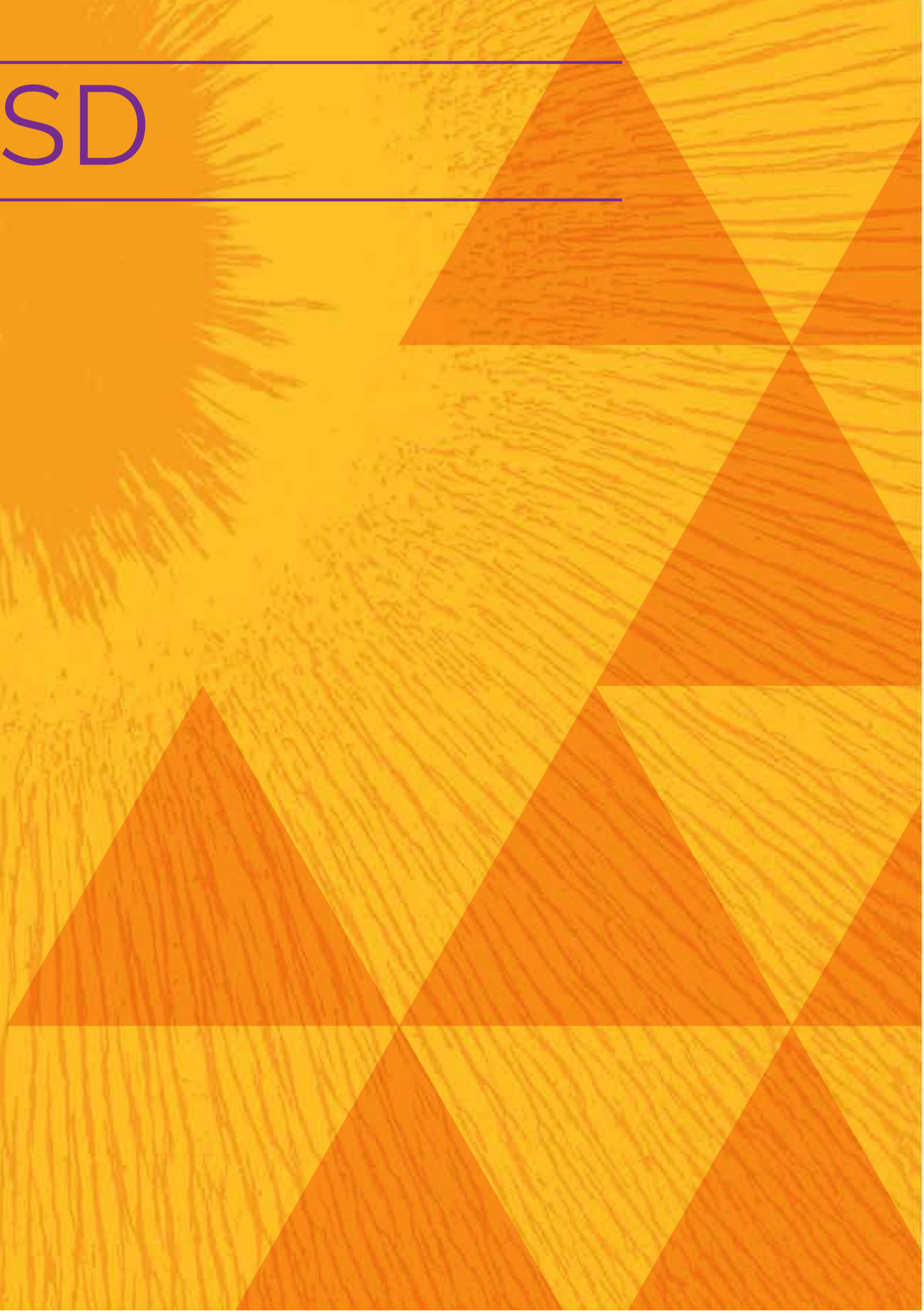


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# PTSD

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# 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><b>Do:</b></p> <ul style="list-style-type: none"><li>✓ Display a comfortable attitude if the client chooses to describe his/her trauma experience.</li><li>✓ Give the client your undivided attention, empathy and unconditional positive regard.</li><li>✓ Normalise the client's response to the trauma and validate his/her feelings.</li><li>✓ Praise the client for his/her resilience in the face of adversity.</li><li>✓ Praise the client for having the courage to talk about what happened.</li><li>✓ Use relaxation and grounding techniques where necessary.</li><li>✓ Educate the client on what to expect if they undergo detoxification (e.g., a possible increase in trauma-related symptoms).</li><li>✓ Maximise opportunities for client choice and control over treatment processes.</li><li>✓ Monitor depressive and suicidal symptoms.</li></ul> <p><b>Don't:</b></p> <ul style="list-style-type: none"><li>× Rush or force the client to reveal information about the trauma.</li><li>× Engage in an in-depth discussion of the client's trauma unless you are trained in trauma responses.</li><li>× Judge the client in relation to the trauma or how he/she reacted to the trauma.</li><li>× Abruptly end the session.</li><li>× Encourage the client to suppress his/her thoughts or feelings.</li><li>× Engage in aggressive or confrontational therapeutic techniques.</li><li>× Be afraid to seek assistance.</li><li>× Use overly clinical language without clear explanations.</li></ul>
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*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](http://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.

## Box 19: Case study G: Treating comorbid PTSD and AOD use: Emily's story continued

### 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.