., last Wednesday) rather than what they do 'most days'.

Allow the person to continue with as little interruption as possible. If necessary, prompt with open-ended questions (e.g., 'What happened then?' or 'How did you feel?'). Review and summarise back to the client after he/she has finished, and clarify that you have summarised accurately.

Once you have a reasonably clear picture of how the client's use (and any co-occurring mental health symptoms) fits into a typical day and any current concerns, ask the client's permission to provide feedback from your assessment (e.g., 'I'm getting a feel for what's going on in your everyday life at the moment, you've mentioned several things that are concerning you').

Summarise these problem areas briefly, using those issues raised by the client in the 'typical day' discussion (e.g., quality of life, health, mood, drug use). When the client is providing information about their typical day, it gives the AOD worker opportunities to ask more detail about behaviour patterns, feelings, and mood changes. Areas of concern often emerge naturally from such discussions [389].

Decisional balance (good and not so good aspects)

This technique involves a conscious weighing up of the pros and cons of certain behaviours (e.g., drug use). This can be used as a way of neutral counselling, where the worker is not trying to steer the client into making one choice over another, but instead allowing the client to make their own choice about personal change [389]. Clients are often aware of the negative aspects involved in certain behaviours but have never consciously assessed them. The decisional balance is a frequently used motivational strategy, particularly when clients are displaying ambivalence regarding their substance use and for when you want to determine their stage of change in regard to their substance use.

Begin by asking questions like:

- 'What do you like about your use of...?'
- 'Tell me about your drug use. What do you like about it? What's positive about using for you?'

For clients who have difficulty in articulating things they like about using, you may need to offer a menu of options for them to choose from, although you should do this sparingly. Remember you are trying to find out what this client likes about using, not what you think he/she might like about it! Encourage the client to write down these good things (a useful template is included at the end of this MI summary).

Briefly summarise the good aspects of AOD use. Next, ask the client about the not-so-good things about his/her AOD use. Try to avoid using negative words such as the 'bad things' or 'problems'. The AOD worker could ask questions such as:

- 'So we have talked about some of the good things about using drugs, now could you tell me some of the less good things?'
- 'What are some of the things that you don't like about your drug use?'
- 'What are some of the not-so-good things about using?'

Again you may have to offer a menu of options or ask questions (based on collateral information) like 'How does your family feel about your using?' but avoid suggesting that an issue should be of concern, and do not put any value judgement on the beliefs of the client by saying something like 'Don't you think that

getting arrested twice is a bit of a problem?’ The success of MI rests on the client’s personal exploration of his/her AOD use, and the good and not-so-good effects that it has on him/her. Explore each element in full with appropriate use of the core communication skills, such as the use of open questions and reflection.

Unlike the good things, the less good things need to be explored in detail. If the client claims AOD use reduces his/her mental health symptoms, explore this in particular detail: for instance, enquire about longer-term effects [1168]. It is important to remember you are after the client’s perspective of the less good things. It can be useful to ask follow up questions such as:

- ‘How does this affect you?’
- ‘What don’t you like about it?’

Or ask for more detail:

- ‘Could you tell me a little more about that?’
- ‘Could you give me a recent example of when that happened?’

It can be particularly useful (especially when not-so-good aspects are not forthcoming) to explore the other side of the positive consequences of using listed. For example, if the high was listed as an advantage, explore the ‘come-down’ that inevitably followed and the length of this crash (which will usually have lasted longer than the euphoria).

It is then useful to assess, through the use of a scale from 1-10, the client’s perspective of how important an issue is. Beside each pro and con the client should rate it on the importance it holds for him/her. This ascertains to what extent cons are a concern for the client. Many workers make the mistake of assuming that just because the client acknowledges a not-so-good thing about AOD use, this automatically presents a direct concern for them.

Now give a double-sided, selective summary. For example:

- ‘You said some of the things you like about using were... and then you said that there was another side to it... you said some of the not so good things about using were...’

Skill is required here in order to emphasise the not-so-good things. It can be useful to give the client a chance to come to his/her own conclusions, for example:

- ‘Now that you’ve gone through both sides, where does this leave you?’
- ‘How do you feel about your drug use now?’

If ambivalence is evident, attempt to explore the reasons that underlie this imbalance and re-establish the initial reasons for wishing to quit/cut down. Incorporate information on health and psychological effects of continued use. Guide the client through a rational discussion of issues involved, and carefully challenge faulty logic or irrational beliefs about the process of quitting. Positive reinforcement and encouragement are crucial, but if you encounter resistance from the client, do not push them.

NOTE: Use this strategy with caution for clients with high levels of anxiety or those who are not ready to deal with the pressure of increased ambivalence. In addition, do not leave a depressed client in psychological distress for too long after using the decisional balance strategy [1168]. Avoid using this strategy with a client who is currently tempted to use. Distraction is a better strategy to use with someone who is currently tempted rather than to discuss the things they like about using [296].

Elaboration

Once a motivational topic has been raised, it is useful to ask the client to elaborate. This helps to reinforce the theme and to elicit further self-motivational statements. One good way of doing this is to ask for specific examples and for clarification as to why (how much, in what way) this is a concern.

Querying extremes

Clients can also be asked to describe the extremes of their concerns, to imagine worst consequences. This can sometimes help when a client is expressing little desire for change. For instance you may ask:

- 'What concerns you the most?'
- 'What are your worst fears about what might happen if you don't make a change?'
- 'What do you suppose are the worst things that may happen if you keep on the way you've been going?'

It can also be useful to ask the client the best possible consequences that might happen after pursuing a change (e.g., exploring the opposite extreme), such as:

- "What could be the best results if you did make the change?"
- "If you were completely successful in making the changes you want, how would things be different?"

Ask about lifestyle and stresses

This involves discussing routines and day-to-day stresses. Some questions might be:

- 'How does your use of drugs affect your
- Mental health?
- Physical health?
- Relationships?
- Finances?'

Looking back

Sometimes it is useful to have the person remember times before the problem emerged, and to compare this with the present situation. Ask the client what life was like 'before': before substance use problems; before legal, work or relationship difficulties; before mental health problems etc. Focus on positive memories, hopes, dreams, plans or successes the person may have once had. If the person's history is negative, it may still be useful to explore 'what it was like', not necessarily in an attempt to process or resolve issues from that time, but primarily to understand what may have brought about the current situation and behaviours. For example:

- 'Do you remember a time when things were going well for you? What has changed and how?'
- 'What were things like before you started using?'
- 'What were you like back then? What were your plans? What has changed and why?'
- 'How has your use of alcohol/drugs influenced things?'

The goal is for the client to obtain some perspective from the immediacy of his or her circumstance and to observe how things have changed over time. If the client has positive views on how things were before the problem emerged, highlighting the discrepancy between how things are currently, and the possibility of life being better again can help motivate the client.

NOTE: In clients with symptoms of a co-occurring depressive condition, this strategy should be avoided or used with caution [1168].

Looking forward

Similarly, it can be helpful for clients to visualise the future should they embark on the change or should they remain the same. Some questions might include:

- 'What would you like to be doing in two years time?'
- 'What do you think will happen if you keep using? How do you feel about that?'
- 'If you decided to make a change, what are your hopes for the future?'
- 'How would you like things to turn out for you?'
- 'I can see that you're feeling really frustrated right now... How would you like things to be different?'
- 'What are your options at the moment?'
- 'What would be the best results you could imagine, if you make a change?'
- 'If you were to have a week off from your problems/symptoms, what would you do first?'

As with querying extremes, you could also ask the client to anticipate the future if no changes are made (e.g., 'Suppose things continue as they are now and you don't make any changes, what will your life be like in 5 years from now?'). The difference between looking forward and querying extremes is that in this looking forward method, the AOD worker is asking for the client's most realistic assessment of the future rather than their imagined 'extreme' outcome.

NOTE: In clients with symptoms of a co-occurring depressive condition, this strategy should be avoided or used with caution [1168].

Exploring goals and values

It can be useful to ask clients about their goals and what is most important to them and compare this to the current situation. Rather than perceiving a people as unmotivated, it may be more useful to understand the different goals and priorities [389]. Explore the ways in which the problem behaviour is inconsistent with, or undermines important values and goals for them. When the highest or most central values and goals have been defined, you can ask how the problem you are discussing (e.g., drinking/using) fits into this picture. For example:

- 'Where do you think your using fits in?'
- 'What effect is your current behaviour likely to have on these goals and values?'

Exploring what matters most to a person can also help build rapport, and as such, this strategy can be used in the engaging process. Exploring goals and values need not be limited to benefits that could result from a particular change; the process can also be used to learn about the client's priorities and life values.

Strengthening commitment

Although some people experience a specific moment in which their desire to change suddenly crystallises, for most people this is a gradual process. As such, it is common for clients' commitment to taking action to fluctuate over time [389]. MI is a method of facilitating the natural growth of commitment. The AOD worker will consolidate all issues raised by the client, and help him/her to build their commitment to change while also planning a concrete action plan. Ambivalence will still possibly be present, and if encountered continue the use of the strategies and microskills outlined above. It can be useful to encourage the client to confront the idea and process of change. For example:

- 'Where do we go from here?'
- 'What does everything we've discussed mean for your alcohol/drug use?'
- 'How would your life be different if...?'
- 'What can you think of that might go wrong with your plans?'


Although abstinence is one possible goal, some people may not be ready to stop completely and may opt for reduced or controlled use. In MI, the client has the ultimate responsibility for change and total freedom of choice to determine his/her goal for treatment. The AOD worker's role is to assist the client to determine treatment goals and guide the realisation of those goals. Goals may often change during the course of treatment, and an initial goal of cutting down may become a goal of abstinence as the client's confidence increases.

In clients with co-occurring mental health conditions, abstinence is the most appropriate goal [1168] as mental health symptoms may be exacerbated by AOD use. In particular, those with more severe mental disorders (or cognitive impairment) may have adverse experiences even with low levels of substance use [54]. Those taking medications for mental health conditions (e.g., antipsychotics, antidepressants) may also find that they become intoxicated even with low levels of AOD use due to the interaction between the drugs. Although abstinence is favoured, many people with comorbid conditions prefer a goal of moderation. It is possible to accept a client's decision to use and provide harm reduction information without condoning use.

Explore any fears or obstacles that are identified in the change process and assist the client with problem solving for each of these. Explore any concerns with the management of withdrawal symptoms (e.g., irritability, insomnia, mood disturbances, lethargy, and cravings to use) if this is raised. Education and support are essential components of getting through withdrawal.

Finally, when the client begins behaviour change, try manipulating the environment to exaggerate positive outcomes (e.g., involve family, increase social interaction, use encouragers and compliments), particularly in clients with co-occurring mental health conditions in order to strengthen resolve [1168].

Good things & not-so-good things worksheet

<p>Good things about current behaviour</p>	<p>Not-so-good things about current behaviour</p>
<p>Good things about change</p>	<p>Not-so-good things about change</p> 

Appendix F: Mental state examination

Name_____ D.O.B._____ Date_____

Appearance

Physical appearance? (posture, grooming, clothing, signs of AOD use, nutritional status)

Behaviour

General behaviour? Behaviour to situation and to examiner? (angry/hostile, unco-operative, withdrawn, inappropriate, fearful, hypervigilant)

Speech

Rate, volume, tone, quality and quantity of speech?

Language (form of thought)

Incoherence/illogical/irrelevant thinking? Amount? Rate?

Mood and affect

How does the client describe his/her emotional state (mood)? What do you observe about the person's emotional state (affect)? Are these two consistent and appropriate?

Thought content

Delusions, suicidality, paranoia, homicidality, depressed/anxious thoughts?

Perception

Hallucinations? Depersonalisation? Derealisation?

Cognition

Level of consciousness? Attention? Memory? Orientation? Abstract thoughts? Concentration?

Insight and judgement

Awareness? Decision making?

Appendix G: Integrated Motivational Assessment Tool (IMAT)

	Motivation regarding AOD treatment				
	Pre-contemplation	Contemplation	Preparation / Determination	Action	Maintenance
Motivation regarding psychiatric treatment	Pre-contemplation				
	Contemplation				
	Preparation / Determination				
	Action				
	Maintenance				

Source: NSW Department of Health (2007). *Mental health reference resource for drug and alcohol workers*. Sydney, Australia: NSW Department of Health.

Appendix H: Additional screening tools

The **General Health Questionnaire (GHQ)** is a self-report screening instrument which detects the presence of psychological symptoms [1169]. It has demonstrated adequate reliability and validity in both the 12- and 28-item forms, on which a client rates each statement on a four-point scale [1169, 1170]. The GHQ is easy to administer and score and can be used by a range of health professionals; however, this instrument must be purchased. Generally a score of 10 or more on the GHQ is considered indicative of significant psychological distress and the presence of an underlying psychological disorder. However, it has been suggested that approximately 75% of drug users could be expected to obtain scores of 10 or more upon entering treatment; therefore, clients need to be reassessed after entering treatment [1014]. If the client continues to score 10 or more, a more in-depth psychological assessment should be conducted.

The **Symptom Checklist-90-Revised (SCL-90-R)** is a 90-item self-report questionnaire measuring symptoms of somatisation, obsessive compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid thoughts, and psychoticism [1171]. It has been used with substance abuse populations and has been found to perform better than other general measures of psychological functioning [320]. It has also demonstrated good reliability and validity in clinical and non-clinical populations [1172]. The scale provides scores for severity, intensity and extensiveness of symptoms and has been shown to have superior sensitivity to competing scales [1173].

Shorter forms of the SCL-90-R have been developed, including the **Brief Symptom Inventory** with 53 items and the **Symptom Assessment**, each of which show adequate reliability and validity [1174]. However, the long and short forms of the SCL-90-R are copyrighted and must be purchased by registered psychologists [1171]. There are both a pen and paper and computerised versions of the SCL-90-R. The former takes 12-15 minutes to complete, is designed for adolescents over the age of 13 years and for adults. A Year 8 reading age is required.

The **Brief Psychiatric Rating Scale** is an 18-item clinician-administered scale measuring a broad range of psychiatric symptoms, as does the SCL-90-R. It has been shown to be effective in various substance use populations [1175, 1176]. However, the reliability and validity of the scale is dependent upon clinical expertise and specific training and therefore may be less appropriate in the AOD sector [320]. It was initially devised as an instrument to assess the symptoms of schizophrenia on five sub-scales of thought disorder, withdrawal, anxiety/depression, hostility and activity [1177, 1178].

The **Psychiatric Diagnostic Screening Questionnaire** consists of 132-items designed to screen for over 13 different DSM-IV-TR [23] Axis I disorders, including alcohol/drug related disorders [1179]. Reports have found the questionnaire to have good validity and reliability along with strong sensitivity and high negative predictive value indicating most cases are detected and most non-cases are indeed non-cases [1179, 1180]. These psychometric properties are fundamentally important in a screening instrument and suggest the measure might have broad applicability in numerous health care settings including AOD [84].

The **Beck Depression Inventory (BDI or BDI-II)** is a 21-item self-report instrument intended to assess the existence and severity of symptoms of depression [1181, 1182]. Each item is ranked on a four-point scale. The BDI-II has been shown to be a reliable and valid measure of depression particularly in substance misusing populations [1183, 1874]. The **Beck Hopelessness Scale** is a 20-item scale designed to detect negative feelings about the future and has been found to be a good predictor of suicide attempts [1185]. It has been shown to have high internal consistency and test-retest reliability. Instruments such as this can be helpful in ongoing treatment where particular thoughts can continue to be monitored through this and other suicidal thoughts instruments. The **Beck Scale for Suicidal Ideation** is a 21-item scale assessing intention to commit suicide [1186]. It has been found to be a valid predictor of admission to hospital for suicidal intention and has high internal consistency and test-retest reliability [320]. The **Beck Anxiety**

Inventory [1187] consists of 21 items, each describing a common symptom of anxiety. The respondent is asked to rate how much he or she has been bothered by each symptom over the past week on a four-point scale. The items are summed to obtain a total score that can range from 0 to 63. The Beck Anxiety Inventory has similarly shown good reliability and validity for the measurement of anxiety symptoms, though discriminant validity has been questioned [1187-1189]. The Beck scales are quite simple to administer but scoring and interpretation must be supervised by a registered psychologist and the cost is high.

The **Spielberger State Trait Anxiety Inventory** also measures anxiety [1190] and requires a registered psychologist for scoring, interpretation and the purchasing [320]. The reliability and validity are adequate in general populations, but are unknown within the AOD sector [320, 1190]. The scale consists of 40-items, rated on a four-point scale and takes approximately 10 minutes to complete.

The **Traumatic Life Events Questionnaire (TLEQ)** is a 23-item self-report measure of 22 types of potentially traumatic events including natural disasters, exposure to warfare, robbery involving a weapon, physical abuse and being stalked [1191]. For each event, respondents are asked to provide the number of times it occurred (ranging from 'never' to 'more than 5 times') and whether fear, helplessness or horror was present ('yes/no'). The TLEQ has been used successfully within substance-abusing populations. Recent studies have suggested that the psychometric properties of this measure are adequate [1192].

The **Trauma History Questionnaire (THQ)** developed by Green [1193] is a 24-item self-report measure that examines experiences with potentially traumatic events such as crime, general disaster, and sexual and physical assault using a 'yes/no' format. For each event endorsed, respondents are asked to provide the frequency of the event as well as their age at the time of the event. The THQ has demonstrated adequate test-retest reliability.

The **PTSD Symptom Scale Self-Report** is a screening tool for PTSD which has been used successfully in AOD populations [1194, 1195]. The modified version of the scale only takes 10-15 minutes to administer and measures both frequency and severity of symptoms [1195]. The scale consists of 17 items corresponding to 17 DSM-IV-TR [23] criteria which are rated on a four-point scale of symptom presence.

The **PTSD Checklist** [1196] is a self-report scale where respondents rate the extent to which they experience each of the DSM-5 PTSD key symptoms. It consists of 20 items corresponding to DSM-5 criteria, which are rated on a five-point severity scale. Whilst no studies have currently examined the psychometric properties of the PCL for DSM-5 in AOD use disorder samples, the previous version of the checklist for DSM-IV-TR has been shown to have good reliability and validity within AOD populations [1197, 1198]. However, it is important to note that scores on the DSM-5 version of the PCL cannot be directly compared with scores on the DSM-IV-TR version, due to a change in the rating scale (from 1-5 to 0-4) and an increase in the number of items (from 17 to 20). The checklist is freely available online (<http://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp>) but access is restricted to trained clinicians.

The **McLean Screening Instrument for Borderline Personality Disorder** is a 10-item measure which requires dichotomous (yes or no) answers to questions which correspond to DSM-IV criteria for BPD [1199]. The measure has been shown to have good test-retest reliability and internal consistency [1199], as well as good convergent and concurrent validity [1200]. Reliability and validity are also good when the measure is used to assess BPD in young people [1201]. However, whilst the measure appears to be a feasible way of screening for the presence of BPD symptoms, the authors recommend that the instrument should not be used as a standalone instrument for diagnosing BPD. Instead, it should be used in conjunction with other forms of clinical assessment [1199].

Appendix I: CANSAS-P

Name:				
Other identifying information (e.g., date of birth):				
Date of completion:				
<p><i>Instructions – please tick one box in each row (22 in total)</i></p> <p>No need = this area is not a serious problem for me at all</p> <p>Met need = this area is not a serious problem for me because of help I am given</p> <p>Unmet need = this area remains a serious problem for me despite any help I am given</p>				
	No need	Met need	Unmet need	I don't want to answer
1. Accommodation <i>What kind of place do you live in?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
2. Food <i>Do you get enough to eat?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
3. Looking after the home <i>Are you able to look after your home?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
4. Self-care <i>Do you have problems keeping clean and tidy?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
5. Daytime activities <i>How do you spend your day?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
6. Physical health <i>How well do you feel physically?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
7. Psychotic symptoms <i>Do you ever hear voices or have problems with your thoughts?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
8. Information on condition and treatment <i>Have you been give clear information about your medication?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
9. Psychological distress <i>Have you recently felt very sad or low?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
10. Safety to self <i>Do you ever have thoughts of harming yourself?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
11. Safety to others <i>Do you think you could be a danger to other people's safety?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>

<p>No need = this area is not a serious problem for me at all</p> <p>Met need = this area is not a serious problem for me because of help I am given</p> <p>Unmet need = this area remains a serious problem for me despite any help I am given</p>				
	No need	Met need	Unmet need	I don't want to answer
12. Alcohol <i>Does drinking cause you any problems?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
13. Drugs <i>Do you take any drugs that aren't prescribed?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
14. Company <i>Are you happy with your social life?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
15. Intimate relationships <i>Do you have a partner?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
16. Sexual expression <i>How is your sex life?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
17. Child care <i>Do you have any children under 18?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
18. Basic education <i>Any difficulty in reading, writing or understanding English.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
19. Telephone <i>Do you know how to use a telephone?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
20. Transport <i>How do you find using the bus, tram or train?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
21. Money <i>How do you find budgeting your money?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>
22. Benefits <i>Are you getting all the money you are entitled to?</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="radio"/>

Source: Slade, M., Thornicroft, G., Loftus, L., Phelan, M., & Wykes, T. (1999). *CAN: Camberwell Assessment of Need*. London, UK: Royal College of Psychiatrists.

Appendix J: Kessler psychological distress scale (K10)

Name.....Date.....

For all questions, please circle the answer *most* commonly related to you. Questions 3 and 6 automatically receive a score of one if the proceeding question was 'none of the time'.

In the past four weeks:	None of the time	A little of the time	Some of the time	Most of the time	All of the time
1. About how often did you feel tired out for no good reason?	1	2	3	4	5
2. About how often did you feel nervous?	1	2	3	4	5
3. About how often did you feel so nervous that nothing could calm you down?	1	2	3	4	5
4. About how often did you feel hopeless?	1	2	3	4	5
5. About how often did you feel restless or fidgety?	1	2	3	4	5
6. About how often did you feel so restless you could not sit still?	1	2	3	4	5
7. About how often did you feel depressed?	1	2	3	4	5
8. About how often did you feel that everything is an effort?	1	2	3	4	5
9. About how often did you feel so sad that nothing could cheer you up?	1	2	3	4	5
10. About how often did you feel worthless?	1	2	3	4	5
Total:					

Test: Kessler, R.C. (1996). *Kessler's 10 Psychological Distress Scale*. Boston, MA: Harvard Medical School.

Normative data: National Survey of Mental Health and Well-being, Australian Bureau of Statistics 1997

Appendix K: The PsyCheck Screening Tool

Client's Name:		DOB:	
Service:		UR:	
Mental health services assessment required?		<input type="checkbox"/> No	<input type="checkbox"/> Yes
Suicide/self-harm risk (please circle):		High	Moderate Low
Date:		Screen completed by:	
Clinician use only			
Complete this section when all components of the <i>PsyCheck</i> have been administered.			
Summary			
Section 1	Past history of mental health problems	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Section 2	Suicide risk completed and action taken	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Section 3	SRQ score	<input type="checkbox"/> 0	<input type="checkbox"/> 1-4 <input type="checkbox"/> 5+
Interpretation/score – Self-Reporting Questionnaire (SRQ)			
Score of 0* on the SRQ	No symptoms of depression, anxiety and/or somatic complaints indicated at this time.		
	Action: Re-screen using the PsyCheck Screening Tool after four weeks if indicated by past mental health questions or other information. Otherwise monitor as required.		
Score of 1-4* on the SRQ	Some symptoms of depression, anxiety and/or somatic complaints indicated at this time.		
	Action: Give the first session of the PsyCheck Intervention and screen again in four weeks.		
Score of 5* on the SRQ	Considerable symptoms of depression, anxiety and/or somatic complaints indicated at this time.		
	Action: Offer sessions 1–4 of the PsyCheck Intervention.		
Re-screen using the <i>PsyCheck</i> Screening Tool at the conclusion of four sessions.			
If no improvement in scores evident after re-screening, consider referral.			

PsyCheck general screen

Clinician to administer this section		
<p>The following questions are about your emotional wellbeing. Your answers will help me get a clearer idea of what has been happening in your life and suggest possible ways that we might work together to relieve any distress you may be experiencing. We ask these questions of everybody, and they include questions about mental, physical and emotional health.</p>		
<p>1. Have you ever seen a doctor or psychiatrist for emotional problems or problems with your 'nerves'/anxieties/worries? <input type="checkbox"/> No <input type="checkbox"/> Yes</p>		
Details		
<p>2. Have you ever been given medication for emotional problems or problems with your 'nerves'/anxieties/worries?</p>		
<p><input type="checkbox"/> No, never</p>		
<p><input type="checkbox"/> Yes, in the past but not currently</p>		Medication(s):
<p><input type="checkbox"/> Yes, currently</p>		Medication(s):
<p>3. Have you ever been hospitalised for emotional problems or problems with your 'nerves'/anxieties/worries? <input type="checkbox"/> No <input type="checkbox"/> Yes</p>		
Details		
<p>4. Do you have a current mental health worker, psychiatrist, psychologist, general practitioner or other health provider? If 'No', go to Question 5.</p>		
<p><input type="checkbox"/> Psychiatrist</p> <p>Name:</p> <p>Contact details:</p> <p>Role:</p>		<p><input type="checkbox"/> Psychologist</p> <p>Name:</p> <p>Contact details:</p> <p>Role:</p>
<p><input type="checkbox"/> Mental health worker</p> <p>Name:</p> <p>Contact details:</p> <p>Role:</p>		<p><input type="checkbox"/> General practitioner</p> <p>Name:</p> <p>Contact details:</p> <p>Role:</p>
<p><input type="checkbox"/> Other – specify:</p> <p>Name:</p> <p>Contact details:</p> <p>Role:</p>		<p><input type="checkbox"/> Other – specify:</p> <p>Name:</p> <p>Contact details:</p> <p>Role:</p>
<p>5. Has the thought of ending your life ever been on your mind? <input type="checkbox"/> No <input type="checkbox"/> Yes If 'No', go to Section 3</p>		
<p>Has that happened recently? <input type="checkbox"/> No <input type="checkbox"/> Yes If 'Yes', go to Section 2</p>		

PsyCheck risk assessment

Clinician to administer this section

If the person says 'Yes' to recently thinking about ending his/her life (Question 5), complete the suicide/self-harm risk assessment below. Specific questions and prompts and further guidance can be found in the *PsyCheck* User's Guide.

Risk factor	Low risk	Moderate risk	High risk
1. Previous attempts: Consider lethality and recency of attempts. Very recent attempt(s) with moderate lethality and previous attempts at high lethality both represent high risk. Recent and lethal attempts of family or friends represent higher risk.			
History of harm to self	<input type="checkbox"/> Previous low lethality	<input type="checkbox"/> Moderate lethality	<input type="checkbox"/> High lethality, frequent
History of harm in family members or close friends	<input type="checkbox"/> Previous low lethality	<input type="checkbox"/> Moderate lethality	<input type="checkbox"/> High lethality, frequent
2. Suicidal ideation: Consider how the suicidal ideation has been communicated; non-disclosure may not indicate low risk. Communication of plans and intentions are indicative of high risk. Consider non-direct and non-verbal expressions of suicidal ideation here such as drawing up of wills, depressive body language, 'goodbyes', unexpected termination of therapy and relationships etc. Also consider homicidal ideation or murder/suicide ideation.			
Intent	<input type="checkbox"/> No intent	<input type="checkbox"/> No immediate intent	<input type="checkbox"/> Immediate intent
Plan	<input type="checkbox"/> Vague plan	<input type="checkbox"/> Viable plan	<input type="checkbox"/> Detailed plan
Means	<input type="checkbox"/> No means	<input type="checkbox"/> Means available	<input type="checkbox"/> Means already obtained
Lethality	<input type="checkbox"/> Minor self-harm behaviours, intervention likely	<input type="checkbox"/> Planned overdose, serious cutting, intervention possible	<input type="checkbox"/> Firearms, hanging, jumping, intervention unlikely
3. Mental health factors: Assess for history and current mental health symptoms, including depression and psychosis.			
History of current depression	<input type="checkbox"/> Lowered or unchanged mood	<input type="checkbox"/> Enduring lowered mood	<input type="checkbox"/> Depression diagnosis
Mental health disorder	<input type="checkbox"/> Few or no symptoms or well-managed significant illness	<input type="checkbox"/> Pronounced clinical signs	<input type="checkbox"/> Multiple symptoms with no management
4. Protective factors: These include social support, ability or decision to use support, family involvement, stable lifestyle, adaptability and flexibility in personality style etc.			
Coping skills and resources	<input type="checkbox"/> Many	<input type="checkbox"/> Some	<input type="checkbox"/> Few
Family/friendships/networks	<input type="checkbox"/> Many	<input type="checkbox"/> Some	<input type="checkbox"/> Few
Stable lifestyle	<input type="checkbox"/> Many	<input type="checkbox"/> Some	<input type="checkbox"/> Few
Ability to use supports	<input type="checkbox"/> Many	<input type="checkbox"/> Some	<input type="checkbox"/> Few

Self reporting questionnaire (SRQ)

Client or clinician to complete this section

First: Please tick the 'Yes' box if you have had this symptom in the **last 30 days**.

Second: Look back over the questions you have ticked. For every one you answered 'Yes', please put a tick in the circle if you had that problem at a time when you were NOT using alcohol or other drugs.

1. Do you often have headaches?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
2. Is your appetite poor?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
3. Do you sleep badly?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
4. Are you easily frightened?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
5. Do your hands shake?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
6. Do you feel nervous?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
7. Is your digestion poor?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
8. Do you have trouble thinking clearly?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
9. Do you feel unhappy?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
10. Do you cry more than usual?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
11. Do you find it difficult to enjoy your daily activities?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
12. Do you find it difficult to make decisions?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
13. Is your daily work suffering?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
14. Are you unable to play a useful part in life?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
15. Have you lost interest in things?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
16. Do you feel that you are a worthless person?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
17. Has the thought of ending your life been on your mind?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
18. Do you feel tired all the time?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
19. Do you have uncomfortable feelings in the stomach?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>
20. Are you easily tired?	<input type="checkbox"/> No	<input type="checkbox"/> Yes	→ <input type="radio"/>

Total Score (add circles):

Source: Lee, N., Jenner, L., Kay-Lambkin, F., Hall, K., Dann, F., Roeg, S., ... Ritter, A.. (2007).
PsyCheck: Responding to mental health issues within alcohol and drug treatment.
 Canberra, Australia: Commonwealth of Australia.

Appendix L: Depression Anxiety Stress Scale (DASS 21)

Name:

Date:

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

- 0 Did not apply to me at all
- 1 Applied to me to some degree, or some of the time
- 2 Applied to me to a considerable degree, or a good part of time
- 3 Applied to me very much, or most of the time

1.	I found it hard to wind down	0	1	2	3
2.	I was aware of dryness of my mouth	0	1	2	3
3.	I couldn't seem to experience any positive feeling at all	0	1	2	3
4.	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5.	I found it difficult to work up the initiative to do things	0	1	2	3
6.	I tended to overreact to situations	0	1	2	3
7.	I experienced trembling (e.g., in the hands)	0	1	2	3
8.	I felt that I was using a lot of nervous energy	0	1	2	3
9.	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10.	I felt that I had nothing to look forward to	0	1	2	3
11.	I found myself getting agitated	0	1	2	3
12.	I found it difficult to relax	0	1	2	3
13.	I felt down-hearted and blue	0	1	2	3
14.	I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
15.	I felt I was close to panic	0	1	2	3
16.	I was unable to become enthusiastic about anything	0	1	2	3
17.	I felt I wasn't worth much as a person	0	1	2	3
18.	I felt that I was rather touchy	0	1	2	3
19.	I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat)	0	1	2	3
20.	I felt scared without any good reason	0	1	2	3
21.	I felt that life was meaningless	0	1	2	3

Source: Lovibond, S.H., & Lovibond, P.F. (1995) *Manual for the Depression Anxiety Stress Scales (2nd. ed)*. Sydney, Australia: Psychology Foundation.

DASS-21 Scoring Template

Sum scores for each scale. Multiply total for each scale by 2.	
D = Depression A = Anxiety S = Stress	
	S
	A
	D
	A
	D
	S
	A
	S
	A
	D
	S
	S
	D
	S
	A
	D
	D
	S
	A
	A
	D

Appendix M: The Primary Care PTSD Screen (PC-PTSD)

In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month, you:

- | | | |
|--|-----------------------------|------------------------------|
| 1. Have had nightmares about it or thought about it when you did not want to? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 3. Were constantly on guard, watchful, or easily startled? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |
| 4. Felt numb or detached from others, activities, or your surroundings? | <input type="checkbox"/> No | <input type="checkbox"/> Yes |

Source: Prins, A., Ouimette, P., Kimerling, R., Cameron, R. P., Hugelshofer, D. S., Shaw-Hegwer, J., ... Sheikh, J. I. (2004). The Primary Care PTSD Screen (PC-PTSD): Development and operating characteristics. *Primary Care Psychiatry*, 9, 9-14.

Appendix N: Trauma Screening Questionnaire (TSQ)

Please consider the following reactions which sometimes occur after a traumatic event. This questionnaire is concerned with your personal reactions to the traumatic event which happened to you. Please indicate (Yes/No) whether or not you have experienced any of the following at least twice in the past week.

1. Upsetting thoughts or memories about the event that have come into your mind against your will	<input type="checkbox"/> No	<input type="checkbox"/> Yes
2. Upsetting dreams about the event	<input type="checkbox"/> No	<input type="checkbox"/> Yes
3. Acting or feeling as though the event were happening again	<input type="checkbox"/> No	<input type="checkbox"/> Yes
4. Feeling upset by reminders of the event	<input type="checkbox"/> No	<input type="checkbox"/> Yes
5. Bodily reactions (such as fast heartbeat, stomach churning, sweatiness, dizziness) when reminded of the event	<input type="checkbox"/> No	<input type="checkbox"/> Yes
6. Difficulty falling or staying asleep	<input type="checkbox"/> No	<input type="checkbox"/> Yes
7. Irritability or outbursts of anger	<input type="checkbox"/> No	<input type="checkbox"/> Yes
8. Difficulty concentrating	<input type="checkbox"/> No	<input type="checkbox"/> Yes
9. Heightened awareness of potential dangers to yourself and others	<input type="checkbox"/> No	<input type="checkbox"/> Yes
10. Being jumpy or being startled at something unexpected	<input type="checkbox"/> No	<input type="checkbox"/> Yes

Source: Brewin, C. R., Rose, S., Andrews, B., Green, J., Tata, P., McEvedy, C., ... Foa, E. B. (2002) Brief screening instrument for post-traumatic stress disorder. *British Journal of Psychiatry*, 181, 158-162.

Appendix O: Psychosis Screener (PS)

1.	In the past 12 months, have you felt that your thoughts were being directly interfered with or controlled by another person	<input type="checkbox"/> No	<input type="checkbox"/> Yes
1a.	Did it come about in a way that many people would find hard to believe, for instance, through telepathy?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
2.	In the past 12 months, have you had a feeling that people were too interested in you?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
2a.	In the past 12 months, have you had a feeling that things were arranged so as to have a special meaning for you, or even that harm might come to you?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
3.	Do you have any special powers that most people lack?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
3a.	Do you belong to a group of people who also have these special powers?	<input type="checkbox"/> No	<input type="checkbox"/> Yes
4.	Has a doctor ever told you that you may have schizophrenia?	<input type="checkbox"/> No	<input type="checkbox"/> Yes

Source: Degenhardt, L., Hall, W., Korten, A., & Jablensky, A. (2005). *Use of brief screening instrument for psychosis: Results of a ROC analysis. Technical report no. 210.* Sydney, Australia: National Drug and Alcohol Research Centre.

Appendix P: Indigenous Risk Impact Screener (IRIS)

1. In the last 6 months have you needed to drink or use more to get the effects you want?			
1. No	2. Yes, a bit more	3. Yes, a lot more	
2. When you have cut down or stopped drinking or using drugs in the past, have you experienced any symptoms, such as sweating, shaking, feeling sick in the tummy/vomiting, diarrhoea/runny gonna, feeling really down or worried, problems sleeping, aches and pains?			
1. Never	2. Sometimes when I stop	3. Yes, every time	
3. How often do you feel that you end up drinking or using drugs much more than you expected?			
1. Never/Hardly ever	2. Once a month	3. Once a fortnight	
4. Once a week	5. More than once a week	6. Most days/Every day	
4. Do you ever feel out of control with your drinking or drug use?			
1. Never/Hardly ever	2. Sometimes	3. Often	4. Most days/Every day
5. How difficult would it be to stop cut down on your drinking or drug use?			
1. Not difficult at all	2. Fairly easy	3. Difficult	4. I couldn't stop or cut down
6. What time of the day do you usually start drinking or using drugs?			
1. At night	2. In the afternoon	3. Sometimes in the morning	4. As soon as I wake up
7. How often do you find that your whole day has involved drinking or using drugs?			
1. Never/Hardly ever	2. Sometimes	3. Often	4. Most days/Every day
8. How often do you feel down in the dumps, sad or slack?			
1. Never/Hardly ever	2. Sometimes	4. Most days/Every day	
9. How often have you felt that life is hopeless?			
1. Never/Hardly ever	2. Sometimes	3. Most days/Every day	
10. How often do you feel nervous or scared?			
1. Never/Hardly ever	2. Sometimes	3. Most days/Every day	
11. Do you worry much?			
1. Never/Hardly ever	2. Sometimes	3. Most days/Every day	
12. How often do you feel restless and that you can't sit still?			
1. Never/Hardly ever	2. Sometimes	3. Most days/Every day	
13. Do past events in your family still affect your wellbeing today (such as being taken away from family)?			
1. Never/Hardly ever	2. Sometimes	3. Most days/Every day	

Source: Schlesinger, C. M., Ober, C., McCarthy, M. M., Watson, J. D., & Seinen, A. (2007). The development and validation of the Indigenous Risk Impact Screen (IRIS): A 13-item screening instrument for alcohol and drug and mental risk. *Drug and Alcohol Review*, 26, 109-117.

Appendix Q: Adult ADHD Self-Report Scale (ASRS)

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist Instructions

The questions on the back page are designed to stimulate dialogue between you and your patients and to help confirm if they may be suffering from the symptoms of attention-deficit/hyperactivity disorder (ADHD).

Description: The Symptom Checklist is an instrument consisting of the eighteen DSM-IV-TR criteria. Six of the eighteen questions were found to be the most predictive of symptoms consistent with ADHD. These six questions are the basis for the ASRS v1.1 Screener and are also Part A of the Symptom Checklist. Part B of the Symptom Checklist contains the remaining twelve questions

Instructions:

Symptoms

1. Ask the patient to complete both Part A and Part B of the Symptom Checklist by marking an X in the box that most closely represents the frequency of occurrence of each of the symptoms.
2. Score Part A. If four or more marks appear in the darkly shaded boxes within Part A then the patient has symptoms highly consistent with ADHD in adults and further investigation is warranted.
3. The frequency scores on Part B provide additional cues and can serve as further probes into the patient's symptoms. Pay particular attention to marks appearing in the dark shaded boxes. The frequency-based response is more sensitive with certain questions. No total score or diagnostic likelihood is utilized for the twelve questions. It has been found that the six questions in Part A are the most predictive of the disorder and are best for use as a screening instrument.

Impairments

1. Review the entire Symptom Checklist with your patients and evaluate the level of impairment associated with the symptom.
2. Consider work/school, social and family settings.
3. Symptom frequency is often associated with symptom severity, therefore the Symptom Checklist may also aid in the assessment of impairments. If your patients have frequent symptoms, you may want to ask them to describe how these problems have affected the ability to work, take care of things at home, or get along with other people such as their spouse/significant other.

History

1. Assess the presence of these symptoms or similar symptoms in childhood. Adults who have ADHD need not have been formally diagnosed in childhood. In evaluating a patient's history, look for evidence of early-appearing and long-standing problems with attention or self-control. Some significant symptoms should have been present in childhood, but full symptomology is not necessary.

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

Patient Name	Todays Date:				
Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months. Please give this completed checklist to your healthcare professional to discuss during today's appointment.	Never	Rarely	Sometimes	Often	Very Often
1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?					
2. How often do you have difficulty getting things in order when you have to do a task that requires organization					
3. How often do you have problems remembering appointments or obligations?					
4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?					
5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?					
6. How often do you feel overly active and compelled to do things, like you were driven by a motor?					
Part A					
7. How often do you make careless mistakes when you have to work on a boring or difficult project?					
8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?					
9. How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?					
10. How often do you misplace or have difficulty finding things at home or at work?					
11. How often are you distracted by activity or noise around you?					

Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist					
12. How often do you leave your seat in meetings or other situations in which you are expected to remain seated?					
13. How often do you feel restless or fidgety?					
14. How often do you have difficulty unwinding and relaxing when you have time to yourself?					
15. How often do you find yourself talking too much when you are in social situations?					
16. When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish them themselves?					
17. How often do you have difficulty waiting your turn in situations when turn taking is required					
18. How often do you interrupt others when they are busy?					
Part B					

The Value of Screening for Adults With ADHD

Research suggests that the symptoms of ADHD can persist into adulthood, having a significant impact on the relationships, careers, and even the personal safety of your patients who may suffer from it. [1-4] Because this disorder is often misunderstood, many people who have it do not receive appropriate treatment and, as a result, may never reach their full potential. Part of the problem is that it can be difficult to diagnose, particularly in adults.

The Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist was developed in conjunction with the World Health Organization (WHO), and the Workgroup on Adult

ADHD that included the following team of psychiatrists and researchers:

Lenard Adler, MD	Ronald C. Kessler, PhD
Associate Professor of Psychiatry and Neurology	Professor, Department of Health Care Policy
New York University Medical School	Harvard Medical School
Thomas Spencer, MD	
Associate Professor of Psychiatry	
Harvard Medical School	

As a healthcare professional, you can use the ASRS v1.1 as a tool to help screen for ADHD in adult patients. Insights gained through this screening may suggest the need for a more in-depth clinician interview. The questions in the ASRS v1.1 are consistent with DSM-IV criteria and address the manifestations of ADHD symptoms in adults. Content of the questionnaire also reflects the importance that DSM-IV places on symptoms, impairments, and history for a correct diagnosis. [4]

The checklist takes about 5 minutes to complete and can provide information that is critical to supplement the diagnostic process.

References:

1. Schweitzer JB, et al. Med Clin North Am. 2001;85(3):10-11. 757-777.
2. Barkley RA. Attention Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment. 2nd ed. 1998.
3. Biederman J, et al. Am J Psychiatry.1993;150:1792-1798.
4. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Washington, DC, American Psychiatric Association. 2000: 85-93.

Source: Kessler, R.C., Adler, L., Ames, M., Demler, O., Faraone, S., Hiripi, E., ... Walters, E.E. (2005). The World Health Organization Adult ADHD Self-Report Scale (ASRS). *Psychological Medicine*, 35, 245-256.

Appendix R: Suicide risk screener scorer and interpretation

Client:	Screen completed by:	Date:
I need to ask you a few questions on how you have been feeling, is that ok?		
1 In the past 4 weeks did you feel so sad that nothing could cheer you up? <input type="checkbox"/> <i>All of the time</i> <input type="checkbox"/> <i>Most of the time</i> <input type="checkbox"/> <i>Some of the time</i> <input type="checkbox"/> <i>A little of the time</i> <input type="checkbox"/> <i>None of the time</i>		
2 In the past 4 weeks, how often did you feel no hope for the future? <input type="checkbox"/> <i>All of the time</i> <input type="checkbox"/> <i>Most of the time</i> <input type="checkbox"/> <i>Some of the time</i> <input type="checkbox"/> <i>A little of the time</i> <input type="checkbox"/> <i>None of the time</i>		
3 In the past 4 weeks, how often did you feel intense shame or guilt? <input type="checkbox"/> <i>All of the time</i> <input type="checkbox"/> <i>Most of the time</i> <input type="checkbox"/> <i>Some of the time</i> <input type="checkbox"/> <i>A little of the time</i> <input type="checkbox"/> <i>None of the time</i>		
4 In the past 4 weeks, how often did you feel worthless? <input type="checkbox"/> <i>All of the time</i> <input type="checkbox"/> <i>Most of the time</i> <input type="checkbox"/> <i>Some of the time</i> <input type="checkbox"/> <i>A little of the time</i> <input type="checkbox"/> <i>None of the time</i>		
5 Have you ever tried to kill yourself? Yes* <input type="checkbox"/> No <input type="checkbox"/> If Yes : a. How many times have you tried to kill yourself? <input type="checkbox"/> <i>Once</i> <input type="checkbox"/> <i>Twice</i> <input type="checkbox"/> <i>3+</i> b. How long ago was the last attempt? _____ (mark below) Have things changed since? _____ <input type="checkbox"/> <i>In the last 2 months</i> <input type="checkbox"/> <i>2-6 months ago</i> <input type="checkbox"/> <i>6-12 months ago</i> <input type="checkbox"/> <i>1-2 years ago</i> <input type="checkbox"/> <i>More than 2 years ago</i>		
6 Have you gone through any upsetting events recently? (tick all that apply) Yes <input type="checkbox"/> No <input type="checkbox"/> <input type="checkbox"/> Family breakdown <input type="checkbox"/> Conflict relating to sexual identity <input type="checkbox"/> Child custody issues <input type="checkbox"/> Chronic pain/illness <input type="checkbox"/> Impending legal prosecution <input type="checkbox"/> Loss of loved one <input type="checkbox"/> Relationship problem <input type="checkbox"/> Trauma <input type="checkbox"/> Other (specify) _____		
7 Have things been so bad lately that you have thought about killing yourself? Yes* <input type="checkbox"/> No <input type="checkbox"/> If Yes : a. How often do you have thoughts of suicide? _____ b. How long have you been having these thoughts? _____ c. How intense are these thoughts when they are most severe? <input type="checkbox"/> <i>Very intense</i> <input type="checkbox"/> <i>Intense</i> <input type="checkbox"/> <i>Somewhat intense</i> <input type="checkbox"/> <i>Not at all intense</i> d. How intense have these thoughts been in the last week? <input type="checkbox"/> <i>Very intense</i> <input type="checkbox"/> <i>Intense</i> <input type="checkbox"/> <i>Somewhat intense</i> <input type="checkbox"/> <i>Not at all intense</i> If No : skip to 10		
8 Do you have a current plan for how you would attempt suicide? Yes* <input type="checkbox"/> No <input type="checkbox"/> If Yes : a. What method would you use? _____ (Access to means? <input type="checkbox"/> Yes <input type="checkbox"/> No) b. Where would this occur? _____ (Have all necessary preparations been made? <input type="checkbox"/> Yes <input type="checkbox"/> No) c. How likely are you to act on this plan in the near future? <input type="checkbox"/> <i>Very likely</i> <input type="checkbox"/> <i>Likely</i> <input type="checkbox"/> <i>Unlikely</i> <input type="checkbox"/> <i>Very unlikely</i>		
9 What has stopped you acting on these suicidal thoughts? _____		
10 Do you have any friends/family members you can confide in if you have a serious problem? Yes <input type="checkbox"/> No <input type="checkbox"/> a. Who is/are this/these person/people? _____ b. How often are you in contact with this/these person/people? _____ <input type="checkbox"/> <i>Daily</i> <input type="checkbox"/> <i>A few days a week</i> <input type="checkbox"/> <i>Weekly</i> <input type="checkbox"/> <i>Monthly</i> <input type="checkbox"/> <i>Less than once a month</i>		
11 What has helped you through difficult times in the past? _____		

☐ * indicates a high or moderate risk answer

Client:	Screen completed by:	Date:
Client presentation/statements (tick all that apply)		
<input type="checkbox"/> Agitated <input type="checkbox"/> Disorientated/confused <input type="checkbox"/> Delusional/ hallucinating	<input type="checkbox"/> Intoxicated <input type="checkbox"/> Self-harm <input type="checkbox"/> Other: _____	

NOTE: If client presents as any of the above and is expressing thoughts of suicide, risk level is automatically **HIGH**

Worker rated risk level:	<input type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High
Level of risk	Suggested response		
Low: <ul style="list-style-type: none"> • No plans or intent • No prior attempt/s • Few risk factors • Identifiable 'protective' factors 	<ul style="list-style-type: none"> • Monitor and review risk frequently • Identify potential supports/contacts and provide contact details • Consult with a colleague or supervisor for guidance and support • Refer client to safety plan and keep safe strategies should they start to feel suicidal. 		
Moderate <ul style="list-style-type: none"> • Suicidal thoughts of limited frequency, intensity and duration • No plans or intent • Some risk factors present • Some 'protective' factors 	<ul style="list-style-type: none"> • Request permission to organise a specialist mental health service assessment as soon as possible • Refer client to safety plan and keep safe strategies as above • Consult with a colleague or supervisor for guidance and support • Remove means where possible • Review daily. 		
High*: <ul style="list-style-type: none"> • Frequent, intense, enduring suicidal thoughts • Clear intent, specific/well thought out plans • Prior attempt/s • Many risk factors • Few/no 'protective' factors *or highly changeable	<ul style="list-style-type: none"> • If the client has an immediate intention to act, contact the mental health crisis team immediately and ensure that the client is not left alone • Remove means where possible • Call an ambulance/police if the client will not accept a specialist assessment, or the crisis team is not available • Consult with a colleague or supervisor for guidance and support. 		

Source: Deady, M., Ross, J., & Darke, S. (2015). *Suicide Assessment Kit (SAK): A comprehensive assessment and policy development package*. Sydney, Australia: National Drug and Alcohol Research Centre.

Appendix S: Referral pro forma

Patient identified with
possible mental health
condition

Date:

Referral From:

PATIENT DETAILS

Name: _____

Year of Birth: _____

Address: _____

Postcode: _____

Aboriginal/TSI: ☐ Yes ☐ No

Patient lives: ☐ Alone ☐ With Carer / Family

Patient Contact Details:

Phone _____

Patient may be contacted at this number ☐ Yes ☐ No

Patient can be contacted at home during B/H ☐ Yes ☐ No

Leave message with household member ☐ Yes ☐ No

REASON FOR REFERRAL

Multiple responses permitted

- ☐ Diagnostic assessment
- ☐ Psychoeducation
- ☐ Cognitive behavioural therapy (CBT)
- ☐ Interpersonal therapy

☐ Other:

PRESENTING PROBLEM

Multiple responses permitted

- ☐ Alcohol and drug disorder
- ☐ Psychotic disorder
- ☐ Depression
- ☐ Anxiety disorder
- ☐ Unexplained somatic disorder
- ☐ Unknown

☐ Other:

PROVIDE RELEVANT CLINICAL INFORMATION

CURRENT MEDICATIONS

RISK ASSESSMENT

- ☐ Within 2 weeks ☐ within 1 month

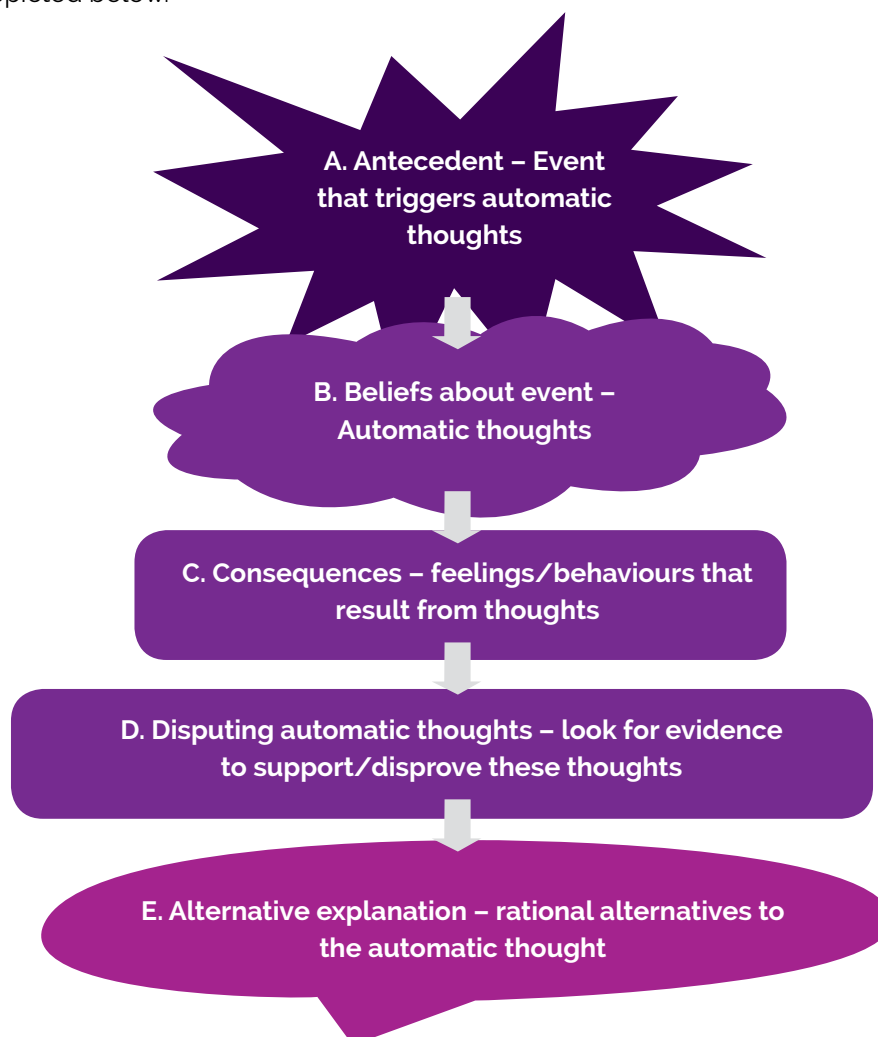
Appendix T: Cognitive behavioural techniques

Cognitive behavioural therapy (CBT) has been identified as one of the most effective ways of treating co-occurring depression and substance use difficulties [310, 386, 540]. A number of simple CBT-based strategies are useful in managing clients with these symptoms, including:

- Cognitive restructuring.
- Pleasure and mastery events scheduling.
- Goal setting.
- Problem solving.

Cognitive restructuring

Cognitive restructuring is a useful method for controlling symptoms of depression (and anxiety) and is based on the premise that what causes these feelings is not the situation itself but, rather, the interpretation of the situation [1202]. The idea is that our behaviours and feelings are the result of automatic thoughts which are related to our core (deeply held) beliefs. Therefore, feelings and behaviours of anxiety, depression, relapse etc. are the result of negative thoughts and beliefs that can be modified. A simple process of recognition and modification of these thoughts and beliefs can be conducted with clients using the A–E model depicted below.



In this model there is an initial event (the antecedent) which leads to automatic thoughts (beliefs about the event). These thoughts have resulting feelings and behaviours (consequences). Because these thoughts are automatic and often negative, they are rarely based on any real-world evidence – it is therefore necessary to look for evidence either supporting or disproving evidence (dispute automatic thoughts). Finally, developing rational alternative explanations to automatic thoughts can result in a new interpretation of the antecedent (alternative explanation). This process allows the client to stop and evaluate the thought process and realise how he/she comes to feel that way. A client worksheet is included in the Worksheets section of these Guidelines to walk clients through the thought recognition and modification process.

Some common negative automatic thoughts and beliefs which can be challenged by using cognitive restructuring exercises include:

All or none (black and white) thinking

'If I fail partly, it means I am a total failure.'

Mental filter

Interpreting events based on what has happened in the past.

'I can't trust men, they only let you down.'

Overgeneralisation

Expecting that just because something has failed once that it always will.

'I tried to give up once before and relapsed. I will never be able to give up.'

Catastrophising

Exaggerating the impact of events – imagining the worst case scenario.

'I had an argument with my friend, now they hate me and are never going to want to see me again.'

Mistaking feelings for facts

People are often confused between feelings and facts.

'I feel no good, so therefore I am no good.'

Should statements

Thinking in terms of 'shoulds', 'oughts' and 'musts'. This kind of thinking can result in feelings of guilt, shame and failure.

'I must always be on time.'

Personalising

People frequently blame themselves for any unpleasant event and take too much responsibility for the feelings and behaviours of others.

'It's all my fault that my boyfriend is angry. I must have done something wrong.'

Discounting positive experiences

People often discount positive things that happen.

'I stayed clean because I didn't run into any of my using mates.'

(Adapted from Beck [1203] and Jarvis et al. [379]).

Client information sheets on common negative thoughts and cognitive restructuring are included in the Worksheets section of these Guidelines.

Structured problem solving

Structured problem solving is also a useful means to manage the symptoms of anxiety/depression as these symptoms are often the result of an inability (or perceived inability) to deal effectively with problems [1204, 1205]. Some simple steps suggested by Carroll [1206] and Mynors Wallis [1207] can be a useful guide in assisting the client:

- Identify the problem (try to break it down) and define it.
- Step back from the problem and try to view it as an objective challenge.
- Brainstorm possible solutions (realistic and unrealistic).
- Think about each solution in practical terms, and evaluate the pros and cons.
- Decide on the best solution (and a second, 'back-up' solution).
- Put the solution into action.
- Evaluate how effective it was and whether it can be improved.

A problem-solving worksheet for clients is included in the Worksheets section of these Guidelines.

Goal setting

Goal setting is a useful strategy to help clients with both AOD treatment as well as depression/anxiety symptom management. For example, one goal might be to spend more time partaking in rewarding activities each week.

Goal setting can keep therapy on track and also enables progress to be measured over time. It allows the client to experience feelings of control and success, which may counter common feelings of hopelessness and worthlessness. Goal setting also ensures that therapy remains client-focused which increases motivation and helps the therapist ascertain what the client's central concerns are. However, it is important that the focus is on the process of goal pursuit rather than outcome and expectations of achievement; it is important that happiness is not conditional upon goal achievement or else failure may exacerbate depressive symptoms [1208].

According to Marsh and colleagues [276] goals should be:

- Geared towards the client's level of motivation and concern (client's stage of change – see Chapter B2 of these Guidelines).
- Negotiated between client and AOD worker.
- Specific and achievable – it is important that the client begins to gain a sense of mastery by achieving his or her goals.
- Based on process rather than outcome.
- Short term – break down overall goals into shorter-term ones in order to increase motivation and feelings of success.

- Described in positive rather than negative terms – for example, the goal to 'decrease feelings of apprehension and worry at parties' is expressed in negative terms. The same goal, expressed in positive terms is 'I will try to relax and enjoy myself at parties'.
- Not necessarily limited to AOD use (e.g., improving social adjustment and functioning, reducing criminal behaviour).

A goal setting worksheet is provided in the Worksheets section of these Guidelines.

Pleasure and mastery events scheduling

Individuals with depressive symptoms often stop engaging in behaviours that give them a sense of pleasure and achievement. This can lead to a cycle in which they become very inactive, leading to more negative feelings and lower mood and energy, which then leads to even less engagement in activities, and so on [276, 1209].

Pleasure and mastery events scheduling is a behavioural technique to help clients engage in activities that give them a sense of pleasure and achievement in a structured way. It can be very difficult for clients to simply resume previous levels of activity, so this strategy enables clients to use a weekly timetable in which they can schedule particular activities. It is important for clients to start with activities that are simple and achievable.

Clients might be encouraged to think of just one activity they can do for achievement and one for pleasure each day. Each week more activities can be added to form a list. A worksheet is provided in the Worksheets section of these Guidelines for clients to complete; it also includes a list of possible starting points. Clients may also need to be reminded of the fact that they deserve to feel good and that motivation generally follows activity rather than the reverse and, thus, the key is initiation of such activity. The gradual pattern of experiencing the emotional and physical benefits of pleasure and achievement can break the negative thought cycle.

Appendix U: Anxiety management techniques

Relaxation techniques are also a common means to manage the distressing and distracting symptoms of anxiety [701]. Some useful relaxation methods include:

- Progressive muscle relaxation.
- Controlled or abdominal breathing.
- Calming response.
- Visualisation and imagery.
- Grounding.

Each method works best if practiced daily by clients for 10-20 minutes, but again, not every technique may be appropriate for every client.

Progressive muscle relaxation

Progressive muscle relaxation involves tensing and relaxing of different muscle groups in succession. It is particularly useful for clients with intrusive thoughts. Before starting, make sure the client is sitting in a quiet and comfortable place. Ask the client that when they tense a particular muscle group, they do so strongly and hold the tension for 10 seconds. Encourage the client to concentrate on the feelings in his/her body of tension and release. Tell the client when relaxing muscles to feel the tension draining out of his/her body and enjoy the sensation of relaxation for 15 seconds. Isolate each muscle group at a time, allowing the other muscle groups to remain relaxed. The following instructions are based on Bourne [1210]. A client copy is also available in the Worksheets section of these Guidelines.

1. Take three deep abdominal breaths, exhaling slowly each time, imagining the tension draining out of your body.
2. Clench your fists. Hold for 10 seconds (AOD workers may want to count to 10 slowly), before releasing and feeling the tension drain out of your body (for 15 seconds).
3. Tighten your biceps by drawing your forearms up toward your shoulders and make a muscle with both arms. Hold, then relax.
4. Tighten your triceps (the muscles underneath your upper arms) by holding out your arms in front of you and locking your elbows. Hold, then relax.
5. Tense the muscles in your forehead by raising your eyebrows as high as you can. Hold, then relax.
6. Tense the muscles around your eyes by clenching your eyelids shut. Hold, then relax. Imagine sensations of deep relaxation spreading all over your eyes.
7. Tighten your jaws by opening your mouth so widely that you stretch the muscles around the hinges of your jaw. Hold, then relax.
8. Tighten the muscles in the back of your neck by pulling your head way back, as if you were going to touch your head to your back. Hold, then relax.
9. Take deep breaths and focus on the weight of your head sinking into whatever surface it is resting on.
10. Tighten your shoulders as if you are going to touch your ears. Hold, then relax.
11. Tighten the muscles in your shoulder blades by pushing your shoulder blades back. Hold, then relax.
12. Tighten the muscles of your chest by taking in a deep breath. Hold, then relax.
13. Tighten your stomach muscles by sucking your stomach in. Hold, then relax.
14. Tighten your lower back by arching it up (don't do this if you have back pain). Hold, then relax.
15. Tighten your buttocks by pulling them together. Hold, then relax.
16. Squeeze the muscles in your thighs. Hold, then relax.
17. Tighten your calf muscles by pulling your toes towards you. Hold, then relax.
18. Tighten your feet by curling them downwards. Hold, then relax.

19. Mentally scan your body for any leftover tension. If any muscle group remains tense, repeat the exercise for those muscle groups.
20. Now imagine a wave of relaxation spreading over your body.

Controlled or abdominal breathing

When tense, a person's breathing is rapid and shallow, which can lead to hyperventilation or panic attacks. Hyperventilation is a process where shallow breathing gets rid of too much carbon dioxide which can lead to light-headedness, breathlessness, feeling of suffocation, blurred vision, and numbness or tingling in hands or feet as well as a hot, flustered feeling. Mild hyperventilation can lead to increased perpetual anxiety and apprehension [1210].

When teaching clients breathing retraining, it is important they understand and feel the difference between shallow, chest-level breathing and controlled, abdominal breathing. A good way to do this is to ask clients to practice each type of breathing. However, it is important to inform clients who are extremely anxious that they may experience trouble breathing deeply and may need to try this when feeling less anxious (some clients may always have trouble with this). Encourage clients to increase their breathing speed. Ask them to place their hand gently on their abdomen and feel how shallow and rapid their breathing is, only the chest moves up and down. Compare this with abdominal breathing based on the following instructions for the client provided by Lee and colleagues [310]:

1. Rate your level of anxiety on a scale from 1 to 10.
2. Sit as comfortably as possible in a chair with your head, back and arms supported, free legs and close your eyes (if you like).
3. Place one hand on your abdomen right beneath your rib cage
4. Inhale deeply and slowly, send the air as low and deep into your lungs as possible. If you are breathing from your abdomen you should feel your hand rise, rather than your chest.
5. When you have taken a full breath, pause before exhaling. As you exhale imagine all of the tension draining out of your body.
6. Do 10 slow abdominal breaths. Breathe in slowly counting to four, before exhaling to the count of four (four seconds in, four seconds out). Repeat this cycle 10 times. Hold final breath for 10 seconds, then exhale.
7. Now re-rate your level of anxiety and see if it has changed.

Controlled breathing techniques can help reduce overall levels of tension and are a useful strategy to use when faced with high-anxiety or high-risk situations when relapse is likely. A client worksheet for abdominal breathing is included in the Worksheets section of these Guidelines.

Calming response

This is a quick skill developed by Montgomery and Morris [1211] to reduce the discomfort of unwanted feelings. The basic steps involve the client mentally detaching from the situation and thinking 'clear head, calm body' as they take one slow deep breath. As they exhale they relax.

Visualisation and imagery

This relaxation technique might be only useful for a select few clients and should not be used where a client finds the process difficult or has unpleasant effects as a result [1210].

1. Sit comfortably in a chair, close your eyes and breathe deeply. Clear your mind of all thoughts and images.

2. Imagine a place where you feel safe and relaxed; this could be a real or imaginary place. Think in as much detail as possible: What are the sounds? What are the smells? What do you feel? What do you see? What time of day is it? Are you alone or with somebody else?
3. Think about how your body feels in this place (e.g., Are your muscles relaxed? Is it warm? Is your breathing and heart rate slow or fast?).
4. Stay in this relaxed state for a moment and remember how it feels so you can return to it when you need to.
5. Slowly clear your mind again and return to the 'here and now' and the sounds around you. Stretch your arms and legs and when you are ready, open your eyes.

A client worksheet for visualisation is provided in the Worksheets section of these Guidelines.

Grounding

For most clients suffering anxiety symptoms, most breathing and relaxation techniques are effective; however, for sufferers of panic or trauma, some relaxation and breathing strategies can occasionally trigger flashbacks, intrusive memories, panic, fear and dissociation. AOD workers can assist these clients and reduce traumatic and panic reactions by focusing the attention of these clients on the outside world rather than the internal trauma. This process is known as 'grounding' (or distraction, centering, or healthy detachment) [395].

There are different forms of grounding outlined below; different strategies work best for different clients and it is important to use a strategy appropriate to the individual. The examples of grounding techniques provided below are adapted from Najavits [395].

Examples of mental grounding:

- Describe objects in your environment in detail using all your senses.
- Describe an everyday activity, such as eating or driving to work, in detail.
- Use a grounding statement. 'I am Jo, I am 23 years old, I am safe here, today is...'
- Say the alphabet slowly.
- Counting backwards from 20.

Examples of physical grounding:

- Run cool or warm water over your hands.
- Press your heels into the floor.
- Touch objects around you as you say their names.
- Jump up and down.
- Change your posture to a more upright one.
- Stretch.
- As you inhale say 'in', and when you exhale say 'out' or 'calm' or 'easy' or 'safe'.

Examples of soothing grounding:

- Rub nice smelling hand cream slowly into hands and arms and notice the feel and smell.
- Say encouraging statements to yourself such as 'You're okay, you'll get through this'.
- Think of favourites of any kind of object (e.g., cars) or animal.
- Think of a place where you felt calm and peaceful, describe where you were, what was around you and what you were doing.
- Plan something nice for yourself such as a bath or a good meal.
- Think of things you look forward to doing in the next few days.

Worksheets

Identifying negative thoughts

It can be useful to categorise your negative thoughts in order to identify the process that is occurring. Some common negative automatic thoughts and beliefs which can be challenged by using cognitive restructuring exercises include:

All or none (black and white) thinking	'If I fail partly, it means I am a total failure.'
Mental filter	Interpreting events based on what has happened in the past. 'I can't trust men, they only let you down.'
Overgeneralisation	Expecting that just because something has failed once that it always will. 'I tried to give up once before and relapsed. I will never be able to give up.'
Catastrophising	Exaggerating the impact of events – imagining the worst case scenario. 'I had an argument with my friend, now they hate me and are never going to want to see me again.'
Mistaking feelings for facts	People are often confused between feelings and facts. 'I feel no good, so therefore I am no good.'
Should statements	Thinking in terms of 'shoulds', 'oughts' and 'musts'. This kind of thinking can result in feelings of guilt, shame and failure. 'I must always be on time.'
Personalising	People frequently blame themselves for any unpleasant event and take too much responsibility for the feelings and behaviours of others. 'It's all my fault that my boyfriend is angry, I must have done something wrong.'
Discounting positive experiences	People often discount positive things that happen. 'I stayed clean because I didn't run into any of my using mates.'

Sources: Beck, J. (1995). *Cognitive therapy: Basics and beyond*. New York: Guildford Press.
Jarvis, T., Tebbutt, J., & Mattick, R. (1995), *Treatment approaches for identifying unhelpful thoughts, alcohol and drug dependence*. Chichester, UK: John Wiley and Sons

Cognitive restructuring

Unhelpful thoughts produce negative emotions and behaviours and often these thoughts can be extreme and inaccurate. However, this automatic process can be broken through awareness and thought restructuring.

Step 1: Identification of negative/inaccurate thoughts

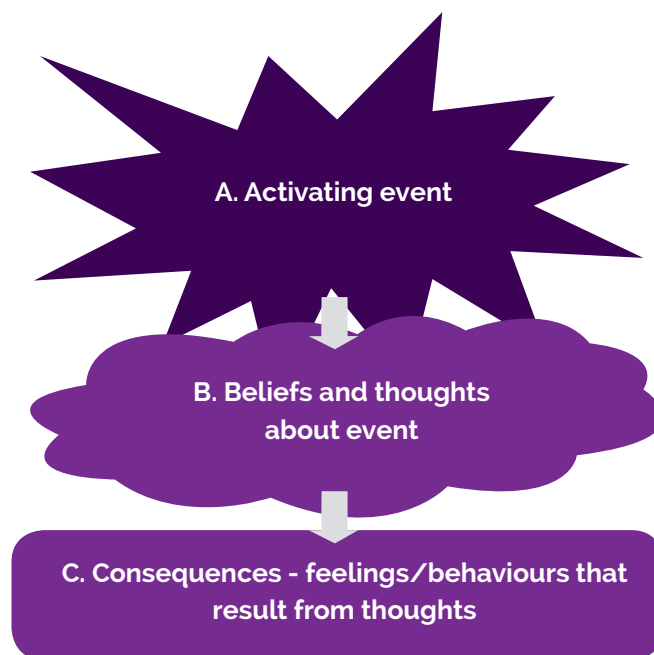
Thoughts are often automatic, but you can learn to identify and alter these negative thoughts through monitoring.

The more aware you are of the way you think and the things you say to yourself in stressful circumstances, the better prepared you will be to think differently.



Step 2: Notice how thoughts cause feelings and motivate behaviour

A good way to think of the relationships between thoughts and behaviours is through the 'ABC' model:



Step 3: Challenging and replacing negative thoughts

After you become aware of the thoughts and their resulting feelings and behaviours, you should examine and challenge those thoughts for evidence and accuracy.

REALITY TESTING:

- What is the evidence for and against my thinking being true?
- What unhelpful thinking patterns are operating?
- What are facts and what are my feelings?

ALTERNATIVE EXPLANATIONS:

- Are there any other possible reasons to explain this?
- Is there another way I could think about this?
- Is there a more helpful way of thinking about this?
- What would others think if they were in this kind of situation?

PUTTING IT INTO PERSPECTIVE:

- Is it as bad as I'm making out?
- Is there anything good about this situation?
- How likely is it that the worst will happen?
- What is most likely to happen?

GOAL-DIRECTED THINKING:

- Are my thoughts helping me to achieve my goals?
- What can I do that will help me deal with the problem?
- How can I minimise the negative effects?
- How can I think about this in a way that will help me to feel good about my life and myself?
- If it is something that has already happened, how could I do better next time?



Once you have challenged your unhelpful or negative thought, the **final step is to replace the thought with more logical, positive or realistic ones**. Check to see if there are new consequences (thoughts and beliefs) for your new thought.

For example, when you are bored you may say to yourself, 'I'm all alone, life is awful'. This leads to feelings of uselessness, worthlessness and sadness, and even less motivation to do anything. Once you examine the thought you may find you have 'catastrophised' the situation and come to an overly negative conclusion. There is evidence of friends and family but you just haven't called them. Try thinking 'I've got friends I can call them now or I can just enjoy doing something by myself'. This might help you feel a bit more positive and in control, and motivated to act. We call these new thoughts **alternate interpretations**.

Cognitive restructuring worksheet

[illegible]

Structured problem-solving worksheet



1. *What is the problem?*

(Break it down into manageable smaller problems)

2. *Step back and view problem objectively and without emotion, as if it were happening to someone else.*

3. *What can I do?*

(Brainstorm a list of possible solutions, good and bad, real and unreal)

<i>Solution</i>	<i>Pros</i>	<i>Cons</i>

4. *Cross out any silly or impossible options. With those that remain, write down the short-term and long-term consequences and the pros and cons.*

5. *Write down your favourite three.*

1. _____

2. _____

3. _____

6. *Put it into action!*

(What do you need to do to implement it? Did it work? Why/why not? Would another solution work better?)

Goal setting worksheet

I want to...

(e.g., stop smoking)

For these reasons...

(e.g., to prove that I can, to improve my health)

The obstacles stopping me are...

(e.g., routine)

I can overcome these by...

(e.g., avoiding situations where I am tempted)

These people can help...

(e.g., family)

By...

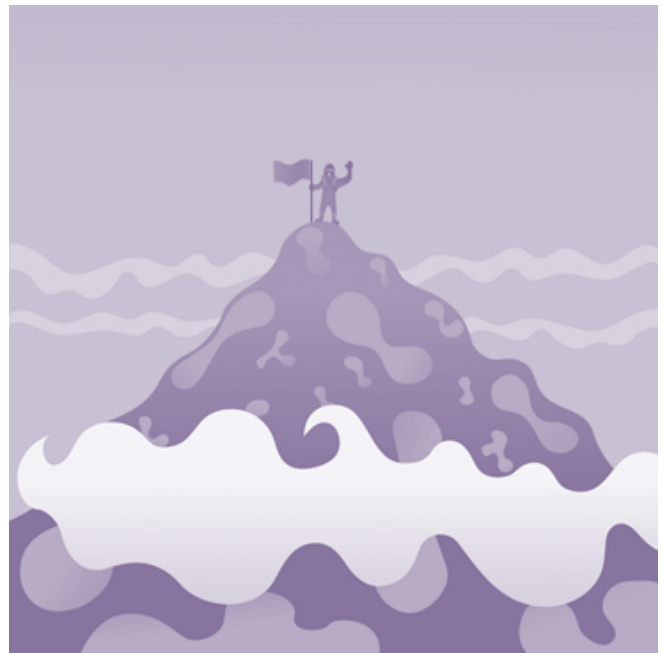
(e.g., providing support)

I will start working towards this goal...

(e.g., today)

I know I will have achieved this goal because...

(e.g., I no longer crave)



Pleasure and mastery worksheet

Create a list of activities you do for pleasure or you get a sense of achievement from.

Try to think of more each day and add to the list.

Make note of how each activity makes you feel.

Find time to complete some of these tasks every day.

A list of examples is included on the next page to help start you off.

[illegible]

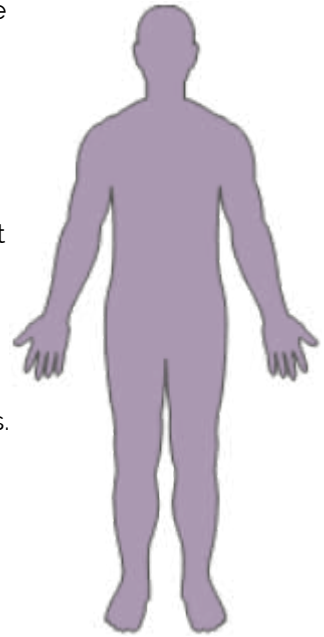
Examples of fun activities

- Listening to music
- Playing soccer
- Playing golf
- Having a bath
- Going for a swim
- Watching a movie
- Watching favourite TV show
- Going shopping
- Going bowling
- Working on car/bike
- Sex
- Reading poetry
- Cooking
- Surfing
- Playing video games
- Have coffee at a café
- Riding bike
- Playing pool/billiards
- Looking at photos
- Bushwalks
- Playing volleyball
- Picnics
- Playing cards
- Discussing politics
- Playing with pets
- Woodworking
- Getting a massage
- Watching a sporting event
- Hobbies (e.g., collecting things)
- Going horse riding
- Lying in the sun
- Talking to others
- Camping
- Going on holiday
- Going to the beach
- Going fishing
- Having a relaxed evening
- Debating
- Going to the zoo/aquarium
- Eating
- Going to the gym
- Playing cricket
- Playing hockey
- Driving
- Doing jigsaws
- Buying things
- Playing basketball
- Doing martial arts
- Playing netball
- Yoga
- Playing squash
- Playing tennis
- Going surfing
- Photography
- Surfing the net
- Getting hair done
- Kissing
- Going to museums and galleries
- Going to church/synagogue/temple/mosque
- Throwing parties
- Going to parties
- Exercise
- Having a meal with friends
- Singing
- Going sailing
- Praying
- Going to concerts or plays
- Sewing
- Working
- Reading books
- Playing board games
- Volunteering
- Having a BBQ
- Eating out
- Acting
- Cleaning
- Meditating
- Playing with children
- Sleeping
- Gardening
- Going canoeing
- Painting/drawing
- Skating
- Skiing
- Writing
- Reading newspaper
- Dancing
- Rock climbing
- Doing crosswords/word games



Progressive muscle relaxation

1. Take three deep abdominal breaths, exhaling slowly each time, imagining the tension draining out of your body.
2. Clench your fists. Hold for 10 seconds, before releasing and feeling the tension drain out of your body (for 15 seconds).
3. Tighten your biceps by drawing your forearms up toward your shoulders and make a muscle with both arms. Hold, then relax.
4. Tighten your triceps (the muscles underneath your upper arms) by holding out your arms in front of you and locking your elbows. Hold, then relax.
5. Tense the muscles in your forehead by raising your eyebrows as high as you can. Hold, then relax.
6. Tense the muscles around your eyes by clenching your eyelids shut. Hold, then relax. Imagine sensations of deep relaxation spreading all over your eyes.
7. Tighten your jaws by opening your mouth so widely that you stretch the muscles around the hinges of your jaw. Hold, then relax.
8. Tighten the muscles in the back of your neck by pulling your head way back, as if you were going to touch your head to your back. Hold, then relax.
9. Take deep breaths and focus on the weight of your head sinking into whatever surface it is resting on.
10. Tighten your shoulders as if you are going to touch your ears. Hold, then relax.
11. Tighten the muscles in your shoulder blades by pushing your shoulder blades back. Hold then relax.
12. Tighten the muscles of your chest by taking in a deep breath. Hold, then relax.
13. Tighten your stomach muscles by sucking your stomach in. Hold, then relax.
14. Tighten your lower back by arching it up (don't do this if you have back pain). Hold, then relax.
15. Tighten your buttocks by pulling them together. Hold, then relax.
16. Squeeze the muscles in your thighs. Hold, then relax.
17. Tighten your calf muscles by pulling your toes towards you. Hold, then relax.
18. Tighten your feet by curling them downwards. Hold, then relax.
19. Mentally scan your body for any left over tension. If any muscle group remains tense, repeat the exercise for those muscle groups.
20. Now imagine a wave of relaxation spreading over your body.



Source: Bourne, E.J. (1995). *The anxiety and phobia workbook*. Oakland, CA: New Harbinger Publications.

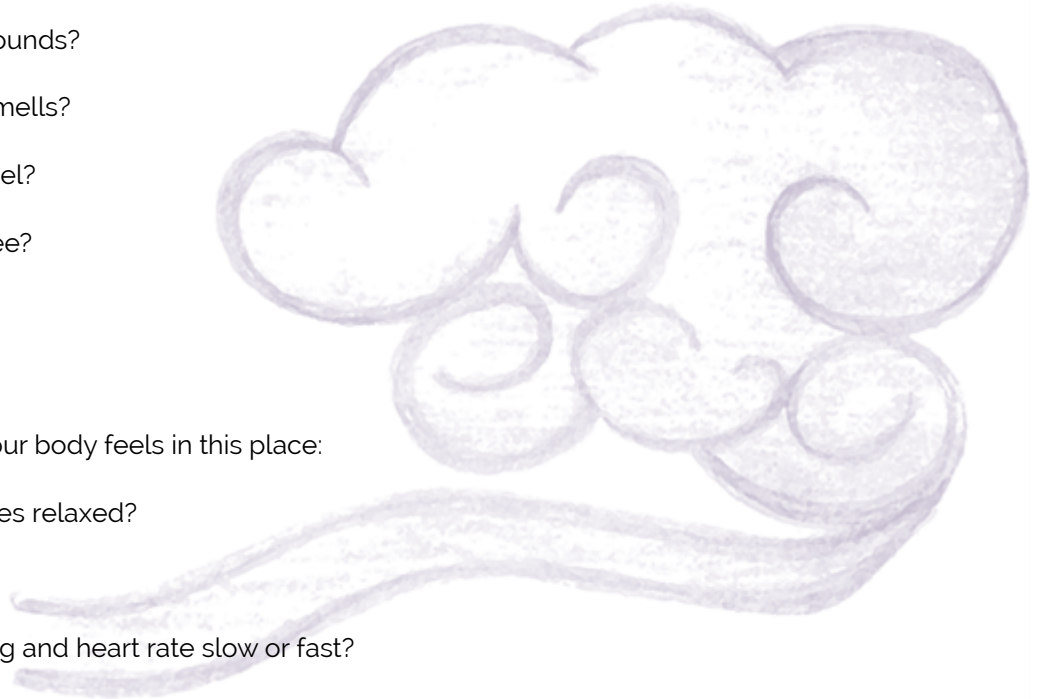
Controlled abdominal breathing

1. Rate your level of anxiety on a scale from 1 to 10.
2. Sit as comfortably as possible in a chair with your head, back and arms supported, free legs and close your eyes (if you like).
3. Place one hand on your abdomen right beneath your rib cage.
4. Inhale deeply and slowly, send the air as low and deep into your lungs as possible. If you are breathing from your abdomen, you should feel your hand rise, rather than your chest.
5. When you have taken a full breath, pause before exhaling. As you exhale, imagine all of the tension draining out of your body.
6. Do 10 slow abdominal breaths. Breathe in slowly counting to four, before exhaling to the count of four (four seconds in, four seconds out). Repeat this cycle 10 times. Hold final breath for 10 seconds, then exhale.
7. Now re-rate your level of anxiety and see if it has changed.



Visualisation and imagery

1. Sit comfortably in a chair, close your eyes and breathe deeply. Clear your mind of all thoughts and images, like a blank page.
2. Imagine a place where you feel safe and relaxed – this could be a real or imaginary place. Think in as much detail as possible:
 - What are the sounds?
 - What are the smells?
 - What do you feel?
 - What do you see?
3. Think about how your body feels in this place:
 - Are your muscles relaxed?
 - Is it warm?
 - Is your breathing and heart rate slow or fast?
4. Stay in this relaxed state for a moment and remember how it feels so you can return to it when you need to.
5. Slowly clear your mind again and return to the 'here and now' and the sounds around you. Stretch your arms and legs and when you are ready open your eyes.



Food and activity diary

Date	Time of day	Food eaten	Physical activity	Mood

Adapted from Western Australian Network of Alcohol and other Drugs Agencies (2011). *Healthy eating for wellbeing: A nutrition guide for alcohol and other drug consumers*. Perth, Australia: WANADA.

Common reactions to trauma

After a traumatic event, it is common to experience a range of reactions.

These might include:

Feelings of sadness/depression



It is common to:

- Experience feelings of hopelessness and despair.
- Have thoughts of suicide.
- Have an altered perception of yourself (e.g., I am a bad person).
- Lose interest in once pleasurable activities.

Feeling a loss of control or trust

It can be common to feel as though the traumatic event has left you with a lack of control, or as though you cannot trust anyone.

Feelings of anger

Sometimes you might find yourself experiencing anger and even directing it towards your loved ones.

Feelings of guilt and shame

These feelings are a common reaction to trauma survival.

You might find yourself second-guessing your reactions or blaming yourself.

Re-experiencing the event

This includes:

- Flashbacks – feeling the trauma is re-occurring.
- Intrusive thoughts – memories that you can't control.
- Nightmares about the event.

Physical arousal

This includes difficulty falling asleep or an interrupted sleep, irritability, finding it hard to concentrate, getting startled easily or feeling constantly on edge, sweating or a racing heartbeat.

Avoidance reactions

You may find yourself avoiding all reminders of the trauma (e.g., places, people) or even the memories of, and feelings associated with the traumatic experience itself.



Although these reactions can be overwhelming and distressing, it is important to remember they are a normal response when someone has experienced a traumatic event.

Common reactions to grief and loss

There is a multitude of different sources of grief and loss and not all involve death. Individuals experiencing grief from a loss may choose a variety of ways of expressing it. No two people will respond to the same loss in the same way. However, some frequent reactions include:

Changed behaviours:

- Seeking solitude, withdrawal.
- Change in social activities.
- Inappropriate behaviour (e.g., laughing).
- Absent mindedness.

Sleep and energy disturbances:

- Feeling fatigued, restless, lethargic.
- Sleep difficulties.

Other physical symptoms:

- Changed eating habits.
- Gastro-intestinal complaints.
- Decreased interest in pleasurable activities.
- Decreased sex drive.



A range of troubling emotions:

- Feelings of denial, disbelief, numbness, shock, panic, or sadness.
- Feelings of isolation.
- Mood fluctuations.
- Anger, guilt, frustration, hostility, blaming.

Cognitive difficulties such as forgetfulness, confusion or a lack of concentration.

Spiritual emptiness and pessimism.

Constant thought about the deceased or a feeling of their presence.

Although these reactions can be overwhelming and distressing, it is important to accept and not to avoid them. It is also useful to remember your reactions are common and natural and you are not alone.



References

References

1. Mills, KL, Deady, M, Proudfoot, H, Sannibale, C, Teesson, M, Mattick, R, and Burns, L, *Guidelines on the management of co-occurring alcohol and other drug and mental health conditions in alcohol and other drug treatment settings*. 2009, Sydney, Australia: National Drug and Alcohol Research Centre.
2. Mills, KL, Deady, M, Teesson, M, Sannibale, C, Proudfoot, H, Burns, L, and Mattick, R, Guidelines on the management of co-occurring mental health conditions in alcohol and other drug treatment settings: How useful are they? *Mental Health and Substance Use*, 2012; 5, 160-172.
3. Canaway, R and Merkes, M, Barriers to comorbidity service delivery: The complexities of dual diagnosis and the need to agree on terminology and conceptual frameworks. *Australian Health Review*, 2010; 34, 262-268.
4. Hall, W, Lynskey, M, and Teesson, M, What is comorbidity and why does it matter?, in *National Comorbidity Project*, M. Teesson and L. Burns, Editors. 2001, Canberra, Australia: Commonwealth Department of Health and Aged Care.
5. Siggins Miller Consultants, *Current practice in the management of clients with comorbid mental health and substance use disorders in tertiary care settings*. 2003, Canberra, Australia: Commonwealth Department of Health and Ageing.
6. National Mental Health Strategy, *National practice standards for the mental health workforce*. 2013, Canberra, Australia: Australian Government Department of Health.
7. Matthys, F, Stes, S, van den Brink, W, Joostens, P, Möbius, D, Tremmery, S, and Sabbe, B, Guideline for screening, diagnosis and treatment of ADHD in adults with substance use disorders. *International Journal of Mental Health and Addiction*, 2014; 12, 629-647.
8. Drake, RE and Wallach, MA, Dual diagnosis: 15 years of progress. *Psychiatric Services*, 2000; 51, 1126-1129.
9. Degenhardt, L and Hall, W, The relationship between tobacco use, substance-use disorders and mental health: Results from the National Survey of Mental Health and Well-being. *Nicotine and Tobacco Research*, 2001; 3, 225-234.
10. Degenhardt, L and Hall, W, Patterns of co-morbidity between alcohol use and other substance use in the Australian population. *Drug and Alcohol Review*, 2003; 22, 7-13.
11. Lawrence, D, Mitrou, F, and Zubrick, SR, Smoking and mental illness: Results from population surveys in Australia and the United States. *BMC Public Health*, 2009; 9, 285.
12. Teesson, M, Farrugia, P, Mills, K, Hall, W, and Baillie, A, Alcohol, tobacco, and prescription drugs: The relationship with illicit drugs in the treatment of substance users. *Substance Use and Misuse*, 2012; 47, 963-971.
13. Rendell, PG, Gray, TJ, Henry, JD, and Tolan, A, Prospective memory impairment in "ecstasy" (MDMA) users. *Psychopharmacology*, 2007; 194, 497-504.
14. Schrimsher, GW, Parker, JD, and Burke, RS, Relation between cognitive testing performance and pattern of substance use in males at treatment entry. *Clinical Neuropsychologist*, 2007; 21, 498-510.

15. Taggart, L, McLaughlin, D, Quinn, B, and Milligan, V, An exploration of substance misuse in people with intellectual disabilities. *Journal of Intellectual Disability Research*, 2006; 50, 588-597.
16. Chen, CY and Lin, KM, Health consequences of illegal drug use. *Current Opinion in Psychiatry*, 2009; 22, 287-292.
17. Potter, JS, Prather, K, and Weiss, RD, Physical pain and associated clinical characteristics in treatment-seeking patients in four substance use disorder treatment modalities. *American Journal on Addictions*, 2008; 17, 121-125.
18. Teesson, M, Slade, T, and Mills, K, Comorbidity in Australia: Findings of the 2007 National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry*, 2009; 43, 606-614.
19. van der Plas, EA, Crone, EA, van den Wildenberg, WP, Tranel, D, and Bechara, A, Executive control deficits in substance-dependent individuals: A comparison of alcohol, cocaine, and methamphetamine and of men and women. *Journal of Clinical and Experimental Neuropsychology*, 2009; 31, 706-719.
20. Darke, S, Kaye, S, McKetin, R, and Duflou, J, Major physical and psychological harms of methamphetamine use. *Drug and Alcohol Review*, 2008; 27, 253-262.
21. Saunders, B and Robinson, S, Co-occurring mental health and drug dependency disorders: Workforce development challenges for the A&D field. *Drug and Alcohol Review*, 2002; 21, 231-237.
22. Kessler, RC, Merikangas, KR, Berglund, P, Eaton, WW, Koretz, DS, and Walters, EE, Mild disorders should not be eliminated from the DSM-V. *Archives of General Psychiatry*, 2003; 60, 1117-1122.
23. American Psychiatric Association, *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). 2000, Washington, DC: American Psychiatric Association.
24. American Psychiatric Association, *Diagnostic and statistical manual of mental disorders* (5th ed.). 2013, Washington, DC: American Psychiatric Association.
25. Khantzian, EJ and Albanese, MJ, *Understanding addiction as self medication: Finding hope behind the pain*. 2008, Lanham, MD: Rowman and Littlefield Publishers.
26. Martins, SS, Keyes, KM, Storr, CL, Zhu, H, and Chilcoat, HD, Pathways between nonmedical opioid use/dependence and psychiatric disorders: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Drug and Alcohol Dependence*, 2009; 103, 16-24.
27. Robinson, J, Sareen, J, Cox, B, & Bolton, J, Role of self-medication in the development of comorbid anxiety and substance use disorders: A longitudinal investigation. *Archives of General Psychiatry*, 2011; 75, 800-807.
28. Leeies, M, Pagura, J, Sareen, J, and Bolton, JM, The use of alcohol and drugs to self-medicate symptoms of posttraumatic stress disorder. *Depression and Anxiety*, 2010; 27, 731-736.
29. Raimo, EB and Schuckit, MA, Alcohol dependence and mood disorders. *Addictive Behaviors*, 1998; 23, 933-46.
30. Falk, DE, Yi, H-Y, and Hilton, ME, Age of onset and temporal sequencing of lifetime DSM-IV alcohol use disorders relative to comorbid mood and anxiety disorders. *Drug and Alcohol Dependence*, 2008; 94, 234-245.

31. Leahy, RL, Holland, SJ, and McGinn, LK, *Treatment plans and interventions for depression and anxiety disorders*. 2011, New York, NY: Guilford Press.
32. Kavanagh, DJ, *Psychological management of substance misuse in people with mental disorder*. 2008, Kelvin Grove, Australia: Queensland University of Technology.
33. Fiorentini, A, Sara Volonteri, L, Dragogna, F, Rovera, C, Maffini, M, Carlo Mauri, M, and A Altamura, C, Substance-induced psychoses: A critical review of the literature. *Current Drug Abuse Reviews*, 2011; 4, 228-240.
34. Schuckit, MA, Comorbidity between substance use disorders and psychiatric conditions. *Addiction*, 2006; 101, 76-88.
35. Brown, S and Schuckit, M, Changes in depression amongst abstinent alcoholics. *Journal of Studies in Alcohol*, 1988; 52, 37-43.
36. Dawe, S, Geppert, L, Occhipinti, S, and Kingswell, W, A comparison of the symptoms and short-term clinical course in inpatients with substance-induced psychosis and primary psychosis. *Journal of Substance Abuse Treatment*, 2011; 40, 95-101.
37. Samet, S, Fenton, MC, Nunes, E, Greenstein, E, Aharonovich, E, and Hasin, D, Effects of independent and substance-induced major depressive disorder on remission and relapse of alcohol, cocaine and heroin dependence. *Addiction*, 2013; 108, 115-123.
38. Teesson, M, Degenhardt, L, Proudfoot, H, Hall, W, and Lynskey, M, How common is comorbidity and why does it occur? *Australian Psychologist*, 2005; 40, 81-87.
39. Kessler, RC, Foster, CL, Saunders, WB, and Stang, PE, Social consequences of psychiatric disorders. I: Educational attainment. *American Journal of Psychiatry*, 1995; 152, 1026-1032.
40. Horwood, LJ, Fergusson, DM, Hayatbakhsh, MR, Najman, JM, Coffey, C, Patton, GC, . . . Hutchinson, DM, Cannabis use and educational achievement: Findings from three Australasian cohort studies. *Drug and Alcohol Dependence*, 2010; 110, 247-253.
41. Lloyd, C, Risk factors for problem drug use: Identifying vulnerable groups. *Drugs: Education, Prevention and Policy*, 1998; 5, 217-232.
42. Slade, T, Johnston, A, Teesson, M, Whiteford, H, Burgess, P, Pirkis, J, and Saw, S, *The mental health of Australians 2: Report on the 2007 National Survey of Mental Health and Wellbeing*. 2009, Canberra, Australia: Australian Government Department of Health and Ageing.
43. Fletcher, JM, Adolescent depression: Diagnosis, treatment, and educational attainment. *Health Economics*, 2008; 17, 1215-1235.
44. Compton, W, Thomas, Y, Stinson, F, and Grant, B, Prevalence, correlates, disability, and comorbidity of DSM-IV drug abuse and dependence in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Archives of General Psychiatry*, 2007; 64, 210-215.
45. Hasin, D, Stinson, F, Ogburn, E, and Grant, B, Prevalence, correlates, disability, and comorbidity of DSM-IV alcohol abuse and dependence in the United States: Results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Archives of General Psychiatry*, 2007; 64, 830-842.

46. Liang, W and Chikritzhs, T, Affective disorders, anxiety disorders and the risk of alcohol dependence and misuse. *British Journal of Psychiatry*, 2011; 199, 219-224.
47. Brady, KT and Sinha, R, Co-occurring mental and substance use disorders: The neurobiological effects of chronic stress. *American Journal of Psychiatry*, 2005; 162, 1483-1493.
48. Cerdá, M, Sagdeo, A, Johnson, J, and Galea, S, Genetic and environmental influences on psychiatric comorbidity: A systematic review. *Journal of Affective Disorders*, 2010; 126, 14-38.
49. Mueser, KT, Drake, RE, and Wallach, MA, Dual diagnosis: A review of etiological theories. *Addictive Behaviors*, 1998; 23, 717-34.
50. Slade, T, McEvoy, P, Chapman, C, Grove, R, and Teesson, M, Onset and temporal sequencing of lifetime anxiety, mood and substance use disorders in the general population. *Epidemiology and Psychiatric Sciences*, 2015; 24, 45-53.
51. Castle, DJ, Anxiety and substance use: Layers of complexity. *Expert Review of Neurotherapeutics*, 2008; 8, 493-501.
52. Kavanagh, DJ and Connolly, JM, Interventions for co-occurring addictive and other mental disorders (AMDs). *Addictive Behaviors*, 2009; 34, 838-845.
53. Stockwell, T, Hodgson, R, and Rankin, H, Tension reduction and the effects of prolonged alcohol consumption. *British Journal of Addiction*, 1982; 77, 65-73.
54. Kavanagh, DJ and Mueser, KT, Current evidence on integrated treatment for serious mental disorder and substance misuse. *Journal of the Norwegian Psychological Association*, 2007; 44, 618-637.
55. Hodgkins, DC, el-Guebaly, N, Armstrong, S, and Dufour, M, Implications of depression on outcome from alcohol dependence: A three-year prospective follow-up. *Alcoholism: Clinical and Experimental Research*, 1999; 23, 151-157.
56. Begg, SJ, Vos, T, Barker, B, Stanley, L, and Lopez, AD, Burden of disease and injury in Australia in the new millennium: Measuring health loss from diseases, injuries and risk factors. *Medical Journal of Australia*, 2008; 188, 36.
57. Kessler, RC, Berglund, P, Demler, O, Jin, R, Merikangas, KR, and Walters, EE, Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey replication. *Archives of General Psychiatry*, 2005; 62, 593-602.
58. Slade, T, Johnston, A, Oakley Browne, MA, Andrews, G, and Whiteford, H, 2007 National Survey of Mental Health and Wellbeing: Methods and key findings. *Australian and New Zealand Journal of Psychiatry*, 2009; 43, 594-605.
59. McEvoy, PM, Grove, R, and Slade, T, Epidemiology of anxiety disorders in the Australian general population: Findings of the 2007 Australian National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry*, 2011; 45, 957-967.
60. Andrews, G, Issakidis, C, and Slade, T, *The clinical significance of mental disorders, in National Comorbidity Project*, M. Teesson and L. Burns, Editors. 2001, Canberra, Australia: Commonwealth Department of Health and Aged Care. p. 19-30.

61. Mortlock, KS, Deane, FP, and Crowe, TP, Screening for mental disorder comorbidity in Australian alcohol and other drug residential treatment settings. *Journal of Substance Abuse Treatment*, 2011; 40, 397-404.
62. Burgess, PM, Pirkis, JE, Slade, TN, Johnston, AK, Meadows, GN, and Gunn, JM, Service use for mental health problems: Findings from the 2007 National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry*, 2009; 43, 615-623.
63. Proudfoot, H and Teesson, M, Who seeks treatment for alcohol dependence? Findings from the Australian National Survey of Mental Health and Wellbeing. *Social Psychiatry and Psychiatric Epidemiology*, 2002; 37, 451-456.
64. Hall, W, What have population surveys revealed about substance use disorders and their co-morbidity with other mental disorders? *Drug and Alcohol Review*, 1996; 15, 157-170.
65. Callaly, T, Trauer, T, Munro, L, and Whelan, G, Prevalence of psychiatric disorder in a methadone maintenance population. *Australian and New Zealand Journal of Psychiatry*, 2001; 35, 601-605.
66. Burns, L, Teesson, M, and O'Neill, K, The impact of comorbid anxiety and depression on alcohol treatment outcomes. *Addiction*, 2005; 100, 787-796.
67. Lubman, DI, Allen, NB, Rogers, N, Cementon, E, and Bonomo, Y, The impact of co-occurring mood and anxiety disorders among substance-abusing youth. *Journal of Affective Disorders*, 2007; 103, 105-12.
68. Dingle, GA and King, P, Prevalence and impact of co-occurring psychiatric disorders on outcomes from a private hospital drug and alcohol treatment program. *Mental Health and Substance Use*, 2009; 2, 13-23.
69. Cole, M and Sacks, T, When dual diagnosis means no diagnosis: Co-occurring mental illness and problematic drug use in clients of alcohol and drug services in eastern metropolitan Melbourne. *Mental Health and Substance Use*, 2008; 1, 33-43.
70. Dyer, KR and Cruickshank, CC, Depression and other psychological health problems among methamphetamine dependent patients in treatment: Implications for assessment and treatment outcome. *Australian Psychologist*, 2005; 40, 96-108.
71. Johns, K, Baker, A, Webster, RA, and Lewin, TJ, Factors associated with retention in a long-term residential rehabilitation programme for women with substance use problems. *Mental Health and Substance Use*, 2009; 2, 40-51.
72. Darke, S, Swift, W, and Hall, W, Prevalence, severity and correlates of psychological morbidity among methadone maintenance clients. *Addiction*, 1994; 89, 211-217.
73. Deane, FP, Kelly, PJ, Crowe, TP, Coulson, JC, and Lyons, GC, Clinical and reliable change in an Australian residential substance use program using the Addiction Severity Index. *Journal of Addictive Diseases*, 2013; 32, 194-205.
74. Dore, G, Mills, K, Murray, R, Teesson, M, and Farrugia, P, Post-traumatic stress disorder, depression and suicidality in inpatients with substance use disorders. *Drug and Alcohol Review*, 2012; 31, 294-302.

75. McKetin, R, Lubman, DI, Lee, NM, Ross, JE, and Slade, TN, Major depression among methamphetamine users entering drug treatment programs. *Medical Journal of Australia*, 2011; 195, S51-S55.
76. Ross, J, Teesson, M, Darke, S, Lynskey, M, Ali, R, Ritter, A, and Cooke, R, The characteristics of heroin users entering treatment: Findings from the Australian Treatment Outcome Study (ATOS). *Drug and Alcohol Review*, 2005; 24, 411-418.
77. Mills, KL, Lynskey, M, Teesson, M, Ross, J, and Darke, S, Post-traumatic stress disorder among people with heroin dependence in the Australian treatment outcome study (ATOS): prevalence and correlates. *Drug Alcohol Depend*, 2005; 77, 243-9.
78. Hood, S, O'Neil, G, and Hulse, G, The role of flumazenil in the treatment of benzodiazepine dependence: Physiological and psychological profiles. *Journal of Psychopharmacology*, 2009; 23, 401-409.
79. Mills, KL, Teesson, M, Ross, J, and Peters, L, Trauma, PTSD, and substance use disorders: Findings from the Australian National Survey of Mental Health and Well-Being. *American Journal of Psychiatry*, 2006; 163, 652-658.
80. Kay-Lambkin, FJ, Baker, A, and Lewin, TL, The "co-morbidity roundabout": A framework to guide assessment and intervention strategies and engineer change among people with co-morbid problems. *Drug and Alcohol Review*, 2004; 23, 407-423.
81. Karsten, J, Hartman, CA, Smit, JH, Zitman, FG, Beekman, AT, Cuijpers, P, . . . Penninx, BW, Psychiatric history and subthreshold symptoms as predictors of the occurrence of depressive or anxiety disorder within 2 years. *British Journal of Psychiatry*, 2011; 198, 206-212.
82. Weinstock, J, Alessi, SM, and Petry, NM, Regardless of psychiatric severity the addition of contingency management to standard treatment improves retention and drug use outcomes. *Drug and Alcohol Dependence*, 2007; 87, 288-296.
83. Davidson, SK, Harris, MG, Dowrick, CF, Wachtler, CA, Pirkis, J, and Gunn, JM, Mental health interventions and future major depression among primary care patients with subthreshold depression. *Journal of Affective Disorders*, 2015; 177, 65-73.
84. Kavanagh, DJ, Mueser, KT, and Baker, A, *Management of comorbidity*, in *Comorbid mental disorders and substance use disorders*, M. Teesson and H. Proudfoot, Editors. 2003, Canberra, Australia: Australian Government Department of Health and Ageing. p. 78-120.
85. Allsop, SJ and Helfgott, S, Whither the drug specialist? The work-force development needs of drug specialist staff and agencies. *Drug and Alcohol Review*, 2002; 21, 215-222.
86. Ouimette, P, Goodwin, E, and Brown, PJ, Health and well being of substance use disorder patients with and without posttraumatic stress disorder. *Addictive Behaviors*, 2006; 31, 1415-1423.
87. Kessler, RC, *Epidemiology of psychiatric comorbidity*, in *Textbook in psychiatric epidemiology*, M.T. Tsuang, M. Tohen, and G.E.P. Zahner, Editors. 1995, New York, NY: Wiley and Sons. p. 179-197.
88. Johnson, ME, Brems, C, and Burke, S, Recognizing comorbidity among drug users in treatment. *American Journal of Drug and Alcohol Abuse*, 2002; 28, 243-261.

89. Schäfer, I and Najavits, LM, Clinical challenges in the treatment of patients with posttraumatic stress disorder and substance abuse. *Current Opinion in Psychiatry*, 2007; 20, 614-618.
90. Dickey, B, Normand, SL, Weiss, RD, Drake, RE, and Azeni, H, Medical morbidity, mental illness, and substance use disorders. *Psychiatric Services*, 2002; 53, 861-867.
91. Siegfried, N, A review of comorbidity: Major mental illness and problematic substance use. *Australian and New Zealand Journal of Psychiatry*, 1998; 32, 707-717.
92. Milby, JB, Conti, K, Wallace, D, Mennemeyer, S, Mrug, S, and Schumacher, JE, Comorbidity effects on cocaine dependence treatment and examination of reciprocal relationships between abstinence and depression. *Journal of Consulting and Clinical Psychology*, 2015; 83, 45-55.
93. Hildebrand, A, Behrendt, S, and Hoyer, J, Treatment outcome in substance use disorder patients with and without comorbid posttraumatic stress disorder: A systematic review. *Psychotherapy Research*, 2015; 25, 565-582.
94. Substance Abuse and Mental Health Services Administration, *Substance abuse treatment for persons with co-occurring disorders: Treatment Improvement Protocol (TIP) series 42*. 2005, Rockville, MD: Substance Abuse and Mental Health Services Administration.
95. Mills, KL, Teesson, M, Ross, J, and Darke, S, The impact of post-traumatic stress disorder on treatment outcomes for heroin dependence. *Addiction*, 2007; 102, 447-454.
96. Kavanagh, DJ, Greenaway, L, Jenner, L, Saunders, JB, White, A, Sorban, J, and Hamilton, G, Contrasting views and experiences of health professionals on the management of comorbid substance misuse and mental disorders. *Australian and New Zealand Journal of Psychiatry*, 2000; 34, 279-289.
97. Mental Health Consumer Outcomes Task Force, *Mental health statement of rights and responsibilities*. 2000, Canberra, Australia: Commonwealth of Australia.
98. Deady, M, Teesson, M, Mills, K, Kay-Lambkin, F, Baker, A, Shand, F, . . . Haber, P, *One person, diverse needs: Living with mental health and alcohol and drug difficulties*. 2013, Sydney, Australia: NHMRC Centre of Research Excellence in Mental Health and Substance Use.
99. NSW Health, *The management of people with a co-existing mental health and substance use disorder. Service delivery guidelines*. 2000, Sydney: NSW Health Department.
100. Proudfoot, H, Teesson, M, Brewin, E, and Gournay, K, *Comorbidity and the delivery of services*, in *Comorbid mental disorders and substance use disorders*, M. Teesson and H. Proudfoot, Editors. 2003, Canberra, Australia: Australian Government Department of Health and Ageing. p. 121-142.
101. Meier, PS, Barrowclough, C, and Donmall, MC, The role of the therapeutic alliance in the treatment of substance misuse: A critical review of the literature. *Addiction*, 2005; 100, 304-316.
102. Meier, PS, Donmall, MC, McElduff, P, Barrowclough, C, and Heller, RF, The role of the early therapeutic alliance in predicting drug treatment dropout. *Drug and Alcohol Dependence*, 2006; 83, 57-64.
103. Barrowclough, C, Haddock, G, Lowens, I, Allott, R, Earnshaw, P, Fitzsimmons, M, and Nothard, S, *Psychosis and drug and alcohol problems*, in *Clinical handbook of co-existing mental health and drug and alcohol problems*, A. Baker and R. Velleman, Editors. 2007, New York, NY: Routledge. p. 241-265.

104. Phillips, P and Labrow, J, Dual diagnosis: Does harm reduction have a role? *International Journal of Drug Policy*, 2000; 11, 279-283.
105. Cacciola, JS, Alterman, AI, Rutherford, MJ, McKay, JR, and Mulvaney, FD, The relationship of psychiatric comorbidity to treatment outcomes in methadone maintained patients. *Drug and Alcohol Dependence*, 2001; 61, 271-280.
106. Kavanagh, D, *Treatment of comorbidity*, in *National Comorbidity Project*, M. Teesson and L. Burns, Editors. 2001, Canberra, Australia: Commonwealth Department of Health and Aged Care. p. 60-69.
107. Network of Alcohol and other Drug Agencies. *Tools for change: A new way of working with families and carers*. 2009. Available from:
<http://www.nada.org.au/resources/nadapublications/resourcestoolkits/familycarertoolkit/>.
108. NSW Mental Health and Drug and Alcohol Office, *Guideline to consumer participation in NSW drug and alcohol services (2nd ed.)*. 2015, North Sydney, Australia: NSW Ministry of Health. Available from:
http://www0.health.nsw.gov.au/policies/gl/2015/pdf/GL2015_006.pdf.
109. Teesson, M and Burns, L, *National comorbidity project*. 2001, Canberra, Australia: Commonwealth Department of Health and Aged Care.
110. Andrews, G, Efficacy, effectiveness and efficiency in mental health service delivery. *Australian and New Zealand Journal of Psychiatry*, 1999; 33, 316-322.
111. Hickie, IB, Koschera, A, Davenport, TA, Naismith, SL, and Scott, EM, Comorbidity of common mental disorders and alcohol or other substance misuse in Australian general practice. *Medical Journal of Australia*, 2001; 175, S31-S36.
112. World Health Organisation, *The ICD-10 classification of mental and behavioural disorders: Diagnostic criteria for research*. 1993, Geneva, Switzerland: World Health Organization.
113. Black Dog Institute. *Diagnosing bipolar disorder*. 2013. Available from:
<http://www.blackdoginstitute.org.au/healthprofessionals/bipolardisorder/diagnosingbipolardisorder/index.cfm>.
114. Black Dog Institute. *Depression vs mania*. 2013. Available from:
<http://www.blackdoginstitute.org.au/public/bipolardisorder/bipolardisorderexplained/depressionvsmania.cfm>.
115. Mills, KL, Marel, C, Baker, A, Teesson, M, Dore, G, Kay-Lambkin, F, . . . Trimmingham, T, *Personality and substance use*. 2011, Sydney, Australia: National Drug and Alcohol Research Centre.
116. Darke, S, Williamson, A, Ross, J, Teesson, M, and Lynskey, M, Borderline personality disorder, antisocial personality disorder and risk-taking among heroin users: Findings from the Australian Treatment Outcome Study (ATOS). *Drug and Alcohol Dependence*, 2004; 74, 77-83.
117. Trull, TJ, Sher, KJ, Minks-Brown, C, Durbin, J, and Burr, R, Borderline personality disorder and substance use disorders: A review and integration. *Clinical Psychology Review*, 2000; 20, 235-53.
118. Daughters, SB, Stipelman, BA, Sargeant, MN, Schuster, R, Bornovalova, MA, and Lejuez, CW, The interactive effects of antisocial personality disorder and court-mandated status on substance abuse treatment dropout. *Journal of Substance Abuse Treatment*, 2008; 34, 157-164.

119. Rounsaville, BJ, DSM-IV research agenda: Substance abuse/psychosis comorbidity. *Schizophrenia Bulletin*, 2007; 33, 947-952.
120. Arseneault, L, Cannon, M, Poulton, R, Murray, R, Caspi, A, and Moffitt, TE, Cannabis use in adolescence and risk for adult psychosis: Longitudinal prospective study. *British Medical Journal*, 2002; 325, 1212-1213.
121. Dore, GM, *Psychiatric comorbidity*, in *Oxford specialist handbooks: Addiction medicine*, N. Latt, et al., Editors. 2009, Oxford, UK: Oxford University Press. p. 295-310.
122. Fraser, S, Hides, L, Philips, L, Proctor, D, and Lubman, DI, Differentiating first episode substance induced and primary psychotic disorders with concurrent substance use in young people. *Schizophrenia Research*, 2012; 136, 110-115.
123. Jenner, L and Lee, N, *Treatment approaches to users of methamphetamine: A practical guide for front line workers*. 2008, Canberra, Australia: Australian Government Department of Health and Ageing.
124. Shand, F, Gates, J, Fawcett, J, and Mattick, R, *The treatment of alcohol problems*. 2003, Canberra, Australia: National Alcohol Strategy.
125. Barnhill, JW, *DSM-5 clinical cases*. 2014, Arlington, VA: American Psychiatric Publishing.
126. Lawrence, D, Holman, C, and Jablensky, A, *Duty to care: Preventable physical illness in people with mental illness*. 2001, Perth, Australia: University of Western Australia.
127. Hennekens, CH, Increasing global burden of cardiovascular disease in general populations and patients with schizophrenia. *Journal of Clinical Psychiatry*, 2006; 68, 4-7.
128. Osborn, DP, Levy, G, Nazareth, I, Petersen, I, Islam, A, and King, MB, Relative risk of cardiovascular and cancer mortality in people with severe mental illness from the United Kingdom's General Practice Research Database. *Archives of General Psychiatry*, 2007; 64, 242-249.
129. Kilbourne, AM, Post, EP, Nosssek, A, Drill, L, Cooley, S, and Bauer, MS, Improving medical and psychiatric outcomes among individuals with bipolar disorder: A randomized controlled trial. *Psychiatric Services*, 2008; 59, 760-768.
130. McDermott, S, Moran, R, Platt, T, Isaac, T, Wood, H, and Dasari, S, Heart disease, schizophrenia, and affective psychoses: Epidemiology of risk in primary care. *Community Mental Health Journal*, 2005; 41, 747-755.
131. Weiss, AP, Henderson, DC, Weilburg, JB, Goff, DC, Meigs, JB, Cagliero, E, and Grant, RW, Treatment of cardiac risk factors among patients with schizophrenia and diabetes. *Psychiatric Services*, 2006; 57, 1145-1152.
132. Stenbacka, M, Leifman, A, and Romelsjö, A, Mortality and cause of death among 1705 illicit drug users: A 37 year follow up. *Drug and Alcohol Review*, 2010; 29, 21-27.
133. Jablensky, A, McGrath, J, Herrman, H, Castle, D, Gureje, O, Evans, M, . . . Harvey, C, Psychotic disorders in urban areas: An overview of the study on low prevalence disorders. *Australian and New Zealand Journal of Psychiatry*, 2000; 34, 221-236.

134. Australian Institute of Health and Welfare, *Australia's health 2010*. 2010, Canberra, Australia: Australian Institute of Health and Welfare. Available from: <http://www.aihw.gov.au/publications/aus/ah10/ah10.pdf>.
135. Baker, A, Ivers, RG, Bowman, J, Butler, T, Kay-Lambkin, FJ, Wye, P, . . . Wodak, A, Where there's smoke, there's fire: High prevalence of smoking among some sub-populations and recommendations for intervention. *Drug and Alcohol Review*, 2006; 25, 85-96.
136. Emerson, MH, Glovsky, E, Amaro, H, and Nieves, R, Unhealthy weight gain during treatment for alcohol and drug use in four residential programs for Latina and African American women. *Substance Use and Misuse*, 2009; 44, 1553-1565.
137. Allison, DB, Mackell, JA, and McDonnell, DD, The impact of weight gain on quality of life among persons with schizophrenia. *Psychiatric Services*, 2003; 54, 565-567.
138. Taylor, D and McAskill, R, Atypical antipsychotics and weightgain: A systematic review. *Acta Psychiatrica Scandinavica*, 2000; 101, 416-432.
139. Brown, S, Birtwistle, J, Roe, L, and Thompson, C, The unhealthy lifestyle of people with schizophrenia. *Psychological Medicine*, 1999; 29, 697-701.
140. McCreadie, RG, Diet, smoking and cardiovascular risk in people with schizophrenia: Descriptive study. *British Journal of Psychiatry*, 2003; 183, 534-539.
141. Henderson, DC, Borba, CP, Daley, TB, Boxill, R, Nguyen, DD, Culhane, MA, . . . Freudenreich, O, Dietary intake profile of patients with schizophrenia. *Annals of Clinical Psychiatry*, 2006; 18, 99-105.
142. Beebe, LH, Tian, L, Morris, N, Goodwin, A, Allen, SS, and Kuldau, J, Effects of exercise on mental and physical health parameters of persons with schizophrenia. *Issues in Mental Health Nursing*, 2005; 26, 661-676.
143. Kelly, PJ, Baker, AL, Deane, FP, Kay-Lambkin, FJ, Bonevski, B, and Tregarthen, J, Prevalence of smoking and other health risk factors in people attending residential substance abuse treatment. *Drug and Alcohol Review*, 2012; 31, 638-644.
144. Irving, HM, Samokhvalov, AV, and Rehm, J, Alcohol as a risk factor for pancreatitis: A systematic review and meta-analysis. *Journal of Oncology Practice*, 2009; 10, 387-392.
145. Alberti, K, Eckel, RH, Grundy, SM, Zimmet, PZ, Cleeman, JI, Donato, KA, . . . Smith, SC, Harmonizing the metabolic syndrome: A joint interim statement of the International Diabetes Federation Task Force on Epidemiology and Prevention; National Heart, Lung, and Blood Institute; American Heart Association; World Heart Federation; International Atherosclerosis Society; and International Association for the Study of Obesity. *Circulation*, 2009; 120, 1640-1645.
146. Tanamas, S, Magliano, D, Lynch, B, Sethi, P, Willenberg, L, Polkinghorne, K, . . . Shaw, J, *AusDiab 2012: The Australian diabetes, obesity and lifestyle study*. 2013, Melbourne, Australia: Baker IDI Heart and Diabetes Institute.
147. Altman, NG, Izci-Balserak, B, Schopfer, E, Jackson, N, Rattanaumpawan, P, Gehrman, PR, . . . Grandner, MA, Sleep duration versus sleep insufficiency as predictors of cardiometabolic health outcomes. *Sleep Medicine*, 2012; 13, 1261-1270.

148. Grundy, SM, Cleeman, JI, Daniels, SR, Donato, KA, Eckel, RH, Franklin, BA, . . . Smith, SC, Diagnosis and management of the metabolic syndrome: An American Heart Association/National Heart, Lung, and Blood Institute scientific statement. *Circulation*, 2005; 112, 2735-2752.
149. Mitchell, AJ, Vancampfort, D, Sweers, K, van Winkel, R, Yu, W, and De Hert, M, Prevalence of metabolic syndrome and metabolic abnormalities in schizophrenia and related disorders: A systematic review and meta-analysis. *Schizophrenia Bulletin*, 2013; 39, 306-318.
150. Vancampfort, D, Correll, CU, Wampers, M, Sienaert, P, Mitchell, A, De Herdt, A, . . . De Hert, M, Metabolic syndrome and metabolic abnormalities in patients with major depressive disorder: A meta-analysis of prevalences and moderating variables. *Psychological Medicine*, 2014; 44, 2017-2028.
151. Bartoli, F, Carrà, G, Crocamo, C, Carretta, D, and Clerici, M, Metabolic syndrome in people suffering from posttraumatic stress disorder: A systematic review and meta-analysis. *Metabolic Syndrome and Related Disorders*, 2013; 11, 301-308.
152. Kahl, KG, Greggerson, W, Schweiger, U, Cordes, J, Correll, CU, Frieling, H, . . . Moebus, S, Prevalence of the metabolic syndrome in patients with borderline personality disorder: Results from a cross-sectional study. *European Archives of Psychiatry and Clinical Neuroscience*, 2013; 263, 205-213.
153. Kelly, PJ, Baker, AL, Deane, FP, Callister, R, Collins, CE, Oldmeadow, CJ, . . . Byrne, G, Study protocol: A stepped wedge cluster randomised controlled trial of a healthy lifestyle intervention for people attending residential substance abuse treatment. *BMC Public Health*, 2015; 15, 465.
154. Prochaska, JJ, Spring, B, and Nigg, CR, Multiple health behavior change research: An introduction and overview. *Preventive Medicine*, 2008; 46, 181-188.
155. Prochaska, JJ and Prochaska, JO, A review of multiple health behavior change interventions for primary prevention. *American Journal of Lifestyle Medicine*, 2011; 5, 208-221.
156. Prochaska, JJ, Delucchi, K, and Hall, SM, A meta-analysis of smoking cessation interventions with individuals in substance abuse treatment or recovery. *Journal of Consulting and Clinical Psychology*, 2004; 72, 1144-1156.
157. Kalman, D, Smoking cessation treatment for substance misusers in early recovery: A review of the literature and recommendations for practice. *Substance Use and Misuse*, 1998; 33, 2021-2047.
158. Hughes, JR and Carpenter, MJ, The feasibility of smoking reduction: An update. *Addiction*, 2005; 100, 1074-1089.
159. Baker, AL, Callister, R, Kelly, PJ, and Kypri, K, 'Do more, smoke less!' Harm reduction in action for smokers with mental health/substance use problems who cannot or will not quit. *Drug and Alcohol Review*, 2012; 31, 714-717.
160. Lawn, S and Pols, R, Nicotine withdrawal: Pathway to aggression and assault in the locked psychiatric ward? *Australasian Psychiatry*, 2003; 11, 199-203.
161. Lawn, S and Pols, R, Smoking bans in psychiatric inpatient settings? A review of the research. *Australian and New Zealand Journal of Psychiatry*, 2005; 39, 866-885.
162. Baker, A, Richmond, R, Haile, M, Lewin, TJ, Carr, VJ, Taylor, RL, . . . Wilhelm, K, A randomized controlled trial of a smoking cessation intervention among people with a psychotic disorder. *American Journal of Psychiatry*, 2006; 163, 1934-1942.

163. Segan, CJ, Borland, R, Wilhelm, KA, Bhar, SS, Hannan, AT, Dunt, DR, and Ferretter, IT, Helping smokers with depression to quit smoking: Collaborative care with Quitline. *Medical Journal of Australia*, 2011; 195, S7.
164. Tsoi, DT, Porwal, M, and Webster, AC, Interventions for smoking cessation and reduction in individuals with schizophrenia. *Cochrane Database of Systematic Reviews*, 2013; 2013, CD007253.
165. van der Meer, RM, Willemsen, MC, Smit, F, and Cuijpers, P, Smoking cessation interventions for smokers with current or past depression. *Cochrane Database of Systematic Reviews*, 2013; 2013, CD006102.
166. Benowitz, NL, Pharmacological aspects of cigarette smoking and nicotine addiction. *New England Journal of Medicine*, 1988; 319, 1318-1330.
167. Next Step Inpatient Withdrawal Unit, *Managing nicotine dependence in a smoke free environment: Policy and guidelines for Next Step Inpatient Withdrawal Unit*. 2008, East Perth, Australia: Next Step Inpatient Withdrawal Unit.
168. Zwar, N, Richmond, R, Borland, R, Peters, M, Stillman, S, and Litt, J, *Smoking cessation pharmacotherapy: An update for health professionals*. 2007, Melbourne, Australia: Royal Australian College of General Practitioners.
169. NSW Department of Health, *NSW drug and alcohol withdrawal clinical practice guidelines*. 2008, Sydney, Australia: Mental Health and Drug and Alcohol Office, NSW Department of Health.
170. Baker, A, Richmond, R, Castle, D, Kulkarni, J, Kay-Lambkin, F, Sakrouge, R, . . . Lewin, TJ, Coronary heart disease risk reduction intervention among overweight smokers with a psychotic disorder: Pilot trial. *Australian and New Zealand Journal of Psychiatry*, 2009; 43, 129-135.
171. Baker, AL, Richmond, R, Kay-Lambkin, FJ, Fila, SL, Castle, D, Williams, JM, . . . Weaver, N, Randomised controlled trial of a healthy lifestyle intervention among smokers with psychotic disorders. *Nicotine and Tobacco Research*, 2015; 17, 946-954.
172. Walsh, RA, Bowman, JA, Tzelepis, F, and Lecathelinais, C, Smoking cessation interventions in Australian drug treatment agencies: A national survey of attitudes and practices. *Drug and Alcohol Review*, 2005; 24, 235-244.
173. Hurt, RD, Croghan, IT, Offord, KP, Eberman, KM, and Morse, RM, Attitudes toward nicotine dependence among chemical dependency unit staff: Before and after a smoking cessation trial. *Journal of Substance Abuse Treatment*, 1995; 12, 247-252.
174. Bobo, JK and Davis, CM, Recovering staff and smoking in chemical dependency programs in rural Nebraska. *Journal of Substance Abuse Treatment*, 1993; 10, 221-227.
175. Burling, TA, Ramsey, TG, Seidner, AL, and Kondo, CS, Issues related to smoking cessation among substance abusers. *Journal of Substance Abuse*, 1997; 9, 27-40.
176. Olive, KE and Ballard, JA, Attitudes of patients toward smoking by health professionals. *Public Health Reports*, 1992; 107, 335-339.
177. Kleiner, KD, Gold, MS, Frostopineda, K, Lenzbrunsman, B, Perri, MG, and Jacobs, WS, Body mass index and alcohol use. *Journal of Addictive Diseases*, 2004; 23, 105-118.

178. Jean-Baptiste, M, Tek, C, Liskov, E, Chakunta, UR, Nicholls, S, Hassan, AQ, . . . Wexler, BE, A pilot study of a weight management program with food provision in schizophrenia. *Schizophrenia Research*, 2007; 96, 198-205.
179. National Health and Medical Research Centre, *Australian dietary guidelines*. 2013, Canberra, Australia: National Health and Medical Research Council.
180. FOODCents. About FOODCents. 2015. Available from: <http://www.foodcentsprogram.com.au/about-foodcents/>.
181. Western Australian Network of Alcohol and Other Drug Agencies, *Healthy eating for wellbeing: A nutrition guide for alcohol and other drug workers*. 2011, Perth, Australia: Western Australian Network of Alcohol and Other Drug Agencies.
182. Daniel, J, Cropley, M, Ussher, M, and West, R, Acute effects of a short bout of moderate versus light intensity exercise versus inactivity on tobacco withdrawal symptoms in sedentary smokers. *Psychopharmacology*, 2004; 174, 320-326.
183. Australian Government Department of Health. *A healthy and active Australia*. 2015. Available from: <http://www.healthactive.gov.au/>.
184. Lee, IM, Shiroma, EJ, Lobelo, F, Puska, P, Blair, SN, Katzmarzyk, PT, and Group, LPASW, Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. *The Lancet*, 2012; 380, 219-229.
185. Linke, SE and Ussher, M, Exercise-based treatments for substance use disorders: Evidence, theory, and practicality. *American Journal of Drug and Alcohol Abuse*, 2015; 41, 7-15.
186. Zschucke, E, Heinz, A, and Ströhle, A, Exercise and physical activity in the therapy of substance use disorders. *Scientific World Journal*, 2012; 2012, 901741.
187. Hoffman, MD and Hoffman, DR, Exercisers achieve greater acute exercise-induced mood enhancement than nonexercisers. *Archives of Physical Medicine and Rehabilitation*, 2008; 89, 358-363.
188. Roberts, V, Maddison, R, Simpson, C, Bullen, C, and Prapavessis, H, The acute effects of exercise on cigarette cravings, withdrawal symptoms, affect, and smoking behaviour: systematic review update and meta-analysis. *Psychopharmacology*, 2012; 222, 1-15.
189. Haskell, WL, Lee, I-M, Pate, RR, Powell, KE, Blair, SN, Franklin, BA, . . . Bauman, A, Physical activity and public health: Updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Circulation*, 2007; 116, 1081-1034.
190. Nelson, ME, Rejeski, WJ, Blair, SN, Duncan, PW, Judge, JO, King, AC, . . . Castaneda-Sceppa, C, Physical activity and public health in older adults: Recommendation from the American College of Sports Medicine and the American Heart Association. *Circulation*, 2007; 116, 1094-1105.
191. Martin, CK, Church, TS, Thompson, AM, Earnest, CP, and Blair, SN, Exercise dose and quality of life: A randomized controlled trial. *Archives of Internal Medicine*, 2009; 169, 269-278.
192. Hillman, CH, Erickson, KI, and Kramer, AF, Be smart, exercise your heart: Exercise effects on brain and cognition. *Nature Reviews Neuroscience*, 2008; 9, 58-65.

193. Sparling, P, Giuffrida, A, Piomelli, D, Roskopf, L, and Dietrich, A, Exercise activates the endocannabinoid system. *Neuroreport*, 2003; 14, 2209-2211.
194. Dunn, AL, Trivedi, MH, Kampert, JB, Clark, CG, and Chambliss, HO, Exercise treatment for depression: Efficacy and dose response. *American Journal of Preventive Medicine*, 2005; 28, 1-8.
195. Blumenthal, JA, Babyak, MA, Doraiswamy, PM, Watkins, L, Hoffman, BM, Barbour, KA, . . . Waugh, R, Exercise and pharmacotherapy in the treatment of major depressive disorder. *Psychosomatic Medicine*, 2007; 69, 587-596.
196. Trivedi M, GT, Grannemann B, Chambliss H, Jordan A., Exercise as an augmentation strategy for treatment of major depression. *Journal of Psychiatric Practice*, 2006; 12, 205-213.
197. Daley, A, Exercise and depression: A review of reviews. *Journal of Clinical Psychology in Medical Settings*, 2008; 15, 140-147.
198. Rethorst, CD, Wipfli, BM, and Landers, DM, The antidepressive effects of exercise. *Sports Medicine*, 2009; 39, 491-511.
199. Wipfli, BM, Rethorst, CD, and Landers, DM, The anxiolytic effects of exercise: A meta-analysis of randomized trials and dose-response analysis. *Journal of Sport and Exercise Psychology*, 2008; 30, 392-410.
200. Breus, MJ and O'Connor, PJ, Exercise-induced anxiolysis: A test of the "time out" hypothesis in high anxious females. *Medicine and Science in Sports and Exercise*, 1998; 30, 1107-1112.
201. Smith, MA, Schmidt, KT, Iordanou, JC, and Mustroph, ML, Aerobic exercise decreases the positive-reinforcing effects of cocaine. *Drug and Alcohol Dependence*, 2008; 98, 129-135.
202. Taylor, AH, Ussher, MH, and Faulkner, G, The acute effects of exercise on cigarette cravings, withdrawal symptoms, affect and smoking behaviour: A systematic review. *Addiction*, 2007; 102, 534-543.
203. Williams, DM, Dunsiger, S, Whiteley, JA, Ussher, MH, Ciccolo, JT, and Jennings, EG, Acute effects of moderate intensity aerobic exercise on affective withdrawal symptoms and cravings among women smokers. *Addictive Behaviors*, 2011; 36, 894-897.
204. Ussher, M, Sampuran, AK, Doshi, R, West, R, and Drummond, DC, Acute effect of a brief bout of exercise on alcohol urges. *Addiction*, 2004; 99, 1542-1547.
205. Buchowski, MS, Meade, NN, Charboneau, E, Park, S, Dietrich, MS, Cowan, RL, and Martin, PR, Aerobic exercise training reduces cannabis craving and use in non-treatment seeking cannabis-dependent adults. *PLoS One*, 2011; 6, e17465.
206. Abrantes, AM, Strong, DR, Lloyd-Richardson, EE, Niaura, R, Kahler, CW, and Brown, RA, Regular exercise as a protective factor in relapse following smoking cessation treatment. *American Journal on Addictions*, 2009; 18, 100-101.
207. Daniel, JZ, Cropley, M, and Fife-Schaw, C, Acute exercise effects on smoking withdrawal symptoms and desire to smoke are not related to expectation. *Psychopharmacology*, 2007; 195, 125-129.
208. Daniel, JZ, Cropley, M, and FifeSchaw, C, The effect of exercise in reducing desire to smoke and cigarette withdrawal symptoms is not caused by distraction. *Addiction*, 2006; 101, 1187-1192.

209. Kinnunen, TH, Korhonen, T, Craft, LL, and Perna, FM, Treating tobacco dependence in women with exercise: Review on effectiveness and mechanisms. *International Journal of Sport and Exercise Psychology*, 2010; 8, 48-60.
210. Scerbo, F, Faulkner, G, Taylor, A, and Thomas, S, Effects of exercise on cravings to smoke: The role of exercise intensity and cortisol. *Journal of Sports Sciences*, 2010; 28, 11-19.
211. Taylor, AH, Katomeri, M, and Ussher, M, Acute effects of self-paced walking on urges to smoke during temporary smoking abstinence. *Psychopharmacology*, 2005; 181, 1-7.
212. Abrantes, AM, Battle, CL, Strong, DR, Ing, E, Dubreuil, ME, Gordon, A, and Brown, RA, Exercise preferences of patients in substance abuse treatment. *Mental Health and Physical Activity*, 2011; 4, 79-87.
213. Read, JP and Brown, RA, The role of physical exercise in alcoholism treatment and recovery. *Professional Psychology: Research and Practice*, 2003; 34, 49-56.
214. Read, JP, Brown, RA, Marcus, BH, Kahler, CW, Ramsey, SE, Dubreuil, ME, . . . Francione, C, Exercise attitudes and behaviors among persons in treatment for alcohol use disorders. *Journal of Substance Abuse Treatment*, 2001; 21, 199-206.
215. Brown, RA, Abrantes, AM, Read, JP, Marcus, BH, Jakicic, J, Strong, DR, . . . Stuart, G, Aerobic exercise for alcohol recovery: Rationale, program description, and preliminary Findings. *Behavior Modification*, 2009; 33, 220-249.
216. Sinha, R and Li, C, Imaging stress-and cue-induced drug and alcohol craving: Association with relapse and clinical implications. *Drug and Alcohol Review*, 2007; 26, 25-31.
217. Fuchs, R, Lasseter, H, Ramirez, D, and Xie, X, Relapse to drug seeking following prolonged abstinence: The role of environmental stimuli. *Drug Discovery Today: Disease Models*, 2008; 5, 251-258.
218. Berrigan, D, Dodd, K, Troiano, RP, Krebs-Smith, SM, and Barbash, RB, Patterns of health behavior in US adults. *Preventive Medicine*, 2003; 36, 615-623.
219. TerryMcElrath, YM and O'Malley, PM, Substance use and exercise participation among young adults: Parallel trajectories in a national cohortsequential study. *Addiction*, 2011; 106, 1855-1865.
220. Puetz, TW, O'Connor, PJ, and Dishman, RK, Effects of chronic exercise on feelings of energy and fatigue: A quantitative synthesis. *Psychological Bulletin*, 2006; 132, 866-876.
221. Ekkekakis, P and Petruzzello, SJ, Acute aerobic exercise and affect: Current status, problems and prospects regarding dose-response. *Sports Medicine*, 1999; 28, 337-374.
222. Williams, DM, Whiteley, JA, Dunsiger, S, Jennings, EG, Albrecht, AE, Ussher, MH, . . . Marcus, BH, Moderate intensity exercise as an adjunct to standard smoking cessation treatment for women: A pilot study. *Psychology of Addictive Behaviors*, 2010; 24, 349-354.
223. Weinstock, J, Barry, D, and Petry, NM, Exercise-related activities are associated with positive outcome in contingency management treatment for substance use disorders. *Addictive Behaviors*, 2008; 33, 1072-1075.
224. Field, T, Diego, M, and Sanders, CE, Exercise is positively related to adolescents' relationships and academics. *Adolescence*, 2001; 36, 105-110.

225. Burton, NW, Khan, A, and Brown, WJ, How, where and with whom? Physical activity context preferences of three adult groups at risk of inactivity. *British Journal of Sports Medicine*, 2012; 46, 1125-1131.
226. Hausenblas, HA and Downs, DS, Exercise dependence: A systematic review. *Psychology of Sport and Exercise*, 2002; 3, 89-123.
227. Wankel, LM, The importance of enjoyment to adherence and psychological benefits from physical activity. *International Journal of Sport Psychology*, 1993; 24, 151-169.
228. Ussher, MH, Taylor, A, and Faulkner, G, Exercise interventions for smoking cessation. *Cochrane Database of Systematic Reviews*, 2012; 2012, CD002295.
229. McKibbin, CL, Patterson, TL, Norman, G, Patrick, K, Jin, H, Roesch, S, . . . Griver, K, A lifestyle intervention for older schizophrenia patients with diabetes mellitus: A randomized controlled trial. *Schizophrenia Research*, 2006; 86, 36-44.
230. Evans, S, Newton, R, and Higgins, S, Nutritional intervention to prevent weight gain in patients commenced on olanzapine: A randomized controlled trial. *Australian and New Zealand Journal of Psychiatry*, 2005; 39, 479-486.
231. Yeung, RR, The acute effects of exercise on mood state. *Journal of Psychosomatic Research*, 1996; 40, 123-141.
232. Zorick, T, Nestor, L, Miotto, K, Sugar, C, Hellemann, G, Scanlon, G, . . . London, ED, Withdrawal symptoms in abstinent methamphetaminedependent subjects. *Addiction*, 2010; 105, 1809-1818.
233. Rawson, R, Chudzynski, J, Gonzales, R, Mooney, L, Dickerson, D, Ang, A, . . . Cooper, C, The impact of exercise on depression and anxiety symptoms among abstinent methamphetamine-dependent individuals in a residential treatment setting. *Journal of Substance Abuse Treatment*, 2015; 57, 36-40.
234. Australian Government Department of Health, *Australia's physical activity and sedentary behaviour guidelines for adults (18-64 years)*. 2014, Canberra, Australia: Australian Government Department of Health. Available from: <http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-strateg-phys-act-guidelines#apaadult>.
235. Vreeland, B, Bridging the gap between mental and physical health: A multidisciplinary approach. *Journal of Clinical Psychiatry*, 2007; 68, 26-33.
236. King, AC, Castro, CM, Buman, MP, Hekler, EB, Urizar Jr, GG, and Ahn, DK, Behavioral impacts of sequentially versus simultaneously delivered dietary plus physical activity interventions: The CALM trial. *Annals of Behavioral Medicine*, 2013; 46, 157-168.
237. Vandelanotte, C, Reeves, MM, Brug, J, and De Bourdeaudhuij, I, A randomized trial of sequential and simultaneous multiple behavior change interventions for physical activity and fat intake. *Preventive Medicine*, 2008; 46, 232-237.
238. Chokroverty, S, *Sleep disorders medicine: Basic science, technical considerations, and clinical aspects*. 2009, Philadelphia, PA: Saunders Elsevier.
239. Brower, KJ, Alcohol's effects on sleep in alcoholics. *Alcohol Research and Health*, 2001; 25, 110-125.

240. Roehrs, T and Roth, T, Sleep, sleepiness, sleep disorders and alcohol use and abuse. *Sleep Medicine Reviews*, 2001; 5, 287-297.
241. Bolla, KI, Lesage, SR, Gamaldo, CE, Neubauer, DN, Funderburk, FR, Cadet, JL, . . . Benbrook, AR, Sleep disturbance in heavy marijuana users. *Sleep*, 2008; 31, 901-908.
242. Colrain, IM, Trinder, J, and Swan, GE, The impact of smoking cessation on objective and subjective markers of sleep: Review, synthesis, and recommendations. *Nicotine and Tobacco Research*, 2004; 6, 913-925.
243. Roehrs, T and Roth, T, Caffeine: Sleep and daytime sleepiness. *Sleep Medicine Reviews*, 2008; 12, 153-162.
244. Schierenbeck, T, Riemann, D, Berger, M, and Hornyak, M, Effect of illicit recreational drugs upon sleep: Cocaine, ecstasy and marijuana. *Sleep Medicine Reviews*, 2008; 12, 381-389.
245. Mahfoud, Y, Talih, F, Streem, D, and Budur, K, Sleep disorders in substance abusers: How common are they? *Psychiatry (Edgmont)*, 2009; 6, 38-42.
246. Dimsdale, JE, Norman, D, DeJardin, D, and Wallace, MS, The effect of opioids on sleep architecture. *Journal of Clinical Sleep Medicine*, 2007; 3, 33-36.
247. Gillin, J, Are sleep disturbances risk factors for anxiety, depressive and addictive disorders? *Acta Psychiatrica Scandinavica*, 1998; 98, 39-43.
248. Karam-Hage, M, Treating insomnia in patients with substance use/abuse disorders. *Psychiatric Times*, 2004; 21, 1-7.
249. Conroy, DA and Arnedt, JT, Sleep and substance use disorders: An update. *Current Psychiatry Reports*, 2014; 16, 1-9.
250. Hasler, G, Buysse, DJ, Klaghofer, R, Gamma, A, Ajdacic, V, Eich, D, . . . Angst, J, The association between short sleep duration and obesity in young adults: A 13-year prospective study. *Sleep*, 2004; 27, 661-666.
251. Patel, SR, Ayas, NT, Malhotra, MR, White, DP, Schernhammer, ES, Speizer, FE, . . . Hu, FB, A prospective study of sleep duration and mortality risk in women. *Sleep*, 2004; 27, 440-444.
252. Patel, SR and Hu, FB, Short sleep duration and weight gain: A systematic review. *Obesity*, 2008; 16, 643-653.
253. Cizza, G, Skarulis, M, and Mignot, E, A link between short sleep and obesity: Building the evidence for causation. *Sleep*, 2005; 28, 1217-1220.
254. Ayas, NT, White, DP, Al-Delaimy, WK, Manson, JE, Stampfer, MJ, Speizer, FE, . . . Hu, FB, A prospective study of self-reported sleep duration and incident diabetes in women. *Diabetes Care*, 2003; 26, 380-384.
255. Grandner, MA, Hale, L, Moore, M, and Patel, NP, Mortality associated with short sleep duration: The evidence, the possible mechanisms, and the future. *Sleep Medicine Reviews*, 2010; 14, 191-203.
256. Dew, MA, Hoch, CC, Buysse, DJ, Monk, TH, Begley, AE, Houck, PR, . . . Reynolds III, CF, Healthy older adults' sleep predicts all-cause mortality at 4 to 19 years of follow-up. *Psychosomatic Medicine*, 2003; 65, 63-73.

257. Hirshkowitz, M, Whiton, K, Albert, SM, Alessi, C, Bruni, O, DonCarlos, L, . . . Kheirandish-Goza, L, National Sleep Foundation's sleep time duration recommendations: Methodology and results summary. *Sleep Health*, 2015; 1, 40-43.
258. Buxton, OM and Marcelli, E, Short and long sleep are positively associated with obesity, diabetes, hypertension, and cardiovascular disease among adults in the United States. *Social Science and Medicine*, 2010; 71, 1027-1036.
259. American Academy of Sleep Medicine. *Healthy sleep habits*. 2014. Available from: <http://www.sleepeducation.com/essentials-in-sleep/healthy-sleep-habits>.
260. Baker, A, Kay-Lambkin, F, and Lee, N, When less is more: Addressing symptoms of mental health problems in drug and alcohol treatment settings. *Mental Health and Substance Use: Dual Diagnosis*, 2009; 2, 130-139.
261. Berk, M, Hallam, K, Malhi, GS, Henry, L, Hasty, M, Macneil, C, . . . Vieta, E, Evidence and implications for early intervention in bipolar disorder. *Journal of Mental Health*, 2010; 19, 113-126.
262. Stafford, MR, Jackson, H, Mayo-Wilson, E, Morrison, AP, and Kendall, T, Early interventions to prevent psychosis: Systematic review and meta-analysis. *British Medical Journal*, 2013; 346, f185.
263. Myrick, H and Brady, K, Current review of the comorbidity of affective, anxiety and substance use disorders. *Current Opinion in Psychiatry*, 2003; 16, 261-270.
264. Kuyken, W, Padesky, CA, and Dudley, R, *Collaborative case conceptualization: Working effectively with clients in cognitive-behavioral therapy*. 2008, New York, NY: Guilford Press.
265. Sim, K, Gwee, KP, and Bateman, A, Case formulation in psychotherapy: Revitalizing its usefulness as a clinical tool. *Academic Psychiatry*, 2005; 29, 289-292.
266. Zubin, J and Spring, B, Vulnerability: A new view of schizophrenia. *Journal of Abnormal Psychology*, 1977; 86, 103-124.
267. Roche, AM and Pollard, Y, *Improved services for people with drug and alcohol problems and mental illness*. 2006, Adelaide, Australia: National Centre for Education and Training on Addiction.
268. Croton, G, *Screening for and assessment of co-occurring substance use and mental health disorders by alcohol and other drug and mental health services*. 2007, Victoria, Australia: Victorian Dual Diagnosis Initiative Advisory Group.
269. Chan, YF, Dennis, ML, and Funk, RR, Prevalence and comorbidity of major internalizing and externalizing problems among adolescents and adults presenting to substance abuse treatment. *Journal of Substance Abuse Treatment*, 2008; 34, 14-24.
270. Quello, SB, Brady, KT, and Sonne, SC, Mood disorders and substance use disorders: A complex comorbidity. *Science and Practice Perspectives*, 2005; 3, 13-24.
271. Hasin, D, Trautman, K, and Endicott, J, Psychiatric research interview for substance and mental disorders: Phenomenologically based diagnosis in patients who abuse alcohol or drugs. *Psychopharmacology Bulletin*, 1998; 34, 3-8.
272. Strain, EC, Assessment and treatment of comorbid psychiatric disorders in opioid-dependent patients. *Clinical Journal of Pain*, 2002; 18, S14-27.

273. Flynn, PM and Brown, BS, Co-occurring disorders in substance abuse treatment: Issues and prospects. *Journal of Substance Abuse Treatment*, 2008; 34, 36-47.
274. Groth-Marnat, G, *Handbook of psychological assessment* (5th ed.). 2009, New Jersey, NJ: John Wiley and Sons.
275. Australian Government Department of Health and Ageing. *Consumer and carer involvement in comorbidity treatment planning package*. Available from <https://web.archive.org/web/20071129170439/http://www.health.gov.au/internet/WCMS/publishing.nsf/content/phd-comorbidity-treatment-model>.
276. Marsh, A, O'Toole, S, Dale, A, Willis, L, and Helfgott, S, *Counselling guidelines: Alcohol and other drug issues* (3rd ed.). 2013, Perth, Australia: Western Australia Alcohol and Drug Authority.
277. NSW Department of Health, *Mental health reference resource for drug and alcohol workers*. 2007, Sydney, Australia: NSW Department of Health.
278. Australian Institute of Health and Welfare, *Alcohol and other drug treatment services in Australia 2013-14*. 2015, Canberra, Australia: Australian Institute of Health and Welfare.
279. Drug Trends Group. *Drug trends*. Available from: <https://ndarc.med.unsw.edu.au/group/drug-trends>.
280. Entwistle, G and Burns, L, *New trends in ecstasy and related drug markets 2014: Findings from the Ecstasy and Related Drugs (EDRS) reporting system*. 2014, Sydney, Australia: National Drug and Alcohol Research Centre.
281. Elliott, D, Bjelajac, P, Fallot, R, Markoff, L, and Glover Reed, B, Trauma-informed or trauma-denied: Principles and implementation of trauma-informed services for women. *Journal of Community Psychology*, 2005; 33, 461-477.
282. Najavits, LM, *Assessment of trauma, PTSD, and substance use disorder*, in *Assessing psychological trauma and PTSD*, J. Wilson and T.M. Keane, Editors. 2004, New York, NY: Guildford Press. p. 466-491.
283. Resick, PA, Iverson, KM, and Artz, CE, Participant reactions to a pretreatment research assessment during a treatment outcome study for PTSD. *Journal of Traumatic Stress*, 2009; 22, 316-319.
284. Newman, E, Walker, EA, and Gefland, A, Assessing the ethical costs and benefits of trauma-focused research. *General Hospital Psychiatry*, 1999; 21, 187-196.
285. Walker, EA, Newman, E, Koss, M, and Bernstein, D, Does the study of victimization revictimize the victims? *General Hospital Psychiatry*, 1997; 19, 403-410.
286. Jaffe, AE, DiLillo, D, Hoffman, L, Haikalis, M, and Dykstra, RE, Does it hurt to ask? A meta-analysis of participant reactions to trauma research. *Clinical Psychology Review*, 2015; 40, 40-46.
287. Schlenger, WE, Jordan, BK, Caddell, JM, Ebert, L, and Fairbank, JA, *Epidemiological methods for assessing trauma and PTSD*, in *Assessing psychological trauma and PTSD* (2nd ed.), J.P. Wilson and T.M. Keane, Editors. 2004, New York, NY: Guilford Press. p. 226-261.
288. Back, SE, Foa, EB, Killeen, TK, Mills, KL, Teesson, M, Cotton, BD, . . . Brady, KT, *Concurrent treatment of PTSD and substance use disorders using prolonged exposure (COPE): Therapist guide*. 2014, New York, NY: Oxford University Press.

289. Baldacchino, A, Arvapalli, V, Oshun, A, and Tolomeo, S, *Substance-induced mental disorders, in Textbook of addiction treatment: International perspectives*, N. el-Guebaly, G. Carrà, and M. Galanter, Editors. 2015: Springer. p. 1925-1936.
290. Gossop, M, *Drug addiction and its treatment*. 2003, Oxford, UK: Oxford University Press.
291. Myrick, H, Brady, KT, and Malcolm, R, New developments in the pharmacotherapy of alcohol dependence. *American Journal on Addictions*, 2001; 10, 3-15.
292. Prochaska, J and DiClemente, C, Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology*, 1983; 51, 390-395.
293. Drieschner, KH, Lammers, SM, and van der Staak, CP, Treatment motivation: An attempt for clarification of an ambiguous concept. *Clinical Psychology Review*, 2004; 23, 1115-1137.
294. Sutton, S, Back to the drawing board? A review of applications of the transtheoretical model to substance use. *Addiction*, 2001; 96, 175-186.
295. West, R, Time for a change: Putting the transtheoretical (stages of change) model to rest. *Addiction*, 2005; 100, 1036-1039.
296. Clancy, R and Terry, M, *Psychiatry and substance use: An interactive resource for clinicians working with clients who have mental health and substance use problems*. 2007, Newcastle, Australia: NSW Health, University of Newcastle.
297. Substance Abuse and Mental Health Services Administration, *Screening and assessing adolescents for substance use disorders: Treatment Improvement Protocol (TIP) series 31*. 1999, Rockville, MD: Substance Abuse and Mental Health Services Administration.
298. Ries, RK, *Assessment and treatment of patients with coexisting mental illness and alcohol and other drug abuse: Treatment Improvement Protocol (TIP) series 9*. 1995, Rockville, MD: Substance Abuse and Mental Health Services Administration.
299. Marsh, A and Dale, A, *Addiction counselling: Content and process*. 2006, Melbourne, Australia: IP Communications.
300. Mattick, RP and Hall, W, *A treatment outline for approaches to opioid dependence*. 1993, Sydney, Australia: National Drug and Alcohol Research Centre.
301. Deady, M, *A review of screening, assessment and outcome measures for drug and alcohol settings*. 2009, Strawberry Hills, Australia: Network of Alcohol and Other Drugs Agencies.
302. Trauer, T, Tobias, G, and Slade, M, Development and evaluation of a patient-rated version of the Camberwell Assessment of Need Short Appraisal Schedule (CANSAS-P). *Community Mental Health Journal*, 2008; 44, 113-124.
303. Phelan, M, Slade, M, Thornicroft, G, Dunn, G, Holloway, F, Wykes, T, . . . Hayward, P, The Camberwell Assessment of Need: The validity and reliability of an instrument to assess the needs of people with severe mental illness. *British Journal of Psychiatry*, 1995; 167, 589-595.
304. Slade, M., et al., *CAN: Camberwell Assessment of Need*. 1999, London: Royal College of Psychiatrists. Available from: <http://www.researchintorecovery.com/adultcan>.

305. Kessler, RC, *Kessler's 10 Psychological Distress Scale*. 1996, Boston, MA: Harvard Medical School.
306. Arnaud, B, Malet, L, Teissedre, F, Izaute, M, Moustafa, F, Geneste, J, . . . Brousse, G, Validity study of Kessler's psychological distress scales conducted among patients admitted to French emergency department for alcohol consumption-related disorders. *Alcoholism: Clinical and Experimental Research*, 2010; 34, 1235-1245.
307. Hides, L, Lubman, DI, Devlin, H, Cotton, S, Aitken, C, Gibbie, T, and Hellard, M, Reliability and validity of the Kessler 10 and Patient Health Questionnaire among injecting drug users. *Australian and New Zealand Journal of Psychiatry*, 2007; 41, 166-168.
308. Rush, B, Castel, S, Brands, B, Toneatto, T, and Veldhuizen, S, Validation and comparison of diagnostic accuracy of four screening tools for mental disorders in people seeking treatment for substance use disorders. *Journal of Substance Abuse Treatment*, 2013; 44, 375-383.
309. Andrews, G and Slade, T, Interpreting scores on the Kessler Psychological Distress Scale (K10). *Australian and New Zealand Journal of Psychiatry*, 2001; 25, 494-497.
310. Lee, N, Jenner, L, Kay-Lambkin, F, Hall, K, Dann, F, Roeg, S, . . . Ritter, A, *PsyCheck: Responding to mental health issues within alcohol and drug treatment*. 2007, Canberra, Australia: Commonwealth of Australia.
311. Beusenbergh, M and Orley, J, *The Self-Reporting Questionnaire*. 1994, Geneva, Switzerland: World Health Organization.
312. Jenner, L, Cameron, J, K. Lee, N, and Nielsen, S, Test-retest reliability of PsyCheck: A mental health screening tool for substance use treatment clients. *Advances in Dual Diagnosis*, 2013; 6, 168-175.
313. Lovibond, SH and Lovibond, PF, *Manual for the Depression Anxiety Stress Scales (2nd ed.)*. 1995, Sydney, Australia: Psychology Foundation.
314. Henry, JD and Crawford, JR, The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 2005; 44, 227-239.
315. Kok, T, de Haan, HA, van der Meer, M, Najavits, LM, and De Jong, CA, Screening of current post-traumatic stress disorder in patients with substance use disorder using the Depression, Anxiety and Stress Scale (DASS-21): A reliable and convenient measure. *European Addiction Research*, 2015; 21, 71-77.
316. Prins, A, Ouimette, P, Kimerling, R, Cameron, RP, Hugelshofer, DS, and Shaw-Hegwer, J, The primary care PTSD screen (PC-PTSD): Development and operating characteristics. *Primary Care Psychiatry*, 2003; 9, 9-14.
317. Kimerling, R, Trafton, JA, Nguyen, B, Kimerling, R, Trafton, JA, and Nguyen, B, Validation of a brief screen for post-traumatic stress disorder with substance use disorder patients. *Addictive Behaviors*, 2006; 31, 2074-2079.
318. van Dam, D, Ehring, T, Vedel, E, and Emmelkamp, PM, Validation of the Primary Care Posttraumatic Stress Disorder screening questionnaire (PC-PTSD) in civilian substance use disorder patients. *Journal of Substance Abuse Treatment*, 2010; 39, 105-113.
319. Brewin, CR, Rose, S, Andrews, B, Green, J, Tata, P, McEvedy, C, . . . Foa, EB, Brief screening instrument for post-traumatic stress disorder. *British Journal of Psychiatry*, 2002; 181, 158-162.

320. Dawe, S, Loxton, NJ, Hides, L, Kavanagh, DJ, and Mattick, RP, *Review of diagnostic and screening for alcohol and other drug use and other psychiatric disorders*. 2002, Canberra, Australia: Commonwealth Department of Health and Aged Care.
321. Degenhardt, L, Hall, W, Korten, A, and Jablensky, A, *Use of brief screening instrument for psychosis: Results of a ROC analysis*. 2005, Sydney, Australia: National Drug and Alcohol Research Centre.
322. White, P and Chant, D, The psychometric properties of a psychosis screen in a correctional setting. *International Journal of Law and Psychiatry*, 2006; 29, 137-144.
323. Ober, C and Schlesinger, C, *Indigenous Risk Impact Screen (IRIS) user manual*. 2005, Brisbane, Australia: Queensland Health.
324. Schlesinger, CM, Ober, C, McCarthy, MM, Watson, JD, and Seinen, A, The development and validation of the Indigenous Risk Impact Screen (IRIS): A 13-item screening instrument for alcohol and drug and mental risk. *Drug and Alcohol Review*, 2007; 26, 109-117.
325. Ober, C, Dingle, K, Clavarino, A, Najman, JM, Alati, R, and Heffernan, EB, Validating a screening tool for mental health and substance use risk in an Indigenous prison population. *Drug and Alcohol Review*, 2013; 32, 611-617.
326. Kessler, RC, Adler, L, Ames, M, Demler, O, Faraone, S, Hiripi, E, . . . Spencer, T, The World Health Organization Adult ADHD Self-Report Scale (ASRS): A short screening scale for use in the general population. *Psychological Medicine*, 2005; 35, 245-256.
327. van de Glind, G, van den Brink, W, Koeter, MW, Carpentier, P-J, van Emmerik-van Oortmerssen, K, Kaye, S, . . . Konstenius, M, Validity of the Adult ADHD Self-Report Scale (ASRS) as a screener for adult ADHD in treatment seeking substance use disorder patients. *Drug and Alcohol Dependence*, 2013; 132, 587-596.
328. Fairburn, CG, & Cooper, Z., *The Eating Disorder Examination in Binge eating: Nature, assessment and treatment*, C.G. Fairburn and G.T. Wilson, Editors. 1993, New York, NY: Guilford Press. p. 317-360.
329. Berg, KC, Peterson, CB, Frazier, P, and Crow, SJ, Psychometric evaluation of the eating disorder examination and eating disorder examinationquestionnaire: A systematic review of the literature. *International Journal of Eating Disorders*, 2012; 45, 428-438.
330. Fairburn, CG and Beglin, SJ, Assessment of eating disorder psychopathology: Interview or self-report questionnaire? *International Journal of Eating Disorders*, 1994; 16, 363-370.
331. Fairburn, CG, Cooper, Z, and O'Connor, M. *Eating disorder examination*. 2014. Available from: http://www.credo-oxford.com/pdfs/EDE_17.0D.pdf.
332. Black, C and Wilson, GT, Assessment of eating disorders: Interview versus questionnaire. *International Journal of Eating Disorders*, 1996; 20, 43-50.
333. Australian Bureau of Statistics. *Suicides in Australia 2001-2010*, cat. no. 3309.0. 2012. Available from: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3309.0>.
334. Maloney, E, Degenhardt, L, Darke, S, Mattick, RP, and Nelson, E, Suicidal behaviour and associated risk factors among opioid-dependent individuals: A case-control study. *Addiction*, 2007; 102, 1933-1941.

335. Nock, MK, Hwang, I, Sampson, NA, and Kessler, RC, Mental disorders, comorbidity and suicidal behavior: Results from the National Comorbidity Survey Replication. *Molecular Psychiatry*, 2010; 15, 868-876.
336. Roy, A and Janal, MN, Risk factors for suicide attempts among alcohol dependent patients. *Archives of Suicide Research*, 2007; 11, 211-217.
337. Kessler, RC, Borges, G, and Walters, EE, Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Archives of General Psychiatry*, 1999; 56, 617-626.
338. Gould, MS, Marrocco, FA, Kleinman, M, Thomas, JG, Mostkoff, K, Cote, J, and Davies, M, Evaluating iatrogenic risk of youth suicide screening programs: A randomized controlled trial. *Journal of the American Medical Association*, 2005; 293, 1635-1643.
339. Darke, S, Degenhardt, L, and Mattick, R, *Mortality amongst illicit drug users: Epidemiology, causes and intervention*. 2006, New York, NY: Cambridge University Press.
340. Ross, J, Darke, S, Kelly, E, and Hetherington, K, Suicide risk assessment practices: A national survey of generalist drug and alcohol residential rehabilitation services. *Drug and Alcohol Review*, 2012; 31, 790-796.
341. Deady, M, Ross, J, and Darke, S, *Suicide Assessment Kit (SAK): A comprehensive assessment and policy development package*. 2015, Sydney, Australia: National Drug and Alcohol Research Centre.
342. Rudd, MD, Berman, AL, Joiner, TE, Nock, MK, Silverman, MM, Mandrusiak, M, . . . Witte, T, Warning signs for suicide: Theory, research, and clinical applications. *Suicide and Life-Threatening Behavior*, 2006; 36, 255-262.
343. Substance Abuse and Mental Services Administration, *Addressing suicidal thoughts and behaviors in substance abuse treatment: Treatment Improvement Protocol (TIP) series 50*. 2009, Rockville, MD: Substance Abuse and Mental Services Administration.
344. Juhnke, G., P. Granello, and M. Lebron-Striker, *IS PATH WARM? A suicide assessment mnemonic for counselors*. 2007, Alexandria, VA: American Counseling Association. Available from: <https://www.counseling.org/Resources/Library/ACA%20Digests/ACAPCD-03.pdf>.
345. National Health and Medical Research Council, *Clinical practice guideline for the management of borderline personality disorder*. 2012, Melbourne, Australia: National Health and Medical Research Council.
346. Marsh, A, Towers, T, and O'Toole, S, *Trauma-informed treatment guide for working with women with alcohol and other drug issues (2nd ed.)*. 2012, Perth, Australia: Improving Services for Women with Drug and Alcohol and Mental Health Issues and their Children Project.
347. Shorey, RC, Stuart, GL, McNulty, JK, and Moore, TM, Acute alcohol use temporally increases the odds of male perpetrated dating violence: A 90-day diary analysis. *Addictive Behaviors*, 2014; 39, 365-368.
348. Wilson, IM, Graham, K, and Taft, A, Alcohol interventions, alcohol policy and intimate partner violence: A systematic review. *BMC Public Health*, 2014; 14, 881.
349. van Wijk, NPL and de Bruijn, J, Risk factors for domestic violence in Curacao. *Journal of Interpersonal Violence*, 2012; 27, 3032-3053.

350. Nicholas, R, White, M., Roche, AM., Gruenert, S. & Lee, N., *Breaking the silence: Addressing family and domestic violence problems in alcohol and other drug treatment practice in Australia*. 2012, Adelaide, Australia: National Centre for Education and Training on Addiction, Flinders University.
351. Gutierrez, SE and Van Puymbroeck, C, Childhood and adult violence in the lives of women who misuse substances. *Aggression and Violent Behavior*, 2006; 11, 497-513.
352. Bennett, L and O'Brien, P, Effects of coordinated services for drug-abusing women who are victims of intimate partner violence. *Violence Against Women*, 2007; 13, 395-411.
353. Braaf, R, *Elephant in the room: Responding to alcohol misuse and domestic violence*. 2012, Canberra, Australia: Australian Domestic and Family Violence Clearinghouse.
354. Humphreys, C, Thiara, RK, and Regan, L, *Domestic violence and substance use: Overlapping issues in separate services? Briefing report to Home Office and Greater London Authority*. 2005, London, UK: Home Office.
355. Australian Bureau of Statistics. *Personal safety Australia 2012*, cat. no. 4906.0. 2013. Available from: <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4906.0>.
356. Galvani, S, *Grasping the nettle: Alcohol and domestic violence 2010*, London, UK: Alcohol Concern.
357. Stella Project. *Domestic violence, drugs and alcohol: Good practice guidelines (2nd ed.) 2007*. Available from: [http://www.avaproject.org.uk/our-resources/good-practice-guidance--toolkits/stella-project-toolkit-\(2007\).aspx](http://www.avaproject.org.uk/our-resources/good-practice-guidance--toolkits/stella-project-toolkit-(2007).aspx).
358. Cappel, D, McGorry, P, Hickie, I, Rosenberg, S, Moran, J, and Hamilton, M. *Including, connecting, contributing: A blueprint to transform mental health and social participation in Australia*. 2011. Available from: <https://tamhss.files.wordpress.com/2011/04/independent-blueprint-summary-final-march11.pdf>.
359. Vanderplasschen, W, Wolf, J, Rapp, RC, and Broekaert, E, Effectiveness of different models of case management for substance-abusing populations. *Journal of Psychoactive Drugs*, 2007; 39, 81-95.
360. Flatau, P, Conroy, E, Thielking, M, Clear, A, Hall, S, Bauskis, A, . . . Burns, L, *How integrated are homelessness, mental health and drug and alcohol services in Australia? AHURI Final Report No. 206*. 2013, Melbourne, Australia: Australian Housing and Urban Research Institute.
361. Select Committee on Mental Health, *A national approach to mental health: From crisis to community*. 2006, Canberra, Australia: Parliament of Australia Senate Committee.
362. Rosenberg, S and Hickie, I, Managing madness: Mental health and complexity in public policy. *Evidence Base*, 2013; 3, 1-19.
363. McDonald, KM, Sundaram, V, Bravata, DM, Lewis, R, Lin, N, Kraft, SA, . . . Owens, DK, *Closing the quality gap: A critical analysis of quality improvement strategies (Vol. 7: Care coordination)*. 2007, Rockville, MD: Agency for Healthcare Research and Quality.
364. Ehrlich, C, Kendall, E, Muenchberger, H, and Armstrong, K, Coordinated care: What does that really mean? *Health and Social Care in the Community*, 2009; 17, 619-627.

365. Brown, R, Peikes, PDD, Peterson, PDG, and Schore, MJ. *The promise of care coordination: Models that decrease hospitalizations and improve outcomes for beneficiaries with chronic illnesses* 2009. Available from: http://www.mathematica-mpr.com/~media/publications/PDFs/Health/care_coordination_models.pdf.
366. Mental Health Coordinating Council of NSW, *Care coordination literature review and discussion paper*. 2011, Sydney, Australia: Mental Health Coordinating Council.
367. Organisation for Economic Cooperation and Development. *Breaking out of silos: Joining up policy locally*. 2010. Available from: <http://www.oecd.org/regional/leed/43056251.pdf>.
368. Muir, K, Powell, A, Patulny, R, Flaxman, S, Mcdermott, S, Gendera, R, . . . Katz, I, *Headspace evaluation report: Independent evaluation of headspace: The national youth mental health foundation*. 2009, Sydney, Australia: Social Policy Research Centre, University of New South Wales.
369. Clemens, S., S. Cvetkovski, and E. Tyssen, *DirectLine telephone counselling and referral service*. 2006, Melbourne, Australia: Premier's Drug Prevention Council. Available from: <http://www.health.vic.gov.au/vdapc/archive/directline.pdf>.
370. Rastegar, DA, *Making effective referrals to specialty care*, in *Addressing unhealthy alcohol use in primary care*, R. Saitz, Editor. 2013, New York, NY: Springer. p. 63-71.
371. Hohenhaus, S, Powell, S, and Hohenhaus, JT, Enhancing patient safety during handoffs: Standardized communication and teamwork using the 'SBAR' method. *American Journal of Nursing*, 2006; 106, 72A-72B.
372. Haig, KM, Sutton, S, and Whittington, J, SBAR: A shared mental model for improving communication between clinicians. *Joint Commission Journal on Quality and Patient Safety*, 2006; 32, 167-175.
373. Scotten, M, Manos, EL, Malicoat, A, and Paolo, AM, Minding the gap: Interprofessional communication during inpatient and post discharge chasm care. *Patient Education and Counseling*, 2015; 98, 895-900.
374. SA Department of Health, *ISBAR: A standard mnemonic to improve clinical communication*. 2011, Adelaide, Australia: Government of South Australia.
375. NSW Ministry of Health, *The hospital drug and alcohol consultation liaison: Model of care* 2015, Sydney, Australia: NSW Ministry of Health.
376. Friesen, M.A., S.V. White, and J.F. Byers, *Handoffs: Implications for nurses*, in *Patient safety and quality: An evidence-based handbook for nurses (Vol. 2)*, R.G. Hughes, Editor. 2008, Agency for Healthcare Research and Quality: Rockville, MD. p. 285-332.
377. World Health Organisation, Communication during patient hand-overs. *Patient Safety Solutions*, 2007; 1, 1-4.
378. Laxmisan, A, Hakimzada, F, Sayan, OR, Green, RA, Zhang, J, and Patel, VL, The multitasking clinician: Decision-making and cognitive demand during and after team handoffs in emergency care. *International Journal of Medical Informatics*, 2007; 76, 801-811.
379. Jarvis, T, Tebbutt, J, and Mattick, R, *Treatment approaches for alcohol and drug dependence*. 1995, Chichester, UK: John Wiley and Sons.

380. Australian Institute for Primary Care, *Comorbidity treatment service model evaluation: Final model*. 2009, Victoria, Australia: La Trobe University.
381. Donald, M, Dower, J., Kavanagh, D. , Integrated versus non-integrated management and care for clients with co-occurring mental health and substance use disorders: A qualitative systematic review of randomised controlled trials. *Social Science and Medicine*, 2005; 60, 1371-1383.
382. Kelly, TM and Daley, DC, Integrated treatment of substance use and psychiatric disorders. *Social Work in Public Health*, 2013; 28, 388-406.
383. Mangrum, LF, Spence, RT, and Lopez, M, Integrated versus parallel treatment of co-occurring psychiatric and substance use disorders. *Journal of Substance Abuse Treatment*, 2006; 30, 79-84.
384. Torrens, M, Rossi, PC, Martinez-Riera, R, Martinez-Sanvisens, D, and Bulbena, A, Psychiatric co-morbidity and substance use disorders: Treatment in parallel systems or in one integrated system? *Substance Use and Misuse*, 2012; 47, 1005-1014.
385. Baker, A and Dawe, S, Amphetamine use and co-occurring psychological problems: A review of the literature and implications for treatment. *Australian Psychologist*, 2005; 40, 88-95.
386. Baker, A, Lee, NK, Claire, M, Lewin, TJ, Grant, T, Pohlman, S, . . . Jenner, L, Brief cognitive behavioural interventions for regular amphetamine users: A step in the right direction. *Addiction*, 2005; 100, 367-378.
387. Kay-Lambkin, FJ, Baker, AL, McKetin, R, and Lee, N, Stepping through treatment: Reflections on an adaptive treatment strategy among methamphetamine users with depression. *Drug and Alcohol Review*, 2010; 29, 475-482.
388. Miller, WR and Rollnick, S, *Motivational interviewing: Preparing people to change addictive behaviour* (2nd ed.). 2002, New York, NY: Guilford Press.
389. Miller, WR and Rollnick, S, *Motivational interviewing: Helping people change* (3rd ed.). 2013, New York, NY: Guilford Press.
390. Horsfall, J, Cleary, M, Hunt, GE, and Walter, G, Psychosocial treatments for people with co-occurring severe mental illnesses and substance use disorders (dual diagnosis): A review of empirical evidence. *Harvard Review of Psychiatry*, 2009; 17, 24-34.
391. Otte, C, Cognitive behavioral therapy in anxiety disorders: Current state of the evidence. *Dialogues in Clinical Neuroscience*, 2011; 13, 413-421.
392. Roth, A and Fonagy, P, *What works for whom? A critical review of psychotherapy research* (2nd ed.). 2005, New York, NY: Guilford Press.
393. Baker, A, Bucci, S, Kay-Lambkin, F, and Hides, L, *Cognitive behaviour therapy for people with co-existing mental health and drug and alcohol problems*, in *Clinical handbook of co-existing mental health and drug and alcohol problems*, A. Baker and R. Velleman, Editors. 2007, New York, NY: Routledge. p. 55-73.
394. Graham, H, *Cognitive-behavioural integrated treatment (C-BIT): A treatment manual for substance misuse in people with severe mental health problems*. 2003, Chichester, UK: Wiley.
395. Najavits, LM, *Seeking safety: A treatment manual for PTSD and substance abuse*. 2002, New York, NY: Guilford Press.

396. Ball, SA, Manualized treatment for substance abusers with personality disorders: Dual focus schema therapy. *Addictive Behaviors*, 1998; 23, 883-891.
397. Linehan, M, *Cognitive-behavioral treatment of borderline personality disorder*. 1993, New York, NY: Guilford Press.
398. Linehan, MM, Comtois, KA, Murray, AM, Brown, MZ, Gallop, RJ, Heard, HL, . . . Lindenboim, N, Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry*, 2006; 63, 757-766.
399. Linehan, MM, Schmidt, H, Dimeff, LA, Craft, JC, Kanter, J, and Comtois, KA, Dialectical behavior therapy for patients with borderline personality disorder and drugdependence. *American Journal on Addictions*, 1999; 8, 279-292.
400. Courbasson, C, Nishikawa, Y, and Dixon, L, Outcome of dialectical behaviour therapy for concurrent eating and substance use disorders. *Clinical Psychology and Psychotherapy*, 2012; 19, 434-449.
401. Drake, RE, Wallach, MA, and McGovern, MP, Special section on relapse prevention: Future directions in preventing relapse to substance abuse among clients with severe mental illnesses. *Psychiatric Services*, 2005; 56, 1297-1302.
402. NSW Department of Health, *Drug and alcohol psychosocial interventions: Professional practice guidelines*. 2008, North Sydney, Australia: Mental Health and Drug and Alcohol Office.
403. Marlatt, GA and Gordon, JR, *Relapse prevention: Maintenance strategies in the treatment of addictive behaviors*. 1985, New York, NY: Guilford Press.
404. Segal, ZV, Williams, JMG, and Teasdale, JD, *Mindfulness-based cognitive therapy for depression: A new approach to preventing relapse*. 2002, New York, NY: Guilford Press.
405. Brewer, JA, Bowen, S, Smith, JT, Marlatt, GA, and Potenza, MN, Mindfulnessbased treatments for cooccurring depression and substance use disorders: What can we learn from the brain? *Addiction*, 2010; 105, 1698-1706.
406. Bishop, SR, Lau, M, Shapiro, S, Carlson, L, Anderson, ND, Carmody, J, . . . Velting, D, Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 2004; 11, 230-241.
407. Baer, RA, Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice*, 2003; 10, 125-143.
408. Hofmann, SG, Sawyer, AT, Witt, AA, and Oh, D, The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 2010; 78, 169-183.
409. Zgierska, A, Rabago, D, Chawla, N, Kushner, K, Koehler, R, and Marlatt, A, Mindfulness meditation for substance use disorders: A systematic review. *Substance Abuse*, 2009; 30, 266-294.
410. Kabat-Zinn, J, Mindfulnessbased interventions in context: Past, present, and future. *Clinical psychology: Science and Practice*, 2003; 10, 144-156.
411. Higgins, ST and Petry, NM, Contingency management: Incentives for sobriety. *Alcohol Research and Health*, 1999; 23, 122-127.

412. Budney, AJ, Higgins, ST, Radonovich, KJ, and Novy, PL, Adding voucher-based incentives to coping skills and motivational enhancement improves outcomes during treatment for marijuana dependence. *Journal of Consulting and Clinical Psychology*, 2000; 68, 1051-1061.
413. Higgins, ST, Wong, CJ, Badger, GJ, Ogden, DE, and Dantona, RL, Contingent reinforcement increases cocaine abstinence during outpatient treatment and 1 year of follow-up. *Journal of Consulting and Clinical Psychology*, 2000; 68, 64-72.
414. Saxon, AJ, Wells, EA, Fleming, C, Jackson, TR, and Calsyn, DA, Pre-treatment characteristics, program philosophy and level of ancillary services as predictors of methadone maintenance treatment outcome. *Addiction*, 1996; 91, 1197-209.
415. Petry, NM, Martin, B, Cooney, JL, and Kranzler, HR, Give them prizes, and they will come: Contingency management for treatment of alcohol dependence. *Journal of Consulting and Clinical Psychology*, 2000; 68, 250-257.
416. Rounsaville, BJ, Treatment of cocaine dependence and depression. *Biological Psychiatry*, 2004; 56, 803-809.
417. Prendergast, M, Podus, D, Finney, J, Greenwell, L, and Roll, J, Contingency management for treatment of substance use disorders: A metaanalysis. *Addiction*, 2006; 101, 1546-1560.
418. Gonzalez, G, Feingold, A, Oliveto, A, Gonsai, K, and Kosten, TR, Comorbid major depressive disorder as a prognostic factor in cocaineabusing buprenorphinemaintained patients treated with desipramine and contingency management. *American Journal of Drug and Alcohol Abuse*, 2003; 29, 497-514.
419. Milby, JB, Schumacher, JE, McNamara, C, Wallace, D, Usdan, S, McGill, T, and Michael, M, Initiating abstinence in cocaine abusing dually diagnosed homeless persons. *Drug and Alcohol Dependence*, 2000; 60, 55-67.
420. McDonell, MG, Srebnik, D, Angelo, F, McPherson, S, Lowe, JM, Sugar, A, . . . Ries, RK, Randomized controlled trial of contingency management for stimulant use in community mental health patients with serious mental illness. *American Journal of Psychiatry*, 2013; 170, 94-101.
421. Calderwood, K and Christie, R, The views of consumers and frontline workers regarding coordination among addiction and mental health services. *Mental Health and Substance Use: Dual Diagnosis*, 2008; 1, 21-32.
422. Mueser, KT, Pierce, SC, Baker, A, and Velleman, R, *Group interventions for co-existing mental health and drug and alcohol problems*, in *Clinical handbook of co-existing mental health and drug and alcohol problems*, A. Baker and R. Velleman, Editors. 2007, New York, NY: Routledge. p. 96-113.
423. McDowell, D, Nunes, EV, Seracini, AM, Rothenberg, J, Vosburg, SK, Ma, GJ, and Petkova, E, Desipramine treatment of cocaine-dependent patients with depression: A placebo-controlled trial. *Drug and Alcohol Dependence*, 2005; 80, 209-221.
424. Thase, ME, Salloum, IM, and Cornelius, JD, Comorbid alcoholism and depression: Treatment issues. *Journal of Clinical Psychiatry*, 2001; 62, 32-41.
425. Peselow, ED, Tobia, G, Karamians, R, Pizano, D, and IsHak, WW, Prophylactic efficacy of fluoxetine, escitalopram, sertraline, paroxetine, and concomitant psychotherapy in major depressive disorder: Outcome after long-term follow-up. *Psychiatry Research*, 2015; 225, 680-686.

426. Garrido, MM and Boockvar, KS, Perceived symptom targets of antidepressants, anxiolytics, and sedatives: The search for modifiable factors that improve adherence. *Journal of Behavioral Health Services and Research*, 2014; 41, 529-538.
427. Kemp, R, Kirov, G, Everitt, B, Hayward, P, and David, A, Randomised controlled trial of compliance therapy: 18-month follow-up. *British Journal of Psychiatry*, 1998; 172, 413-419.
428. Atreja, A, Bellam, N, and Levy, SR, Strategies to enhance patient adherence: Making it simple. *Medscape General Medicine*, 2005; 7, 4.
429. Darke, S, *The life of the heroin user: Typical beginnings, trajectories and outcomes*. 2011, New York, NY: Cambridge University Press.
430. McCance-Katz, EF, Sullivan, LE, and Nallani, S, Drug interactions of clinical importance among the opioids, methadone and buprenorphine, and other frequently prescribed medications: A review. *American Journal on Addictions*, 2010; 19, 4-16.
431. NICE, *Psychosis with coexisting substance misuse: Assessment and management in adults and young people: NICE clinical guideline 120*. 2011, London, UK: NICE. Available from: <https://www.nice.org.uk/guidance/cg120>.
432. Modesto-Lowe, V and Kranzler, HR, Diagnosis and treatment of alcohol-dependent patients with comorbid psychiatric disorders. *Alcohol Research and Health*, 1999; 23, 144-149.
433. Bogenschutz, MP, Geppert, CM, and George, J, The role of twelve-step approaches in dual diagnosis treatment and recovery. *American Journal on Addictions*, 2006; 15, 50-60.
434. Magura, S, Effectiveness of dual focus mutual aid for co-occurring substance use and mental health disorders: A review and synthesis of the "double trouble" in recovery evaluation. *Substance Use and Misuse*, 2008; 43, 1904-1926.
435. Laudet, AB, Cleland, CM, Magura, S, Vogel, HS, and Knight, EL, Social support mediates the effects of dual-focus mutual aid groups on abstinence from substance use. *American Journal of Community Psychology*, 2004; 34, 175-185.
436. Jolly, R, *The e health revolution: Easier said than done*. 2011, Canberra, Australia: Parliamentary Library.
437. Christensen, H and Griffiths, K, The Internet and mental health literacy. *Australian and New Zealand Journal of Psychiatry*, 2000; 34, 975-979.
438. Taylor, CB and Luce, KH, Computer-and internet-based psychotherapy interventions. *Current Directions in Psychological Science*, 2003; 12, 18-22.
439. Rickwood, DJ, Deane, FP, and Wilson, CJ, When and how do young people seek professional help for mental health problems? *Medical Journal of Australia*, 2007; 187, S35-S39.
440. Borzekowski, DL and Rickert, VI, Adolescent cybersurfing for health information: A new resource that crosses barriers. *Archives of Pediatrics and Adolescent Medicine*, 2001; 155, 813-817.
441. Blanchard, M, Metcalf, A, Degney, J, Herman, H, and Burns, J, Rethinking the digital divide: Findings from a study of marginalised young people's information communication technology (ICT) use. *Youth Studies Australia*, 2008; 27, 35-42.

442. McCrone, P, Knapp, M, Proudfoot, J, Ryden, C, Cavanagh, K, Shapiro, DA, . . . Mann, A, Cost-effectiveness of computerised cognitive-behavioural therapy for anxiety and depression in primary care: Randomised controlled trial. *British Journal of Psychiatry*, 2004; 185, 55-62.
443. Mohr, DC, Burns, MN, Schueller, SM, Clarke, G, and Klinkman, M, Behavioral intervention technologies: Evidence review and recommendations for future research in mental health. *General Hospital Psychiatry*, 2013; 35, 332-338.
444. NICE, *Computerised cognitive behaviour therapy for depression and anxiety: NICE technology appraisal guidance 97*. 2013, London, UK: NICE. Available from: www.nice.org.uk/guidance/ta97.
445. Nicholas, J, Proudfoot, J, Parker, G, Gillis, I, Burckhardt, R, Manicavasagar, V, and Smith, M, The ins and outs of an online bipolar education program: A study of program attrition. *Journal of Medical Internet Research*, 2010; 12, e57.
446. Andersson, G, Carlbring, P, Ljótsson, B, and Hedman, E, Guided internet-based CBT for common mental disorders. *Journal of Contemporary Psychotherapy*, 2013; 43, 223-233.
447. Cuijpers, P, Donker, T, van Straten, A, Li, J, and Andersson, G, Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological Medicine*, 2010; 40, 1943-1957.
448. Grist, R and Cavanagh, K, Computerised cognitive behavioural therapy for common mental health disorders, what works, for whom under what circumstances? A systematic review and meta-analysis. *Journal of Contemporary Psychotherapy*, 2013; 43, 243-251.
449. Marks, IM, Cavanagh, K, and Gega, L, *Hands-on help: Computer-aided psychotherapy*. 2007, Hove, UK: Psychology Press.
450. Lin, WC, Zhang, J, Leung, GY, and Clark, RE, Chronic physical conditions in older adults with mental illness and/or substance use disorders. *Journal of the American Geriatrics Society*, 2011; 59, 1913-1921.
451. Scott, K, McGee, MA, Schaaf, D, and Baxter, J, Mental-physical comorbidity in an ethnically diverse population. *Social Science and Medicine*, 2008; 66, 1165-1173.
452. Scott, D and Happell, B, The high prevalence of poor physical health and unhealthy lifestyle behaviours in individuals with severe mental illness. *Issues in Mental Health Nursing*, 2011; 32, 589-597.
453. Chacón, F, Mora, F, Gervás-Ríos, A, and Gilaberte, I, Efficacy of lifestyle interventions in physical health management of patients with severe mental illness. *Annals of General Psychiatry*, 2011; 10.
454. Schmitz, N, Kruse, J, and Kugler, J, The association between physical exercises and health-related quality of life in subjects with mental disorders: Results from a cross-sectional survey. *Preventive Medicine*, 2004; 39, 1200-1207.
455. Goodwin, RD, Association between physical activity and mental disorders among adults in the United States. *Preventive Medicine*, 2003; 36, 698-703.
456. Harvey, SB, Hotopf, M, Øverland, S, and Mykletun, A, Physical activity and common mental disorders. *British Journal of Psychiatry*, 2010; 197, 357-364.

457. Ten Have, M, de Graaf, R, and Monshouwer, K, Physical exercise in adults and mental health status: Findings from the Netherlands Mental Health Survey and Incidence Study (NEMESIS). *Journal of Psychosomatic Research*, 2011; 71, 342-348.
458. Fumoto, M, Oshima, T, Kamiya, K, Kikuchi, H, Seki, Y, Nakatani, Y, . . . Arita, H, Ventral prefrontal cortex and serotonergic system activation during pedaling exercise induces negative mood improvement and increased alpha band in EEG. *Behavioural Brain Research*, 2010; 213, 1-9.
459. Meeusen, R, Piacentini, MF, and De Meirleir, K, Brain microdialysis in exercise research. *Sports Medicine*, 2001; 31, 965-983.
460. Rejeski, WJ, Thompson, A, Brubaker, PH, and Miller, HS, Acute exercise: Buffering psychosocial stress responses in women. *Health Psychology*, 1992; 11, 355-362.
461. Rimele, U, Zellweger, BC, Marti, B, Seiler, R, Mohiyeddini, C, Ehler, U, and Heinrichs, M, Trained men show lower cortisol, heart rate and psychological responses to psychosocial stress compared with untrained men. *Psychoneuroendocrinology*, 2007; 32, 627-635.
462. Stathopoulou, G, Powers, MB, Berry, AC, Smits, JA, and Otto, MW, Exercise interventions for mental health: A quantitative and qualitative review. *Clinical Psychology: Science and Practice*, 2006; 13, 179-193.
463. Ravindran, AV and da Silva, TL, Complementary and alternative therapies as add-on to pharmacotherapy for mood and anxiety disorders: A systematic review. *Journal of Affective Disorders*, 2013; 150, 707-719.
464. Wahlström, M, Sihvo, S, Haukka, A, Kiviruusu, O, Pirkola, S, and Isometsä, E, Use of mental health services and complementary and alternative medicine in persons with common mental disorders. *Acta Psychiatrica Scandinavica*, 2008; 118, 73-80.
465. Biederman, J, Wilens, T, Mick, E, Milberger, S, Spencer, TJ, and Faraone, SV, Psychoactive substance use disorders in adults with attention deficit hyperactivity disorder (ADHD): Effects of ADHD and psychiatric comorbidity. *American Journal of Psychiatry*, 1995; 152, 1652-1658.
466. Lee, SS, Humphreys, KL, Flory, K, Liu, R, and Glass, K, Prospective association of childhood attention-deficit/hyperactivity disorder (ADHD) and substance use and abuse/dependence: A meta-analytic review. *Clinical Psychology Review*, 2011; 31, 328-341.
467. Charach, A, Yeung, E, Climans, T, and Lillie, E, Childhood attention-deficit/hyperactivity disorder and future substance use disorders: Comparative meta-analyses. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2011; 50, 9-21.
468. Levin, FR, Evans, SM, Vosburg, SK, Horton, T, Brooks, D, and Ng, J, Impact of attention-deficit hyperactivity disorder and other psychopathology on treatment retention among cocaine abusers in a therapeutic community. *Addictive Behaviors*, 2004; 29, 1875-1882.
469. Wilens, TE, Biederman, J, and Mick, E, Does ADHD affect the course of substance abuse? Findings from a sample of adults with and without ADHD. *American Journal on Addictions*, 1998; 7, 156-163.
470. Arias, AJ, Gelernter, J, Chan, G, Weiss, RD, Brady, KT, Farrer, L, and Kranzler, HR, Correlates of co-occurring ADHD in drug-dependent subjects: Prevalence and features of substance dependence and psychiatric disorders. *Addictive Behaviors*, 2008; 33, 1199-1207.

471. Carpentier, PJ, ADHD, in *Drug abuse and addiction in medical illness: Causes, consequences and treatment*, J.C. Verster, et al., Editors. 2012, New York, NY: Springer. p. 285-296.
472. Wilson, JJ and Levin, FR, Attention-deficit/hyperactivity disorder and early-onset substance use disorders. *Journal of Child and Adolescent Psychopharmacology*, 2005; 15, 751-763.
473. Levin, FR, Diagnosing attention-deficit/hyperactivity disorder in patients with substance use disorders. *Journal of Clinical Psychiatry*, 2007; 68, 9-14.
474. Fatseas, M, Debrabant, R, and Auriacombe, M, The diagnostic accuracy of attention-deficit/hyperactivity disorder in adults with substance use disorders. *Current Opinion in Psychiatry*, 2012; 25, 219-225.
475. Kooij, JS, Huss, M, Asherson, P, Akehurst, R, Beusterien, K, French, A, . . . Hodgkins, P, Distinguishing comorbidity and successful management of adult ADHD. *Journal of Attention Disorders*, 2012; 16, 3S-19S.
476. Wilens, TE, Impact of ADHD and its treatment on substance abuse in adults. *Journal of Clinical Psychiatry*, 2004; 65, 38-45.
477. Zulauf, CA, Sprich, SE, Safren, SA, and Wilens, TE, The complicated relationship between attention deficit/hyperactivity disorder and substance use disorders. *Current Psychiatry Reports*, 2014; 16, 1-11.
478. Martinez-Raga, J, Knecht, C, de Alvaro, R, Szerman, N, and Ruiz, P, Addressing dual diagnosis patients suffering from attention-deficit hyperactivity disorders and comorbid substance use disorders: A review of treatment considerations. *Addictive Disorders and Their Treatment*, 2013; 12, 213-230.
479. Pérez de los Cobos, J, Siñol, N, Pérez, V, and Trujols, J, Pharmacological and clinical dilemmas of prescribing in comorbid adult attentiondeficit/hyperactivity disorder and addiction. *British Journal of Clinical Pharmacology*, 2014; 77, 337-356.
480. Murphy, KR and Goron, M, *Assessment of adults with ADHD*, in *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment*, R.A. Barkley, Editor. 2006, New York, NY: Guilford Press. p. 425-452.
481. Lara, C, Fayyad, J, De Graaf, R, Kessler, RC, Aguilar-Gaxiola, S, Angermeyer, M, . . . Jin, R, Childhood predictors of adult attention-deficit/hyperactivity disorder: Results from the World Health Organization World Mental Health Survey Initiative. *Biological Psychiatry*, 2009; 65, 46-54.
482. Wilens, TE and Spencer, TJ, Understanding attention-deficit/hyperactivity disorder from childhood to adulthood. *Postgraduate Medicine*, 2010; 122, 97-109.
483. Biederman, J, Mick, E, and Faraone, SV, Age-dependent decline of symptoms of attention deficit hyperactivity disorder: Impact of remission definition and symptom type. *American Journal of Psychiatry*, 2000; 157, 816-818.
484. Ingram, S, Hechtman, L, and Morgenstern, G, Outcome issues in ADHD: Adolescent and adult long term outcome. *Mental Retardation and Developmental Disabilities Research Reviews*, 1999; 5, 243-250.

485. Young, S and Myanathi Amarasinghe, J, Practitioner review: Nonpharmacological treatments for ADHD: A lifespan approach. *Journal of Child Psychology and Psychiatry*, 2010; 51, 116-133.
486. Wilens, TE, Faraone, SV, and Biederman, J, Attention-deficit/hyperactivity disorder in adults. *Journal of the American Medical Association*, 2004; 292, 619-623.
487. Young, S, Bramham, J, Gray, K, and Rose, E, The experience of receiving a diagnosis and treatment of ADHD in adulthood: A qualitative study of clinically referred patients using interpretative phenomenological analysis. *Journal of Attention Disorders*, 2008; 11, 493-503.
488. Gournay, K, Under-recognised and under-treated: ADHD in adults. *British Journal of Mental Health Nursing*, 2015; 4, 60-63.
489. Goossensen, MA, van de Glind, G, Carpentier, P-J, Wijssen, RM, van Duin, D, and Kooij, JS, An intervention program for ADHD in patients with substance use disorders: Preliminary results of a field trial. *Journal of Substance Abuse Treatment*, 2006; 30, 253-259.
490. Safren, SA, Otto, MW, Sprich, S, Winett, CL, Wilens, TE, and Biederman, J, Cognitive-behavioral therapy for ADHD in medication-treated adults with continued symptoms. *Behaviour Research and Therapy*, 2005; 43, 831-842.
491. Safren, SA, Sprich, S, Mimiaga, MJ, Surman, C, Knouse, L, Groves, M, and Otto, MW, Cognitive behavioral therapy vs relaxation with educational support for medication-treated adults with ADHD and persistent symptoms: A randomized controlled trial. *Journal of the American Medical Association*, 2010; 304, 875-880.
492. Vidal-Estrada, R, Bosch-Munso, R, Nogueira-Morais, M, Casas-Brugue, M, and Ramos-Quiroga, JA, Psychological treatment of attention deficit hyperactivity disorder in adults: A systematic review. *Actas Españolas de Psiquiatría*, 2012; 40, 147-154.
493. Solanto, MV, Marks, DJ, Wasserstein, J, Mitchell, K, Abikoff, H, Alvir, JMJ, and Kofman, MD, Efficacy of meta-cognitive therapy for adult ADHD. *American Journal of Psychiatry*, 2014; 167, 958-968.
494. Hirvikoski, T, Waaler, E, Alfredsson, J, Pihlgren, C, Holmström, A, Johnson, A, . . . Nordström, AL, Reduced ADHD symptoms in adults with ADHD after structured skills training group: Results from a randomized controlled trial. *Behaviour Research and Therapy*, 2011; 49, 175-185.
495. Philipsen, A, Richter, H, Peters, J, Alm, B, Sobanski, E, Colla, M, . . . Perlov, E, Structured group psychotherapy in adults with attention deficit hyperactivity disorder: Results of an open multicentre study. *Journal of Nervous and Mental Disease*, 2007; 195, 1013-1019.
496. Stevenson, CS, Whitmont, S, Bornholt, L, Livesey, D, and Stevenson, RJ, A cognitive remediation programme for adults with attention deficit hyperactivity disorder. *Australian and New Zealand Journal of Psychiatry*, 2002; 36, 610-616.
497. Stevenson, CS, Stevenson, RJ, and Whitmont, S, A selfdirected psychosocial intervention with minimal therapist contact for adults with attention deficit hyperactivity disorder. *Clinical Psychology and Psychotherapy*, 2003; 10, 93-101.
498. Knouse, LE and Safren, SA, Current status of cognitive behavioral therapy for adult attention-deficit hyperactivity disorder. *Psychiatric Clinics of North America*, 2010; 33, 497-509.

499. Weiss, M, Safren, SA, Solanto, MV, Hechtman, L, Rostain, AL, Ramsay, JR, and Murray, C, Research forum on psychological treatment of adults with ADHD. *Journal of Attention Disorders*, 2008; 11, 642-651.
500. van Emmerik-van Oortmerssen, K, van de Glind, G, Koeter, MW, Allsop, S, Auriacombe, M, Barta, C, . . . Schoevers, RA, Psychiatric comorbidity in treatment-seeking substance use disorder patients with and without attention deficit hyperactivity disorder: Results of the IASP study. *Addiction*, 2014; 109, 262-272.
501. van Emmerik-van Oortmerssen, K, Vedel, E, Koeter, MW, de Bruijn, K, Dekker, JJ, van den Brink, W, and Schoevers, RA, Investigating the efficacy of integrated cognitive behavioral therapy for adult treatment seeking substance use disorder patients with comorbid ADHD: Study protocol of a randomized controlled trial. *BMC Psychiatry*, 2013; 13, 132.
502. van Emmerik-van Oortmerssen, K, Vedel, E, van den Brink, W, and Schoevers, RA, Integrated cognitive behavioral therapy for patients with substance use disorder and comorbid ADHD: Two case presentations. *Addictive Behaviors*, 2015; 45, 214-217.
503. Cunill, R, Castells, X, Tobias, A, and Capellà, D, Pharmacological treatment of attention deficit hyperactivity disorder with co-morbid drug dependence. *Journal of Psychopharmacology*, 2015; 29, 15-23.
504. Levin, FR, *Attention deficit/hyperactivity disorder and substance abuse*, in *Textbook of addiction treatment: International perspectives*, N. el-Guebaly, G. Carrà, and M. Galanter, Editors. 2015, Milan, Italy: Springer. p. 2035-2062.
505. Bolea-Alamañac, B, Nutt, DJ, Adamou, M, Asherson, P, Bazire, S, Coghill, D, . . . Santosh, P, Evidence-based guidelines for the pharmacological management of attention deficit hyperactivity disorder: Update on recommendations from the British Association for Psychopharmacology. *Journal of Psychopharmacology*, 2014; 28, 179-203.
506. NICE, *Attention deficit hyperactivity disorder: Diagnosis and management of ADHD in children, young people and adults: NICE clinical guideline 72*. 2008, London, UK: NICE. Available from: <http://www.nice.org.uk/guidance/cg72>.
507. Mariani, JJ and Levin, FR, Treatment strategies for co-occurring ADHD and substance use disorders. *American Journal on Addictions*, 2007; 16, 45-56.
508. Kollins, SH, A qualitative review of issues arising in the use of psycho-stimulant medications in patients with ADHD and co-morbid substance use disorders. *Current Medical Research and Opinion*, 2008; 24, 1345-1357.
509. Carpentier, PJ, De Jong, CA, Dijkstra, BA, Verbrugge, CA, and Krabbe, PF, A controlled trial of methylphenidate in adults with attention deficit/hyperactivity disorder and substance use disorders. *Addiction*, 2005; 100, 1868-1874.
510. Konstenius, M, Jayaram-Lindström, N, Beck, O, and Franck, J, Sustained release methylphenidate for the treatment of ADHD in amphetamine abusers: A pilot study. *Drug and Alcohol Dependence*, 2010; 108, 130-133.
511. Levin, FR, Evans, SM, Brooks, DJ, and Garawi, F, Treatment of cocaine dependent treatment seekers with adult ADHD: Double-blind comparison of methylphenidate and placebo. *Drug and Alcohol Dependence*, 2007; 87, 20-29.

512. Riggs, PD, Winhusen, T, Davies, RD, Leimberger, JD, Mikulich-Gilbertson, S, Klein, C, . . . Haynes, L, Randomized controlled trial of osmotic-release methylphenidate with cognitive-behavioral therapy in adolescents with attention-deficit/hyperactivity disorder and substance use disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2011; 50, 903-914.
513. Schubiner, H, Downey, KK, Arfken, CL, Johanson, C-E, Schuster, CR, Lockhart, N, . . . Pihlgren, E, Double-blind placebo-controlled trial of methylphenidate in the treatment of adult ADHD patients with comorbid cocaine dependence. *Experimental and Clinical Psychopharmacology*, 2002; 10, 286-294.
514. Kollins, SH, English, JS, Itchon-Ramos, N, Chrisman, AK, Dew, R, O'Brien, B, and McClernon, FJ, A pilot study of lis-dexamfetamine dimesylate (LDX/SPD489) to facilitate smoking cessation in nicotine-dependent adults with ADHD. *Journal of Attention Disorders*, 2014; 18, 158-168.
515. Moëll, B, Kollberg, L, Nasri, B, Lindefors, N, and Kaldo, V, Living SMART: A randomized controlled trial of a guided online course teaching adults with ADHD or sub-clinical ADHD to use smartphones to structure their everyday life. *Internet Interventions*, 2015; 2, 24-31.
516. Wigal, SB, Emmerson, N, Gehricke, J-G, and Galassetti, P, Exercise: Applications to childhood ADHD. *Journal of Attention Disorders*, 2012; 17, 279-290.
517. Abramovitch, A, Goldzweig, G, and Schweiger, A, Correlates of physical activity with intrusive thoughts, worry and impulsivity in adults with attention deficit/hyperactivity disorder: A cross-sectional pilot study. *Israel Journal of Psychiatry and Related Sciences*, 2012; 50, 47-54.
518. Bloch, MH and Qawasmi, A, Omega-3 fatty acid supplementation for the treatment of children with attention-deficit/hyperactivity disorder symptomatology: Systematic review and meta-analysis. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2011; 50, 991-1000.
519. Sonuga-Barke, EJ, Brandeis, D, Cortese, S, Daley, D, Ferrin, M, Holtmann, M, . . . Döpfner, M, Nonpharmacological interventions for ADHD: Systematic review and meta-analyses of randomized controlled trials of dietary and psychological treatments. *American Journal of Psychiatry*, 2014; 170, 275-289.
520. Rosenthal, RN and Miner, CR, Differential diagnosis of substance induced psychosis and schizophrenia in patients with substance use disorders. *Schizophrenia Bulletin*, 1997; 23, 187-193.
521. Barlow, DH and Durand, VM, *Abnormal Psychology*. 2005, Victoria, Australia: Thomson Learning.
522. Corcoran, C, Walker, Huot, R, Mittal, V, Tessner, K, Kestler, L, and Malaspina, D, The stress cascade and schizophrenia: Etiology and onset. *Schizophrenia Bulletin*, 2003; 29, 671-692.
523. Hunt, G, Siegfried, N, Morley, K, Sitharthan, T, and Cleary, M, Psychosocial interventions for people with both severe mental illness and substance misuse *Cochrane Database of Systematic Reviews*, 2013; 2013, CD001088.
524. Lubman, DI, King, JA, and Castle, DJ, Treating comorbid substance use disorders in schizophrenia. *International Review of Psychiatry*, 2010; 22, 191-201.
525. Drake, RE, Mueser, KT, Brunette, MF, and McHugo, GJ, A review of treatments for people with severe mental illnesses and co-occurring substance use disorders. *Psychiatric Rehabilitation Journal*, 2004; 27, 360-74.

526. Mueser, KT, Torrey, WC, Lynde, D, Singer, P, and Drake, RE, Implementing evidence-based practices for people with severe mental illness. *Behavior Modification*, 2003; 27, 387-411.
527. Kavanagh, DJ, Young, R, Boyce, L, Clair, A, Sitharthan, T, Clark, D, and Thompson, K, Substance Treatment Options in Psychosis (STOP): A new intervention for dual diagnosis. *Journal of Mental Health*, 1998; 7, 135-143.
528. Barrowclough, C, Haddock, G, Tarrier, N, Lewis, SW, Moring, J, O'Brien, R, . . . McGovern, J, Randomized controlled trial of motivational interviewing, cognitive behavior therapy, and family intervention for patients with comorbid schizophrenia and substance use disorders. *American Journal of Psychiatry*, 2001; 158, 1706-1713.
529. Baker, A, Bucci, S, Lewin, TJ, Kay-Lambkin, F, Constable, PM, and Carr, VJ, Cognitive-behavioural therapy for substance use disorders in people with psychotic disorders: Randomised controlled trial. *British Journal of Psychiatry*, 2006; 188, 439-48.
530. Barrowclough, C, Haddock, G, Fitzsimmons, M, and Johnson, R, Treatment development for psychosis and co-occurring substance misuse: A descriptive review. *Journal of Mental Health*, 2006; 15, 619-632.
531. Bonsack, C, Gibellini Manetti, S, Favrod, J, Montagrin, Y, Besson, J, Bovet, P, and Conus, P, Motivational intervention to reduce cannabis use in young people with psychosis: A randomized controlled trial. *Psychotherapy and Psychosomatics*, 2011; 80, 287-297.
532. Edwards, J, Elkins, K, Hinton, M, Harrigan, S, Donovan, K, Athanasopoulos, O, and McGorry, P, Randomized controlled trial of a cannabisfocused intervention for young people with firstepisode psychosis. *Acta Psychiatrica Scandinavica*, 2006; 114, 109-117.
533. Naeem, F, Kingdon, D, and Turkington, D, Cognitive behaviour therapy for schizophrenia in patients with mild to moderate substance misuse problems. *Cognitive Behaviour Therapy*, 2005; 34, 207-215.
534. Drake, RE, O'Neal, EL, and Wallach, MA, A systematic review of psychosocial research on psychosocial interventions for people with co-occurring severe mental and substance use disorders. *Journal of Substance Abuse Treatment*, 2008; 34, 123-138.
535. Brunette, MF, Drake, RE, Woods, M, and Hartnett, T, A comparison of long-term and short-term residential treatment programs for dual diagnosis patients. *Psychiatric Services*, 2001; 52, 526-528.
536. NICE, *Psychosis and schizophrenia in adults: Treatment and management: NICE clinical guideline 178*. 2014, London, UK: NICE. Available from: www.nice.org.uk/guidance/CG178.
537. NICE, *Bipolar disorder: The assessment and management of bipolar disorder in adults, children and young people in primary and secondary care: NICE clinical guidance 185*. 2014, London, UK: NICE. Available from: www.nice.org.uk/guidance/cg185.
538. Miyamoto, S, Duncan, G, Marx, C, and Lieberman, J, Treatments for schizophrenia: A critical review of pharmacology and mechanisms of action of antipsychotic drugs. *Molecular Psychiatry*, 2005; 10, 79-104.
539. Le Fauve, CE, Litten, RZ, Randall, CL, Moak, DH, Salloum, IM, Green, AI, . . . Green, AI, Pharmacological treatment of alcohol abuse/dependence with psychiatric comorbidity. *Alcoholism: Clinical and Experimental Research*, 2004; 28, 302-312.

540. Kelly, TM, Daley, DC, and Douaihy, AB, Treatment of substance abusing patients with comorbid psychiatric disorders. *Addictive Behaviors*, 2012; 37, 11-24.
541. National Prescribing Service, *Antipsychotics: Comparative information on antipsychotics*. 2011, National Prescribing Service: Strawberry Hills, Australia. Available from: https://www.nps.org.au/__data/assets/pdf_file/0017/130328/NPS_Antipsychotics_DRUG_TABLE.pdf.
542. Alvarez-Jimenez, M, Alcazar-Corcoles, MA, Gonzalez-Blanch, C, Bendall, S, McGorry, PD, and Gleeson, JF, Online, social media and mobile technologies for psychosis treatment: a systematic review on novel user-led interventions. *Schizophrenia Research*, 2014; 156, 96-106.
543. Pajonk, FG, Wobrock, T, Gruber, O, Scherk, H, Berner, D, Kaizl, I, . . . Meyer, T, Hippocampal plasticity in response to exercise in schizophrenia. *Archives of General Psychiatry*, 2010; 67, 133-143.
544. Scheewe, TW, van Haren, NE, Sarkisyan, G, Schnack, HG, Brouwer, RM, de Glin, M, . . . Cahn, W, Exercise therapy, cardiorespiratory fitness and their effect on brain volumes: A randomised controlled trial in patients with schizophrenia and healthy controls. *European Neuropsychopharmacology*, 2013; 23, 675-685.
545. Takahashi, H, Sassa, T, Shibuya, T, Kato, M, Koeda, M, Murai, T, . . . Okubo, Y, Effects of sports participation on psychiatric symptoms and brain activations during sports observation in schizophrenia. *Translational Psychiatry*, 2012; 2, e96.
546. Scheewe, T, Backx, F, Takken, T, Jörg, F, Strater, Av, Kroes, A, . . . Cahn, W, Exercise therapy improves mental and physical health in schizophrenia: a randomised controlled trial. *Acta Psychiatrica Scandinavica*, 2013; 127, 464-473.
547. Duraiswamy, G, Thirthalli, J, Nagendra, H, and Gangadhar, B, Yoga therapy as an add-on treatment in the management of patients with schizophrenia: A randomized controlled trial. *Acta Psychiatrica Scandinavica*, 2007; 116, 226-232.
548. Behere, R, Arasappa, R, Jagannathan, A, Varambally, S, Venkatasubramanian, G, Thirthalli, J, . . . Gangadhar, B, Effect of yoga therapy on facial emotion recognition deficits, symptoms and functioning in patients with schizophrenia. *Acta Psychiatrica Scandinavica*, 2011; 123, 147-153.
549. Acil, A, Dogan, S, and Dogan, O, The effects of physical exercises to mental state and quality of life in patients with schizophrenia. *Journal of Psychiatric and Mental Health Nursing*, 2008; 15, 808-815.
550. Dodd, KJ, Duffy, S, Stewart, JA, Impey, J, and Taylor, N, A small group aerobic exercise programme that reduces body weight is feasible in adults with severe chronic schizophrenia: A pilot study. *Disability and Rehabilitation*, 2011; 33, 1222-1229.
551. Killackey, E, Anda, AL, Gibbs, M, Alvarez-Jimenez, M, Thompson, A, Sun, P, and Baksheev, GN, Using internet enabled mobile devices and social networking technologies to promote exercise as an intervention for young first episode psychosis patients. *BMC Psychiatry*, 2011; 11, 80.
552. Strassnig, MT, Newcomer, JW, and Harvey, PD, Exercise improves physical capacity in obese patients with schizophrenia: Pilot study. *Schizophrenia Research*, 2012; 141, 284-285.
553. Warren, KR, Ball, MP, Feldman, S, Liu, F, McMahon, RP, and Kelly, DL, Exercise program adherence using a 5-kilometer (5K) event as an achievable goal in people with schizophrenia. *Biological Research for Nursing*, 2010; 13, 383-390.

554. Marzolini, S, Jensen, B, and Melville, P, Feasibility and effects of a group-based resistance and aerobic exercise program for individuals with severe schizophrenia: A multidisciplinary approach. *Mental Health and Physical Activity*, 2009; 2, 29-36.
555. Poulin, MJ, Chaput, JP, Simard, V, Vincent, P, Bernier, J, Gauthier, Y, . . . Gagnon, S, Management of antipsychotic-induced weight gain: Prospective naturalistic study of the effectiveness of a supervised exercise programme. *Australian and New Zealand Journal of Psychiatry*, 2007; 41, 980-989.
556. Malchow, B, Reich-Erkelenz, D, Oertel-Knöchel, V, Keller, K, Hasan, A, Schmitt, A, . . . Falkai, P, The effects of physical exercise in schizophrenia and affective disorders. *European Archives of Psychiatry and Clinical Neuroscience*, 2013; 263, 451-467.
557. Tate, SR, Brown, SA, Unrod, M, and Ramo, DE, Context of relapse for substance-dependent adults with and without comorbid psychiatric disorders. *Addictive Behaviors*, 2004; 29, 1707-1724.
558. Scott, J, Gilvarry, E, and Farrell, M, Managing anxiety and depression in alcohol and drug dependence. *Addictive Behaviors*, 1998; 23, 919-931.
559. Headspace. *Bipolar disorder*. 2015. Available from: <http://headspace.org.au/family/bipolar-disorder/>.
560. Weiss, RD, Najavits, LM, and Greenfield, SF, A relapse prevention group for patients with bipolar and substance use disorders. *Journal of Substance Abuse Treatment*, 1999; 16, 47-54.
561. Weiss, RD, Griffin, ML, Kolodziej, ME, Greenfield, SF, Najavits, LM, Daley, DC, . . . Hennen, JA, A randomized trial of integrated group therapy versus group drug counseling for patients with bipolar disorder and substance dependence. *American Journal of Psychiatry*, 2007; 164, 100-107.
562. Weiss, RD, Griffin, ML, Jaffee, WB, Bender, RE, Graff, FS, Gallop, RJ, and Fitzmaurice, GM, A "community-friendly" version of integrated group therapy for patients with bipolar disorder and substance dependence: A randomized controlled trial. *Drug and Alcohol Dependence*, 2009; 104, 212-219.
563. Swann, AC, The strong relationship between bipolar and substance use disorder. *Annals of the New York Academy of Sciences*, 2010; 1187, 276-293.
564. Azorin, J-M and Kaladjian, A, An update on the treatment of bipolar depression. *Expert Opinion on Pharmacotherapy*, 2009; 10, 161-172.
565. Black Dog Institute. *Medications in bipolar disorder*. 2013. Available from: <http://www.blackdoginstitute.org.au/healthprofessionals/bipolardisorder/managingbipolardisorder/medicationsinbipolardisorder.cfm>.
566. Geller, B, Cooper, TB, Sun, K, Zimmerman, B, Frazier, J, Williams, M, and Heath, J, Double-blind and placebo-controlled study of lithium for adolescent bipolar disorders with secondary substance dependency. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1998; 37, 171-178.
567. Kemp, DE, Gao, K, Ganocy, SJ, Rapport, DJ, Elhaj, O, Bilali, S, . . . Calabrese, JR, A 6-month, double-blind, maintenance trial of lithium monotherapy versus the combination of lithium and divalproex for rapid-cycling bipolar disorder and co-occurring substance abuse or dependence. *Journal of Clinical Psychiatry*, 2009; 70, 113-121.

568. Salloum, IM, Douaihy, A, Cornelius, JR, Kirisci, L, Kelly, TM, and Hayes, J, Divalproex utility in bipolar disorder with co-occurring cocaine dependence: A pilot study. *Addictive Behaviors*, 2007; 32, 410-415.
569. Salloum, IM, Cornelius, JR, Daley, DC, Kirisci, L, Himmelhoch, JM, and Thase, ME, Efficacy of valproate maintenance in patients with bipolar disorder and alcoholism: A double-blind placebo-controlled study. *Archives of General Psychiatry*, 2005; 62, 37-45.
570. Brown, ES, Perantie, DC, Dhanani, N, Beard, L, Orsulak, P, and Rush, AJ, Lamotrigine for bipolar disorder and comorbid cocaine dependence: A replication and extension study. *Journal of Affective Disorders*, 2006; 93, 219-222.
571. Rubio, G, LópezMuñoz, F, and Alamo, C, Effects of lamotrigine in patients with bipolar disorder and alcohol dependence. *Bipolar Disorders*, 2006; 8, 289-293.
572. Brown, ES, Sunderajan, P, Hu, LT, Sowell, SM, and Carmody, TJ, A randomized, double-blind, placebo-controlled, trial of lamotrigine therapy in bipolar disorder, depressed or mixed phase and cocaine dependence. *Neuropsychopharmacology*, 2012; 37, 2347-2354.
573. Brown, ES, Nejtek, VA, Perantie, DC, and Bobadilla, L, Quetiapine in bipolar disorder and cocaine dependence. *Bipolar Disorders*, 2002; 4, 406-411.
574. Brown, ES, Garza, M, and Carmody, TJ, A randomized, double-blind, placebo-controlled add-on trial of quetiapine in outpatients with bipolar disorder and alcohol use disorders. *Journal of Clinical Psychiatry*, 2008; 69, 701-705.
575. Stedman, M, Pettinati, HM, Brown, ES, Kotz, M, Calabrese, JR, and Raines, S, A doubleblind, placebo controlled study with quetiapine as adjunct therapy with lithium or divalproex in bipolar I patients with coexisting alcohol dependence. *Alcoholism: Clinical and Experimental Research*, 2010; 34, 1822-1831.
576. Hanley, MJ and Kenna, GA, Quetiapine: Treatment for substance abuse and drug of abuse. *American Journal of Health-System Pharmacy*, 2008; 65, 611-618.
577. Gaudiano, BA, Weinstock, LM, and Miller, IW, Improving treatment adherence in patients with bipolar disorder and substance abuse: Rationale and initial development of a novel psychosocial approach. *Journal of Psychiatric Practice*, 2011; 17, 5-20.
578. Nivoli, AM, Colom, F, Murru, A, Pacchiarotti, I, Castro-Loli, P, González-Pinto, A, . . . Vieta, E, New treatment guidelines for acute bipolar depression: A systematic review. *Journal of Affective Disorders*, 2011; 129, 14-26.
579. Lauder, S, Chester, A, Castle, D, Dodd, S, Berk, L, Klein, B, . . . Murray, G, Development of an online intervention for bipolar disorder: www.moodswings.net.au. *Psychology, Health and Medicine*, 2013; 18, 155-165.
580. Todd, NJ, Jones, SH, Hart, A, and Lobban, FA, A web-based self-management intervention for bipolar disorder 'Living with Bipolar': A feasibility randomised controlled trial. *Journal of Affective Disorders*, 2014; 169, 21-29.
581. Smith, DJ, Griffiths, E, Poole, R, Di Florio, A, Barnes, E, Kelly, MJ, . . . Simpson, S, Beating bipolar: Exploratory trial of a novel internetbased psychoeducational treatment for bipolar disorder. *Bipolar Disorders*, 2011; 13, 571-577.

582. Proudfoot, J, Parker, G, Manicavasagar, V, Hadzi-Pavlovic, D, Whitton, A, Nicholas, J, . . . Burckhardt, R, Effects of adjunctive peer support on perceptions of illness control and understanding in an online psychoeducation program for bipolar disorder: A randomised controlled trial. *Journal of Affective Disorders*, 2012; 142, 98-105.
583. Barnes, CW, Hadzi-Pavlovic, D, Wilhelm, K, and Mitchell, PB, A web-based preventive intervention program for bipolar disorder: Outcome of a 12-months randomized controlled trial. *Journal of Affective Disorders*, 2015; 174, 485-492.
584. Ng, F, Dodd, S, and Berk, M, The effects of physical activity in the acute treatment of bipolar disorder: A pilot study. *Journal of Affective Disorders*, 2007; 101, 259-262.
585. Dimeo, F, Bauer, M, Varahram, I, Proest, G, and Halter, U, Benefits from aerobic exercise in patients with major depression: A pilot study. *British Journal of Sports Medicine*, 2001; 35, 114-117.
586. Knubben, K, Reischies, FM, Adli, M, Schlattmann, P, Bauer, M, and Dimeo, F, A randomised, controlled study on the effects of a short-term endurance training programme in patients with major depression. *British Journal of Sports Medicine*, 2007; 41, 29-33.
587. Wright, K, Armstrong, T, Taylor, A, and Dean, S, 'It's a double edged sword': A qualitative analysis of the experiences of exercise amongst people with bipolar disorder. *Journal of Affective Disorders*, 2012; 136, 634-642.
588. Sylvia, LG, Friedman, ES, Kocsis, JH, Bernstein, EE, Brody, BD, Kinrys, G, . . . Bobo, WV, Association of exercise with quality of life and mood symptoms in a comparative effectiveness study of bipolar disorder. *Journal of Affective Disorders*, 2013; 151, 722-727.
589. Thomson, D, Turner, A, Lauder, S, Gigler, ME, Berk, L, Singh, AB, . . . Sylvia, L, A brief review of exercise, bipolar disorder, and mechanistic pathways. *Frontiers in Psychology*, 2015; 6, 417.
590. Nusslock, R, Abramson, LY, Harmon-Jones, E, Alloy, LB, and Hogan, ME, A goal-striving life event and the onset of hypomanic and depressive episodes and symptoms: Perspective from the behavioral approach system (BAS) dysregulation theory. *Journal of Abnormal Psychology*, 2007; 116, 105-115.
591. Alloy, LB, Bender, RE, Whitehouse, WG, Wagner, CA, Liu, RT, Grant, DA, . . . Harmon-Jones, E, High Behavioral Approach System (BAS) sensitivity, reward responsiveness, and goal-striving predict first onset of bipolar spectrum disorders: A prospective behavioral high-risk design. *Journal of Abnormal Psychology*, 2012; 121, 339.
592. Stoll, AL, Severus, WE, Freeman, MP, Rueter, S, Zboyan, HA, Diamond, E, . . . Marangell, LB, Omega 3 fatty acids in bipolar disorder: A preliminary double-blind, placebo-controlled trial. *Archives of General Psychiatry*, 1999; 56, 407-412.
593. Osher, Y, Bersudsky, Y, and Belmaker, R, Omega-3 eicosapentaenoic acid in bipolar depression: Report of a small open-label study. *Journal of Clinical Psychiatry*, 2005; 66, 726-729.
594. Chouinard, G, Beauclair, L, Geiser, R, and Etienne, P, A pilot study of magnesium aspartate hydrochloride (Magnesiocard®) as a mood stabilizer for rapid cycling bipolar affective disorder patients. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 1990; 14, 171-180.
595. Heiden, A, Frey, R, Presslich, O, Blasbichler, T, Smetana, R, and Kasper, S, Treatment of severe mania with intravenous magnesium sulphate as a supplementary therapy. *Psychiatry Research*, 1999; 89, 239-246.

596. Giannini, AJ, Nakoneczie, AM, Melemis, SM, Ventresco, J, and Condon, M, Magnesium oxide augmentation of verapamil maintenance therapy in mania. *Psychiatry Research*, 2000; 93, 83-87.
597. Moses, EL and Mallinger, AG, St. John's wort: Three cases of possible mania induction. *Journal of Clinical Psychopharmacology*, 2000; 20, 115-117.
598. Fahmi, M, Huang, C, and Schweitzer, I, A case of mania induced by hypericum. *World Journal of Biological Psychiatry*, 2002; 3, 58-59.
599. Izzo, A, Drug interactions with St. John's wort (hypericum perforatum): A review of the clinical evidence. *International Journal of Clinical Pharmacology and Therapeutics*, 2004; 42, 139-148.
600. Hesse, M, Integrated psychological treatment for substance use and co-morbid anxiety or depression vs. treatment for substance use alone: A systematic review of the published literature. *BMC Psychiatry*, 2009; 9, 6.
601. Hides, L, Samet, S, and Lubman, DI, Cognitive behaviour therapy (CBT) for the treatment of co occurring depression and substance use: Current evidence and directions for future research. *Drug and Alcohol Review*, 2010; 29, 508-517.
602. Brown, RA, Evans, DM, Miller, IW, Burgess, ES, and Mueller, TI, Cognitive-behavioral treatment for depression in alcoholism. *Journal of Consulting and Clinical Psychology*, 1997; 65, 715-726.
603. Kay-Lambkin, FJ, Baker, A, and Carr, VJ, *Depression and drug and alcohol problems*, in *Clinical handbook of co-existing mental health and drug and alcohol problems*, Baker, A. and Velleman, R., Editors. 2007, London, UK: Routledge. p. 218-240.
604. Helmus, TC, Saules, KK, Schoener, EP, and Roll, JM, Reinforcement of counseling attendance and alcohol abstinence in a community-based dual-diagnosis treatment program: A feasibility study. *Psychology of Addictive Behaviors*, 2003; 17, 249-251.
605. Sigmon, SC, Steingard, S, Badger, GJ, Anthony, SL, and Higgins, ST, Contingent reinforcement of marijuana abstinence among individuals with serious mental illness: A feasibility study. *Experimental and Clinical Psychopharmacology*, 2000; 8, 509-517.
606. Dimidjian, SBJ, M.; Martell, C.; Muñoz, R. F.; Lewinsohn, P. M. , The origins and current status of behavioral activation treatments for depression. *Annual Review of Clinical Psychology*, 2011; 7.
607. Cuijpers, P, Van Straten, A, and Warmerdam, L, Behavioral activation treatments of depression: A meta-analysis. *Clinical Psychology Review*, 2007; 27, 318-326.
608. Ekers, D, Richards, D, McMillan, D, Bland, JM, and Gilbody, S, Behavioural activation delivered by the non-specialist: Phase II randomised controlled trial. *British Journal of Psychiatry*, 2011; 198, 66-72.
609. Kanter, JW, Manos, RC, Bowe, WM, Baruch, DE, Busch, AM, and Rusch, LC, What is behavioral activation? A review of the empirical literature. *Clinical Psychology Review*, 2010; 30, 608-620.
610. Daughters, SB, Braun, AR, Sargeant, MN, Reynolds, EK, Hopko, DR, Blanco, C, and Lejuez, CW, Effectiveness of a brief behavioral treatment for inner-city illicit drug users with elevated depressive symptoms: The life enhancement treatment for substance use (LETS Act!). *Journal of Clinical Psychiatry*, 2008; 69, 122-129.

611. Magidson, JFG, S. M.; MacPherson, L.; Hopko, D. R.; Blanco, C.; Lejuez, C. W.; Daughters, S. B. , Examining the effect of the Life Enhancement Treatment for Substance Use (LETS ACT) on residential substance abuse treatment retention. *Addictive behaviors*, 2011; 36, 615-623.
612. MacPherson, L, Tull, MT, Matusiewicz, AK, Rodman, S, Strong, DR, Kahler, CW, . . . Lejuez, CW, Randomized controlled trial of behavioral activation smoking cessation treatment for smokers with elevated depressive symptoms. *Journal of Consulting and Clinical Psychology* 2010; 78, 55-61.
613. Witkiewitz, K and Bowen, S, Depression, craving, and substance use following a randomized trial of mindfulness-based relapse prevention. *Journal of Consulting and Clinical Psychology*, 2010; 78, 362-374.
614. Hammad, TA, Laughren, T, and Racoosin, J, Suicidality in pediatric patients treated with antidepressant drugs. *Archives of General Psychiatry*, 2006; 63, 332-339.
615. Stone, M, Laughren, T, Jones, ML, Levenson, M, Holland, PC, Hughes, A, . . . Rochester, G, Risk of suicidality in clinical trials of antidepressants in adults: Analysis of proprietary data submitted to US Food and Drug Administration. *British Medical Journal*, 2009; 339.
616. Bridge, JA, Iyengar, S, Salary, CB, Barbe, RP, Birmaher, B, Pincus, HA, . . . Brent, DA, Clinical response and risk for reported suicidal ideation and suicide attempts in pediatric antidepressant treatment: A meta-analysis of randomized controlled trials. *Journal of the American Medical Association*, 2007; 297, 1683-1696.
617. Rihmer, Z and Akiskal, H, Do antidepressants t(h)reat(en) depressives? Toward a clinically judicious formulation of the antidepressant–suicidality FDA advisory in light of declining national suicide statistics from many countries. *Journal of Affective Disorders*, 2006; 94, 3-13.
618. Reeves, RR and Ladner, ME, Antidepressant-induced suicidality: An update. *CNS Neuroscience and Therapeutics*, 2010; 16, 227-234.
619. Iovieno, N, Tedeschini, E, Bentley, KH, Evins, AE, and Papakostas, GI, Antidepressants for major depressive disorder and dysthymic disorder in patients with comorbid alcohol use disorders: A meta-analysis of placebo-controlled randomized trials. *Journal of Clinical Psychiatry*, 2011; 72, 1144-1151.
620. Riggs, PD, Mikulich-Gilbertson, SK, Davies, RD, Lohman, M, Klein, C, and Stover, SK, A randomized controlled trial of fluoxetine and cognitive behavioral therapy in adolescents with major depression, behavior problems, and substance use disorders. *Archives of Pediatrics and Adolescent Medicine*, 2007; 161, 1026-1034.
621. Yoon, SJ, Pae, CU, Kim, DJ, Namkoong, K, Lee, E, Oh, DY, . . . Lee, CT, Mirtazapine for patients with alcohol dependence and comorbid depressive disorders: A multicentre, open label study. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 2006; 30, 1196-201.
622. Carpenter, KM, Brooks, AC, Vosburg, SK, and Nunes, EV, The effect of sertraline and environmental context on treating depression and illicit substance use among methadone maintained opiate dependent patients: A controlled clinical trial. *Drug and Alcohol Dependence*, 2004; 74, 123-134.
623. Cornelius, JR, Bukstein, O, Salloum, I, and Clark, D, Alcohol and psychiatric comorbidity. *Recent Developments in Alcoholism*, 2003; 16, 361-374.

624. Chick, J, Aschauer, H, and Hornik, K, Efficacy of fluvoxamine in preventing relapse in alcohol dependence: A one-year, double-blind, placebo-controlled multicentre study with analysis by typology. *Drug and Alcohol Dependence*, 2004; 74, 61-70.
625. Kranzler, HR, Burleson, JA, Brown, J, and Babor, TF, Fluoxetine treatment seems to reduce the beneficial effects of cognitive-behavioral therapy in type B alcoholics. *Alcoholism: Clinical and Experimental Research*, 1996; 20, 1534-1541.
626. Dundon, W, Lynch, KG, Pettinati, HM, and Lipkin, C, Treatment outcomes in type A and B alcohol dependence 6 months after serotonergic pharmacotherapy. *Alcoholism: Clinical and Experimental Research*, 2004; 28, 1065-1073.
627. Pettinati, HM, Volpicelli, JR, Kranzler, HR, Luck, G, Rukstalis, MR, and Cnaan, A, Sertraline treatment for alcohol dependence: Interactive effects of medication and alcoholic subtype. *Alcoholism: Clinical and Experimental Research*, 2000; 24, 1041-1049.
628. Kim, TS, Pae, CU, Yoon, SJ, Bahk, WM, Jun, TY, Rhee, WI, and Chae, JH, Comparison of venlafaxine extended release versus paroxetine for treatment of patients with generalized anxiety disorder. *Psychiatry and Clinical Neurosciences*, 2006; 60, 347-351.
629. Pollack, M, Mangano, R, Entsuah, R, Tzanis, E, and Simon, NM, A randomized controlled trial of venlafaxine ER and paroxetine in the treatment of outpatients with panic disorder. *Psychopharmacology*, 2007; 194, 233-242.
630. Australian Government Department of Health. *National prescribing service: Types of antidepressants*. 2012. Available from: <http://www.nps.org.au/conditions/mental-health-conditions/mood-disorders/depression/for-individuals/medicines-for-depression-antidepressants/types-of-antidepressants>.
631. Pani, PP, Trogu, E, Vecchi, S, and Amato, L, Antidepressants for cocaine dependence and problematic cocaine use. *Cochrane Database of Systematic Reviews*, 2011; 2011, CD002950.
632. Dawe, S and McKetin, R, *The psychiatric comorbidity of psychostimulant use, in Models of intervention and care for psychostimulant users*, A. Baker, N.K. Lee, and L. Jenner, Editors. 2004, Canberra, Australia: Commonwealth Department of Health and Ageing. p. 154-168.
633. NICE, *Depression in adults: The treatment and management of depression in adults: NICE clinical guideline 90*. 2009, London, UK: NICE. Available from: <http://www.nice.org.uk/CG90>.
634. Szegedi, A, Jansen, WT, Van Willigenburg, A, van der Meulen, E, Stassen, HH, and Thase, ME, Early improvement in the first 2 weeks as a predictor of treatment outcome in patients with major depressive disorder: A meta-analysis including 6562 patients. *Journal of Clinical Psychiatry*, 2009; 70, 344-353.
635. Trivedi, MH, Rush, AJ, Wisniewski, SR, Nierenberg, AA, Warden, D, Ritz, L, . . . McGrath, PJ, Evaluation of outcomes with citalopram for depression using measurement-based care in STAR* D: Implications for clinical practice. *American Journal of Psychiatry*, 2006; 163, 28-40.
636. Gartlehner, G, Hansen, RA, Morgan, LC, Thaler, K, Lux, L, Van Noord, M, . . . Wilkins, T, Comparative benefits and harms of second-generation antidepressants for treating major depressive disorder: An updated meta-analysis. *Annals of Internal Medicine*, 2011; 155, 772-785.

637. Boothby, LA, Doering, PL, Boothby, LA, and Doering, PL, Acamprosate for the treatment of alcohol dependence. *Clinical Therapeutics*, 2005; 27, 695-714.
638. Kranzler, HR and Van Kirk, J, Efficacy of naltrexone and acamprosate for alcoholism treatment: A meta-analysis. *Alcoholism: Clinical and Experimental Research*, 2001; 25, 1335-1341.
639. Ooteman, W, Koeter, MW, Verheul, R, Schippers, GM, and Van Den Brink, W, The effect of naltrexone and acamprosate on cue-induced craving, autonomic nervous system and neuroendocrine reactions to alcohol-related cues in alcoholics. *European Neuropsychopharmacology*, 2007; 17, 558-566.
640. Srisurapanont, M, Kittiratanapaiboon, P, and Jarusuraisin, N, Treatment for amphetamine psychosis. *Cochrane Database of Systematic Reviews*, 2008; 2009, CD003026.
641. Verheul, R, Lehter, P, Geerlings, PJ, Koeter, MWJ, and van den Brink, W, Predictors of acamprosate efficacy: Results from a pooled analysis of seven European trials including 1485 alcohol-dependent patients. *Psychopharmacology*, 2005; 178, 167-73.
642. Petrakis, I, Ralevski, E, Nich, C, Levinson, C, Carroll, K, Poling, J, and Rounsaville, B, Naltrexone and disulfiram in patients with alcohol dependence and current depression. *Journal of Clinical Psychopharmacology*, 2007; 27, 160-165.
643. Krystal, JH, Gueorguieva, R, Cramer, J, Collins, J, and Rosenheck, R, Naltrexone is associated with reduced drinking by alcohol dependent patients receiving antidepressants for mood and anxiety symptoms: Results from VA Cooperative Study No. 425, "Naltrexone in the treatment of alcoholism". *Alcoholism: Clinical and Experimental Research*, 2008; 32, 85-91.
644. Pettinati, HM, Oslin, DW, Kampman, KM, Dundon, WD, Xie, H, Gallis, TL, . . . O'Brien, CP, A double-blind, placebo-controlled trial combining sertraline and naltrexone for treating co-occurring depression and alcohol dependence. *American Journal of Psychiatry*, 2010; 167, 668-675.
645. Davidson, D, Wirtz, PW, Gulliver, SB, and Longabaugh, R, Naltrexone's suppressant effects on drinking are limited to the first three months of treatment. *Psychopharmacology*, 2007; 194, 1-10.
646. Gerra, G, Leonardi, C, D'Amore, A, Strepparola, G, Fagetti, R, Assi, C, . . . Lucchini, A, Buprenorphine treatment outcome in dually diagnosed heroin dependent patients: A retrospective study. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 2006; 30, 265-272.
647. Pagnin, D, de Queiroz, V, Pini, S, and Cassano, GB, Efficacy of ECT in depression: A meta-analytic review. *Journal of ECT*, 2004; 20, 13-20.
648. Royal Australian and New Zealand College of Psychiatrists Clinical Practice Guidelines Team for Depression, Australian and New Zealand clinical practice guidelines for the treatment of depression. *Australian and New Zealand Journal of Psychiatry*, 2004; 38, 389-407.
649. Royal Australian and New Zealand College of Psychiatrists. *Electroconvulsive therapy (ECT): Position statement 74*. 2013. Available from: https://www.ranzcp.org/Files/Resources/College_Statements/Position_Statements/74-Electroconvulsive-Therapy-GC2012-3.aspx.
650. NICE, *Guidance on the use of electroconvulsive therapy: NICE technology appraisal guidance 59*. 2009, London, UK: NICE. Available from: <http://www.nice.org.uk/guidance/ta59>.

651. Proudfoot, J, Goldberg, D, Mann, A, Everitt, B, Marks, I, and Gray, J, Computerized, interactive, multimedia cognitive-behavioural program for anxiety and depression in general practice. *Psychological Medicine*, 2003; 33, 217-227.
652. Proudfoot, J, Ryden, C, Everitt, B, Shapiro, DA, Goldberg, D, Mann, A, . . . Gray, JA, Clinical efficacy of computerised cognitive-behavioural therapy for anxiety and depression in primary care: Randomised controlled trial. *British Journal of Psychiatry*, 2004; 185, 46-54.
653. Christensen, H, Griffiths, KM, and Jorm, AF, Delivering interventions for depression by using the internet: Randomised controlled trial. *British Medical Journal*, 2004; 328, 265.
654. Kay-Lambkin, FJ, Baker, AL, Kelly, B, and Lewin, TJ, Clinician-assisted computerised versus therapist-delivered treatment for depressive and addictive disorders: A randomised controlled trial. *Medical Journal of Australia*, 2011; 195, S44-50.
655. Kay-Lambkin, FJ, Baker, AL, Lewin, TJ, and Carr, VJ, Computerbased psychological treatment for comorbid depression and problematic alcohol and/or cannabis use: A randomized controlled trial of clinical efficacy. *Addiction*, 2009; 104, 378-388.
656. Deady, M, Kay-Lambkin, F, Teesson, M, and Mills, K, Developing an integrated, internet-based self-help programme for young people with depression and alcohol use problems. *Internet Interventions*, 2014; 1, 118-131.
657. Deady, M, Mills, KL, Teesson, M, and Kay-Lambkin, F, A randomised controlled trial of an online intervention for co-occurring depression and problematic alcohol use in young people. *JMIR Research Protocols*, 2014; 3, e6.
658. Geisner, IM, Varvil-Weld, L, Mittmann, AJ, Mallett, K, and Turrise, R, Brief web-based intervention for college students with comorbid risky alcohol use and depressed mood: Does it work and for whom? *Addictive Behaviors*, 2015; 42, 36-43.
659. Bhui, K and Fletcher, A, Common mood and anxiety states: Gender differences in the protective effect of physical activity. *Social Psychiatry and Psychiatric Epidemiology*, 2000; 35, 28-35.
660. Hassmen, P, Koivula, N, and Uutela, A, Physical exercise and psychological well-being: A population study in Finland. *Preventive Medicine*, 2000; 30, 17-25.
661. Beesley, S and Mutrie, N, Exercise is beneficial adjunctive treatment in depression. *British Medical Journal*, 1997; 315, 1542-1543.
662. Craft, LL and Landers, DM, The effect of exercise on clinical depression and depression resulting from mental illness: A meta-analysis. *Journal of Sport and Exercise Psychology*, 1998; 20, 339-357.
663. Cooney, GM, Dwan, K, Greig, CA, Lawlor, DA, Rimer, J, Waugh, FR, . . . Mead, GE, Exercise for depression. *Cochrane Database of Systematic Reviews*, 2013; 2013, CD004366.
664. Herring, MP, O'Connor, PJ, and Dishman, RK, The effect of exercise training on anxiety symptoms among patients: A systematic review. *Archives of Internal Medicine*, 2010; 170, 321-331.
665. Perraton, LG, Kumar, S, and Machotka, Z, Exercise parameters in the treatment of clinical depression: A systematic review of randomized controlled trials. *Journal of Evaluation in Clinical Practice*, 2010; 16, 597-604.

666. Swendsen, JD and Merikangas, KR, The comorbidity of depression and substance use disorders. *Clinical Psychology Review*, 2000; 20, 173-189.
667. Muller, AE and Clausen, T, Group exercise to improve quality of life among substance use disorder patients. *Scandinavian Journal of Public Health*, 2015; 43, 146-152.
668. Martin, KA and Sinden, AR, Who will stay and who will go? A review of older adults' adherence to randomized controlled trials of exercise. *Journal of Aging and Physical Activity*, 2001; 9, 91-114.
669. Iyengar, BKS, *Light on yoga*. 1965, London, UK: Allen and Unwin.
670. Feuerstein, G, *The yoga tradition: Its history, literature, philosophy and practice*. 2001, Prescott, AZ: Hohm Press.
671. Riley, D, Hatha yoga and the treatment of illness (commentary). *Alternative Therapies in Health and Medicine*, 2004; 10, 20-21.
672. Smith, KB and Pukall, CF, An evidencebased review of yoga as a complementary intervention for patients with cancer. *Psycho-Oncology*, 2009; 18, 465-475.
673. Cramer, H, Lange, S, Klose, P, Paul, A, and Dobos, G, Yoga for breast cancer patients and survivors: A systematic review and meta-analysis. *BMC Cancer*, 2012; 12, 412.
674. Cramer, H, Lauche, R, Langhorst, J, and Dobos, G, Effectiveness of yoga for menopausal symptoms: A systematic review and meta-analysis of randomized controlled trials. *Evidence-Based Complementary and Alternative Medicine*, 2012; 2012, 863905.
675. Büssing, A, Ostermann, T, Lüdtke, R, and Michalsen, A, Effects of yoga interventions on pain and pain-associated disability: A meta-analysis. *Journal of Pain*, 2012; 13, 1-9.
676. Cramer, H, Lauche, R, Langhorst, J, and Dobos, G, Yoga for depression: A systematic review and metaanalysis. *Depression and Anxiety*, 2013; 30, 1068-1083.
677. Pilkington, K, Kirkwood, G, Rampes, H, and Richardson, J, Yoga for depression: The research evidence. *Journal of Affective Disorders*, 2005; 89, 13-24.
678. Meyer, HB, Katsman, A, Sones, AC, Auerbach, DE, Ames, D, and Rubin, RT, Yoga as an ancillary treatment for neurological and psychiatric disorders: A review. *Journal of Neuropsychiatry and Clinical Neurosciences*, 2012; 24, 152-164.
679. Uebelacker, LA, Epstein-Lubow, G, Gaudiano, BA, Tremont, G, Battle, CL, and Miller, IW, Hatha yoga for depression: Critical review of the evidence for efficacy, plausible mechanisms of action, and directions for future research. *Journal of Psychiatric Practice*, 2010; 16, 22-33.
680. Vedamurthachar, A, Janakiramaiah, N, Hegde, JM, Shetty, TK, Subbakrishna, D, Sureshbabu, S, and Gangadhar, B, Antidepressant efficacy and hormonal effects of Sudarshana Kriya Yoga (SKY) in alcohol dependent individuals. *Journal of Affective Disorders*, 2006; 94, 249-253.
681. Hibbeln, J, Fish consumption and major depression (letter). *The Lancet*, 1998; 351, 1213.
682. Hibbeln, JR, Seafood consumption, the DHA content of mothers' milk and prevalence rates of postpartum depression: A cross-national, ecological analysis. *Journal of Affective Disorders*, 2002; 69, 15-29.

683. Tanskanen, A, Hibbeln, JR, Tuomilehto, J, Uutela, A, Haukkala, A, Viinamäki, H, . . . Vartiainen, E, Fish consumption and depressive symptoms in the general population in Finland. *Psychiatric Services*, 2001; 52, 529-531.
684. Timonen, M, Horrobin, D, Jokelainen, J, Laitinen, J, Herva, A, and Räsänen, P, Fish consumption and depression: The Northern Finland 1966 birth cohort study. *Journal of Affective Disorders*, 2004; 82, 447-452.
685. Maes, M, Christophe, A, Delanghe, J, Altamura, C, Neels, H, and Meltzer, HY, Lowered 3 polyunsaturated fatty acids in serum phospholipids and cholesteryl esters of depressed patients. *Psychiatry Research*, 1999; 85, 275-291.
686. Edwards, R, Peet, M, Shay, J, and Horrobin, D, Omega-3 polyunsaturated fatty acid levels in the diet and in red blood cell membranes of depressed patients. *Journal of Affective Disorders*, 1998; 48, 149-155.
687. Peet, M, Murphy, B, Shay, J, and Horrobin, D, Depletion of omega-3 fatty acid levels in red blood cell membranes of depressive patients. *Biological Psychiatry*, 1998; 43, 315-319.
688. Nemets, B, Stahl, Z, and Belmaker, R, Addition of omega-3 fatty acid to maintenance medication treatment for recurrent unipolar depressive disorder. *American Journal of Psychiatry*, 2002; 159, 477-479.
689. DeMar, JC, Ma, K, Bell, JM, Igarashi, M, Greenstein, D, and Rapoport, SI, One generation of n-3 polyunsaturated fatty acid deprivation increases depression and aggression test scores in rats. *Journal of Lipid Research*, 2006; 47, 172-180.
690. Beier, AM, Lauritzen, L, Galfalvy, HC, Cooper, TB, Oquendo, MA, Grunebaum, MF, . . . Sublette, ME, Low plasma eicosapentaenoic acid levels are associated with elevated trait aggression and impulsivity in major depressive disorder with a history of comorbid substance use disorder. *Journal of Psychiatric Research*, 2014; 57, 133-140.
691. Buydens-Branchey, L, Branchey, M, and Hibbeln, JR, Associations between increases in plasma n-3 polyunsaturated fatty acids following supplementation and decreases in anger and anxiety in substance abusers. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 2008; 32, 568-575.
692. Buydens-Branchey, L, Branchey, M, McMakin, DL, and Hibbeln, JR, Polyunsaturated fatty acid status and aggression in cocaine addicts. *Drug and Alcohol Dependence*, 2003; 71, 319-323.
693. Zanarini, MC and Frankenburg, FR, Omega-3 fatty acid treatment of women with borderline personality disorder: A double-blind, placebo-controlled pilot study. *American Journal of Psychiatry*, 2003; 160, 167-169.
694. Hallahan, B, Hibbeln, JR, Davis, JM, and Garland, MR, Omega-3 fatty acid supplementation in patients with recurrent self-harm. *British Journal of Psychiatry*, 2007; 190, 118-122.
695. Huan, M, Hamazaki, K, Sun, Y, Itomura, M, Liu, H, Kang, W, . . . Hamazaki, T, Suicide attempt and n-3 fatty acid levels in red blood cells: A case control study in China. *Biological Psychiatry*, 2004; 56, 490-496.
696. Hypericum Depression Trial Study Group, Effect of hypericum perforatum (St John's wort) in major depressive disorder: A randomized controlled trial. *Journal of the American Medical Association*, 2002; 287, 1807-1814.

697. Gaster, B and Holroyd, J, St John's wort for depression: A systematic review. *Archives of Internal Medicine*, 2000; 160, 152-156.
698. Substance Abuse and Mental Health Services Administration, *Trauma-informed care in behavioral health services. Treatment Improvement Protocol (TIP) series 57*. 2014, Rockville, MD: Substance Abuse and Mental Health Services Administration.
699. Kushner, MG, Abrams, K, Thuras, P, Hanson, KL, Brekke, M, and Sletten, S, Followup study of anxiety disorder and alcohol dependence in comorbid alcoholism treatment patients. *Alcoholism: Clinical and Experimental Research*, 2005; 29, 1432-1443.
700. Manzonni, GM, Pagnini, F, Castelnovo, G, and Molinari, E, Relaxation training for anxiety: A ten-years systematic review with meta-analysis. *BMC Psychiatry*, 2008; 8, 41.
701. Andrews, G, Creamer, M, Crino, R, Hunt, C, Lampe, L, and Page, A, *The treatment of anxiety disorders (2nd ed.)*. 2003, Cambridge, UK: Cambridge University Press.
702. Stewart, RE and Chambless, DL, Cognitive-behavioral therapy for adult anxiety disorders in clinical practice: A meta-analysis of effectiveness studies. *Journal of Consulting and Clinical Psychology*, 2009; 77, 595-606.
703. Baillie, AJ and Rapee, RM, Predicting who benefits from psychoeducation and self-help for panic attacks. *Behaviour Research and Therapy*, 2003; 42, 513-527.
704. Pasche, S, Exploring the comorbidity of anxiety and substance use disorders. *Current Psychiatry Reports*, 2012; 14, 176-181.
705. Davidson, J, Zhang, W, Connor, K, Ji, J, Jobson, K, Lecrubier, Y, . . . Osser, D, Review: A psychopharmacological treatment algorithm for generalised anxiety disorder (GAD). *Journal of Psychopharmacology*, 2010; 24, 3-26.
706. Bandelow, B, Sher, L, Bunevicius, R, Hollander, E, Kasper, S, Zohar, J, and Möller, H-J, Guidelines for the pharmacological treatment of anxiety disorders, obsessive-compulsive disorder and posttraumatic stress disorder in primary care. *International Journal of Psychiatry in Clinical Practice*, 2012; 16, 77-84.
707. Hunot, V, Churchill, R, Teixeira, V, and Silva de Lima, M, Psychological therapies for generalised anxiety disorder. *Cochrane Database of Systematic Reviews*, 2008; 2007, CD001848.
708. Ipser, JC, Wilson, D, Akindipe, TO, Sager, C, and Stein, DJ, Pharmacotherapy for anxiety and comorbid alcohol use disorders. *Cochrane Database of Systematic Reviews*, 2015; 2015, CD007505.
709. Lampe, L, Drug treatment for anxiety. *Australian Prescriber*, 2013; 36, 186-189.
710. Kushner, MG, Maurer, EW, Thuras, P, Donahue, C, Frye, B, Menary, KR, . . . Van Demark, J, Hybrid cognitive behavioral therapy versus relaxation training for co-occurring anxiety and alcohol disorder: A randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 2013; 81, 429-442.
711. NICE, *Generalised anxiety disorder and panic disorder (with or without agoraphobia) in adults: Management in primary, secondary and community care: NICE clinical guideline 113*. 2011, London, UK: NICE. Available from: www.nice.org.uk/CG113.

712. Cuijpers, P, Sijbrandij, M, Koole, SL, Andersson, G, Beekman, AT, and Reynolds, CF, The efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders: A metaanalysis of direct comparisons. *World Psychiatry*, 2013; 12, 137-148.
713. Cuijpers, P, Sijbrandij, M, Koole, SL, Andersson, G, Beekman, AT, and Reynolds, CF, Adding psychotherapy to antidepressant medication in depression and anxiety disorders: A meta-analysis. *World Psychiatry*, 2014; 13, 56-67.
714. Kranzler, HR, Armeli, S, Tennen, H, Covault, J, Feinn, R, Arias, AJ, . . . Oncken, C, A double-blind, randomized trial of sertraline for alcohol dependence: moderation by age of onset and 5-HTTLPR genotype. *Journal of Clinical Psychopharmacology*, 2011; 31, 22-30.
715. Snyderman, SH, Rynn, MA, Bellew, K, and Rickels, K, Paroxetine in the treatment of generalised anxiety disorder. *Expert Opinion on Pharmacotherapy*, 2004; 5, 1799-806.
716. McHugh, RK, Treatment of co-occurring anxiety disorders and substance use disorders. *Harvard Review of Psychiatry*, 2015; 23, 99-111.
717. Tollefson, GD, Montague-Clouse, J, and Tollefson, SL, Treatment of comorbid generalized anxiety in a recently detoxified alcoholic population with a selective serotonergic drug (buspirone). *Journal of Clinical Psychopharmacology*, 1992; 12, 19-26.
718. Kranzler, HR, Bursleson, JA, Del Boca, FK, Babor, TF, Korner, P, Brown, J, and Bohn, MJ, Buspirone treatment of anxious alcoholics: A placebo-controlled trial. *Archives of General Psychiatry*, 1994; 51, 720-731.
719. Malcolm, R, Anton, RF, Randall, CL, Johnston, A, Brady, K, and Thevos, A, A placebocontrolled trial of buspirone in anxious inpatient alcoholics. *Alcoholism: Clinical and Experimental Research*, 1992; 16, 1007-1013.
720. McRae, AL, Sonne, SC, Brady, KT, Durkalski, V, and Palesch, Y, A randomized, placebo-controlled trial of buspirone for the treatment of anxiety in opioid-dependent individuals. *American Journal on Addictions*, 2004; 13, 53-63.
721. Furukawa, TA, Watanabe, N, and Churchill, R, Combined psychotherapy plus antidepressants for panic disorder with or without agoraphobia. *Cochrane Database of Systematic Reviews*, 2007; 1007, CD004364.
722. Bowen, RC, D'Arcy, C, Keegan, D, and Senthilselvan, A, A controlled trial of cognitive behavioral treatment of panic in alcoholic inpatients with comorbid panic disorder. *Addictive Behaviors*, 2000; 25, 593-597.
723. Schadé, A, Marquenie, LA, Balkom, AJ, Koeter, MW, Beurs, E, Brink, W, and Dyck, R, The effectiveness of anxiety treatment on alcoholdependent patients with a comorbid phobic disorder: A randomized controlled trial. *Alcoholism: Clinical and Experimental Research*, 2005; 29, 794-800.
724. Schadé, A, Marquenie, LA, Van Balkom, AJ, Koeter, MW, de Beurs, E, van Dyck, R, and van den Brink, W, Anxiety disorders: Treatable regardless of the severity of comorbid alcohol dependence. *European Addiction Research*, 2007; 13, 109-115.
725. Batelaan, NM, Van Balkom, AJLM, and Stein, DJ, Evidence-based pharmacotherapy of panic disorder: An update. *International Journal of Neuropsychopharmacology*, 2012; 15, 403-415.

726. Randall, CL, Thomas, S, and Thevos, AK, Concurrent alcoholism and social anxiety disorder: A first step toward developing effective treatments. *Alcoholism: Clinical and Experimental Research*, 2001; 25, 210-220.
727. Stapinski, LA, Rapee, RM, Sannibale, C, Teesson, M, Haber, P, and Baillie, AJ, The clinical and theoretical basis for integrated cognitive behavioural treatment of co-morbid social phobia and alcohol use disorders. *Cognitive and Behavioural Practice*, in press.
728. Baillie, AJ, Sannibale, C, Stapinski, LA, Teesson, M, Rapee, RM, and Haber, PS, An investigator-blinded, randomized study to compare the efficacy of combined CBT for alcohol use disorders and social anxiety disorder versus CBT focused on alcohol alone in adults with comorbid disorders: The Combined Alcohol Social Phobia (CASP) trial protocol. *BMC Psychiatry*, 2013; 13, 199.
729. Baillie, A, Stapinski, L, Sannibale, C, Teesson, M, Rapee, R, and Haber, P, RCT of combined CBT for alcohol use and social anxiety disorders. *Alcoholism: Clinical and Experimental Research*, 2013; 37, 200A.
730. Stein, DJ, Ipser, JC, and van Balkom, AJ, Pharmacotherapy for social anxiety disorder. *Cochrane Database of Systematic Reviews*, 2000; 2000, CD001206.
731. NICE, *Social anxiety disorder: recognition, assessment and treatment: NICE clinical guideline 159*. 2013, London, UK: NICE. Available from: www.nice.org.uk/guidance/cg159.
732. Book, SW, Thomas, SE, Randall, PK, and Randall, CL, Paroxetine reduces social anxiety in individuals with a co-occurring alcohol use disorder. *Journal of Anxiety Disorders*, 2008; 22, 310-318.
733. Randall, CL, Johnson, MR, Thevos, AK, Sonne, SC, Thomas, SE, Willard, SL, and Brady, KT, Paroxetine for social anxiety and alcohol use in dualdiagnosed patients. *Depression and Anxiety*, 2001; 14, 255-262.
734. Thomas, SE, Randall, PK, Book, SW, and Randall, CL, A complex relationship between cooccurring social anxiety and alcohol use disorders: What effect does treating social anxiety have on drinking? *Alcoholism: Clinical and Experimental Research*, 2008; 32, 77-84.
735. Richards, D, Richardson, T, Timulak, L, and McElvaney, J, The efficacy of internet-delivered treatment for generalized anxiety disorder: A systematic review and meta-analysis. *Internet Interventions*, 2015; 2, 272-282.
736. Spek, V, Cuijpers, P, Nyklíček, I, Riper, H, Keyzer, J, and Pop, V, Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: A meta-analysis. *Psychological Medicine*, 2007; 37, 319-328.
737. Cuijpers, P, Marks, IM, van Straten, A, Cavanagh, K, Gega, L, and Andersson, G, Computeraided psychotherapy for anxiety disorders: A metaanalytic review. *Cognitive Behaviour Therapy*, 2009; 38, 66-82.
738. Kenwright, M, Liness, S, and Marks, I, Reducing demands on clinicians by offering computer-aided self-help for phobia/panic: Feasibility study. *British Journal of Psychiatry*, 2001; 179, 456-459.
739. Marks, IM, Kenwright, M, McDonough, M, Whittaker, M, and Mataix-Cols, D, Saving clinicians' time by delegating routine aspects of therapy to a computer: A randomized controlled trial in phobia/panic disorder. *Psychological Medicine*, 2004; 34, 9-17.

740. Klein, B, Meyer, D, Austin, DW, and Kyrios, M, Anxiety online: A virtual clinic: Preliminary outcomes following completion of five fully automated treatment programs for anxiety disorders and symptoms. *Journal of Medical Internet Research*, 2011; 13, e89.
741. Herring, MP, Jacob, ML, Suveg, C, Dishman, RK, and O'Connor, PJ, Feasibility of exercise training for the short-term treatment of generalized anxiety disorder: A randomized controlled trial. *Psychotherapy and Psychosomatics*, 2012; 81, 21-28.
742. Merom, D, Phongsavarn, P, Wagner, R, Chey, T, Marnane, C, Steel, Z, . . . Bauman, A, Promoting walking as an adjunct intervention to group cognitive behavioral therapy for anxiety disorders: A pilot group randomized trial. *Journal of Anxiety Disorders*, 2008; 22, 959-968.
743. Wedekind, D, Brooks, A, Weiss, N, Engel, K, Neubert, K, and Bandelow, B, A randomized, controlled trial of aerobic exercise in combination with paroxetine in the treatment of panic disorder. *World Journal of Biological Psychiatry*, 2010; 11, 904-913.
744. Brooks, A, Bandelow, B, Pekrun, G, George, A, Meyer, T, Bartmann, U, . . . Rüther, E, Comparison of aerobic exercise, clomipramine, and placebo in the treatment of panic disorder. *American Journal of Psychiatry*, 1998; 155, 603-609.
745. Hovland, A, Nordhus, IH, Sjøbø, T, Gjestad, BA, Birknes, B, Martinsen, EW, . . . Pallesen, S, Comparing physical exercise in groups to group cognitive behaviour therapy for the treatment of panic disorder in a randomized controlled trial. *Behavioural and Cognitive Psychotherapy*, 2013; 41, 408-432.
746. Scully, D, Kremer, J, Meade, MM, Graham, R, and Dudgeon, K, Physical exercise and psychological well being: A critical review. *British Journal of Sports Medicine*, 1998; 32, 111-120.
747. Krisanaprakornkit, T, Sriraj, W, Piyavhatkul, N, and Laopailboon, M, Meditation therapy for anxiety disorders. *The Cochrane Library*, 2006; 2009, CD004998.
748. Toneatto, T and Nguyen, L, Does mindfulness meditation improve anxiety and mood symptoms? A review of the controlled research. *Canadian Journal of Psychiatry*, 2007; 52, 260.
749. Chen, KW, Berger, CC, Manheimer, E, Forde, D, Magidson, J, Dachman, L, and Lejuez, C, Meditative therapies for reducing anxiety: A systematic review and metaanalysis of randomized controlled trials. *Depression and Anxiety*, 2012; 29, 545-562.
750. Vøllestad, J, Nielsen, MB, and Nielsen, GH, Mindfulness and acceptance based interventions for anxiety disorders: A systematic review and metaanalysis. *British Journal of Clinical Psychology*, 2012; 51, 239-260.
751. Lakhan, SE and Vieira, KF, Nutritional and herbal supplements for anxiety and anxiety-related disorders: Systematic review. *Nutritional Journal*, 2010; 9, 1-14.
752. Sarris, J, Panossian, A, Schweitzer, I, Stough, C, and Scholey, A, Herbal medicine for depression, anxiety and insomnia: A review of psychopharmacology and clinical evidence. *European Neuropsychopharmacology*, 2011; 21, 841-860.
753. van der Watt, G, Laugharne, J, and Janca, A, Complementary and alternative medicine in the treatment of anxiety and depression. *Current Opinion in Psychiatry*, 2008; 21, 37-42.
754. Davidson, JR, Crawford, C, Ives, JA, and Jonas, WB, Homeopathic treatments in psychiatry: A systematic review of randomized placebo-controlled studies. *Journal of Clinical Psychiatry*, 2011; 72, 795-805.

755. Pilkington, K, Kirkwood, G, Rampes, H, Fisher, P, and Richardson, J, Homeopathy for anxiety and anxiety disorders: A systematic review of the research. *Homeopathy*, 2006; 95, 151-162.
756. Tiet, QQ and Mausbach, B, Treatments for patients with dual diagnosis: A review. *Alcoholism: Clinical and Experimental Research*, 2007; 31, 513-536.
757. Fals-Stewart, W and Lucente, S, Treating obsessive-compulsive disorder among substance abusers: A guide. *Psychology of Addictive Behaviors*, 1994; 8, 14-23.
758. Baldwin, DS, Anderson, IM, Nutt, DJ, Allgulander, C, Bandelow, B, den Boer, JA, . . . Lidbetter, N, Evidence-based pharmacological treatment of anxiety disorders, post-traumatic stress disorder and obsessive-compulsive disorder: A revision of the 2005 guidelines from the British Association for Psychopharmacology. *Journal of Psychopharmacology*, 2014; 28, 403-439.
759. Klostermann, KC and Fals-Stewart, W, *Treatment of co-morbid obsessive-compulsive disorder and substance use disorders*, in *Anxiety and Substance Use Disorders*, S.H. Stewart and P.J. Conrod, Editors. 2008, New York, NY: Springer. p. 101-117.
760. Baer, L and Minichiello, W, Behavioral treatment for obsessive-compulsive disorder. *Handbook of anxiety*. Amsterdam, NY: Elsevier, 1990.
761. Warren, R and Thomas, JC, Cognitive-behavior therapy of obsessive-compulsive disorder in private practice: An effectiveness study. *Journal of Anxiety Disorders*, 2001; 15, 277-285.
762. Hofmann, SG and Smits, JA, Cognitive-behavioral therapy for adult anxiety disorders: A meta-analysis of randomized placebo-controlled trials. *Journal of Clinical Psychiatry*, 2008; 69, 621-632.
763. Norton, PJ and Price, EC, A meta-analytic review of adult cognitive-behavioral treatment outcome across the anxiety disorders. *Journal of Nervous and Mental Disease*, 2007; 195, 521-531.
764. Abramowitz, JS, Variants of exposure and response prevention in the treatment of obsessive-compulsive disorder: A meta-analysis. *Behavior Therapy*, 1996; 27, 583-600.
765. Kobak, KA, Greist, JH, Jefferson, JW, Katzelnick, DJ, and Henk, HJ, Behavioral versus pharmacological treatments of obsessive compulsive disorder: A meta-analysis. *Psychopharmacology*, 1998; 136, 205-216.
766. Foa, EB, Liebowitz, MR, Kozak, MJ, Davies, S, Campeas, R, Franklin, ME, . . . Tu, X, Randomized, placebo-controlled trial of exposure and ritual prevention, clomipramine, and their combination in the treatment of obsessive-compulsive disorder. *American Journal of Psychiatry*, 2005; 5, 368-380.
767. O'Kearney, RT, Anstey, K, von Sanden, C, and Hunt, A, Behavioural and cognitive behavioural therapy for obsessive compulsive disorder in children and adolescents. *Cochrane Database of Systematic Reviews*, 2006; 2006, CD004856.
768. Gava, I, Barbui, C, Aguglia, E, Carlino, D, Churchill, R, De Vanna, M, and McGuire, H, Psychological treatments versus treatment as usual for obsessive compulsive disorder (OCD). *Cochrane Database of Systematic Reviews*, 2007; 2007, CD005333.
769. Ponniah, K, Magiati, I, and Hollon, SD, An update on the efficacy of psychological treatments for obsessive-compulsive disorder in adults. *Journal of Obsessive-Compulsive and Related Disorders*, 2013; 2, 207-218.

770. Rosa-Alcázar, AI, Sánchez-Meca, J, Gómez-Conesa, A, and Marín-Martínez, F, Psychological treatment of obsessive-compulsive disorder: A meta-analysis. *Clinical Psychology Review*, 2008; 28, 1310-1325.
771. Pato, MT, Murphy, DL, Zohar-Kadouch, R, and Zohar, J, Return of symptoms after discontinuation of clomipramine in patients with obsessive-compulsive disorder. *American Journal of Psychiatry*, 1988; 145, 1521-1525.
772. Dunbar, G, Steiner, M, Bushnell, M, Gergel, I, and DE, W, Long-term treatment and prevention of relapse of OCD with paroxetine. *European Neuropsychopharmacology*, 1995; 5, 372.
773. Koran, L.M. and H. Blair Simpson, *Guideline watch: Practice guideline for the treatment of patients with obsessive-compulsive disorder* 2013, Arlington, VA: American Psychiatric Association. Available from: http://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/ocd-watch.pdf.
774. Expert Consensus Panel, Treatment of obsessive-compulsive disorder. The Expert Consensus Panel for obsessive-compulsive disorder. *Journal of Clinical Psychiatry*, 1997; 58, 2-72.
775. NICE, *Obsessive-compulsive disorder: Core interventions in the treatment of obsessive-compulsive disorder and body dysmorphic disorder: NICE clinical guideline 31*. 2005, London, UK: NICE. Available from: <http://www.nice.org.uk/guidance/cg31>.
776. Abramowitz, JS, Baucom, DH, Wheaton, MG, Boeding, S, Fabricant, LE, Paprocki, C, and Fischer, MS, Enhancing exposure and response prevention for OCD: A couple-based approach. *Behavior Modification*, 2013; 37, 189-210.
777. Kozak, MJ and Foa, EB, *Mastery of obsessive-compulsive disorder: A cognitive-behavioral approach*. 2004, New York, NY: Oxford University Press.
778. Franklin, ME and Foa, EB, *Cognitive behavioral treatments for obsessive compulsive disorder*, in *A guide to treatments that work* (2nd ed.), P.E. Nathan and J.M. Gorman, Editors. 2002, New York, NY: Oxford University Press. p. 367-386.
779. Fals-Stewart, W and Schafer, J, The treatment of substance abusers diagnosed with obsessive-compulsive disorder: An outcome study. *Journal of Substance Abuse Treatment*, 1992; 9, 365-370.
780. Stewart, SH and O'Connor, RM, Treating anxiety disorders in the context of concurrent substance misuse. *Treatment Resistant Anxiety Disorders*, 2009, 291-323.
781. Soomro, G, Altman, D, Rajagopal, S, and Oakley Browne, M, Selective serotonin re-uptake inhibitors (SSRIs) versus placebo for obsessive compulsive disorder (OCD). *Cochrane Database of Systematic Reviews*, 2008; 2008, CD001765.
782. Fineberg, NA, Brown, A, Reghunandanan, S, and Pampaloni, I, Evidence-based pharmacotherapy of obsessive-compulsive disorder. *International Journal of Neuropsychopharmacology*, 2012; 15, 1173-1191.
783. Cottraux, J, Mollard, E, Bouvard, M, Marks, I, Sluys, M, Nury, AM, . . . Cialdella, P, A controlled study of fluvoxamine and exposure in obsessive-compulsive disorder. *International Clinical Psychopharmacology*, 1990; 5, 17-30.

784. Hohagen, F, Winkelmann, G, Rasche-Räuchle, H, Hand, I, König, A, Münchau, N, . . . Schramm, P, Combination of behaviour therapy with fluvoxamine in comparison with behaviour therapy and placebo: Results of a multicentre study. *British Journal of Psychiatry*, 1998; 173, 71-78.
785. Simpson, HB, Foa, EB, Liebowitz, MR, Ledley, DR, Huppert, JD, Cahill, S, . . . Franklin, M, A randomized, controlled trial of cognitive-behavioral therapy for augmenting pharmacotherapy in obsessive-compulsive disorder. *American Journal of Psychiatry*, 2008; 165, 621-630.
786. Romanelli, RJ, Wu, FM, Gamba, R, Mojtabai, R, and Segal, JB, Behavioral therapy and serotonin reuptake inhibitor pharmacotherapy in the treatment of obsessive-compulsive disorder: A systematic review and metaanalysis of headtohead randomized controlled trials. *Depression and Anxiety*, 2014; 31, 641-652.
787. Kushner, MG, Kim, SW, Donahue, C, Thuras, P, Adson, D, Kotlyar, M, . . . Foa, EB, D-cycloserine augmented exposure therapy for obsessive-compulsive disorder. *Biological Psychiatry*, 2007; 62, 835-838.
788. Storch, EA, Murphy, TK, Goodman, WK, Geffken, GR, Lewin, AB, Henin, A, . . . Bengtson, M, A preliminary study of D-cycloserine augmentation of cognitive-behavioral therapy in pediatric obsessive-compulsive disorder. *Biological Psychiatry*, 2010; 68, 1073-1076.
789. Wilhelm, S, Buhlmann, U, Tolin, DF, Meunier, SA, Pearlson, GD, Reese, HE, . . . Rauch, SL, Augmentation of behavior therapy with D-cycloserine for obsessive-compulsive disorder. *American Journal of Psychiatry*, 2008; 165, 335-341.
790. Wootton, BM, Titov, N, Dear, BF, Spence, J, Andrews, G, Johnston, L, and Solley, K, An internet administered treatment program for obsessive-compulsive disorder: A feasibility study. *Journal of Anxiety Disorders*, 2011; 25, 1102-1107.
791. Marks, IM, Baer, L, Greist, J, Park, J, Bachofen, M, Nakagawa, A, . . . Döttl, S, Home self-assessment of obsessive-compulsive disorder: Use of a manual and a computer-conducted telephone interview: Two UK-US studies. *British Journal of Psychiatry*, 1998; 172, 406-412.
792. Greist, JH, Marks, IM, Baer, L, Kobak, KA, Wenzel, KW, Hirsch, MJ, . . . Clary, CM, Behavior therapy for obsessive-compulsive disorder guided by a computer or by a clinician compared with relaxation as a control. *Journal of Clinical Psychiatry*, 2002; 63, 138-145.
793. Andersson, E, Enander, J, Andrén, P, Hedman, E, Ljótsson, B, Hursti, T, . . . Andersson, G, Internet-based cognitive behaviour therapy for obsessive-compulsive disorder: A randomized controlled trial. *Psychological Medicine*, 2012; 42, 2193-2203.
794. Wootton, BM, Dear, BF, Johnston, L, Terides, MD, and Titov, N, Remote treatment of obsessive-compulsive disorder: A randomized controlled trial. *Journal of Obsessive-Compulsive and Related Disorders*, 2013; 2, 375-384.
795. Lovell, K and Bee, P, Optimising treatment resources for OCD: A review of the evidence base for technology-enhanced delivery. *Journal of Mental Health*, 2011; 20, 525-542.
796. Pozza, A, Andersson, G, Antonelli, P, and Dettore, D, Computer-delivered cognitive-behavioural treatments for obsessive compulsive disorder: Preliminary meta-analysis of randomized and non-randomized effectiveness trials. *Cognitive Behaviour Therapist*, 2014; 7, e16.

797. Marks, I, Cavanagh, K, and Gega, L, Computer-aided psychotherapy: Revolution or bubble? *British Journal of Psychiatry*, 2007; 191, 471-473.
798. Olthuis, JV, Watt, MC, Bailey, K, Hayden, JA, and Stewart, SH, Therapist-supported Internet cognitive behavioural therapy for anxiety disorders in adults. *The Cochrane Library*, 2015; 2015, CD011565.
799. Lancer, R, Motta, R, and Lancer, D, The effect of aerobic exercise on obsessive-compulsive disorder, anxiety, and depression: A preliminary investigation. *The Behavior Therapist*, 2007; 30, 57-62.
800. Brown, RA, Abrantes, AM, Strong, DR, Mancebo, MC, Menard, J, Rasmussen, SA, and Greenberg, BD, A pilot study of moderate-intensity aerobic exercise for obsessive compulsive disorder. *Journal of Nervous and Mental Disease*, 2007; 195, 514-520.
801. Abrantes, AM, Strong, DR, Cohn, A, Cameron, AY, Greenberg, BD, Mancebo, MC, and Brown, RA, Acute changes in obsessions and compulsions following moderate-intensity aerobic exercise among patients with obsessive-compulsive disorder. *Journal of Anxiety Disorders*, 2009; 23, 923-927.
802. Jenike, MA, Obsessive-compulsive disorder. *New England Journal of Medicine*, 2004; 350, 259-265.
803. Jenike, MA, Baer, L, and Minichiello, WE, *Obsessive-compulsive disorders: Practical management* (3rd ed.). 1998, St Louis, MO: Mosby.
804. Sarris, J, Camfield, D, and Berk, M, Complementary medicine, self-help, and lifestyle interventions for obsessive compulsive disorder (OCD) and the OCD spectrum: A systematic review. *Journal of Affective Disorders*, 2012; 138, 213-221.
805. Chapman, C, Mills, K, Slade, T, McFarlane, AC, Bryant, R, Creamer, M, . . . Teesson, M, Remission from post-traumatic stress disorder in the general population. *Psychological Medicine*, 2012; 42, 1695-1703.
806. Rosenberg, L, Addressing trauma in mental health and substance use treatment. *Journal of Behavioral Health Services and Research*, 2011; 38, 428-431.
807. Mills, KL, The importance of providing trauma-informed care in alcohol and other drug services. *Drug and Alcohol Review*, 2015; 34, 231-233.
808. Brady, KT, Killeen, T, Saladen, ME, Dansky, B, and Becker, S, Comorbid substance abuse and post traumatic stress disorder: Characteristics of women in treatment. *American Journal on Addictions*, 1994; 3, 160-163.
809. Brown, PJ and Wolfe, J, Substance abuse and post-traumatic stress disorder comorbidity. *Drug and Alcohol Dependence*, 1994; 35, 51-59.
810. Kofoed, L, Friedman, MJ, and Peck, R, Alcoholism and drug abuse in inpatients with PTSD. *Psychiatric Quarterly*, 1993; 64, 151-171.
811. Davies, MI and Clark, DM, Predictors of analogue post-traumatic intrusive cognitions. *Behavioural and Cognitive Psychotherapy*, 1998; 26, 303-314.
812. Dunmore, E, Clark, DM, and Ehlers, A, A prospective investigation of the role of cognitive factors in persistent posttraumatic stress disorder (PTSD) after physical or sexual assault. *Behaviour Research and Therapy*, 2001; 39, 1063-1084.

813. Perkonig, A, Pfister, H, Stein, MB, Höfler, M, Lieb, R, Maercker, A, and Wittchen, H-U, Longitudinal course of posttraumatic stress disorder and posttraumatic stress disorder symptoms in a community sample of adolescents and young adults. *American Journal of Psychiatry*, 2005; 162, 1320-1327.
814. Pineles, SL, Mostoufi, SM, Ready, CB, Street, AE, Griffin, MG, and Resick, PA, Trauma reactivity, avoidant coping, and PTSD symptoms: A moderating relationship? *Journal of Abnormal Psychology*, 2011; 120, 240-246.
815. Ouimette, P and Brown, PJ, *Trauma and substance abuse*. 2003, Washington, DC: American Psychological Association.
816. Mills, KL, Ewer, P, Dore, G, Teesson, M, Baker, A, Kay-Lambkin, F, and Sannibale, C, The feasibility and acceptability of a brief intervention for clients of substance use services experiencing symptoms of post traumatic stress disorder. *Addictive Behaviours*, 2014; 39, 1094-1099.
817. Ewer, PL, Teesson, M, Sannibale, C, Roche, A, and Mills, KL, The prevalence and correlates of secondary traumatic stress among alcohol and other drug workers in Australia. *Drug and Alcohol Review*, 2015; 34, 252-258.
818. Back, SE, Waldrop, AE, and Brady, KT, Treatment challenges associated with comorbid substance use and posttraumatic stress disorder: Clinicians' perspectives. *American Journal on Addictions*, 2009; 18, 15-20.
819. Ouimette, P, Moos, RH, and Finney, JW, PTSD treatment and 5-year remission among patients with substance use and posttraumatic stress disorders. *Journal of Consulting and Clinical Psychology*, 2003; 71, 410-414.
820. Foa, EB and Williams, MT, Methodology of a randomized double-blind clinical trial for comorbid posttraumatic stress disorder and alcohol dependence. *Mental Health and Substance Use: Dual Diagnosis*, 2010; 3, 131-147.
821. Reynolds, M, Mezey, G, Chapman, M, Wheeler, M, Drummond, C, and Baldacchino, A, Co-morbid post-traumatic stress disorder in a substance misusing clinical population. *Drug and Alcohol Dependence*, 2005; 77, 251-258.
822. Back, SE, Waldrop, AE, and Brady, KT, Evidence-based time-limited treatment of co-occurring substance use disorders and civilian-related PTSD. *Brief Treatment and Crisis Intervention*, 2006; 6, 283-294.
823. Najavits, LM, Ryngala, D, Back, SE, Bolton, E, Mueser, KT, and Brady, KT, *Treatment of PTSD and comorbid disorders, in Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies (2nd ed.)*, E.B. Foa, et al., Editors. 2009, New York, NY: Guilford Press. p. 508-535.
824. Mills, KL, 'Between pain and nothing, I choose nothing': Trauma, post-traumatic stress disorder and substance use. *Addiction*, 2009; 104, 1607-1609.
825. Busuttil, W, Complex post-traumatic stress disorder: A useful diagnostic framework? *Psychiatry*, 2009; 8, 310-314.
826. Zayfert, C and Becker, CB, *Cognitive-behavioral therapy for PTSD: A case formulation approach*. 2006, New York, NY: Guilford Press.

827. Najavits, L, *Seeking safety*, in *Cognitive behavioral therapies for trauma*, V.M. Follette and J.I. Ruzek, Editors. 2006, New York, NY: Guilford Press. p. 228-257.
828. Mills, KL, Teesson, M, Back, SE, Brady, KT, Baker, AL, Hopwood, S, . . . Rosenfeld, J, Integrated exposure-based therapy for co-occurring posttraumatic stress disorder and substance dependence: A randomized controlled trial. *Journal of the American Medical Association*, 2012; 308, 690-699.
829. Sannibale, C, Teesson, M, Creamer, M, Sitharthan, T, Bryant, RA, Sutherland, K, . . . Peek-O'Leary, M, Randomized controlled trial of cognitive behaviour therapy for comorbid post-traumatic stress disorder and alcohol use disorders. *Addiction*, 2013; 108, 1397-1410.
830. Najavits, LM and Hien, D, Helping vulnerable populations: A comprehensive review of the treatment outcome literature on substance use disorder and PTSD. *Journal of Clinical Psychology*, 2013; 69, 433-479.
831. van Dam, D, Vedel, E, Ehring, T, and Emmelkamp, PM, Psychological treatments for concurrent posttraumatic stress disorder and substance use disorder: A systematic review. *Clinical Psychology Review*, 2012; 32, 202-214.
832. Roberts, NP, Roberts, PA, Jones, N, and Bisson, JI, Psychological interventions for post-traumatic stress disorder and comorbid substance use disorder: A systematic review and meta-analysis. *Clinical Psychology Review*, 2015; 38, 25-38.
833. Foa, E, Keane, T, Friedman, M, and Cohen, J, *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (2nd ed.). 2009, New York, NY: Guilford Press.
834. Institute of Medicine, *Treatment of PTSD: An assessment of the evidence*. 2007, Washington, DC: National Academy of Sciences.
835. van Minnen, A, Harned, MS, Zoellner, L, and Mills, K, Examining potential contraindications for prolonged exposure therapy for PTSD. *European Journal of Psychotraumatology*, 2012; 3.
836. van Minnen, A, Zoellner, LA, Harned, MS, and Mills, K, Changes in comorbid conditions after prolonged exposure for PTSD: A literature review. *Current Psychiatry Reports*, 2015; 17, 1-16.
837. Foa, EB, Yuskos, DA, McLean, CP, Suvak, MK, Bux, DA, Jr., Oslin, D, . . . Volpicelli, J, Concurrent naltrexone and prolonged exposure therapy for patients with comorbid alcohol dependence and PTSD: A randomized clinical trial. *Journal of the American Medical Association*, 2013; 310, 488-495.
838. Back, SE, Dansky, BS, Carroll, KM, Foa, EB, and Brady, KT, Exposure therapy in the treatment of PTSD among cocaine-dependent individuals: Description of procedures. *Journal of Substance Abuse Treatment*, 2001; 21, 35-45.
839. Najavits, LM, Schmitz, M, Gotthardt, S, and Weiss, RD, Seeking safety plus exposure therapy: An outcome study on dual diagnosis men. *Journal of Psychoactive Drugs*, 2005; 37, 425-35.
840. Triffleman, E, Carroll, K, and Kellogg, S, Substance dependence post traumatic stress disorder therapy. *Journal of Substance Abuse Treatment*, 1999; 17, 3-14.
841. Brady, KT, Dansky, BS, Back, SE, Foa, EB, and Carroll, KM, Exposure therapy in the treatment of PTSD among cocaine-dependent individuals: Preliminary findings. *Journal of Substance Abuse Treatment*, 2001; 21, 47-54.

842. Triffleman, E, Gender differences in a controlled pilot study of psychosocial treatments in substance dependent patients with post-traumatic stress disorder. *Alcoholism Treatment Quarterly*, 2000; 18, 113-126.
843. Torchalla, I, Nosen, L, Rostam, H, and Allen, P, Integrated treatment programs for individuals with concurrent substance use disorders and trauma experiences: A systematic review and meta-analysis. *Journal of Substance Abuse Treatment*, 2012; 42, 65-77.
844. Hien, DA, Cohen, LR, Miele, GM, Litt, LC, and Capstick, C, Promising treatments for women with comorbid PTSD and substance use disorders. *American Journal of Psychiatry*, 2004; 161, 1426-32.
845. Hien, DA, Wells, EA, Jiang, H, Suarez-Morales, L, Campbell, AN, Cohen, LR, . . . Nunes, EV, Multisite randomized trial of behavioral interventions for women with co-occurring PTSD and substance use disorders. *Journal of Consulting and Clinical Psychology*, 2009; 77, 607-619.
846. Boden, MT, Kimerling, R, Jacobs-Lentz, J, Bowman, D, Weaver, C, Carney, D, . . . Trafton, JA, Seeking Safety treatment for male veterans with a substance use disorder and post-traumatic stress disorder symptomatology. *Addiction*, 2012; 107, 578-86.
847. Australian Centre for Posttraumatic Mental Health, *Australian guidelines for the treatment of acute stress disorder and posttraumatic stress disorder*. 2013, Melbourne, Australia: Australian Centre for Posttraumatic Mental Health.
848. Perez-Dandieu, B and Tapia, G, Treating trauma in addiction with EMDR: A pilot study. *Journal of Psychoactive Drugs*, 2014; 46, 303-309.
849. Brady, KT, Sonne, S, Anton, RF, Randall, CL, Back, SE, and Simpson, K, Sertraline in the treatment of co-occurring alcohol dependence and posttraumatic stress disorder. *Alcoholism: Clinical and Experimental Research*, 2005; 29, 395-401.
850. Brady, KT, Sonne, SC, and Roberts, JM, Sertraline treatment of comorbid post traumatic stress disorder and alcohol dependence. *Journal of Clinical Psychiatry*, 1995; 56, 502-505.
851. Hien, DA, Levin, FR, Ruglass, LM, Lopez-Castro, T, Papini, S, Hu, MC, . . . Herron, A, Combining seeking safety with sertraline for PTSD and alcohol use disorders: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 2015; 83, 359-69.
852. Petrakis, IL, Ralevski, E, Desai, N, Trevisan, L, Gueorguieva, R, Rounsaville, B, and Krystal, JH, Noradrenergic vs serotonergic antidepressant with or without naltrexone for veterans with PTSD and comorbid alcohol dependence. *Neuropsychopharmacology*, 2012; 37, 996-1004.
853. Petrakis, IL, Poling, J, Levinson, C, Nich, C, Carroll, K, Ralevski, E, and Rounsaville, B, Naltrexone and disulfiram in patients with alcohol dependence and comorbid post-traumatic stress disorder. *Biological Psychiatry*, 2006; 60, 777-783.
854. Spence, J, Titov, N, Dear, BF, Johnston, L, Solley, K, Lorian, C, . . . Schwenke, G, Randomized controlled trial of Internetdelivered cognitive behavioral therapy for posttraumatic stress disorder. *Depression and Anxiety*, 2011; 28, 541-550.
855. Klein, B, Mitchell, J, Abbott, J, Shandley, K, Austin, D, Gilson, K, . . . Redman, T, A therapist-assisted cognitive behavior therapy internet intervention for posttraumatic stress disorder: Pre-, post-and 3-month follow-up results from an open trial. *Journal of Anxiety Disorders*, 2010; 24, 635-644.

856. Klein, B, Mitchell, J, Gilson, K, Shandley, K, Austin, D, Kiropoulos, L, . . . Cannard, G, A therapistassisted internetbased CBT intervention for posttraumatic stress disorder: Preliminary results. *Cognitive Behaviour Therapy*, 2009; 38, 121-131.
857. Kuehn, BM, Mobile PTSD care. *Journal of the American Medical Association*, 2011; 306, 815-815.
858. Kuhn, E, Greene, C, Hoffman, J, Nguyen, T, Wald, L, Schmidt, J, . . . Ruzek, J, Preliminary evaluation of PTSD Coach, a smartphone app for post-traumatic stress symptoms. *Military Medicine*, 2014; 179, 12-18.
859. Diaz, A and Motta, R, The effects of an aerobic exercise program on posttraumatic stress disorder symptom severity in adolescents. *International Journal of Emergency Mental Health*, 2007; 10, 49-59.
860. Fetzner, MG and Asmundson, GJG, Aerobic exercise reduces symptoms of posttraumatic stress disorder: A randomized controlled trial. *Cognitive Behaviour Therapy*, 2014; 44, 301-313.
861. Asmundson, GJG, Fetzner, MG, DeBoer, LB, Powers, MB, Otto, MW, and Smits, JAJ, Let's get physical: A contemporary review of the anxiolytic effects of exercise for anxiety and its disorders. *Depression and Anxiety*, 2013; 30, 362-373.
862. Newman, CL and Motta, RW, The effects of aerobic exercise on childhood PTSD, anxiety, and depression. *International Journal of Emergency Mental Health*, 2007; 9, 133-158.
863. Powers, MB, Medina, JL, Burns, S, Kauffman, BY, Monfils, M, Asmundson, GJG, . . . Smits, JAJ, Exercise augmentation of exposure therapy for PTSD: Rationale and pilot efficacy data. *Cognitive Behaviour Therapy*, 2015; 44, 314-327.
864. Rosenbaum, S, Sherrington, C, and Tiedemann, A, Exercise augmentation compared with usual care for posttraumatic stress disorder: A randomized controlled trial. *Acta Psychiatrica Scandinavica*, 2015; 131, 350-359.
865. Wynn, GH, Complementary and alternative medicine approaches in the treatment of PTSD. *Current Psychiatry Reports*, 2015; 17, 1-7.
866. van der Kolk, BA, Stone, L, West, J, Rhodes, A, Emerson, D, Suvak, M, and Spinazzola, J, Yoga as an adjunctive treatment for posttraumatic stress disorder: A randomized controlled trial. *Journal of Clinical Psychiatry*, 2014; 75, e559-e565.
867. Carter, J, Gerbarg, P, Brown, R, Ware, R, and D'Ambrosio, C, Multi-component yoga breath program for Vietnam veteran post-traumatic stress disorder: Randomized controlled trial. *Journal of Traumatic Stress Disorders and Treatment*, 2013; 2, 3.
868. Reddy, S, Dick, AM, Gerber, MR, and Mitchell, K, The effect of a yoga intervention on alcohol and drug abuse risk in veteran and civilian women with posttraumatic stress disorder. *Journal of Alternative and Complementary Medicine*, 2014; 20, 750-756.
869. Nøkleby, H, Pedersen, G, and Skårderud, F, Symptoms of eating disorders among females in drug addiction treatment. *Journal of Social Work Practice in the Addictions*, 2014; 14, 225-238.
870. Peterson, CB, von Ranson, KM, and Hodgins, DC, *Assessment of eating disorders, substance use disorders, and addictions, in Eating disorders, addictions and substance use disorders: Research, clinical and treatment perspectives*, T.D. Brewerton and A.B. Dennis, Editors. 2014, Berlin, Heidelberg, Germany: Springer-Verlag. p. 301-322.

871. Anderson, DA, Paulosky, C. A., *Psychological assessment of eating disorders and related features*, in *Handbook of eating disorders and obesity*, J.K. Thompson, Editor. 2004, New York, NY: Wiley. p. 112-129.
872. García-Gómez, M, González, J, del Barrio, A, and García, N, Rhabdomyolysis and drug abuse in a patient with bulimia nervosa. *International Journal of Eating Disorders*, 2009; 42, 93-95.
873. Courbasson, CM, Smith, PD, and Cleland, PA, Substance use disorders, anorexia, bulimia, and concurrent disorders. *Canadian Journal of Public Health*, 2005; 96, 102-106.
874. Glasner-Edwards, S, Mooney, LJ, Marinelli-Casey, P, Hillhouse, M, Ang, A, Rawson, R, and Methamphetamine Treatment Project Corporate Authors, Bulimia nervosa among methamphetamine dependent adults: Association with outcomes three years after treatment. *Eating Disorders*, 2011; 19, 259-269.
875. Cohen, LR, Greenfield, SF, Gordon, S, Killeen, T, Jiang, H, Zhang, Y, and Hien, D, Survey of eating disorder symptoms among women in treatment for substance abuse. *American Journal on Addictions*, 2010; 19, 245-251.
876. Bodell, LP, Joiner, TE, and Keel, PK, Comorbidity-independent risk for suicidality increases with bulimia nervosa but not with anorexia nervosa. *Journal of Psychiatric Research*, 2013; 47, 617-621.
877. Crow, SJ, Peterson, CB, Swanson, SA, Raymond, NC, Specker, S, Eckert, ED, and Mitchell, JE, Increased mortality in bulimia nervosa and other eating disorders. *American Journal of Psychiatry*, 2009; 166, 1342-1346.
878. Keel, PK, Dorer, DJ, Eddy, KT, Franko, D, Charatan, DL, and Herzog, DB, Predictors of mortality in eating disorders. *Archives of General Psychiatry*, 2003; 60, 179-183.
879. World Health Organization, *Eating disorders*, in *Management of mental disorders: Treatment protocol project*, World Health Organization, Editor. 2004, Sydney, Australia: World Health Organization Collaborative Centre for Evidence in Mental Health Policy. p. 371-414.
880. Killeen, TK, Greenfield, SF, Bride, BE, Cohen, L, Gordon, SM, and Roman, PM, Assessment and treatment of cooccurring eating disorders in privately funded addiction treatment programs. *American Journal on Addictions*, 2011; 20, 205-211.
881. Conason, A, Klomek, AB, and Sher, L, Recognizing alcohol and drug abuse in patients with eating disorders. *QJM*, 2006; 99, 335-339.
882. Dennis, AB and Pryor, T, *Introduction to eating disorders for substance abuse specialists*, in *Eating disorders, addictions and substance use disorders: Research, clinical and treatment perspectives*, T.D. Brewerton and A.B. Dennis, Editors. 2014, Berlin Heidelberg, Germany: Springer-Verlag. p. 199-226.
883. Powers, PS and Cloak, NL, *Medical complications of eating disorders, substance use disorders, and addictions*, in *Eating disorders, addictions and substance use disorders: Research, clinical and treatment perspectives*, T.D. Brewerton and A.B. Dennis, Editors. 2014, Berlin, Heidelberg, Germany: Springer-Verlag. p. 323-362.
884. Gregorowski, C, Seedat, S, and Jordaan, GP, A clinical approach to the assessment and management of co-morbid eating disorders and substance use disorders. *BMC Psychiatry*, 2013; 13, 289.
885. Dennis, AB and Sansone, RA, *Overview of eating disorders: Anorexia nervosa, bulimia nervosa and related disorders*. 1997, Tulsa: National Eating Disorder Organization.

886. Academy for Eating Disorders, *Eating disorders: Critical points for early recognition and risk management in the care of individuals with eating disorders*. 2012, Deerfield, IL: Academy for Eating Disorders. Available from:
http://www.maudsleyparents.org/images/AED_medical_care_standards_2nd_ed.pdf.
887. Sansone, RA, Sansone, LA, Alexander-Mott, L, and Lumsden, D, *Bulimia nervosa: Medical complications*, in *Understanding eating disorders: Anorexia nervosa, bulimia nervosa, and obesity*, L. Alexander-Mott and D.B. Lumsden, Editors. 1994, Washington, DC: Taylor and Francis. p. 181-201.
888. Fairburn, CG, Cooper, Z, and Shafran, R, Cognitive behaviour therapy for eating disorders: A "transdiagnostic" theory and treatment. *Behaviour Research and Therapy*, 2003; 41, 509-528.
889. Denoth, F, Siciliano, V, Iozzo, P, Fortunato, L, and Molinaro, S, The association between overweight and illegal drug consumption in adolescents: Is there an underlying influence of the sociocultural environment? *PLoS ONE*, 2011; 6, e27358.
890. National Center on Addiction and Substance Use at Colombia University, *Food for thought: Substance abuse and eating disorders*. 2003, New York, NY: National Center on Addiction and Substance Use at Colombia University.
891. Halmi, KA, *Management of anorexia nervosa in inpatient and partial hospitalisation settings*, in *Clinical manual of eating disorders*, J. Yager and P.S. Powers, Editors. 2007, Washington, DC: American Psychiatric Publishing. p. 113-126.
892. Hail, L, Sysko, R, Hildebrandt, T, and Becker, CB, *Cognitive behavior therapy for co-occurring of eating and substance use disorders*, in *Eating disorders, addictions and substance use disorders: Research, clinical, and treatment perspectives*, T. Brewerton and A. Baker Dennis, Editors. 2014, New York, NY: Springer. p. 533-546.
893. Hay, P, Chinn, D, Forbes, D, Madden, S, Newton, R, Sugenor, L, . . . Ward, W, Royal Australian and New Zealand College of Psychiatrists clinical practice guidelines for the treatment of eating disorders. *Australian and New Zealand Journal of Psychiatry*, 2014; 48, 977-1008.
894. Mitchison, D and Hay, PJ, The epidemiology of eating disorders: Genetic, environmental, and societal factors. *Clinical Epidemiology*, 2014; 6, 89-97.
895. Treasure, J, Smith, G, and Crane, A, *Skills-based learning for caring for a loved one with an eating disorder: The new Maudsley method*. 2007, New York, NY: Routledge.
896. Watson, HJ and Bulik, CM, Evidence-based psychotherapy for eating disorders. *FOCUS*, 2014; 12, 379-387.
897. Zipfel, S, Wild, B, Groß, G, Friederich, H-C, Teufel, M, Schellberg, D, . . . Herpertz, S, Focal psychodynamic therapy, cognitive behaviour therapy, and optimised treatment as usual in outpatients with anorexia nervosa (ANTOP study): Randomised controlled trial. *The Lancet*, 2014; 383, 127-137.
898. Carter, FA, Jordan, J, McIntosh, VV, Luty, SE, McKenzie, JM, Frampton, C, . . . Joyce, PR, The longterm efficacy of three psychotherapies for anorexia nervosa: A randomized, controlled trial. *International Journal of Eating Disorders*, 2011; 44, 647-654.
899. Fairburn, CG, Welch, SL, Doll, HA, Davies, BA, and O'Connor, ME, Risk factors for bulimia nervosa: A community-based case-control study. *Archives of General Psychiatry*, 1997; 54, 509-517.

900. Schmidt, U, Oldershaw, A, Jichi, F, Sternheim, L, Startup, H, McIntosh, V, . . . Rooney, M, Out-patient psychological therapies for adults with anorexia nervosa: Randomised controlled trial. *British Journal of Psychiatry*, 2012; 201, 392-399.
901. Watson, H and Bulik, C, Update on the treatment of anorexia nervosa: Review of clinical trials, practice guidelines and emerging interventions. *Psychological Medicine*, 2013; 43, 2477-2500.
902. NICE, *Eating disorders: Core interventions in the treatment and management of anorexia nervosa, bulimia nervosa and related eating disorders: NICE clinical guideline 9*. 2004, London, UK: NICE. Available from: <http://www.nice.org.uk/guidance/cg9>.
903. Brewerton, TD, Antipsychotic agents in the treatment of anorexia nervosa: Neuropsychopharmacologic rationale and evidence from controlled trials. *Current Psychiatry Reports*, 2012; 14, 398-405.
904. Aigner, M, Treasure, J, Kaye, W, and Kasper, S, World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for the pharmacological treatment of eating disorders. *World Journal of Biological Psychiatry*, 2011; 12, 400-443.
905. Kessler, RC, Berglund, PA, Chiu, WT, Deitz, AC, Hudson, JI, Shahly, V, . . . Benjet, C, The prevalence and correlates of binge eating disorder in the World Health Organization World Mental Health Surveys. *Biological Psychiatry*, 2013; 73, 904-914.
906. Sysko, R and Hildebrandt, T, Cognitive-behavioural therapy for individuals with bulimia nervosa and a co-occurring substance use disorder. *European Eating Disorders Review*, 2009; 17, 89-100.
907. O'Malley, SS, Sinha, R, Grilo, CM, Capone, C, Farren, CK, McKee, SA, . . . Wu, R, Naltrexone and cognitive behavioral coping skills therapy for the treatment of alcohol drinking and eating disorder features in alcoholdependent women: A randomized controlled trial. *Alcoholism: Clinical and Experimental Research*, 2007; 31, 625-634.
908. Hay, P, Bacaltchuk, J, Stefano, S, and Kashyap, P, Psychological treatments for bulimia nervosa and bingeing. *Cochrane Database of Systematic Reviews*, 2009; 2009, CD000562.
909. Shapiro, JR, Berkman, ND, Brownley, KA, Sedway, JA, Lohr, KN, and Bulik, CM, Bulimia nervosa treatment: A systematic review of randomized controlled trials. *International Journal of Eating Disorders*, 2007; 40, 321-336.
910. American Psychiatric Association, *Practice guideline for the treatment of patients with eating disorders* (3rd ed.). 2006, Washington, DC: American Psychiatric Association.
911. Wilson, GT, Grilo, CM, and Vitousek, KM, Psychological treatment of eating disorders. *American Psychologist*, 2007; 62, 199-216.
912. Wilson, GT, Treatment of bulimia nervosa: When CBT fails. *Behaviour Research and Therapy*, 1996; 34, 197-212.
913. Wilson, GT, Eating disorders, obesity and addiction. *European Eating Disorders Review*, 2010; 18, 341-351.
914. Fairburn, C, Cooper, Z, Shafran, R, Bohn, K, Hawker, D, Murphy, R, and Straebl, S, *Enhanced cognitive behavior therapy for eating disorders: The core protocol*, in *Cognitive behavior therapy and eating disorders*, C. Fairburn, Editor. 2008, New York, NY: Guildford Press. p. 47-193.

915. Fairburn, CG, Cooper, Z, Doll, HA, O'Connor, ME, Bohn, K, Hawker, DM, . . . Palmer, RL, Transdiagnostic cognitive-behavioral therapy for patients with eating disorders: A two-site trial with 60-week follow-up. *American Journal of Psychiatry*, 2009; 166, 311-319.
916. Murphy, R, Straebler, S, Basden, S, Cooper, Z, and Fairburn, CG, Interpersonal psychotherapy for eating disorders. *Clinical Psychology and Psychotherapy*, 2012; 19, 150-158.
917. Federici, A, Wisniewski, L, and BenPorath, D, Description of an intensive dialectical behavior therapy program for multidagnostic clients with eating disorders. *Journal of Counseling and Development*, 2012; 90, 330-338.
918. Wonderlich, SA, Peterson, CB, Smith, TL, Klein, M, Mitchell, JE, Crow, SJ, and Engel, SG, *Integrative cognitive-affective therapy for bulimia nervosa*, in *The treatment of eating disorders: A clinical handbook*, C.M. Grilo and J.E. Mitche, Editors. 2010, New York, NY: Guilford Press. p. 317-338.
919. Wonderlich, S, Peterson, C, Crosby, R, Smith, T, Klein, M, Mitchell, J, and Crow, S, A randomized controlled comparison of integrative cognitive-affective therapy (ICAT) and enhanced cognitive-behavioral therapy (CBT-E) for bulimia nervosa. *Psychological Medicine*, 2014; 44, 543-553.
920. Flament, MF, Bissada, H, and Spettigue, W, Evidence-based pharmacotherapy of eating disorders. *International Journal of Neuropsychopharmacology*, 2012; 15, 189-207.
921. Hay, PJ and Claudino, AM, Clinical psychopharmacology of eating disorders: A research update. *International Journal of Neuropsychopharmacology*, 2012; 15, 209-222.
922. Fairburn, CG, *Cognitive behavior therapy and eating disorders*. 2008, New York, NY: Guilford Press.
923. Striegel-Moore, RH, Wilson, GT, DeBar, L, Perrin, N, Lynch, F, Rosselli, F, and Kraemer, HC, Cognitive behavioral guided self-help for the treatment of recurrent binge eating. *Journal of Consulting and Clinical Psychology*, 2010; 78, 312-321.
924. Wilson, GT, Treatment of binge eating disorder. *Psychiatric Clinics of North America*, 2011; 34, 773-783.
925. Devlin, MJ, Goldfein, JA, Petkova, E, Jiang, H, Raizman, PS, Wolk, S, . . . Kamenetz, C, Cognitive behavioral therapy and fluoxetine as adjuncts to group behavioral therapy for binge eating disorder. *Obesity Research*, 2005; 13, 1077-1088.
926. Grilo, CM, Masheb, RM, and Salant, SL, Cognitive behavioral therapy guided self-help and orlistat for the treatment of binge eating disorder: A randomized, double-blind, placebo-controlled trial. *Biological Psychiatry*, 2005; 57, 1193-1201.
927. McElroy, SL, Guerdjikova, AI, Mori, N, and O'Melia, AM, Pharmacological management of binge eating disorder: Current and emerging treatment options. *Journal of Therapeutics and Clinical Risk Management* 2012; 8, 219-241.
928. Hudson, JI, McElroy, SL, Raymond, NC, Crow, S, Keck Jr, PE, Carter, WP, . . . Coleman, BS, Fluvoxamine in the treatment of binge-eating disorder: A multicenter placebo-controlled, double-blind trial. *American Journal of Psychiatry*, 1998; 155, 1756-1762.
929. McElroy, SL, Casuto, LS, Nelson, EB, Lake, KA, Soutullo, CA, Keck Jr, PE, and Hudson, JI, Placebo-controlled trial of sertraline in the treatment of binge eating disorder. *American Journal of Psychiatry*, 2000; 157, 1004-1006.

930. Arnold, LM, McElroy, SL, Hudson, JI, Welge, JA, Bennett, AJ, and Keck Jr, PE, A placebo-controlled, randomized trial of fluoxetine in the treatment of binge-eating disorder. *Journal of Clinical Psychiatry*, 2002.
931. McElroy, SL, Hudson, JI, Malhotra, S, Welge, JA, Nelson, EB, and Keck Jr, PE, Citalopram in the treatment of binge-eating disorder: A placebo-controlled trial. *Journal of Clinical Psychiatry*, 2003; 64, 807-813.
932. Guerdjikova, AI, McElroy, SL, Winstanley, EL, Nelson, EB, Mori, N, McCoy, J, . . . Hudson, JI, Duloxetine in the treatment of binge eating disorder with depressive disorders: A placebocontrolled trial. *International Journal of Eating Disorders*, 2012; 45, 281-289.
933. McElroy, SL, Arnold, LM, Shapira, NA, Keck Jr, PE, Rosenthal, NR, Karim, MR, . . . Hudson, JI, Topiramate in the treatment of binge eating disorder associated with obesity: A randomized, placebo-controlled trial. *American Journal of Psychiatry*, 2003; 160, 255-261.
934. McElroy, SL, Hudson, JI, Capece, JA, Beyers, K, Fisher, AC, Rosenthal, NR, and Topiramate Binge Eating Disorder Research Group, Topiramate for the treatment of binge eating disorder associated with obesity: A placebo-controlled study. *Biological Psychiatry*, 2007; 61, 1039-1048.
935. Claudino, AM, de Oliveira, IR, Appolinario, JC, Cordas, TA, Duchesne, M, Sichieri, R, and Bacaltchuk, J, Double-blind, randomized, placebo-controlled trial of topiramate plus cognitive-behavior therapy in binge-eating disorder. *Journal of Clinical Psychiatry*, 2007; 68, 1324-1332.
936. Grilo, CM and White, MA, Orlistat with behavioral weight loss for obesity with versus without binge eating disorder: Randomized placebo-controlled trial at a community mental health center serving educationally and economically disadvantaged Latino/as. *Behaviour Research and Therapy*, 2013; 51, 167-175.
937. McElroy, SL, Hudson, JI, Mitchell, JE, Wilfley, D, Ferreira-Cornwell, M, Gao, J, . . . Gasior, M, Efficacy and safety of lisdexamfetamine for treatment of adults with moderate to severe binge-eating disorder: A randomized clinical trial. *JAMA Psychiatry*, 2015; 72, 235-246.
938. Golay, A, LaurentJaccard, A, Habicht, F, Gachoud, JP, Chabloz, M, Kammer, A, and Schutz, Y, Effect of orlistat in obese patients with binge eating disorder. *Obesity Research*, 2005; 13, 1701-1708.
939. Aardoom, JJ, Dingemans, AE, Spinhoven, P, and Furth, EF, Treating eating disorders over the internet: A systematic review and future research directions. *International Journal of Eating Disorders*, 2013; 46, 539-552.
940. Wilson, GT and Zandberg, LJ, Cognitive-behavioral guided self-help for eating disorders: Effectiveness and scalability. *Clinical Psychology Review*, 2012; 32, 343-357.
941. von Ranson, KM and Farstad, SM, *Self-help approaches in the treatment of eating disorders, substance use disorders, and addictions*, in *Eating disorders, addictions and substance use disorders: Research, clinical and treatment perspectives* T.D. Brewerton and A. Baker Dennis, Editors. 2014, Berlin, Heidelberg, Germany: Springer-Verlag. p. 587-608.
942. Juarascio, AS, Manasse, SM, Goldstein, SP, Forman, EM, and Butryn, ML, Review of smartphone applications for the treatment of eating disorders. *European Eating Disorders Review*, 2015; 23, 1-11.
943. Bauer, S and Moessner, M, Harnessing the power of technology for the treatment and prevention of eating disorders. *International Journal of Eating Disorders*, 2013; 46, 508-515.

944. Mitchell, JE, Crosby, RD, Wonderlich, SA, Crow, S, Lancaster, K, Simonich, H, . . . Myers, TC, A randomized trial comparing the efficacy of cognitive-behavioral therapy for bulimia nervosa delivered via telemedicine versus face-to-face. *Behaviour Research and Therapy*, 2008; 46, 581-592.
945. Bulik, CM, Marcus, MD, Zerwas, S, Levine, MD, Hofmeier, S, Trace, SE, . . . Kordy, H, CBT4BN versus CBTF2F: Comparison of online versus face-to-face treatment for bulimia nervosa. *Contemporary Clinical Trials*, 2012; 33, 1056-1064.
946. Schmidt, U, Andiappan, M, Grover, M, Robinson, S, Perkins, S, Dugmore, O, . . . Williams, C, Randomised controlled trial of CD-ROM-based cognitive-behavioural self-care for bulimia nervosa. *British Journal of Psychiatry*, 2008; 193, 493-500.
947. Weltzin, TE and Fitzpatrick, ME, *Positive and negative aspects of exercise in the treatment of eating disorders and substance use disorders*, in *Eating disorders, addictions and substance use disorders: Research, clinical and treatment perspectives*, T.D. Brewerton and A. Baker Dennis, Editors. 2014, Berlin, Heidelberg, Germany: Springer-Verlag. p. 609-624.
948. Hrabosky, JI, White, MA, Masheb, RM, and Grilo, CM, Physical activity and its correlates in treatment seeking obese patients with binge eating disorder. *International Journal of Eating Disorders*, 2007; 40, 72-76.
949. Zunker, C, Mitchell, JE, and Wonderlich, SA, Exercise interventions for women with anorexia nervosa: A review of the literature. *International Journal of Eating Disorders*, 2011; 44, 579-584.
950. Bratland-Sanda, S, Sundgot-Borgen, J, Rø, Ø, Rosenvinge, JH, Hoffart, A, and Martinsen, EW, Physical activity and exercise dependence during inpatient treatment of longstanding eating disorders: An exploratory study of excessive and nonexcessive exercisers. *International Journal of Eating Disorders*, 2010; 43, 266-273.
951. Thien, V, Thomas, A, Markin, D, and Birmingham, CL, Pilot study of a graded exercise program for the treatment of anorexia nervosa. *International Journal of Eating Disorders*, 2000; 28, 101-106.
952. Calogero, RM and Pedrotty, KN, The practice and process of healthy exercise: An investigation of the treatment of exercise abuse in women with eating disorders. *Eating Disorders*, 2004; 12, 273-291.
953. Strober, M, Freeman, R, and Morrell, W, The longterm course of severe anorexia nervosa in adolescents: Survival analysis of recovery, relapse, and outcome predictors over 10-15 years in a prospective study. *International Journal of Eating Disorders*, 1997; 22, 339-360.
954. Madden, S, Fogarty, S, and Smith, C, *Alternative and complementary therapies in the treatment of eating disorders, addictions, and substance use disorders*, in *Eating Disorders, Addictions and Substance Use Disorders*, T. Brewerton and A. Baker Dennis, Editors. 2014, Berlin/Heidelberg, Germany: Springer. p. 625-647.
955. Carei, TR, Fyfe-Johnson, AL, Breuner, CC, and Brown, MA, Randomized controlled clinical trial of yoga in the treatment of eating disorders. *Journal of Adolescent Health*, 2010; 46, 346-351.
956. Mitchell, KS, Mazzeo, SE, Rausch, SM, and Cooke, KL, Innovative interventions for disordered eating: Evaluating dissonancebased and yoga interventions. *International Journal of Eating Disorders*, 2007; 40, 120-128.
957. Khalsa, SBS, Khalsa, GS, Khalsa, HK, and Khalsa, MK, Evaluation of a residential Kundalini yoga lifestyle pilot program for addiction in India. *Journal of Ethnicity in Substance Abuse*, 2008; 7, 67-79.

958. Anbar, RD and Savedoff, AD, Treatment of binge eating with automatic word processing and self-hypnosis: A case report. *American Journal of Clinical Hypnosis*, 2005; 48, 191-198.
959. Barabasz, M, Efficacy of hypnotherapy in the treatment of eating disorders. *International Journal of Clinical and Experimental Hypnosis*, 2007; 55, 318-335.
960. Túry, F, Wildmann, M, and Szentes, A, Tandem hypnosis with identical bulimic twins: Case report. *American Journal of Clinical Hypnosis*, 2011; 53, 265-275.
961. Reader, M, Young, R, and Connor, JP, Massage therapy improves the management of alcohol withdrawal syndrome. *Journal of Alternative and Complementary Medicine*, 2005; 11, 311-313.
962. Hart, S, Field, T, Hernandez-Reif, M, Nearing, G, Shaw, S, Schanberg, S, and Kuhn, C, Anorexia nervosa symptoms are reduced by massage therapy. *Eating Disorders*, 2001; 9, 289-299.
963. Davison, SE, Principles of managing patients with personality disorder. *Advances in Psychiatric Treatment*, 2002; 8, 1-9.
964. Beatson, JA and Rao, S, Depression and borderline personality disorder. *Medical Journal of Australia*, 2013; 199, S24-27.
965. Kruegelbach, N, McCormick, RA, Schulz, SC, and Grueneich, R, Impulsivity, coping styles, and triggers for craving in substance abusers with borderline personality disorder. *Journal of Personality Disorders*, 1993; 7, 214-222.
966. Lee, NK, Cameron, J, and Jenner, L, A systematic review of interventions for cooccurring substance use and borderline personality disorders. *Drug and Alcohol Review*, 2015; Advance online publication.
967. Binks, CA, Fenton, M, McCarthy, L, Lee, T, Adams, CE, and Duggan, C, Psychological therapies for people with borderline personality disorder. *Cochrane Database of Systematic Reviews*, 2006; 2006, CD005652.
968. Tull, MT and Gratz, KL, The impact of borderline personality disorder on residential substance abuse treatment dropout among men. *Drug and Alcohol Dependence*, 2012; 121, 97-102.
969. van den Bosch, LM and Verheul, R, Patients with addiction and personality disorder: Treatment outcomes and clinical implications. *Current Opinion in Psychiatry*, 2007; 20, 67-71.
970. Linehan, MM and Dimeff, LA, *Dialectical behavior therapy manual of treatment interventions for drug abusers with borderline personality disorder*. 1997, Seattle, WA: University of Washington.
971. Alper, G and Peterson, SJ, Dialectical behavior therapy for patients with borderline personality disorder. *Journal of Psychosocial Nursing and Mental Health Services*, 2001; 39, 38-45.
972. Fassbinder, E, Rudolf, S, Bussiek, A, Kroger, C, Arnold, R, Greggersen, W, . . . Schweiger, U, Effectiveness of dialectical behavior therapy for patients with borderline personality disorder in the long-term course: A 30-month-follow-up after inpatient treatment. *Psychotherapie, Psychosomatik, Medizinische Psychologie*, 2007; 57, 161-169.
973. Koerner, K and Linehan, MM, Research on dialectical behavior therapy for patients with borderline personality disorder. *Psychiatric Clinics of North America*, 2000; 23, 151-67.

974. Ball, SA, Cobb-Richardson, P, Connolly, AJ, Bujosa, CT, and O'Neill, TW, Substance abuse and personality disorders in homeless drop-in center clients: Symptom severity and psychotherapy retention in a randomized clinical trial. *Comprehensive Psychiatry*, 2005; 46, 371-379.
975. Gregory, RJ and Remen, AL, A manual-based psychodynamic therapy for treatment-resistant borderline personality disorder. *Psychotherapy: Theory, Research, Practice, Training*, 2008; 45, 15-27.
976. Gregory, RJ, DeLucia-Deranja, E, and Mogle, JA, Dynamic deconstructive psychotherapy versus optimized community care for borderline personality disorder co-occurring with alcohol use disorders: A 30-month follow-up. *Journal of Nervous and Mental Disease*, 2010; 198, 292-298.
977. Harned, MS, Korslund, KE, Foa, EB, and Linehan, MM, Treating PTSD in suicidal and self-injuring women with borderline personality disorder: Development and preliminary evaluation of a dialectical behavior therapy prolonged exposure protocol. *Behaviour Research and Therapy*, 2012; 50, 381-386.
978. Linehan, MM, Dimeff, LA, Reynolds, SK, Comtois, KA, Welch, SS, Heagerty, P, and Kivlahan, DR, Dialectical behavior therapy versus comprehensive validation therapy plus 12-step for the treatment of opioid dependent women meeting criteria for borderline personality disorder. *Drug and Alcohol Dependence*, 2002; 67, 13-26.
979. van den Bosch, LM, Verheul, R, Schippers, GM, and van den Brink, W, Dialectical behavior therapy of borderline patients with and without substance use problems: Implementation and long-term effects. *Addictive Behaviors*, 2002; 27, 911-923.
980. Gregory, RJ, Chlebowsky, S, Kang, D, Remen, AL, Soderberg, MG, Stepkovitch, J, and Virk, S, A controlled trial of psychodynamic psychotherapy for co-occurring borderline personality disorder and alcohol use disorder. *Psychotherapy: Theory, Research, Practice, Training*, 2008; 45, 28-41.
981. Gregory, RJ, Remen, A, Soderberg, M, and Ploutz-Snyder, R, A controlled trial of psychodynamic psychotherapy for co-occurring borderline personality disorder and alcohol use disorder: Six-month outcome. *Journal of the American Psychoanalytic Association*, 2009; 57, 199-205.
982. Ball, SA and Young, JE, Dual focus schema therapy for personality disorders and substance dependence: Case study results. *Cognitive and Behavioral Practice*, 2000; 7, 270-281.
983. Ball, SA, Maccarelli, LM, LaPaglia, DM, and Ostrowski, MJ, Randomized trial of dual-focused versus single-focused individual therapy for personality disorders and substance dependence. *Journal of Nervous and Mental Disease*, 2011; 199, 319-328.
984. Gianoli, MO, Jane, JS, O'Brien, E, and Ralevski, E, Treatment for comorbid borderline personality disorder and alcohol use disorders: A review of the evidence and future recommendations. *Experimental and Clinical Psychopharmacology*, 2012; 20, 333-344.
985. Binks, CA, Fenton, M, McCarthy, L, Lee, T, Adams, CE, and Duggan, C, Pharmacological interventions for people with borderline personality disorder. *Cochrane Database of Systematic Reviews*, 2006; 2006, CD005653.
986. Lieb, K, Völm, B, Rücker, G, Timmer, A, and Stoffers, JM, Pharmacotherapy for borderline personality disorder: Cochrane systematic review of randomised trials. *British Journal of Psychiatry*, 2010; 196, 4-12.

987. Rizvi, SL, Dimeff, LA, Skutch, J, Carroll, D, and Linehan, MM, A pilot study of the DBT coach: An interactive mobile phone application for individuals with borderline personality disorder and substance use disorder. *Behavior Therapy*, 2011; 42, 589-600.
988. Zanarini, MC, Frankenburg, FR, Hennen, J, Reich, DB, and Silk, KR, The McLean Study of Adult Development (MSAD): Overview and implications of the first six years of prospective follow-up. *Journal of Personality Disorders*, 2005; 19, 505-523.
989. Kienast, T and Foerster, J, Psychotherapy of personality disorders and concomitant substance dependence. *Current Opinion in Psychiatry*, 2008; 21, 619-624.
990. Bozzatello, P, Bellino, S, Brunetti, C, De Grandi, E, and Bogetto, F, Omega-3 fatty acids associated with valproate in the treatment of borderline personality disorder: A controlled study. *Journal of Psychopathology*, 2013; 19, 296-303.
991. Frankenburg, FR and Zanarini, MC, Obesity and obesity-related illnesses in borderline patients. *Journal of Personality Disorders*, 2006; 20, 71-80.
992. El-Gabalawy, R, Katz, LY, and Sareen, J, Comorbidity and associated severity of borderline personality disorder and physical health conditions in a nationally representative sample. *Psychosomatic Medicine*, 2010; 72, 641-647.
993. Gunderson, J, Borderline personality disorder. *New England Journal of Medicine*, 2011; 364, 2037-2042.
994. Bateman, AW, Gunderson, J, and Mulder, R, Treatment of personality disorder. *The Lancet*, 2015; 385, 735-743.
995. Gibbon, S, Duggan, C, Stoffers, J, Huband, N, Völm, BA, Ferriter, M, and Lieb, K, Psychological interventions for antisocial personality disorder. *Cochrane Database of Systematic Reviews*, 2010; 2010, CD007668.
996. Woody, GE, McLellan, AT, Luborsky, L, and O'Brien, CP, Sociopathy and psychotherapy outcome. *Archives of General Psychiatry*, 1985; 42, 1081-1086.
997. Neufeld, KJ, Kidorf, MS, Kolodner, K, King, VL, Clark, M, and Brooner, RK, A behavioral treatment for opioid-dependent patients with antisocial personality. *Journal of Substance Abuse Treatment*, 2008; 34, 101-111.
998. Messina, N, Farabee, D, and Rawson, R, Treatment responsivity of cocaine-dependent patients with antisocial personality disorder to cognitive-behavioral and contingency management interventions. *Journal of Consulting and Clinical Psychology*, 2003; 71, 320-329.
999. McKay, JR, Alterman, AI, Cacciola, JS, Mulvaney, FD, and O'Brien, CP, Prognostic significance of antisocial personality disorder in cocaine-dependent patients entering continuing care. *Journal of Nervous and Mental Disease*, 2000; 188, 287-296.
1000. Havens, JR, Cornelius, LJ, Ricketts, EP, Latkin, CA, Bishai, D, Lloyd, JJ, . . . Strathdee, SA, The effect of a case management intervention on drug treatment entry among treatment-seeking injection drug users with and without comorbid antisocial personality disorder. *Journal of Urban Health*, 2007; 84, 267-271.

1001. Marlowe, DB, Festinger, DS, Dugosh, KL, Lee, PA, and Benasutti, KM, Adapting judicial supervision to the risk level of drug offenders: Discharge and 6-month outcomes from a prospective matching study. *Drug and Alcohol Dependence*, 2007; 88, S4-S13.
1002. Woodall, WG, Delaney, HD, Kunitz, SJ, Westerberg, VS, and Zhao, H, A randomized trial of a DWI intervention program for first offenders: Intervention outcomes and interactions with antisocial personality disorder among a primarily AmericanIndian sample. *Alcoholism: Clinical and Experimental Research*, 2007; 31, 974-987.
1003. Stanford, MS, Helfritz, LE, Conklin, SM, Villemarette-Pittman, NR, Greve, KW, Adams, D, and Houston, RJ, A comparison of anticonvulsants in the treatment of impulsive aggression. *Experimental and Clinical Psychopharmacology*, 2005; 13, 72-77.
1004. Barratt, ES, Stanford, MS, Felthous, AR, and Kent, TA, The effects of phenytoin on impulsive and premeditated aggression: A controlled study. *Journal of Clinical Psychopharmacology*, 1997; 17, 341-349.
1005. Stanford, MS, Houston, RJ, Mathias, CW, Greve, KW, Villemarette-Pittman, NR, and Adams, D, A double-blind placebo-controlled crossover study of phenytoin in individuals with impulsive aggression. *Psychiatry Research*, 2001; 103, 193-203.
1006. Hollander, E, Tracy, KA, Swann, AC, Coccaro, EF, McElroy, SL, Wozniak, P, . . . Nemeroff, CB, Divalproex in the treatment of impulsive aggression: Efficacy in cluster B personality disorders. *Neuropsychopharmacology*, 2003; 28, 1186-1197.
1007. Arndt, IO, McLellan, AT, Dorozynsky, L, Woody, GE, and O'Brien, CP, Desipramine treatment for cocaine dependence: Role of antisocial personality disorder. *Journal of Nervous and Mental Disease*, 1994; 182, 151-156.
1008. Leal, J, Ziedonis, D, and Kosten, T, Antisocial personality disorder as a prognostic factor for pharmacotherapy of cocaine dependence. *Drug and Alcohol Dependence*, 1994; 35, 31-35.
1009. Powell, BJ, Campbell, JL, Landon, JF, Liskow, BI, Thomas, HM, Nickel, EJ, . . . Lacoursiere, RB, A doubleblind, placebocontrolled study of nortriptyline and bromocriptine in male alcoholics subtyped by comorbid psychiatric disorders. *Alcoholism: Clinical and Experimental Research*, 1995; 19, 462-468.
1010. Ralevski, E, Ball, S, Nich, C, Limoncelli, D, and Petrakis, I, The impact of personality disorders on alcohol-use outcomes in a pharmacotherapy trial for alcohol dependence and comorbid Axis I disorders. *American Journal on Addictions*, 2007; 16, 443-449.
1011. Khalifa, N, Duggan, C, Stoffers, J, Huband, N, Völlm, BA, Ferriter, M, and Lieb, K, Pharmacological interventions for antisocial personality disorder. *Cochrane Database of Systematic Reviews*, 2010; 2010, CD007667.
1012. NICE, *Antisocial personality disorder: Treatment, management and prevention: NICE clinical guideline 77*. 2009, London, UK: NICE. Available from: www.nice.org.uk/guidance/cg77.
1013. NICE, *Delirium: Diagnosis, prevention and management: NICE clinical guideline 103*. 2010, London, UK: NICE. Available from: <http://www.nice.org.uk/Guidance/CG103/>.
1014. Marsh, A, Dale, A, and Willis, L, *A counsellor's guide to working with alcohol and drug users (2nd ed.)*. 2007, Perth, Australia: Drug and Alcohol Office, Western Australia.

1015. Sunshine Coast Mental Health Service, *Aggression management training, module 1*. 2004, Nambour, Australia: Sunshine Coast Mental Health Service.
1016. Vilardaga, R, Luoma, JB, Hayes, SC, Pistorello, J, Levin, ME, Hildebrandt, MJ, . . . Bond, F, Burnout among the addiction counseling workforce: The differential roles of mindfulness and values-based processes and work-site factors. *Journal of Substance Abuse Treatment*, 2011; 40, 323-335.
1017. Roche, AM, Roche, AM, Todd, CL, and O'Connor, J, Clinical supervision in the alcohol and other drugs field: An imperative or an option? *Drug and Alcohol Review*, 2007; 26, 241-249.
1018. NSW Department of Health, *NSW drug and alcohol clinical supervision guidelines*. 2011, North Sydney, NSW. Available from: http://www0.health.nsw.gov.au/policies/gl/2006/pdf/GL2006_009.pdf.
1019. Kavanagh, DJ, Spence, SH, Wilson, J, and Crow, N, Achieving effective supervision. *Drug and Alcohol Review*, 2002; 21, 247-252.
1020. Hyrkäs, K, Clinical supervision, burnout, and job satisfaction among mental health and psychiatric nurses in Finland. *Issues in Mental Health Nursing*, 2005; 26, 531-556.
1021. Milne, D and Westerman, C, Evidencebased clinical supervision: Rationale and illustration. *Clinical Psychology and Psychotherapy*, 2001; 8, 444-457.
1022. Morse, G, Salyers, MP, Rollins, AL, Monroe-DeVita, M, and Pfahler, C, Burnout in mental health services: A review of the problem and its remediation. *Administration and Policy in Mental Health and Mental Health Services Research*, 2012; 39, 341-352.
1023. Webb, B, Auditing a clinical supervision training programme. *Nursing Standard*, 1997; 11, 34-39.
1024. Reeves, D, Culbreth, JR, and Greene, A, Effect of sex, age, and education level on the supervisory styles of substance abuse counselor supervisors. *Journal of Alcohol and Drug Education*, 1997; 43, 76.
1025. Culbreth, JR and Borders, LD, Perceptions of the supervisory relationship: Recovering and nonrecovering substance abuse counselors. *Journal of Counseling and Development*, 1999; 77, 330-338.
1026. Begat, I, Ellefsen, B, and Severinsson, E, Nurses' satisfaction with their work environment and the outcomes of clinical nursing supervision on nurses' experiences of wellbeing: A Norwegian study. *Journal of Nursing Management*, 2005; 13, 221-230.
1027. Heaven, C, Clegg, J, and Maguire, P, Transfer of communication skills training from workshop to workplace: The impact of clinical supervision. *Patient Education and Counseling*, 2006; 60, 313-325.
1028. Miller, WR, Sorensen, JL, Selzer, JA, and Brigham, GS, Disseminating evidence-based practices in substance abuse treatment: A review with suggestions. *Journal of Substance Abuse Treatment*, 2006; 31, 25-39.
1029. Ritter, A, Bowden, S, Murray, T, Ross, P, Greeley, J, and Pead, J, The influence of the therapeutic relationship in treatment for alcohol dependency. *Drug and Alcohol Review*, 2002; 21, 261-268.
1030. Australian Institute of Health and Welfare, *Aboriginal and Torres Strait Islander health performance framework 2012: Detailed analyses*. 2013, Canberra, Australia: Australian Institute of Health and Welfare.

1031. Australian Government Department of Health and Ageing, *Alcohol treatment guidelines for Indigenous Australians*. 2007, Canberra, Australia: Australian Government Department of Health and Ageing.
1032. Australian Institute of Health and Welfare, *Deaths related to alcohol use by Indigenous status and sex, NSW, QLD, WA, SA, and NT, 2008-2012*, in *Aboriginal and Torres Strait Islander Health Performance Framework data*. 2014; Australian Institute of Health and Welfare.
1033. Conigrave, K, Freeman, B, Carroll, T, Simpson, L, Lee, KK, Wade, V, . . . Freeburn, B, The Alcohol Awareness project: community education and brief intervention in an urban Aboriginal setting. *Health Promotion Journal of Australia*, 2012; 23, 219-225.
1034. d'Abbs, P and MacLean, S, *Volatile substance misuse: A review of interventions*. 2008, Canberra, Australia: Australian Government Department of Health and Ageing.
1035. Australian Institute of Health and Welfare, *The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples 2015*. 2015, Canberra, Australia: Australian Institute of Health and Welfare.
1036. Wilson, M, Stearne, A, Gray, D, and Saggars, S. *The harmful use of alcohol amongst Indigenous Australians*. 2010. Available from:
http://www.healthinfonet.ecu.edu.au/uploads/docs/alcohol_review_june_2010.pdf.
1037. Parker, R, *Australian Aboriginal and Torres Strait Islander mental health: An overview*, in *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*, N. Purdie, P. Dudgeon, and R. Walker, Editors. 2010, Canberra, Australia: Australian Government Department of Health. p. 3-12.
1038. Hunter, EM, *Aboriginal health and history: Power and prejudice in remote Australia*. 1993, New York, NY: Cambridge University Press.
1039. Jackson, LR and Ward, JE, Aboriginal health: Why is reconciliation necessary? *Medical Journal of Australia*, 1999; 199, 437-440.
1040. O'Shane, P, The psychological impact of white colonialism on Aboriginal people. *Australasian Psychiatry*, 1995; 3, 149-153.
1041. Lee, KS, Harrison, K, Mills, K, and Conigrave, KM, Needs of Aboriginal Australian women with comorbid mental and alcohol and other drug use disorders. *Drug and Alcohol Review*, 2014; 33, 473-481.
1042. Morley, TE and Moran, G, The origins of cognitive vulnerability in early childhood: Mechanisms linking early attachment to later depression. *Clinical Psychology Review*, 2011; 31, 1071-1082.
1043. Brumariu, LE and Kerns, KA, Parent-child attachment and internalizing symptoms in childhood and adolescence: A review of empirical findings and future directions. *Development and Psychopathology*, 2010; 22, 177-203.
1044. Armsden, GC, McCauley, E, Greenburg, MT, and Burke, M, Parent and peer attachment in early adolescent depression. *Journal of Abnormal Child Psychology*, 1990; 18, 683-697.
1045. Parker, G, *Parental overprotection: A risk factor in psychosocial adjustment*. 1983, Sydney, Australia: Grune and Stratton.

1046. Parker, G and Barnett, B, Perceptions of parenting in childhood and social support in adulthood. *American Journal of Psychiatry*, 1988; 145, 479-482.
1047. Nagel, T, The need for relapse prevention strategies in top end remote Indigenous mental health. *Australian e-Journal for the Advancement of Mental Health*, 2006; 5, 1-5.
1048. Nagel, T, Kavanagh, D, Barclay, L, Trauer, T, Chenhall, R, Frendin, J, and Griffin, C, Integrating treatment for mental and physical disorders and substance misuse in Indigenous primary care settings. *Australasian Psychiatry*, 2011; 19, S17-S19.
1049. Roxbee, L and Wallace, C, Emotional and social wellbeing: National policy context. *Australasian Psychiatry*, 2003; 11, S45-S50.
1050. Silburn, S, Glaskin, B, Henry, D, and Drew, N, *Preventing suicide among indigenous Australians*, in *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice* N. Purdie, P. Dudgeon, and R. Walker, Editors. 2010, Canberra, Australia: Australian Government Department of Health and Aging.
1051. Swan, P and Raphael, B, *Ways forward: National consultancy report on Aboriginal and Torres Strait Islander mental health: Parts 1 and 2*. 1995, Canberra, Australia: Australian Government Publishing Service.
1052. Hunter, E, Mental health in Indigenous settings: Challenges for clinicians. *Australian Family Physician*, 2014; 43, 26-28.
1053. Hunter, E, Hall, W, and Spargo, R, Alcohol consumption and its correlates in a remote Aboriginal population. *Aboriginal Law Bulletin*, 1991; 2, 8-10.
1054. Prusiak, B, *Survey of Aboriginal admissions to Bloomfield Hospital*. 1995, NSW.
1055. Clough, AR, Cairney, S, D'abbs, P, Parker, R, Maruff, P, Gray, D, and O'Reilly, B, Measuring exposure to cannabis use and other substance use in remote Indigenous populations in Northern Australia: Evaluation of a "community epidemiology" approach using proxy respondents. *Addiction Research and Theory*, 2004; 12, 261-274.
1056. Li, SQ, Measey, M, and Parker, R, *Suicide in the Northern Territory 1981-2002*. 2004, Darwin, Australia: Department of Health and Community Services.
1057. Wilkes, E, Gray, D, Saggars, S, Casey, W, and Stearne, A, *Substance misuse and mental health among Aboriginal Australians*, in *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*, N. Purdie, P. Dudgeon, and P. Walker, Editors. 2010, Barton, ACT: Australian Council for Educational Research, Kulunga Research Network, Telethon Institute for Child Health Research. p. 117-133.
1058. Nagel, T, Robinson, G, Condon, J, and Trauer, T, Approach to treatment of mental illness and substance dependence in remote Indigenous communities: Results of a mixed methods study. *Australian Journal of Rural Health*, 2009; 17, 174-182.
1059. Dudgeon, P, Walker, R, Scrine, C, Shepherd, C, Calma, T, and Ring, I, *Effective strategies to strengthen the mental health and wellbeing of Aboriginal and Torres Strait Islander people*. 2014, Canberra, Australia: Closing the Gap Clearinghouse.

1060. Berry, SL and Crowe, TP, A review of engagement of Indigenous Australians within mental health and substance abuse services. *Australian e-Journal for the Advancement of Mental Health*, 2009; 8, 1-12.
1061. Westerman, T, Engagement of Indigenous clients in mental health services: What role do cultural differences play? *Australian e-Journal for the Advancement of Mental Health*, 2004; 3, 88-94.
1062. Davies, J, *A manual of mental health care in general practice*. 2000, Canberra, Australia: Commonwealth Department of Health and Aged Care.
1063. Teasdale, KE, Conigrave, KM, Kiel, KA, Freeburn, B, Long, G, and Becker, K, Improving services for prevention and treatment of substance misuse for Aboriginal communities in a Sydney Area Health Service. *Drug and Alcohol Review*, 2008; 27, 152-159.
1064. Encompass Family and Community, *Youth alcohol and drug practice guide 4: Learning from each other: Working with Aboriginal and Torres Strait Islander Young People*. 2014, Brisbane, Australia: Dovetail.
1065. Lee, K, Freeburn, B, Ella, S, Miller, W, Perry, J, and Conigrave, K, *Handbook for Aboriginal alcohol and drug work*. 2012, Sydney, Australia: University of Sydney.
1066. Dudgeon, P and Ugle, K, *Communicating and engaging with diverse communities*, in *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice* (2nd ed.), P.M. Dudgeon, H. Walker, R., Editor. 2014, Perth, Australia: Australian Government Department of the Prime Minister and Cabinet. p. 257-68.
1067. Dudgeon, P, Wright, M, Paradies, Y, Garvey, D, and Walker, I, *Aboriginal social, cultural and historical contexts*, in *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice* (2nd ed.), P. Dudgeon, H. Milroy, and R. Walker, Editors. 2014, Perth, Australia: Australian Government Department of the Prime Minister and Cabinet. p. 3-24.
1068. Milroy, H, *Understanding the lives of Aboriginal children and families*, in *Working together: Aboriginal and Torres Strait Islander mental health and wellbeing principles and practice*, P. Dudgeon, H. Milroy, and R. Walker, Editors. 2014, Perth, Australia: Australian Government Department of the Prime Minister and Cabinet. p. 373-82.
1069. Lee, KSK, Dawson, A, and Conigrave, KM, The role of an Aboriginal women's group in meeting the high needs of clients attending outpatient alcohol and other drug treatment. *Drug and Alcohol Review*, 2013; 32, 618-626.
1070. Alcohol and Other Drugs Unit of the Commonwealth Department of Health and Ageing, *Culturally and linguistically diverse (CALD) groups*. 2008, Canberra, Australia: Commonwealth Department of Health and Ageing.
1071. Reid, G, Crofts, N, and Beyer, L, Drug treatment services for ethnic communities in Victoria, Australia: An examination of cultural and institutional barriers. *Ethnicity and Health*, 2001; 6, 13-26.
1072. Patulny, R, Muir, K, Powell, A, Flaxman, S, and Oprea, I, Are we reaching them yet? Service access patterns among attendees at the headspace youth mental health initiative. *Child and Adolescent Mental Health*, 2013; 18, 95-102.
1073. Rickwood, D, *Pathways of recovery: Preventing further episodes of mental illness*. 2005, Canberra, Australia: Commonwealth of Australia.

1074. Drug and Alcohol Multicultural Education Centre, *Respect: Best practice approaches for working with culturally diverse clients in AOD treatment settings*. 2014, Sydney, Australia: Drug and Alcohol Multicultural Education Centre.
1075. Ritter, A, New Australian lesbian, gay, bisexual and transgender research: And the need for more. *Drug and Alcohol Review*, 2015; 34, 347-348.
1076. Substance Abuse and Mental Health Services Administration, *Top health issues for LGBT populations: Information and resource kit*. 2012, Rockville, MD: Substance Abuse and Mental Health Services Administration.
1077. Ritter, A, Matthew-Simmons, F, and Carragher, N, *Prevalence of and interventions for mental health and alcohol and other drug problems amongst the gay, lesbian, bisexual and transgender community: A review of the literature*. 2012, Sydney, Australia: National Drug and Alcohol Research Centre.
1078. Cochran, SD, Sullivan, JG, and Mays, VM, Prevalence of mental disorders, psychological distress, and mental health services use among lesbian, gay, and bisexual adults in the United States. *Journal of Consulting and Clinical Psychology*, 2003; 71, 53-61.
1079. Fergusson, DM, Horwood, LJ, and Beautrais, AL, Is sexual orientation related to mental health problems and suicidality in young people? *Archives of General Psychiatry*, 1999; 56, 876-880.
1080. Hatzenbuehler, ML, Keyes, KM, and Hasin, DS, State-level policies and psychiatric morbidity in lesbian, gay, and bisexual populations. *American Journal of Public Health*, 2009; 99, 2275-2281.
1081. Matheson, A, Roxburgh, A, Degenhardt, L, Howard, J, and Down, I, *Drug use, dependence and mental health among gay, lesbian and bisexual people reporting regular methamphetamine use: Sydney, Australia*. 2010, Sydney, Australia: ACON and the National Drug and Alcohol Research Centre, University of New South Wales.
1082. Talley, AE, Tomko, RL, Littlefield, AK, Trull, TJ, and Sher, KJ, The influence of general identity disturbance on reports of lifetime substance use disorders and related outcomes among sexual minority adults with a history of substance use. *Psychology of Addictive Behaviors*, 2011; 25, 530-541.
1083. Lea, T, de Wit, J, and Reynolds, R, Minority stress in lesbian, gay, and bisexual young adults in Australia: Associations with psychological distress, suicidality, and substance use. *Archives of Sexual Behavior*, 2014; 43, 1571-1578.
1084. Howard, J, Nicholas, J, Brown, G, and Karaçanta, A, *Same-sex attracted youth and suicide*, in *Mental health promotion in young people*, L. Rowling, G. Martin, and L. Walker, Editors. 2002, Sydney, Australia: McGraw Hill. p. 215-229.
1085. Australian Institute of Health and Welfare, *Rural, regional and remote health: Indicators of health system performance 2008*, Canberra, Australia: Australian Institute of Health and Welfare.
1086. National Rural Health Alliance. *Mental health in rural and remote Australia*. 2015. Available from: <http://ruralhealth.org.au/sites/default/files/publications/fact-sheet-mental-health-2015.pdf>.
1087. Robertson, EB and Donnermeyer, JF, Illegal drug use among rural adults: Mental health consequences and treatment utilization. *American Journal of Drug and Alcohol Abuse*, 1997; 23, 467-484.

1088. Booth, BM, Kirchner, J, Fortney, J, Ross, R, and Rost, K, Rural at-risk drinkers: Correlates and one-year use of alcoholism treatment services. *Journal of Studies on Alcohol*, 2000; 61, 267-277.
1089. Spoth, R, Goldberg, C, and Neppl, T, Rural-urban differences in the distribution of parent-reported factors for substance use among young adolescents. *Journal of Substance Abuse*, 2001; 13, 609-623.
1090. Caldwell, CH, Kohn-Wood, LP, Schmeelk-Cone, KH, Chavous, TM, and Zimmerman, MA, Racial discrimination and racial identity as risk or protective factors for violent behaviours in African American young males. *American Journal of Community Psychology*, 2004; 33.
1091. Griffiths, KM, Christensen, H, and Jorm, AF, Mental health literacy as a function of remoteness of residence: An Australian national study. *BMC Public Health*, 2009; 9, 92.
1092. Kelly, B, Kay-Lambkin, F, and Kavanagh, DJ, *Rurally isolated populations and co-existing mental health and drug and alcohol problems*, in *Clinical handbook of co-existing mental health and drug and alcohol problems*, A. Baker and R. Velleman, Editors. 2007, East Sussex, UK: Routledge. p. 159-176.
1093. Sinclair, C, Holloway, K, Riley, G, and Auret, K, Online mental health resources in rural Australia: Clinician perceptions of acceptability. *Journal of Medical Internet Research*, 2013; 15, e193.
1094. Handley, TE, Kay-Lambkin, FJ, Inder, KJ, Attia, JR, Lewin, TJ, and Kelly, BJ, Feasibility of internet-delivered mental health treatments for rural populations. *Social Psychiatry and Psychiatric Epidemiology*, 2014; 49, 275-282.
1095. Kay-Lambkin, FJ, Baker, AL, Kelly, BJ, and Lewin, TJ, It's worth a try: The treatment experiences of rural and urban participants in a randomized controlled trial of computerized psychological treatment for comorbid depression and alcohol/other drug use. *Journal of Dual Diagnosis*, 2012; 8, 262-276.
1096. National Rural Health Alliance, *Illicit drug use in rural Australia*. 2012, Deakin, Australia: National Rural Health Alliance. Available from: <http://ruralhealth.org.au/sites/default/files/publications/fact-sheet-33-illicit-drug-use-rural-australia.pdf>.
1097. National Rural Health Alliance. *Alcohol use in rural Australia*. 2014. Available from: <http://ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-alcohol.pdf>
1098. National Rural Health Alliance, *Smoking and rural health*. 2014, Deakin, Australia: National Rural Health Alliance. Available from: <http://ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-smoking.pdf>.
1099. Homelessness Taskforce, *The road home: A national approach to reducing homelessness*. 2008, Canberra, Australia: Homelessness Taskforce. Available from: <http://www.homelesshub.ca/resource/road-home-national-approach-reducing-homelessness-australia>.
1100. Teesson, M, Hodder, T, and Buhrich, N, Psychiatric disorders in homeless men and women in inner Sydney. *Australian and New Zealand Journal of Psychiatry*, 2004; 38, 162-168.

1101. Mental Health Council of Australia. *Home truths: Mental health, housing, and homelessness in Australia*. 2009; Available from: http://mhaustralia.org/sites/default/files/imported/component/rsfiles/publications/MHCA_Home_Truths_Layout_FINAL.pdf.
1102. Larney, S, Conroy, E, Mills, KL, Burns, L, and Teesson, M, Factors associated with violent victimisation among homeless adults in Sydney, Australia. *Australian and New Zealand Journal of Public Health*, 2009; 33, 347-351.
1103. Whittaker, E, Swift, W, Roxburgh, A, Dietze, P, Cogger, S, Bruno, R, . . . Burns, L, Multiply disadvantaged: Health and service utilisation factors faced by homeless injecting drug consumers in Australia. *Drug and Alcohol Review*, 2015; 34, 379-387.
1104. Velleman, R, *Homelessness alongside co-existing mental health and drug and alcohol problems*, in *Clinical handbook of co-existing mental health and drug and alcohol problems*, A. Baker and R. Velleman, Editors. 2007, New York, NY: Routledge. p. 177-196.
1105. Farhoury, W, Murray, A, Shepherd, G, and Priebe, S, Research in supported housing. *Social Psychiatry and Psychiatric Epidemiology*, 2002; 37, 301-315.
1106. Thomas, S, *Working with women*, in *Helping change: The addiction counsellors training program*, S. Helfgott, Editor. 1997, Perth, Australia: Western Australian Alcohol and Drug Authority.
1107. Swift, W and Copeland, J, Treatment needs and experiences of Australian women with alcohol and other drug problems. *Drug and Alcohol Dependence*, 1996; 40, 211-219.
1108. Network of Alcohol and Other Drugs Agencies, *NADA practice resource for women engaged in in alcohol or other drug treatment*. 2015, Sydney, Australia: Network of Alcohol and Other Drugs Agencies.
1109. Velleman, R, Co-existing problems: *From conceptualization to case formulation*, in *Clinical handbook of co-existing mental health and drug and alcohol problems*, A. Baker and R. Velleman, Editors. 2007, New York, NY: Routledge. p. 20-38.
1110. Copeland, J and Hall, W, A comparison of predictors of treatment drop-out of women seeking drug and alcohol treatment in a specialist women's and two traditional mixed-sex treatment services. *British Journal of Addiction*, 1992; 87, 883-890.
1111. Miller, BA, Downs, W, and Gondoli, DM, Spousal violence among alcoholic women as compared to a random household sample of women. *Journal of Studies on Alcohol*, 1989; 50, 533-540.
1112. Swift, W, Copeland, J, and Hall, W, Characteristics of women with alcohol and other drug problems: Findings of an Australian national survey. *Addiction*, 1996; 91, 1141-1150.
1113. Darke, S, Wodak, A, Hall, W, Heather, N, and Ward, J, Prevalence and predictors of psychopathology among opioid users. *British Journal of Addiction*, 1992; 87, 771-776.
1114. Klee, L, Schmidt, C, and Ames, G, Indicators of women's alcohol problems: What women themselves report. *International Journal of the Addictions*, 1991; 26, 879-895.
1115. Copeland, J, *A review of the literature on women's substance use, dependence and treatment needs*. 1993, Brisbane, Australia: Queensland Department of Health.

1116. Australian Government Department of Health and Aging, *National male health policy supporting document: Healthy minds*. 2010, Canberra, Australia: Australian Government Department of Health and Aging.
1117. Hall, W, The role of legal coercion in the treatment of offenders with alcohol and heroin problems. *Australian and New Zealand Journal of Criminology*, 1997; 30, 103-120.
1118. National Institute on Drug Abuse, *Principles of drug addiction treatment: A research-based guide* (3rd ed.). 2012, Washington, DC: U.S. Department of Health and Human Services.
1119. Barber, J, *Beyond casework*. 1991, London, UK: Palgrave Macmillan
1120. NSW Department of Health, *NSW clinical guidelines for the care of persons with comorbid mental illness and substance use disorders in acute care settings*. 2009, Sydney, Australia: NSW Department of Health.
1121. Gore, FM, Bloem, PJ, Patton, GC, Ferguson, J, Joseph, V, Coffey, C, . . . Mathers, CD, Global burden of disease in young people aged 10–24 years: A systematic analysis. *The Lancet*, 2011; 377, 2093-2102.
1122. McGorry, P, Should youth mental health become a specialty in its own right? Yes. *British Medical Journal*, 2009; 339.
1123. Reavley, NJ, Cvetkovski, S, Jorm, AF, and Lubman, DI, Help-seeking for substance use, anxiety and affective disorders among young people: Results from the 2007 Australian National Survey of Mental Health and Wellbeing. *Australian and New Zealand Journal of Psychiatry*, 2010; 44, 729-735.
1124. Baker, KD, Lubman, DI, Cosgrave, EM, Killackey, EJ, Pan Yuen, H, Hides, L, . . . Yung, AR, Impact of co-occurring substance use on 6 month outcomes for young people seeking mental health treatment. *Australian and New Zealand Journal of Psychiatry*, 2007; 41, 896-902.
1125. Kramer, TL, Robbins, JM, Phillips, SD, Miller, TL, and Burns, BJ, Detection and outcomes of substance use disorders in adolescents seeking mental health treatment. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2003; 42, 1318-1326.
1126. Bolton, JM, Robinson, J, and Sareen, J, Self-medication of mood disorders with alcohol and drugs in the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Affective Disorders*, 2009; 115, 367-375.
1127. Crane, P, Buckley, J, and Francis, C, *Youth alcohol and drug good practice guide 1: A framework for youth alcohol and other drug practice*. 2012, Brisbane, Australia: Dovetail.
1128. Kandel, DB, Johnson, JG, Bird, HR, Weissman, MM, Goodman, SH, Lahey, BB, . . . Schwab-Stone, ME, Psychiatric comorbidity among adolescents with substance use disorders: Findings from the MECA study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1999; 38, 693-699.
1129. Rohde, P, Lewinsohn, P, and Seeley, J, Psychiatric comorbidity with problematic alcohol use in high school students. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1996; 35, 101-109.
1130. Armstrong, TD and Costello, EJ, Community studies on adolescent substance use, abuse, or dependence and psychiatric comorbidity. *Journal of Consulting and Clinical Psychology*, 2002; 70, 1224-1239.

1131. Godfrey, K, Yung, A, Killackey, E, Cosgrave, E, Pan Yuen, H, Stanford, C, . . . McGorry, P, Patterns of current comorbidity in young help-seekers: Implications for service planning and delivery. *Australasian Psychiatry*, 2005; 13, 379-383.
1132. Kessler, RC, Nelson, CB, McGonagle, KA, Edlund, MJ, Frank, RG, and Leaf, PJ, The epidemiology of co-occurring addictive and mental disorders: Implications for prevention and service utilization. *American Journal of Orthopsychiatry*, 1996; 66, 17-31.
1133. Szirom, T, King, D, and Desmond, K, *Barriers to service provision for young people with presenting substance misuse and mental health problems*. 2004, Canberra, Australia: National Youth Affairs Research Scheme.
1134. Grella, CE, Hser, YI, Joshi, V, and Rounds-Bryant, J, Drug treatment outcomes for adolescents with comorbid mental and substance use disorders. *Journal of Nervous and Mental Disease*, 2001; 189, 384-392.
1135. Riggs, PD, Baker, S, Mikulich, SK, Young, SE, and Crowley, TJ, Depression in substance-dependent delinquents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 1995; 34, 764-771.
1136. Rowe, CL, Liddle, HA, and Dakof, GD, Classifying clinically referred adolescent substance abusers by level of externalizing and internalizing symptoms. *Journal of Child and Adolescent Substance Abuse*, 2001; 11, 41-65.
1137. Lewinsohn, PM, Rohde, P, and Seeley, JR, Adolescent psychopathology III: The clinical consequences of comorbidity. *Journal of American Academy of Child and Adolescent Psychiatry*, 1995; 34, 510-519.
1138. Wittchen, HU, Nelson, CB, and Lachner, G, Prevalence of mental disorders and psychosocial impairments in adolescents and young adults. *Psychological Medicine*, 1998; 28, 109-126.
1139. Andrews, G, Slade, T, and Issakidis, C, Deconstructing current comorbidity: Data from the Australian National Survey of Mental Health and Wellbeing. *British Journal of Psychiatry*, 2002; 181, 306-314.
1140. American Psychiatric Association, Practice guideline for the treatment of patients with substance use disorders: Second edition. *American Journal of Psychiatry*, 2006; 163, S1-S82.
1141. Toumbourou, W, Blyth, A, Bamberg, J, Bowes, G, and Douvos, T, Behaviour exchange systems training: The best approach for parents stressed by adolescent drug problems. *Australian and New Zealand Journal of Family Therapy*, 1997; 18, 92-98.
1142. Azrin, NH, Donohue, B, Besalel, VA, Kogan, ES, and Acierno, R, Youth drug abuse treatment: A controlled outcome study. *Journal of Child and Adolescent Substance Abuse*, 1994; 3, 1-16.
1143. Compton, SN, Burns, BJ, Egger, HL, and Robertson, E, Review of the evidence base for treatment of child psychopathy: Internalising disorders. *Journal of Consulting and Clinical Psychology*, 2002; 70, 1240-1266.
1144. Lewinsohn, PM and Clarke, GN, Psychosocial treatments for adolescent depression. *Clinical Psychology Review*, 1999; 19, 329-342.
1145. Moak, DH, Anton, RF, Latham, PK, Voronin, KE, Waid, RL, and Durazo-Arvizu, R, Sertraline and cognitive behavioral therapy for depressed alcoholics: Results of a placebo-controlled trial. *Journal of Clinical Psychopharmacology*, 2003; 23, 553-562.

1146. Farmer, EM, Compton, SN, Burns, BJ, and Robertson, E, Review of the evidence base for treatment childhood psychopathology: Externalising disorders. *Journal of Consulting and Clinical Psychology*, 2002; 70, 1267-1302.
1147. Towers, T, *Responding to youth drug issues*, in *Helping change: The addiction counsellors training program*, S. Helfgott, Editor. 1997, Perth, Australia: Western Australian Alcohol and Drug Authority.
1148. Schwartz, SJ, Côté, JE, and Arnett, JJ, Identity and agency in emerging adulthood two developmental routes in the individualization process. *Youth and Society*, 2005; 37, 201-229.
1149. McDermott, B, Baigent, M, Chanen, A, Fraser, L, Graetz, B, Hayman, N, . . . Proimos, J, *Clinical practice guidelines: Depression in adolescents and young adults*. 2010, Melbourne, Australia: beyondblue.
1150. Winters, KC, Treating adolescents with substance use disorders: An overview of practice issues and treatment outcome. *Substance Abuse*, 1999; 20, 203-225.
1151. Masten, AS, Burt, KB, Roisman, GI, Obradovic, J, Long, JD, and Tellegen, A, Resources and resilience in the transition to adulthood: Continuity and change. *Development and Psychopathology*, 2004; 16, 1071-1094.
1152. Gould, MS, Munfakh, JLH, Lubell, K, Kleinman, M, and Parker, S, Seeking help from the internet during adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry*, 2002; 41, 1182-1189.
1153. Valaitis, RK, Computers and the internet: Tools for youth empowerment. *Journal of Medical Internet Research*, 2005; 7, e51.
1154. Nicholas, J, Oliver, K, Lee, K, and O'Brien, M, Help-seeking behaviour and the internet: An investigation among Australian adolescents. *Australian e-Journal for the Advancement of Mental Health*, 2004; 3, 16-23.
1155. Burns, JM, Durkin, LA, and Nicholas, J, Mental health of young people in the United States: What role can the internet play in reducing stigma and promoting help seeking? *Journal of Adolescent Health*, 2009; 45, 95-97.
1156. World Health Organisation. *Mental health and older adults*. 2015. Available from: <http://www.who.int/mediacentre/factsheets/fs381/en/>.
1157. Wu, LT and Blazer, DG, Substance use disorders and psychiatric comorbidity in mid and later life: A review. *International Journal of Epidemiology*, 2014; 43, 304-317.
1158. Simoni-Wastila, L and Yang, HK, Psychoactive drug abuse in older adults. *American Journal of Geriatric Pharmacotherapy*, 2006; 4, 380-394.
1159. Nicholas, R. and A.M. Roche, *Grey matters information sheet series: Preventing and responding to alcohol and other drug problems among older Australians: Information sheet 1: Why the growing use of alcohol and other drugs among older Australians needs attention*. 2014, Adelaide, Australia: National Centre for Education and Training in Addiction (NCETA), Flinders University. Available from: <http://nceta.flinders.edu.au/files/3514/1679/0404/EN557.pdf>.
1160. Victorian Alcohol and Drug Association. *Responding to older AOD users*. 2011. Available from: http://www.vaada.org.au/wp-content/uploads/2013/01/Older_people_and_AOD.pdf.

1161. Nicholas, R. and A.M. Roche, *Grey matters information sheet series: Preventing and responding to alcohol and other drug problems among older Australians: Information sheet 5: Barriers and enablers to accessing assistance*. 2014, Adelaide, Australia: National Centre for Education and Training in Addiction (NCETA), Flinders University. Available from: <http://nceta.flinders.edu.au/files/1314/1679/1662/EN561.pdf>.
1162. Carey, KB, Leontieva, L, Dimmock, J, Maisto, SA, and Batki, SL, Adapting motivational interventions for comorbid schizophrenia and alcohol use disorders. *Clinical Psychology: Science and Practice*, 2007; 14, 39-57.
1163. Glasner-Edwards, S, *Motivational interventions for substance abusers with psychiatric illness*, in *Handbook of motivational counseling: Goal-based approaches to assessment and intervention with addiction and other problems*, W.M. Cox and E. Klinger, Editors. 2011, Chichester, UK: John Wiley & Sons. p. 329-348.
1164. Dunn, C, Deroo, L, and Rivara, F, The use of brief interventions adapted from motivational interviewing across behavioural domains: A systematic review. *Addiction*, 2001; 96 1725-1742.
1165. Martino, S, Carroll, K, O'Malley, S, and Rounsaville, B, Motivational interviewing with psychiatrically ill substance abusing patients. *American Journal on Addictions*, 2000; 9, 88-91.
1166. Baker, A, Lewin, TJ, Reichler, H, Clancy, R, Carr, VJ, Garrett, R, . . . Terry, M, Evaluation of a motivational interview for substance use within psychiatric in-patient services. *Addiction*, 2002; 87, 1329-1337.
1167. Baker, A and Velleman, R, *Clinical handbook of co-existing mental health and drug and alcohol problems*. 2007, New York, NY: Routledge.
1168. Martino, S, Carroll, K, Kostas, D, Perkins, J, and Rounsaville, B, Dual diagnosis motivational interviewing: A modification of motivational interviewing for substance abusing patients with psychotic disorders. *Journal of Substance Abuse Treatment*, 2002; 23, 297-308.
1169. Goldberg, D and Williams, P, *A user's guide to the General Health Questionnaire*. 1988, Windsor, UK: NFER Nelson
1170. Politi, PL, Piccinelli, M, and Wilkinson, G, Reliability, validity and factor structure of the 12-item General Health Questionnaire among young males in Italy. *Acta Psychiatrica Scandinavica*, 1994; 90, 432-437.
1171. Derogatis, LR, *Symptom Checklist-90-Revised: Administration, scoring and procedures manual (3rd ed.)*. 1994, Minneapolis, MN: National Computer Systems.
1172. Horowitz, LM, Rosenberg, SE, Baer, BA, Ureno, G, and Villasenor, VS, Inventory of interpersonal problems: Psychometric properties and clinical applications. *Journal of Consulting and Clinical Psychology*, 1988; 56, 885-892.
1173. Mattick, R, Oliphant, D, Bell, J, and Hall, W. *Psychiatric morbidity in methadone maintenance patients: Prevalence, effect on drug use and detection*. in *Substance use and mental illness: Proceedings of the fourth Lingard symposium*. 1996. Newcastle, Australia: Hunter Institute of Mental Health.
1174. Dawe, S and Mattick, RP, *Review of diagnostic screening instruments for alcohol and other drug use and other psychiatric disorders*. 1997, Canberra, Australia: Australian Government Publishing Service.
1175. Steer, RA and Schut, J, Types of psychopathology displayed by heroin addicts. *American Journal of Psychiatry*, 1979; 136, 1463-1465.

1176. Westermeyer, J, Tucker, P, and Nugent, S, Comorbid anxiety disorder among patients with substance abuse disorders. *American Journal on Addictions*, 1995; 4, 97-106.
1177. Hedlund, JL and Vieweg, BW, The Brief Psychiatric Rating Scale (BPRS): A comprehensive review. *Journal of Operational Psychiatry*, 1980; 11, 48-65.
1178. Overall, J and Gorham, DR, The Brief Psychiatric Rating Scale. *Psychological Reports*, 1962; 10, 799-812.
1179. Zimmerman, M and Mattia, JI, A self-report scale to help make psychiatric diagnoses: The Psychiatric Diagnostic Screening Questionnaire. *Archives of General Psychiatry*, 2001; 58, 787-794.
1180. Zimmerman, M and Mattia, JI, The Psychiatric Diagnostic Screening Questionnaire: Development, reliability and validity. *Comprehensive Psychiatry*, 2001; 42, 175-189.
1181. Beck, AT, Steer, RA, and Brown, GK, *Manual for the Beck Depression Inventory-II*. 1996, San Antonio, TX: Psychological Corporation.
1182. Beck, AT and Steer, RA, *Manual for the Beck Depression Inventory*. 1987, San Antonio, TX: Psychological Corporation.
1183. Beck, AT, Steer, RA, and Garbin, MG, Psychometric properties of the Beck Depression Inventory: Twenty five years of evaluation. *Clinical Psychology Review*, 1988; 8, 77-100.
1184. Kleinman, PH, Miller, AB, Millman, RB, Woody, GE, Todd, T, Kemp, J, and Lipton, D, Psychopathology among cocaine abusers entering treatment. *Journal of Nervous and Mental Disease*, 1990; 178, 442-447.
1185. Beck, A and Steer, R, *Manual for the Beck Hopelessness Scale*. 1988, San Antonio, TX: Psychological Corporation.
1186. Beck, A and Steer, R, *Manual for the Beck Scale for Suicidal Ideation*. 1991, San Antonio, TX: Psychological Corporation.
1187. Beck, AT and Steer, RA, *Manual for the Beck Anxiety Inventory*. 1990, San Antonio, TX: Psychological Corporation.
1188. de Beurs, E, Wilson, KA, Chambless, DL, Goldstein, AJ, and Feske, U, Convergent and divergent validity of the Beck Anxiety Inventory for patients with panic disorder and agoraphobia. *Depression and Anxiety*, 1997; 6, 140-146.
1189. Fydrich, T, Dowdall, D, and Chambless, DL, Reliability and validity of the Beck Anxiety Inventory. *Journal of Anxiety Disorders*, 1992; 6, 55-61.
1190. Spielberger, CD, *Manual for the State-Trait Anxiety Inventory*. 1983, Palo Alto, CA: Consulting Psychologists Press.
1191. Kubany, ES, Haynes, SN, Leisen, MB, Owens, JA, Kaplan, AS, Watson, SB, and Burns, K, Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The Traumatic Life Events Questionnaire. *Psychological Assessment*, 2000; 12, 210-224.
1192. Read, JP, Bollinger, AR, and Sharkansky, E, Assessment of comorbid substance use disorder and posttraumatic stress disorder, in *Trauma and substance abuse: Causes, consequences and treatment of comorbid disorder*, P. Ouimette and P.J. Brown, Editors. 2003, Washington, DC: American Psychological Society. p. 111-125.

1193. Green, BL, *Trauma History Questionnaire*, in *Measurement of stress, trauma and adaptation*, B.H. Stamm, Editor. 1996, Lutherville, MD: Sidran Press. p. 366-369.
1194. Foa, EB, Riggs, DS, Dancu, CV, and Rothbaum, BO, Reliability and validity of a brief instrument for assessing posttraumatic stress disorder. *Journal of Traumatic Stress*, 1993; 6, 459-473.
1195. Coffey, SF, Dansky, BS, Falsetti, SA, Saladin, ME, and Brady, KT, Screening for PTSD in a substance abuse sample: Psychometric properties of a modified version of the PTSD Symptom Scale Self-Report. *Journal of Traumatic Stress*, 1998; 11, 393-399.
1196. Weathers, FW, Litz, BT, Keane, TM, Palmieri, PA, Marx, BP, and Schnurr, PP. *The PTSD Checklist for DSM-5 (PCL-5)*. 2013. Available from: <http://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp>.
1197. Bollinger, AR, Cuevas, CA, Vielhauer, MJ, Morgan, EE, and Keane, TM, The operating characteristics of the PTSD Checklist in detecting PTSD in HIV+ substance abusers. *Journal of Psychological Trauma*, 2008; 7, 213-234.
1198. Harrington, T and Newman, E, The psychometric utility of two self-report measures of PTSD among women substance users. *Addictive Behaviors*, 2007; 32, 2788-2798.
1199. Zanarini, MC, Vujanovic, A. A., Parachini, E. A., Boulanger, J. L., Frankenburg, F. R., & Hennen, J. , A screening measure for BPD: The McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD). *Journal of Personality Disorders*, 2003; 17, 568-573.
1200. Gardner, K and Qualter, P, Reliability and validity of three screening measures of borderline personality disorder in a nonclinical population. *Personality and Individual Differences*, 2009; 46, 636-641.
1201. Chanen, AM, Jovev, M, Djaja, D, McDougall, E, Pan Yuen, H, Rawlings, D, and Jackson, HJ, Screening for borderline personality disorder in outpatient youth. *Journal of Personality Disorders*, 2008; 22, 353-364.
1202. McMullin, RE, *Taking out your mental trash: A consumer's guide to cognitive restructuring therapy*. 2005, New York, NY: W. W. Norton and Company.
1203. Beck, J, *Cognitive therapy: Basics and beyond*. 1995, New York, NY: Guildford Press.
1204. Gellis, ZD and Kenaley, B, Problem solving therapy for depression in adults: A systematic review. *Research on Social Work Practice*, 2008; 18, 117-131.
1205. Pierce, D, Problem solving therapy: Use and effectiveness in general practice. *Australian Family Physician*, 2012; 41, 676-679.
1206. Carroll, KM, *A cognitive-behavioral approach: Treating cocaine addiction*. 1998, Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health.
1207. Mynors-Wallis, L, *Problem solving treatment for anxiety and depression: A practical guide*. 2005, Oxford, UK: Oxford University Press.
1208. Street, H, Exploring relationships between goal setting, goal pursuit and depression. *Australian Psychologist*, 2002; 37, 95-103.

1209. Cotterell, N, *Cognitive therapy of depression during addiction recovery*, in *Clinical depression during addiction recovery: Process, diagnosis and treatment*, J.S. Kantor, Editor. 1996, New York, NY: Marcel Dekker.
1210. Bourne, EJ, *The anxiety and phobia workbook* (6th ed.). 2015, Oakland, CA: New Harbinger Publications.
1211. Montgomery, B and Morris, L, *Surviving: Coping with a life crisis*. 2000, Tuscon, AZ: Fisher Books.

