

Acute Stress Disorder, Posttraumatic Stress Disorder and Complex PTSD



Trauma and trauma reactions

Trauma, traumatic event, and potentially traumatic event

The word *trauma* is used inconsistently within the mental health field, referring at times to an event and at other times to psychological injury arising from an event. Literally, *trauma* means wound, and the word is used routinely in the physical health sector to describe an injury. In mental health terms, it refers to an injury or wound to the 'psyche'; that is, damage to a person's emotional or psychological health and wellbeing. It is recognised that such an injury is characterised by biological, psychological, and social and cultural aspects (i.e., a biopsychosocial approach).

Potentially traumatic event (PTE) will be used in these Guidelines to refer to events that meet the DSM-5¹ stressor criterion for PTSD and ASD. This term recognises the wide variation in individual appraisals of, and responses to, an event. A particular event, regardless of how threatening it may seem, is not necessarily going to cause 'psychic injury' to all who experience it.

Traumatic event will be used in these Guidelines to refer to an event that has actually resulted in psychic injury, and *trauma* will be used to refer to the psychic injury itself.

Potentially traumatic events

PTEs include any threat, actual or perceived, to the life or physical safety of the individual, their loved ones, or those around them. PTEs include, but are not limited to, war, torture, sexual assault, physical assault, natural disasters, accidents, and terrorism. Exposure to a PTE may be direct (e.g., actually experienced or witnessed), or indirect (e.g., confronted with or learnt about), and may be experienced on a single occasion, or repeatedly.

By their very nature, some events are more likely to be experienced as extremely traumatic, and more likely to cause ongoing difficulties and clinically diagnosable symptoms of ASD and/or PTSD. Intentional acts of interpersonal violence, such as torture and assault, and prolonged and/or repeated events, such as childhood sexual abuse and concentration camp experiences, are more likely than natural events or accidents to result in a traumatic response.^{2,3}

Although beyond the conceptualisation of PTEs, it is important to recognise the potential for transgenerational effects of trauma, in which the impact of systematic torture, structural violence or oppression, genocide or family violence, may be seen in mental health problems in the next generation.^{4,5}

Generally, events that do not include an element of serious physical threat are not considered PTEs even if they constitute significant threats to psychological integrity or wellbeing. Thus, events such as divorce or separation, job loss, and verbal abuse/harassment are not considered PTEs and do not meet the stressor criterion for a PTSD diagnosis. The stressor criteria for DSM-5 explicitly exclude the witnessing of traumatic events via electronic media, television, movies or pictures, unless this is part of a person's vocational role.¹

Common responses to potentially traumatic events

A degree of psychological distress is very common in the early aftermath of traumatic exposure and can be considered a part of the normal response. In cases of severe traumatic events, many people may be symptomatic in the initial fortnight after the event. Traumatized people are likely to experience emotional upset, increased anxiety, and sleep and appetite disturbance. Some will have additional reactions such as fear, sadness, guilt, or anger. In most cases, psychological symptoms of distress settle down in the days and weeks following the traumatic event as people make use of their customary coping strategies and naturally occurring support networks to come to terms with the experience.⁶ However, in a minority of people, the symptoms persist and develop into ASD and/or PTSD.

Traumatic stress syndromes

When the individual's psychological distress following exposure to a traumatic event persists, and is severe enough to interfere with important areas of psychosocial functioning, it can no longer be considered a normal response to traumatic exposure. The possibility of a posttraumatic mental health disorder such as ASD or PTSD should be considered. It should be noted that a wide range of other mental health conditions including anxiety, affective, and substance use disorders might be present either alone or together with ASD or PTSD. For example, a large study of traumatic injury survivors found that, while almost a third had a psychiatric diagnosis at 12 months post-injury, more than two-thirds of those did not have a diagnosis of PTSD.⁷ The most common diagnosis at 12 months was depression (16%), followed by generalised anxiety disorder (GAD; 11%), substance abuse (10%), PTSD (10%), agoraphobia (10%), social phobia (7%), panic disorder (6%) and obsessive-compulsive disorder (OCD; 4%).

Acute stress disorder

After an individual has been exposed to a traumatic event, he or she may experience significant distress and/or impairment in social, occupational or other important areas of functioning. When this lasts longer than two days following a traumatic event, a diagnosis of acute stress disorder may be considered. If posttraumatic symptoms persist beyond a month, the clinician would assess for the presence of PTSD. The ASD diagnosis would no longer apply.

Acute stress disorder, or ASD, was introduced into the DSM-IV in 1994. In 2013, in the fifth edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-5)¹, the American Psychiatric Association revised the diagnostic criteria. In DSM-5, ASD was reclassified from an Anxiety Disorder to the new category of Trauma- and Stressor-Related Disorders. ASD is conceptualised as an acute stress response that does not require specific symptom clusters to be present. Rather, diagnosis requires at least nine symptoms from a broad list of dissociative, re-experiencing, avoidance, and arousal symptoms. See Table 2.1 for the sets of criteria that are to be met for a diagnosis of ASD.

Bryant⁸ conducted a systematic analysis of literature examining the predictive utility of ASD. The review reported that individuals who experience ASD are at high risk of developing PTSD, with most studies

indicating that at least half of those with ASD subsequently meet criteria for PTSD. However, the review also found that the majority of individuals who eventually developed PTSD did not previously meet full criteria for ASD. Thus, having an ASD diagnosis is moderately predictive of PTSD, but not having an ASD diagnosis should not necessarily be interpreted as indicating a good prognosis.

Table 2.1: DSM-5 diagnostic criteria (paraphrased) for acute stress disorder (DSM-5 Code 308.3)

- A.** The person was exposed to actual or threatened death, serious injury, or sexual violence as follows.
1. Directly exposed.
 2. Witnessed (in person).
 3. Indirectly, by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental.
 4. Repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties (e.g., first responders collecting body parts; professionals repeatedly exposed to details of child abuse). This does not include indirect non-professional exposure through electronic media, television, movies or pictures.

- B.** Nine (or more) symptoms from any of the following five categories (with onset or exacerbation after the traumatic event).

Intrusion symptoms

1. Recurrent, involuntary, and intrusive distressing recollections of the event(s) (children may express this symptom in repetitive play).
2. Recurrent traumatic nightmares (children may have disturbing dreams without content).
3. Dissociative reactions (e.g., flashbacks) which may occur on a continuum from brief episodes to complete loss of consciousness (children may re-enact the event in play).
4. Intense or prolonged distress or physiological reactivity after exposure to traumatic reminder.

Negative mood

5. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

Dissociative symptoms

6. An altered sense of the reality of one's surroundings or oneself (e.g., seeing oneself from another's perspective, being in a daze, time slowing).
7. Inability to remember an important aspect of the traumatic event(s) (typically not due to, e.g. head injury, alcohol, or drugs).

Avoidance symptoms

8. Effortful avoidance of distressing trauma-related thoughts or feelings.
9. Effortful avoidance of trauma-related external reminders (e.g., people, places, conversations, activities, objects, or situations).

Arousal symptoms

10. Sleep disturbance.
11. Irritable or aggressive behaviour.
12. Hypervigilance.
13. Problems with concentration.
14. Exaggerated startle response.

- C.** Duration of the symptoms in Criterion B is three days to one month after exposure to the trauma.
- D.** The symptoms cause clinically significant distress or functional impairment.
- E.** The symptoms are not attributable to substance use, a medical condition, or psychosis.

Posttraumatic stress disorder

In 2013, the American Psychiatric Association revised the PTSD diagnostic criteria in the fifth edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-5¹). Like ASD, PTSD is included in the new category, Trauma- and Stressor-Related Disorders.

Several revisions to the PTSD diagnostic criteria were introduced in DSM-5.⁹ This included narrowing the definition of 'traumatic event' in Criterion A1, and eliminating Criterion A2, requiring that the response to a traumatic event involved intense fear, hopelessness, or horror, as there is little empirical support it improved diagnostic accuracy⁹. The other main change included having four rather than three symptom clusters by dividing the avoidance and numbing symptom cluster into two. This reflects the research showing active and passive avoidance to be independent phenomena and results in a requirement that a PTSD diagnosis includes at least one active avoidance symptom. The passive avoidance cluster has become a more general set of dysphoric symptoms, negative alterations in cognition and mood.

As seen in Table 2.2, DSM-5 requires eight sets of criteria to be met in order for the diagnosis of PTSD to be made. In addition to meeting the Criterion A definition of exposure to a traumatic event, diagnosis of PTSD requires one of five symptoms of re-experiencing, one of two symptoms of avoidance, two of seven symptoms of negative alterations in cognition and mood, and two of six symptoms of hyperarousal. Criterion F stipulates that the symptoms of clusters B, C, D and E need to have been present for at least one month. Criterion G requires that the disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. Criterion H requires that symptoms are not attributable to substance use or a medical condition.

The acute and chronic specifiers were removed in DSM-5, and the concept of 'delayed-onset PTSD' was replaced with 'delayed expression', defined as not meeting full diagnostic criteria until at least six months following the event.

Re-experiencing symptoms

The re-experiencing or 'intrusive' symptoms are often regarded as the hallmark feature of traumatic stress. Re-experiencing symptoms include intrusive and unwanted thoughts and images of the event and distressing dreams or nightmares. Re-experiencing symptoms can also include 'flashbacks' where people may lose awareness of their surroundings and become immersed in the memory of the event. These flashbacks may be so vivid that people feel as if they are experiencing the traumatic event again. People can become upset or distressed when reminded of what happened, and have intense physical reactions like sweating and rapid heartbeat.

Avoidance symptoms

Avoidance is characterised by deliberate attempts to keep memories of the traumatic event out of mind by actively avoiding any possible reminders. Such avoidance can result in a person going to extreme lengths to avoid people, places, and activities that trigger distressing memories, as well as internal triggers such as thoughts and feelings. The new DSM-5 avoidance cluster has only two symptoms, requiring either avoidance of trauma-related thoughts and feelings or avoidance of trauma-related external reminders.

Negative alterations in cognition and mood

In the DSM-5, the DSM-IV avoidance/numbing symptom cluster with seven symptoms was revised and split into two separate symptom clusters – the effortful avoidance cluster described above, and a negative alteration in cognitions and mood cluster with seven symptoms. This new symptom cluster includes the previous numbing symptoms and adds negative cognitions, distorted blame, and persistent negative emotions.

Arousal symptoms

PTSD is associated with a sustained increase in sympathetic nervous system activity, well beyond its adaptive function in response to the traumatic event. The individual experiences ongoing increased arousal, as though the 'fear system' has been recalibrated to a higher idling level. Increased arousal is evident in a range of symptoms such as poor concentration and memory, irritability and anger, difficulty in falling and staying asleep, being easily startled, and being constantly alert to signs of danger (hypervigilance). DSM-5 includes an additional symptom of 'reckless or self-destructive behaviour' in this cluster.

Dissociative subtype

The DSM-5 introduced a dissociative subtype of PTSD. This captures people who, in addition to meeting full criteria for PTSD, experience dissociative symptoms (depersonalisation or derealisation). The current literature suggests that the dissociative subtype may be associated with greater complexity and chronicity of both trauma history and overall burden of illness.^{10,11}

Table 2.2: DSM-5 diagnostic criteria (paraphrased) for posttraumatic stress disorder in adults, adolescents, and children older than six (DSM-5 code 309.81)*

- A.** The person was exposed to actual or threatened death, serious injury, or sexual violence as follows.
1. Directly exposed.
 2. Witnessed (in person).
 3. Indirectly, by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental.
 4. Repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties (e.g., first responders collecting body parts; professionals repeatedly exposed to details of child abuse). This does not include indirect non-professional exposure through electronic media, television, movies or pictures.
- B.** One or more of the following intrusion symptoms associated with the traumatic event(s), with onset after the traumatic event.
1. Recurrent, involuntary, and intrusive recollections of the event(s). (Note: In children, this symptom may be expressed in repetitive play.)
 2. Traumatic nightmares. (Note: Children may have disturbing dreams without content related to the traumatic event(s).)
 3. Dissociative reactions (e.g., flashbacks) which may occur on a continuum from brief episodes to complete loss of consciousness. (Note: Children may re-enact the event in play.)
 4. Intense or prolonged distress after exposure to traumatic reminders.
 5. Marked physiological reactivity after exposure to trauma-related stimuli.
- C.** Persistent effortful avoidance of one or more of the following distressing trauma-related stimuli.
1. Trauma-related thoughts, feeling or memories.
 2. Trauma-related external reminders (e.g., people, places, conversations, activities, objects, or situations).
- D.** At least two of the following negative alterations in cognitions and mood that began or worsened after the traumatic event.
1. Inability to recall key features of the traumatic event (usually due to dissociative amnesia and not to head injury, alcohol or drugs).
 2. Persistent (and often distorted) negative beliefs and expectations about oneself or the world (e.g., "I am bad," "the world is completely dangerous").
 3. Persistent distorted blame of self or others for causing the traumatic event or for resulting consequences.
 4. Persistent negative emotions (e.g., fear, horror, anger, guilt, or shame).
 5. Markedly diminished interest in significant activities.
 6. Feeling alienated from others (e.g., detachment or estrangement).
 7. Constricted affect: persistent inability to experience positive emotions.
- E.** At least two of the following trauma-related alterations in arousal and reactivity that began or worsened after the traumatic event.
1. Irritable or aggressive behaviour.
 2. Self-destructive or reckless behaviour.
 3. Hypervigilance.
 4. Exaggerated startle response.
 5. Problems with concentration.
 6. Sleep disturbance.

- F. Persistence of symptoms (in Criteria B, C, D, and E) is more than one month.
- G. The symptoms cause clinically significant distress or functional impairment.
- H. The symptoms are not attributable to substance use or a medical condition.

Specify whether:

With dissociative symptoms: the individual's symptoms meet the criteria for posttraumatic stress disorder, and in addition, in response to the stressor, the individual experiences persistent or recurrent symptoms of either of the following:

1. Depersonalisation: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one's mental processes or body (e.g., feeling as though one were in a dream, feeling a sense of unreality of self or body or of time moving slowly).

2. Derealisation: Persistent or recurrent experiences of unreality of surroundings (e.g., world around the individual is experienced as unreal, dreamlike, distant, or distorted).

Note: To use this subtype, the dissociative symptoms must not be attributable to the effects of a substance or a medical condition.

Specify if:

With delayed expression: if the full diagnostic criteria are not met until at least six months after the event (although some symptoms may be immediately evident).

Complex PTSD

A subset of individuals with PTSD, more commonly those who have experienced events of an interpersonal, prolonged, and repeated nature (e.g., childhood sexual abuse, imprisonment, torture), sometimes referred to as Type II trauma,¹² present with a constellation of characteristic features alongside the core PTSD symptoms. These features can include: impaired emotional control; self-destructive and impulsive behaviour; impaired relationships with others; hostility; social withdrawal; feeling constantly threatened; dissociation; somatic complaints; feelings of ineffectiveness, shame, despair or hopelessness; feeling permanently damaged; and a loss of prior beliefs and assumptions about safety and the trustworthiness of others.^{13,14} Issues of chronic self-harm and/or suicidal ideation are more common in this group.

People exhibiting this constellation of features are often referred to as having complex PTSD (CPTSD)¹⁵ or Disorders of Extreme Stress Not Otherwise Specified (DESNOS).¹⁶ These diagnoses are not included in DSM-5. However, CPTSD was formally recognised as a mental disorder with the release of the World Health Organization's eleventh revision of the International Classification of Diseases (ICD-11)¹⁷. Given this formal recognition of CPTSD as a mental disorder, these Guidelines consider a question on treatment interventions. Chapter 7 elaborates on conceptual and diagnostic issues for CPTSD, and its treatment and management principles.

CPTSD diagnostic criteria (ICD-11)

In ICD-11, PTSD and CPTSD fall under a general parent category of Disorders Specifically Related to Stress. PTSD is comprised of three symptom clusters including: (1) re-experiencing of the trauma; (2) avoidance of traumatic reminders; and (3) a persistent sense of current threat that is manifested by exaggerated startle and hypervigilance. CPTSD includes the three PTSD clusters and three additional clusters that reflect "disturbances in self-organization" (DSO): problems in emotional regulation, self-concept, and disturbances in relationships. The criteria are proposed to be applicable to children and adolescents as well as adults.

Prevalence and incidence of PTSD

Rates of PTSD should be considered in the context of rates of exposure to PTEs in the general community. Large community surveys^{2,3,18} indicate that 50% to 75% of people report at least one PTE in their lives, with most reporting two or more events. Mills and colleagues¹⁸ have examined the Australian rates of exposure for a wider range of more specific PTEs than in previous studies. Their findings suggest that the most commonly reported PTEs are having someone close to the individual die unexpectedly (reported by about 35% of the population); witnessing someone being badly injured or killed; or unexpectedly seeing a dead body (27%); and being involved in a life-threatening car accident (13%). Although these figures are important in informing our understanding of trauma exposure rates, this type of retrospective data should always be interpreted with some caution.

When examining PTSD rates, both prevalence and incidence figures are used. Prevalence refers to the proportion of a population that has had PTSD during a given period of time, and incidence refers to the rate at which new diagnoses of PTSD occur following exposure to a PTE.

Reports of lifetime prevalence of PTSD (percentage of the population that has had PTSD at some time in their lives) in community samples range between 5% and 10%.^{19,20} This can be interpreted to mean that

approximately 15% to 25% of people exposed to PTEs have also had a PTSD diagnosis.²¹ These lifetime prevalence rates may be somewhat misleading however, as around half those people who develop PTSD recover in the first 12 months regardless of treatment.³ In addition, of course, lifetime rates need to be interpreted with caution due to the retrospective nature of the inquiry. Reports of 12-month prevalence of PTSD (percentage of the population who have had PTSD in the past year) are 4.4% in Australia²² and 3.5% to 4.7% in the United States.^{20,23}

Risk factors for developing PTSD following a traumatic event include the nature of the traumatic event and characteristics of the individual. Individual risk factors for developing PTSD after a traumatic event include gender, age at trauma, race, lower education, lower socioeconomic status, marital status (e.g., unmarried, separated, or widowed), previous trauma, adverse childhood experiences including abuse, personal and family history of mental disorders, poor social support, and initial severity of reaction to the traumatic event.^{24,25}

The nature of the traumatic exposure (e.g., whether it is of an intentional or interpersonal nature) is an important risk factor for developing PTSD following a PTE.²⁶ Those PTEs associated with the highest rates of PTSD are not necessarily the most commonly occurring PTEs.¹⁸ Creamer and colleagues² found the highest 12-month prevalence of PTSD was associated with a prior history of rape and molestation, and the lowest 12-month prevalence of PTSD was associated with natural disasters and witnessing someone being badly injured or killed. Similar findings have been reported in the United States.³ PTSD has traditionally been associated with military combat, with point prevalence rates amongst US veterans since the Vietnam War ranging from 2% to 17%.²⁷ Estimates of PTSD prevalence in veteran populations vary widely according to, for example, the era of deployment, the percentage of those who deployed, and the specific nature of the deployment. For the veteran population as a whole (i.e., across cohorts and including both deployed and non-deployed), prevalence estimates are usually around 8% lifetime and 5% current PTSD.²⁸ The prevalence of PTSD following natural disasters ranges from approximately 4% to 60% with most studies reporting prevalence in the lower half of this range.²⁹ These rates are often lower than those following human-made disasters (including acts of terrorism) or technological disasters. The highest disaster-related PTSD prevalence is found amongst survivors (30% to 40%) and first responders (10% to 20%) in comparison to the general population (5% to 10%). See Neria et al.²⁹ for a review.

Currently, prevalence rates of ASD in the general Australian community are not available. However, a review of studies examining ASD³⁰ found much variability between different PTEs, including, rates of 9% following terrorist attacks, 13% to 25% following motor vehicle accidents (MVAs), and a 33% prevalence rate for witnesses to drive-by shootings. The prevalence of ASD varies considerably even when examining the same PTE type across settings. For example, most injury study prevalence rates lie between 6% and 10%,³⁰ however, in Australia alone studies have found an ASD prevalence of between 1%³¹ and 14%³² following traumatic injury.

Comorbid conditions

When PTSD has persisted beyond a few months, the core symptoms rarely exist in isolation. More commonly they exist alongside a number of associated features and other comorbid mental health disorders.^(e.g., 2,3,33,34) Data from the 2007 Australian National Mental Health and Wellbeing study³³ found that 86% of men and 77% of women with PTSD also met criteria for another lifetime Axis I disorder. This included anxiety (52% of men and 54% of women), substance use disorders (65% of men and 32% of women), and mood disorders such as depression (50% of men and 51% of women).

A number of studies have found high rates of comorbidity between personality disorder and PTSD in the US adult population, although much of this research has been conducted with male combat veterans with longstanding PTSD.³⁵⁻³⁸

In addition to complexities arising from comorbidity, health practitioners working with individuals with more chronic PTSD often find themselves having to work with a myriad of psychosocial problems that have evolved secondary to the core disorder. These often include pain and somatic health complaints, relationship problems, and occupational impairment.

The course of PTSD

Information about the course of PTSD has been derived from large epidemiological studies^(e.g. 3,33) that ask respondents how many weeks, months, or years after the onset of the disorder they continued to experience symptoms. These retrospective reports are used to create 'survival curves' or models of the course of PTSD following exposure to a traumatic event. The survival curves suggest that two-thirds of people with PTSD will eventually recover, with symptoms decreasing most substantially in the first 12 months following the event, although a substantial minority will continue to experience PTSD for decades. Findings from studies of the general population in the United States³ and Australia³³ suggest that there is approximately 50% to 60% remission between two and 10 years after the event, with probable further remission over subsequent decades. Studies with specific trauma types and populations also show significant remission from PTSD over time. For example, a study of adults who survived a shipping disaster as adolescents found that 70% of survivors who were diagnosed with PTSD after the incident did not meet criteria for PTSD between five and eight years after the disaster.³⁹ A systematic review of longitudinal studies of 9/11-related PTSD provided further evidence of, for the majority, a general decline over time in PTSD prevalence.⁴⁰ The exception was first responders and rescue/recovery workers, who appear to have had lower PTSD prevalence than other populations in the first three years following 9/11, but showed substantial increase in prevalence after that point, peaking at five or six years post-9/11. Any future studies would need to be interpreted with caution, since the course of recovery in those samples is often heavily influenced by factors such as physical disability and loss of employment, rendering generalisation to other PTSD populations difficult. In a similar vein, recovery from PTSD related to compensable injuries appears to be less likely⁴¹ and associated with the compensation process⁴². Elevated levels of anger may also be a contributing factor to a poor recovery trajectory from PTSD.⁴³

Most of those studies used retrospective reports to determine the course of recovery. Lower rates of PTSD remission have been found in other populations particularly when more reliable prospective research designs have been used. A study that assessed Australian Vietnam veterans at two points 15 years apart found increased rates of PTSD at the later time point.⁴⁴ Similar rates of chronic PTSD have been found in firefighters after a major bushfire, where 56% of those who had the disorder following the fire still had it four years later.⁴⁵ In a 20-year follow-up of Israeli veterans, Solomon found fluctuating PTSD prevalence, with reduced rates three years after the war but substantial increases at the 20-year point.⁴⁶ Data from several studies suggest that people who meet PTSD criteria at around six months post-trauma are likely (in the absence of effective treatment) to show a chronic course with symptoms potentially lasting for many decades.^{3,47} However, a prospective study has found that 42% of individuals exposed to a road traffic crash had unstable patterns of PTSD and other comorbidity over time.⁴⁸

Importantly, PTSD is less likely to follow a chronic course with evidence-based treatment. Based on several studies it is reasonable to assume that around one-third of patients will make a good recovery following evidence-based treatment, one-third will do moderately well, and one-third are unlikely to benefit.

Resilience in the face of potentially traumatic events

While the primary focus of these Guidelines is the treatment of people who develop ASD and/or PTSD following a traumatic experience, it needs to be emphasised that the majority of people exposed to trauma do not go on to develop these conditions. Early research on PTEs has found that resilience is the usual outcome, although whether this is true for experiences of interpersonal violation and abuse is not yet clear.^{49,50} Further, consensus on the definition of resilience is yet to be reached. Recent definitions of resilience have included: “a dynamic process encompassing positive adaptation within the context of significant adversity”,⁵¹ and “the ability to adapt and cope successfully despite threatening or challenging situations”.⁵² Some researchers have chosen to define resilience as the absence of PTSD symptomatology following exposure to a PTE,^(e.g. 53) but others argue that the absence of PTSD symptoms does not equate to resilience any more than absence of disease equals health.^(see 54) A comprehensive review of the area is provided by Layne and colleagues.⁵⁵

Posttraumatic mental health disorders: Key differences between ASD and PTSD

There is significant overlap in the diagnostic criteria for the two posttraumatic mental health conditions, ASD and PTSD, described above. ASD and PTSD share the same requirement for exposure to a traumatic event (Criterion A). Yet, ASD and PTSD differ in several important ways. The key distinguishing feature between the two disorders is the duration of symptoms required for the diagnosis to be made. ASD is diagnosed between two days and one month following the traumatic event, while PTSD requires that the symptoms be present for at least one month following the traumatic event. The acute and chronic PTSD specifiers were not included in the DSM-5, and the concept of delayed-onset PTSD was replaced with ‘delayed expression’ (p.272).¹

In terms of symptom constellation, PTSD diagnosis requires meeting a certain number of symptoms within established clusters. In DSM-5, ASD symptoms are not classified within clusters; therefore an individual meets diagnosis based upon expression of symptoms in total. PTSD includes non-fear based symptoms (i.e., risky or destructive behaviour, overly negative thoughts and assumptions about oneself or the world, exaggerated blame of self or others for causing the trauma, negative affect, decreased interest in activities, feeling isolated), while ASD does not. And finally, PTSD includes a dissociative subtype, whereas in ASD, depersonalisation and derealisation are included as symptoms under the dissociative heading.

Despite these differences in diagnostic criteria, there is no difference in recommended treatments for PTSD and ASD. The evidence base is stronger, however, for treatment of PTSD.

Screening, assessment and diagnosis

People with ASD or PTSD will not necessarily first express concern about a traumatic experience to their doctor or mental health professional. They may present with any of a range of problems including mood disorders (such as depression), anger, relationship problems, poor sleep, sexual dysfunction, or physical health complaints such as headaches, gastrointestinal problems, rheumatic pains, and skin disorders. Their traumatic experience may not even be mentioned. Indeed, one study found that only 11% of primary care patients with PTSD had the diagnosis listed in their medical files.⁵⁶ This problem is due,

in part, to the avoidance that is characteristic of PTSD, which may prevent the person speaking about it or seeking assistance. Importantly, self-stigma has been found to contribute more to a reluctance to seek help, than public stigma.⁵⁷ It also needs to be acknowledged that there remains a social stigma attached to mental health problems, and the fear of discrimination may be a barrier to some people reporting their symptoms. Other barriers to reporting symptoms may include a lack of insight into or awareness of the symptoms, or low confidence that the treatment or practitioner will be effective. There is stigma attached to some forms of traumatic exposure, such as sexual assault, which may discourage the individual from disclosing the experience. The practitioner needs to be sensitive to these issues when screening for PTSD, and consider this when selecting cut-off scores on self-report instruments. This problem highlights the importance of empirically establishing the optimal cut-offs in different populations, and of educating clinicians about the appropriate use of such instruments. Self-report measures should be used as a guide, rather than as a categorical diagnostic tool.

Practitioners should also consider modifying assessment and treatment approaches when supporting people with intellectual disabilities and autism who may be experiencing ASD, PTSD, and CPTSD. People with intellectual disabilities and autism can be subject to high levels of abuse and trauma and, consequently, are at high risk of developing stress related disorders. However, their symptoms may not be easily recognised because of communication and cognitive impairments.

In seeking to understand the origins of presenting problems, the practitioner should routinely enquire about any stressful or traumatic experiences, recently or in the past. If a traumatic experience is suspected, the practitioner may utilise a traumatic events checklist such as the Life Events Checklist for DSM-5 (LEC-5),⁵⁸ a self-report measure designed to screen for potentially traumatic events in a respondent's lifetime. If the person endorses any events on the checklist, then it is recommended that a brief PTSD screening tool be administered. Although the primary focus of such questions will be events experienced by the person, clinicians should also be sensitive to the potential for transgenerational effects of trauma, particularly among high risk groups such as children of veterans or holocaust survivors.

There is a range of brief PTSD screening measures currently in use (see Brewin et al.⁵⁹ for a review). These include the Startle, Physiological arousal, Anger, and Numbness scale⁶⁰ (SPAN: 4 items), the Brief DSMPTSD-IV scale⁶¹ (BPTSD-6: 6 items), and the Disaster-Related Psychological Screening Test⁶² (DRPST: 7 items). Measures recommended for assessment use by the US Veterans Affairs/Department of Defense include the four-item Primary Care PTSD Screen for DSM-5 (PC-PTSD-5) and the SPAN. The PTSD Checklist (PCL)⁶³ has been updated for DSM-5 to the PCL-5,⁶⁴ and assesses the 20 DSM-5 PTSD symptoms. Ideally, a measure updated for DSM-5 should be used. The following is an example of a screening measure^{65,66} that has been revised for DSM-5, is empirically validated, and is widely used.

The Primary Care PTSD Screen for DSM-5 (PC-PTSD-5)

In the past month, have you... (YES/NO response)

1. Had nightmares about the event(s) or thought about the event(s) when you did not want to?
2. Tried hard not to think about the event(s) or went out of your way to avoid situations that reminded you of the event(s)?
3. Been constantly on guard, watchful, or easily startled?
4. Felt numb or detached from people, activities, or your surroundings?
5. Felt guilty or unable to stop blaming yourself or others for the event(s) or any problems the event(s) may have caused?

Preliminary results from validation studies within a veteran population suggest that a cut-point of three on the PC-PTSD-5 (e.g., respondent answers "yes" to any three of five questions about how the traumatic event(s) has affected them over the past month) suggests probable PTSD, and the person should be assessed further for trauma symptoms.⁶⁵ The PC-PTSD-5 also displays very good test–retest reliability.⁶⁵

The section above considers the implementation of screening in the context of people presenting to a practitioner for care. In considering the use of broader population screening, the potential benefits should be weighed up against practical concerns such as time constraints, staffing, the need to have proper referral pathways and follow-up care resources in place, and current clinical practice systems. For example, consideration may be given to systematic screening of populations identified as high risk on the basis of their exposure to a major disaster, occupational role (e.g., emergency services and military personnel), or other traumatic experience (e.g., refugees). Such an approach would have important implications for service planning, with the goal of identifying those at risk and targeting the limited available resources to those most likely to benefit from the provision of an evidence-based intervention. This, of course, assumes that there exists an adequate pool of trained and experienced clinicians to provide evidence-based care to those who screen positive within the affected community. Currently, there are many locations where individuals who screen positive for PTSD (or other high prevalence conditions) would have significant difficulty accessing evidence-based care. Population based screening under those circumstances raises difficult ethical questions and should not be undertaken without careful consideration.

Considerations for Practitioners

- For people presenting to primary care services with repeated non-specific physical health problems, it is recommended that the primary care practitioner consider screening for psychological causes, including asking whether the person has experienced a traumatic event and to describe some examples of such events.
- Service planning should consider the application of screening (case finding) of individuals at high risk for PTSD after major disasters or incidents, as well as those in high risk occupations.
- The choice of screening tool should be determined by the best available evidence, with a view to selecting the best performing screen for the population of interest. Application of an inappropriate screening tool may result in over- or under-identification of problems.
- Different populations may require different screening procedures. For example, services and programs that include refugees and/or Aboriginal and Torres Strait Islander peoples should consider the application of culturally appropriate screening tools for those at high risk of developing PTSD. Similarly, screening of children will require the use of developmentally sensitive tools designed for the purpose.
- There is no value in screening for mental health problems if services are not available to refer those with a positive screen. As such, screening should be undertaken in the context of a service system that includes adequate provision of services for those who require care.
- Any individual who screens positive should receive a thorough diagnostic assessment, and have access to appropriate therapeutic referral pathways and services.

Comprehensive assessment of PTSD

PTSD is often associated with diffuse and broad patterns of symptoms and impairments, and clinical presentations vary according to the unique characteristics and circumstances of the individual. As such, a

comprehensive assessment, including a detailed history as per any good clinical assessment, is recommended. The depth of assessment envisaged in this section may not be practical in general practice, and can be completed through specialist referral. In PTSD and related conditions, assessment should include a trauma history covering prior traumatic experiences as well as the 'index' traumatic event. It is not necessary to obtain details of these experiences in the initial sessions; it is sufficient to get a brief idea of the traumatic events to which the person has been exposed. An insistence on obtaining details at this early assessment stage may not only be distressing for the person, but may actually be counter-therapeutic. Subsequent treatment for the PTSD, of course, is likely to involve going through the detailed descriptions of the traumatic events.

As part of assessing the history and current circumstances, current and past psychosocial functioning (past psychosocial functioning is particularly important where trauma has involved early sexual or physical abuse), the presence and course of PTSD symptoms, and any comorbid problems (including substance use) should all be considered. Particular attention should be paid to populations at risk of sustained and/or repeated traumatic experiences, such as those from the Aboriginal and Torres Strait Islander community, emergency service personnel, refugees and asylum seekers, those with exposure to family violence (including children), and current and former serving military. Clinicians should also be sensitive to the potential for transgenerational effects of trauma, particularly among high risk groups such as children of veterans or holocaust survivors. Particular attention should also be paid to physical health issues. This may include issues related to injury arising from the traumatic incident, health behaviour change following the incident, concurrent or developing physical health problems, and medical treatment being undertaken for any physical health issues.

Broader quality of life indicators such as satisfaction with physical, social, environmental, and health status, marital and family situation, and occupational, legal and financial status should also be assessed. Accurate assessment of the person's support network is particularly important, since good social support is strongly associated with recovery.^{24,67} Importantly, *perceived* social support may be more closely associated with mental health and wellbeing amongst first responders to traumatic events than *actual* social support.⁶⁸

Where possible, and with the person's permission, information from other sources should be incorporated into the assessment process. This may include, for example, discussions with informants such as a partner, other family member, or colleague. It may include information from other health providers involved in the person's care, particularly those who have known the person over several years (and, ideally, since prior to the traumatic event). It may include information from medical notes or other documentation. This 'third party' information becomes especially important in cases where legal liability and/or compensation may be an issue, and where there is concern about the possibility of exaggeration or fabrication of symptoms.

In formulating a treatment plan, consideration should be given to factors likely to influence outcome, such as prior mental health problems, especially depression,⁶⁷ prior treatment experience, and pre-trauma coping strategies. Risk of self-harm, suicide and harm to others should be considered; people with PTSD who are suicidal or homicidal need to be closely monitored. Attention should also be paid in the assessment to the person's strengths and coping strategies (i.e., resilience). Treatment plans should aim to build upon these strengths.

Comprehensive assessment and case formulation should not be confined to the initial presentation but should be an ongoing process. Throughout treatment, a collaborative approach should be adopted with

the client to monitor wellbeing and progress. This becomes particularly critical where treatment does not appear to be helping the person to recover. In these circumstances, the practitioner should thoroughly reassess and address co-existing psychosocial problems and more thoroughly assess personality. Collaboratively discussing the formulation with the person, with particular reference to maintaining factors and barriers to improvement, increases engagement and is likely to enhance outcomes.

Considerations for Practitioners

- A thorough assessment is required, covering relevant history (including trauma history), PTSD and related diagnoses, general psychiatric status (noting extent of comorbidity), physical health, substance use, marital and family situation, social and occupational functional capacity, and quality of life.
- Assessment should include assessment of strengths and resilience, as well as responses to previous treatment.
- Assessment and intervention must be considered in the context of the time that has elapsed since the traumatic event occurred. Assessment needs to recognise that whereas the majority of people will display distress in the initial weeks after trauma exposure, most of these reactions will remit within the following three months.
- As part of good clinical practice, assessment needs to occur at multiple time points following trauma exposure, particularly if the person displays signs of ongoing difficulties or psychological deterioration.
- Assessment and monitoring should be undertaken throughout treatment. When adequate progress in treatment is not being made, the practitioner should revisit the case formulation, reassess potential treatment obstacles, and implement appropriate strategies, or refer to another practitioner. Effective inter-professional collaboration and communication is essential at such times.

Diagnosis

In most clinical settings, an unstructured clinical interview comprises the primary assessment strategy. However, because PTSD may be linked to compensation, at some point there may be a need for objective assessment that will stand up to more rigorous scrutiny. Regardless of the context, the clinician must maintain a balance between providing empathic support to a distressed person while obtaining reliable and objective information. For a comprehensive overview of assessment issues in PTSD see Simon,⁶⁹ and Wilson and Keane.⁷⁰

There is currently no agreed gold standard with which to make a comprehensive diagnostic assessment for PTSD. In undertaking a comprehensive diagnostic assessment for PTSD, clinicians should adopt a multifaceted approach incorporating information from a variety of sources. In clinical settings, this may comprise unstructured psychiatric interviews (to explore the presenting problems and to collect the information detailed in the previous paragraphs), structured clinical interviews, self-report inventories, and (where possible) the report of significant others in the person's life. In research contexts, the addition of psychophysiological measures that assess sympathetic nervous system activity through measures such as heart rate, muscle tension, blood pressure, and perspiration may provide an extra degree of objectivity, although this is rarely practical in clinical settings.

Differential diagnosis

It is important to remember that PTSD is not the only mental health consequence of exposure to traumatic events. Other common diagnoses for consideration include depression, other anxiety disorders such as

panic disorder, generalised anxiety disorder and specific phobias, substance abuse/dependence, and adjustment disorders. Consideration should also be given to the diagnosis of complicated grief (formerly known as traumatic grief) following bereavement, with increasing demand for inclusion of traumatic grief as a separate diagnostic entity. The DSM-5 includes a diagnostic code corresponding to prolonged grief problems – Other Specified Trauma and Stressor-Related Disorder, Persistent Complex Bereavement Disorder – with criteria for this diagnosis contained in the section of the manual devoted to conditions needing further study (see Shear et al.⁷¹ for a review). Recent proposed criteria for complicated grief^{71,72} contain some similarities to PTSD in regard to symptoms such as intrusive thoughts and memories of the deceased, avoidance of reminders of the loss, and feeling estranged from others. Importantly, however, the hallmark of complicated grief is yearning and sadness, unlike PTSD which tends to be characterised by fear.

These disorders may develop following traumatic exposure instead of, or comorbid with, PTSD. Both possibilities should be considered when the clinical picture is complex.

Considerations for Practitioners

- Assessment should cover the broad range of potential posttraumatic mental health disorders beyond PTSD, including other anxiety disorders, depression and substance abuse.

‘Recovered memories’

The recollection of a memory that has been unavailable to deliberate recall for some period of time has been termed a ‘recovered memory’. This is distinct from incomplete or fragmented memories that may be commonly associated with PTSD. The issue of recovered memories has most commonly arisen in the area of childhood abuse. It is controversial and has attracted debate in both the professional and public arenas (see Loftus & Davis⁷³ for a review). The evidence suggests that trauma memories can be forgotten and then remembered at some later time. There is also evidence that ‘false memories’ can be suggested and remembered as true (see McNally⁷⁴ for a review). Therapy that attempts to recover otherwise forgotten memories of traumatic events has been criticised for lacking a sound theoretical basis, failing to consider the fallibility of memory, and using techniques such as suggestion that increase memory distortion and confabulation. In the absence of corroboration, it is not possible to unequivocally determine the validity of recovered memories. Such approaches are entirely inappropriate and should not be used.

Risk associated with recovered memories can be minimised when clinicians are trained to professional standards, conduct full assessments at the start of treatment, avoid preconceived beliefs about factors that may or may not be causing the presenting problems, and avoid use of techniques that increase suggestibility and memory distortion. In the absence of corroboration of new memories, treatment should enable the person to arrive at their own conclusions with some understanding of memory processes, and to adapt to uncertainty when it persists. The Australian Psychological Society has developed ethical guidelines for clinicians working with clients who report previously unreported traumatic memories, and they advise against using interventions designed to ‘recover’ such memories. The relevant American and British professional bodies have also issued strong warnings against this therapy approach.

Symptom exaggeration and malingering

ASD and PTSD are the only mental health conditions with experience of a traumatic event as part of the diagnosis. Legal actions are, therefore, not uncommon. These legal actions may involve the individual seeking compensation for psychiatric conditions (e.g., PTSD following a motor vehicle accident or violent crime). Studies investigating whether compensation-seeking affects assessment processes have had mixed results and any possible relationship between financial incentives and symptom reporting in PTSD is presently unclear. It is important, however, to consider the possibility of symptom exaggeration and malingering in the assessment of PTSD where financial remuneration, government benefit eligibility, forensic determinations, or other potential gains are involved. A detailed description of this area is beyond the scope of these Guidelines and the interested reader is referred to appropriate books on the subject.⁷⁵

The possibility of symptom exaggeration should be carefully considered if the person reports all 20 PTSD symptoms, particularly with a high severity rating for all, if the person emphasises re-experiencing (rather than avoidance and numbing) symptoms, or if the person's symptom report is inconsistent with their reported functioning. In order to assist in clarification of this issue, clinicians should not be satisfied with a simple "yes/no" response to questions, but should request further elaboration of reported symptoms (e.g., "Tell me about the last time you experienced that – what was it like?"). During the interview the clinician should remain alert for PTSD symptoms that are directly observable (e.g., hypervigilance and other arousal symptoms) and to any contradictions in the person's reports (e.g., complete inability to work but retention of an active social life). It is also useful to determine the course of the symptoms relative to the timing of the legal and compensation-seeking actions.

The issue of symptom exaggeration can be complex and primarily arises in the context of litigation, compensation claims, and contested cases rather than in the course of routine clinical practice. The practitioner should of course retain and convey empathy for the person to avoid the risk of compounding suffering by being interviewed in an interrogatory fashion regardless of the context of the assessment.

There are, of course, factors other than financial gain that can contribute to prolonged symptoms. Secondary gain in social, family, or occupational settings may exert a powerful influence on the individual's sick role and ongoing disability, of which they may be unaware.

Assessment instruments

Diagnostic instruments for PTSD include both structured clinical interviews and self-report measures. Table 2.3 provides details of the most commonly used assessment instruments.

Structured clinical interviews

Structured clinical interviews provide the optimal strategy for making a reliable clinical diagnosis and an indication of symptom severity. For a competent, well trained practitioner, these measures combine a standardised and objective instrument with an element of clinical judgment. The questions directly address PTSD symptoms and an objective scale determines whether each is sufficiently severe to meet criteria.

The Clinician Administered PTSD Scale (the current CAPS-5)⁷⁶⁻⁷⁸ is a psychometrically robust instrument designed to overcome many of the limitations of other structured PTSD interviews.⁷⁷ As with previous versions of the CAPS, CAPS-5 symptom severity ratings are based on symptom frequency and intensity (except for amnesia and diminished interest, which are based on amount and intensity). However, CAPS-5 items are rated with a single severity score in contrast to previous versions of the CAPS which required

separate frequency and intensity scores for each item. While the CAPS is highly recommended in research and medico-legal settings, there are less time consuming alternatives that can be used in routine clinical practice. Several other well validated structured PTSD interviews, which are briefer and simpler to administer, are appropriate in this context. See Weiss⁷⁹ for a review. One of these interviews, the PSS-I,⁸⁰ has been updated to correspond to the DSM-5 (PSS-I-5) as a brief interview that assesses presence and severity of symptoms over the past month. The PSS-I-5 consists of 20 symptom-related questions and four additional questions to assess distress and interference in daily life as well as symptom onset and duration.⁸¹

Self-report measures

There are a variety of general and population-specific self-report measures available to assess PTSD symptoms and a number of comprehensive reviews of measures are available.^(e.g., 82,83) The best scales are psychometrically robust and relatively non-intrusive. While these measures provide a valid assessment of the person's own perception of his or her symptoms without influence from the interviewer, they may be more prone than interviews to symptom exaggeration or minimisation. They are also limited in their diagnostic accuracy as they pick up general feelings of distress more reliably than specific symptoms. Accordingly, it is not appropriate to rely on self-report measures as the only (or even the primary) diagnostic tool. Rather, they provide a useful screening device prior to more intensive interview procedures, or to assess symptom change as a function of treatment through repeated administration.⁸⁴

Several established scales have been in use for decades and continue to be popular among clinicians and researchers (e.g., the Impact of Events Scale⁸⁵ and the revised version, the IES-R⁸⁶). However, the diagnostic criteria have evolved in recent years and it is recommended newer scales that are both psychometrically strong and consistent with the current diagnostic criteria be used where possible. One example is the PTSD Checklist for DSM-5 (PCL-5)⁶³ which assesses the twenty DSM-5 PTSD symptoms. The self-report rating scale is 0 to 4 for each symptom, reflecting a change from 1 to 5 in the DSM-IV version. Rating scale descriptors are the same: "Not at all", "A little bit", "Moderately", "Quite a bit", and "Extremely". While separate forms were available for military (M), civilian (C), and specific (S) stressors under the DSM-IV version, there are no corresponding PCL-M or PCL-C versions of the PCL-5. Moshier and her colleagues have computed a 'crosswalk' between PCL-C and PCL-5 scores to enable researchers and clinicians to interpret and translate scores across the two measures.⁸⁷

The PCL-5 is frequently used across a range of settings for a variety of purposes, including monitoring symptom change as well as screening for and providing a provisional diagnosis of PTSD. The scale takes only a few minutes to complete and possesses sound psychometric qualities.^{84,88} The PCL-5 contains twenty items rated on a five-point Likert-type scale, resulting in a symptom severity score between 0 and 80. A preliminary version of the PCL-5 suggested a cut-off score of 33 for a diagnosis of PTSD in veterans, while validation studies recommended a variety of cut-off scores ranging between 28 and 37,^{89,90} or following the DSM-5 diagnostic algorithm for PTSD with items that correspond to the DSM criteria. The findings of validation studies indicate that the optimal cut-off score depends on the context, the population, as well as the gold-standard instrument applied in the validation studies.

The self-report version of the PTSD Symptom Scale (PSS-SR)⁹¹ is similar to the PCL-5, while the Davidson Trauma Scale (DTS)⁹² allows for both frequency and intensity ratings. As the PCL-5 is one of the few scales available to clinicians around the world at no cost, we recommend clinician and researchers use the PCL-5 as a self-report measure.

In addition to symptom measures, a broader quality of life instrument that measures progress in recovery and rehabilitation would be of value. One of the most commonly used quality of life measures is the short form of the World Health Organization Quality of Life instrument (WHOQOL), the WHOQOL Bref,⁹³ which research demonstrates is cross-culturally valid and has sound psychometric properties.⁹⁴

Although resilience is an oft-cited outcome after exposure to a traumatic event, very few empirical measures of resilience exist. Instead, indicators of adaptive outcomes are described as evidence of resilience, usually in the realm of social and psychological competence. Available measures include the Brief Resilience Scale,⁹⁵ the Resilience Scale (RS),⁹⁶ and the Connor-Davidson Resilience Scale (CD-RISC)⁹⁷. Although these show promise, there is not yet sufficient data from which to identify an optimal or recommended measure.

Considerations for Practitioners

- It is recommended that practitioners be guided in their assessment of PTSD, comorbidity, and quality of life, by the available validated self-report and structured clinical interview measures.
- It is recommended that practitioners also use validated, user-friendly self-report measures to support their assessments of treatment outcomes over time.

Table 2.3. Commonly used assessment instruments

Instrument	Number of items	Description	Psychometric properties
Interviews			
Updated for DSM-5			
Clinician Administered PTSD Scale (CAPS-5) ⁷⁶⁻⁷⁸	30	Considered the 'gold standard' of PTSD assessment, although a little complex for use in routine clinical practice. The CAPS-5 is a 30-item structured interview. In addition to assessing the 20 DSM-5 PTSD symptoms, questions target the onset and duration of symptoms, subjective distress, impact of symptoms on social and occupational functioning, improvement in symptoms since a previous CAPS administration, overall response validity, overall PTSD severity, and specifications for the dissociative subtype (depersonalisation and derealisation).	Excellent reliability and validity. ⁷⁸
PTSD Symptom Scale Interview (PSS-I-5) ⁹⁸	20 + 4	Assesses distress and interference in daily life as well as symptom onset and duration. Shorter administration time than the CAPS, particularly for patients with significant PTSD symptoms. ⁹⁹	A reliable and valid instrument for assessing PTSD diagnosis. ⁹⁸
DSM-IV			
Structured Interview for PTSD (SIP) ¹⁰⁰	17 (+2)	Assesses the 17 PTSD DSM-IV (not DSM-5) symptoms, with two additional questions assessing guilt. Each item is rated from 0-4 and provides a single estimate of frequency, severity, and functional impairment.	Good internal consistency (.80). Excellent test-retest reliability (.89) and interrater reliability (.90).
Self-report measures			
Updated for DSM-5			
PTSD Checklist for DSM-5 (PCL-5) ⁸⁹	20	The 20 items are rated on a five-point scale, with scores ranging from "Not at all" (0) to "Extremely" (4), resulting in a symptom severity score between 0 and 80. Initial research suggests that a PCL-5 cut off score of 31-33 as indicative of probable PTSD. ¹⁰¹	Psychometrically sound measure of PTSD symptoms with good test-retest reliability (r=.84) and convergent and discriminant validity. ^{89,102}

DSM-IV			
Impact of Event Scale – Revised (IES-R) ⁸⁶	22	Does not correspond directly with DSM-5 PTSD criteria, therefore does not provide direct information about PTSD diagnosis or severity.	High internal consistency (.84 to .92) and fair to excellent test-retest reliability (.51 to .94). ⁸⁶
PTSD Symptom Scale (PSS-SR) ⁸⁰	17	The PSS-SR was a pre-cursor to the PDS and has not been updated for DSM-5. It consists of the same 17 items as the former PSS-I, with some items re-worded for clarity.	Good to excellent internal consistency (.78 to .91) and poor to acceptable test-retest reliability (.56 to .74). The PSS-SR demonstrates acceptable correlation with the PSS-I (.73). ⁸⁰
Davidson Trauma Scale (DTS) ⁹²	34	Each DSM-IV PTSD symptom is rated on a five point scale for frequency (“Not at all” to “Every day”) and severity (“Not at all” to “Extremely”).	Excellent internal consistency (.83 to .93). Correlations between the symptom cluster scores on the DTS and CAPS range from .53 (avoidance) to .73 (arousal).
Harvard Trauma Questionnaire (HTQ) ¹⁰³	Varies	Cross-cultural assessment of trauma and PTSD. Several versions are available. The HTQ assesses exposure to a wide range of traumatic events, DSM-IV PTSD symptoms, culture-specific symptoms, and social functioning. It also asks respondents to provide a subjective description of the most traumatic event(s) they have experienced.	Varies according to version used.

Intervention planning

Factors influencing treatment outcome

Several factors that have been found to potentially influence treatment outcome and dropout should be considered when planning interventions. These factors include chronicity of PTSD, comorbid psychological, cognitive, and physical conditions, therapeutic alliance, treatment expectancy, and treatment setting. Although some patterns emerge from the research to guide the clinician, the findings are not as clear cut as might be expected.

Chronicity and delay in treatment

Surprisingly little research has looked at the impact of chronicity (duration of illness or delay in seeking treatment) on treatment outcomes in PTSD. Two studies designed explicitly to answer this question randomly allocated participants to immediate or delayed treatment, and found no differences in outcome between those receiving early treatment and those in the delayed treatment group.^{104,105} Both studies used a 12-week waitlist condition and the sample populations were single trauma survivors. Other large treatment outcome studies that have explored this question retrospectively (i.e., duration of illness before seeking treatment), have generally reached the same conclusion.^(e.g., 106,107) This can be contrasted with a study of military personnel where PTSD was the most diagnosed condition, which found longer delays to care were associated with a less favourable occupational outcome.¹⁰⁸ Some caveats should be noted before concluding there is no change in outcome between those receiving early or delayed treatment. First, it may be that those who delay their treatment differ in some important ways from those who seek treatment earlier. Second, there is evidence to suggest that early intervention is associated with better outcomes in depression, a disorder that shares many clinical and neurobiological features with PTSD. From a clinical perspective, it is reasonable to assume that longer duration of illness will be associated with a range of other social and occupational problems, as well as significant distress. For that reason alone, it would be sensible to encourage those with PTSD to access treatment as early as reasonably possible. Equally, it is important to emphasise to people who experienced trauma some time ago that the limited available data suggest that treatment can be effective regardless of duration of illness.

Comorbidity

In terms of influence of psychological comorbidity on treatment response, the data are also mixed and inconsistent. Several studies identify features such as depression,¹⁰⁹ generalised anxiety disorder,¹¹⁰ borderline personality disorder,^{111,112} anger,¹¹³⁻¹¹⁶ alcohol use disorder,^{117,118} social alienation,^{112,119,120} and emotional dysregulation¹²¹ as negatively influencing outcome. On the other hand, a number of studies have failed to find an effect of comorbidity on outcome,^(e.g., 122,123,124) suggesting that the influence of comorbidity may be sample specific¹²⁴ or that more specific predictive components of these factors have not yet been identified.

Where comorbidity is present, practitioners should refer to the relevant treatment guidelines for the treatment of the comorbid disorder. The extent to which it should become a focus of treatment before, alongside, or following the PTSD treatment is a decision to be made by the clinician. While no studies have compared sequencing models specifically, there have been some studies that have commenced consideration of the treatment of PTSD and comorbidity, particularly substance use and depression.

Substance use

There is some limited evidence favouring combined substance abuse and PTSD treatment. One systematic review provided some support for the notion that simultaneously treating substance use disorders and PTSD may be more effective than treating either disorder alone.¹²⁵ In line with the recommendations of these Guidelines, this advantage appeared to be limited to trauma-focussed therapies. These conclusions should be interpreted with caution, however, as the review included only a small number of studies, with few participants.

Dismantling studies are required to provide stronger evidence regarding elements of the interventions that may be applied sequentially or simultaneously for the treatment of comorbid PTSD and substance use. Simultaneous treatment is most commonly characterised by educative and symptom-focussed cognitive behavioural interventions for both disorders prior to the introduction of trauma-focussed interventions, *in vivo* or imaginal.^{126,127} The research at present provides no firm conclusion on the temporal course of improvement in comorbid PTSD and substance use; some authors report that initial improvement in PTSD severity leads to decreased substance use,¹²⁸ some have found simultaneous treatment to provide slightly better reductions in PTSD symptom severity when compared to substance use-focussed treatment,¹²⁹ while others have suggested that decreased substance use is likely to effect a change in PTSD symptoms.¹³⁰

PTSD and comorbid substance use may also be treated concurrently with pharmacotherapy, keeping in mind the potential for drug interactions. For example, in the case of comorbid opioid dependence, some selective serotonin reuptake inhibitors (SSRIs) may inhibit methadone metabolism, increasing the risk of toxicity.¹³¹ Note also that antidepressants may not be appropriate for patients actively abusing alcohol or other central nervous system (CNS) depressants.

Depression

Depression is another condition often comorbid with PTSD. The early and ongoing assessment of suicide risk is of primary importance in these cases of comorbid PTSD and depression. People with both disorders show greater social, occupational, and cognitive impairment, report higher levels of distress, and are more likely to attempt suicide. There are as yet no studies examining the sequencing of the treatment of comorbid depression and PTSD. There is, however, a body of research outlining the effectiveness of PTSD treatment on comorbid depression and prediction studies; this literature identifies comorbid depression severity as a negative influence on PTSD outcome (see above).

Two recent studies have examined the effectiveness of integrating depression and PTSD treatment, focussing on behavioural activation during the first half of treatment and exposure during the second. The effect of reversing the order of treatment has not been investigated. Both studies found that behavioural activation improved symptoms of both comorbid disorders and that the exposure component resulted in decreased PTSD severity.^{132,133} Gros and his colleagues reported that the exposure component also resulted in significant change in depression, but that across both phases of treatment, improvements in depression were explained by improvements in PTSD. A focus on improving self-efficacy and agency has also shown to improve an individual's ability to cope post-trauma, and has shown promise in treating PTSD with comorbid depression.¹³⁴ Thus, in many cases, addressing PTSD symptoms will result in improvements in comorbid depression. People with severe depression, with symptoms that are unlikely to respond to PTSD treatment, may benefit from the addition of depression-specific techniques.

In terms of pharmacological and non-invasive medical treatments for comorbid PTSD and depression, there is some evidence to suggest that patients who show an incomplete or non-response to antidepressants may benefit from adjunctive treatment with the antipsychotic aripiprazole.¹³⁵ Synchronised transcranial magnetic stimulation has also shown limited evidence of effectiveness in a small sample of patients with PTSD and major depression,¹³⁶ as has electroconvulsive therapy.¹³⁷

Terminal illness

Terminally ill people with PTSD, regardless of its cause, may suffer more emotional distress, lower quality of life and poorer medical prognosis than those without PTSD.¹³⁸ The appropriateness of standard treatment for PTSD is largely dependent on the patient's stage of illness. For patients in the final stages of terminal illness, numerous lengthy and intensive sessions designed to effect long-lasting improvement in PTSD symptoms would not generally be considered appropriate. Instead, a focus on maximising quality of life in the short-term may be more beneficial. One potential approach to PTSD management in this population is a stepped care model in which the intensity of treatment is increased only if the patient's prognosis allows sufficient time to do so, and if lower-level interventions have not been effective.¹³⁸ So, for example, the initial stage of treatment may involve addressing practical issues such as social connectedness, while subsequent stages may teach coping strategies such as relaxation or cognitive restructuring, and with the introduction of trauma-focussed techniques only if required and if time permits.¹³⁸ Modifications to standard exposure-based therapy may be required, for example by shortening the length of sessions if fatigue is a concern or by decreasing the intensity of exposure.¹³⁸

Traumatic brain injury and other physical comorbidity

In recent years, there has been considerable interest in the association between mild traumatic brain injury (mTBI) and PTSD, with particular reference to military personnel. There appears to be substantial overlap, with some evidence to suggest that when the two co-exist the cognitive deficits can be accounted for entirely by the PTSD,^{139,140} although this is not a universal finding.¹⁴¹ The effect of mTBI on PTSD treatment response is unclear, although interventions that target mTBI and PTSD have proved effective. One recent randomised control trial found that a hybrid intervention integrating compensatory cognitive training with cognitive processing therapy reduced PTSD and neurobehavioural symptoms and improved cognitive functioning in a sample of veterans.¹⁴² A recent systematic review of the literature commissioned by US Veterans Affairs noted the almost total lack of adequate research on the subject, and concluded that high-quality randomised trials are urgently needed to examine the effectiveness (as well as the potential for harm) of treatments for individuals with mTBI/PTSD.¹⁴³ Notwithstanding that caveat, those authors refer to case material suggesting the benefits of a standard cognitive behavioural therapy (CBT) approach, albeit with minor modifications as required. To manage mTBI-related symptoms, therapists may encourage patients to use compensatory strategies (e.g., using personal digital assistants, scheduling cognitive breaks).

Increasing attention has also been paid in recent years to the impact of other physical comorbidity (particularly pain), on the maintenance of, and recovery from, PTSD. There is a general recognition that pain and PTSD may exacerbate – or at least mutually maintain – each other,^{144,145} and there is some evidence that the two may share similar neurobiological features.^{146,147} A study of US veterans found that two-thirds of those with PTSD also met criteria for chronic pain,¹⁴⁸ highlighting the need to include pain as part of a routine assessment for PTSD. Those authors also reported that effective PTSD treatment resulted in a reduction in chronic pain. One recent study examining the effect of a body-orientated trauma approach to somatic experiencing for comorbid PTSD and lower back pain reported having a significant effect on pain, disability and PTSD symptoms compared with patients receiving treatment as usual.¹⁴⁹ While

it is premature to make definitive recommendations, it is reasonable to assume on the basis of the limited available data that attention to chronic pain in people with PTSD would be good clinical practice.

Compensation

It is sometimes speculated that outcomes are compromised in people seeking compensation for PTSD and this is, not surprisingly, a topic of considerable interest and concern. An important distinction should be made between the possible impact of compensation in reporting (or even developing) PTSD and the impact of compensation on treatment outcome. There is some evidence, albeit variable, that compensation may affect reporting and diagnosis of PTSD (see, for example, Marx et al.¹⁵⁰ and McNally et al.¹⁵¹). A recent review, however,¹⁵² found no consistent evidence that compensation status predicts PTSD outcome in veterans or motor vehicle accident survivors. Studies examining broader recovery outcomes have mixed findings.¹⁵³⁻¹⁵⁵ In summary, the relationship between compensation and health outcomes is complex and requires further study. Rigorous attention to appropriate methodology is essential to reduce the chances of artifactual findings.

Therapeutic alliance and treatment expectations

The establishment of a good therapeutic alliance has been found to improve the outcome of PTSD treatment.^{121,156,157} This is consistent with findings for a range of other anxiety and mood disorders.¹⁵⁸ For people who have experienced a severe interpersonal trauma such as torture or childhood sexual abuse, the establishment of a trusting therapeutic relationship can often be particularly difficult. However, one study found no indication that psychotherapies focussing on trauma processing produced poorer therapeutic relationships than non-trauma focussed therapies.¹⁵⁹ In most cases, difficulties may be overcome if the practitioner is able to convey genuine empathy and warmth towards the person, and the use of introductory components to treatment – such as psychoeducation and symptom management skills – may also help. More time may need to be devoted to developing the therapeutic relationship prior to focussing on the trauma for people who have experienced a severe interpersonal trauma.

There is also evidence that a person's expectation of the outcome of their treatment is positively related to actual outcomes. This effect of treatment expectancy has been found with Vietnam veterans with PTSD,¹⁶⁰ and others with PTSD, generalised anxiety disorder,^{161,162} social anxiety,^{163,164} and chronic pain.¹⁶⁵ These findings highlight the importance of the clinician taking the time in the early stages to clearly explain the nature and expected outcomes of treatment, generating a collaborative and (realistically) optimistic approach.

Motivation for change

Another potential influence on response to treatment is the patient's motivation to change. Some individuals with PTSD may find it difficult to recognise when their thoughts or behaviours are unhelpful and therefore do not see any reason to change. Prochaska and DiClemente's Transtheoretical Model¹⁶⁶ suggests that the five stages of readiness for change (precontemplation, contemplation, preparation, action, maintenance) require different therapeutic approaches. According to this model, trauma-focussed treatment for PTSD is unlikely to be effective for patients who are in the early stages of change and who may not yet recognise that their symptoms are problematic. Such patients may, however, benefit from motivational interviewing techniques, shown to be helpful in facilitating readiness for change in populations such as substance abusers.¹⁶⁷ This approach may include providing psychoeducation, assisting the patient to think of the pros and cons associated with his or her behaviour, and comparing behaviour to

that of the average person without PTSD.¹⁶⁷ Understanding the need for change will allow the patient to more seriously consider taking steps to enact that change, such as engaging in trauma-focused therapy.

Demographics

The large majority of research in the PTSD field has been conducted on adults, generally between the ages of 18 and 65. Less research is available on younger people, but the following chapter is devoted to PTSD in children and adolescents, and outlines issues for consideration for the treatment of these age groups. A similar dearth of empirical data exists with regard to the treatment of PTSD in the elderly. While it is often speculated that older adults (defined as adults aged 65 and older) may be less responsive to PTSD treatment, there is limited research to inform this question. Promisingly, however, two recent reviews do not support this speculation. On the contrary, both conclude that mainstream psychological treatments such as CBT do benefit older adults with PTSD,^{168,169} although there is some evidence to suggest that the addition of a narrative life-review approach to standard CBT may be helpful with the elderly. Further research in this area is needed. Interestingly, the evidence suggests that other demographic variables such as marital status, employment, and level of education are largely unrelated to treatment outcome.^{119,170,171} Epidemiological studies generally indicate a higher prevalence of PTSD in females than males, although the reasons for this are unclear. It may, for example, be explained by trauma type, with females more likely to suffer interpersonal violence perpetrated by someone they know and trust. Research has yet to reliably identify any other biopsychosocial factors that may explain this gender difference. In terms of treatment, research findings suggest either that females respond better to psychological treatment¹¹⁰ or that there are no significant gender differences in outcome.^{172,173} Although there are some suggestions that females may respond better to pharmacological treatments for PTSD than males, it is hard to disentangle these findings from other sample characteristics such as veteran status that may explain poorer outcomes.¹⁷⁴

Particular attention should also be paid to the potential impact of intersectional identities on people's experience of trauma. Practitioners should be attentive to guidance about cultural safety as well as practicing with people with disabilities and people who identify as lesbian, gay, bisexual, trans, intersex and queer/questioning (LGBTIQ+).

Treatment setting

There are times when treatment for PTSD needs to be delivered in settings where there is exposure to ongoing stress and trauma. Such settings may include immigration detention facilities and refugee camps, corrective facilities, theatres of combat, and where there is the threat of domestic violence. As well as the degree of stress inherent in these settings, treatment delivery can be further complicated by potential for exposure to further trauma, short and unpredictable lengths of stay, lack of access to mental health history, and the client's reluctance to disclose information for fear of compromising their status (e.g., legal, application for asylum, deployment status). Despite the large number of people that could benefit from PTSD treatment in these settings, few studies have examined the implementation and effectiveness of interventions under such conditions. Neuner and colleagues, however, conducted two notable studies on the delivery of PTSD treatment to individuals in a Ugandan refugee camp.^{175,176} Both studies showed promising results. A review by Heckman, Cropsey, and Olds-Davis¹⁷⁷ highlighted the lack of methodologically sound research on PTSD treatment in correctional settings, citing only one study with promising results.¹⁷⁸ Similarly, there is very little research on PTSD treatment for serving personnel while still in combat theatre.^(e.g., 179) In summary, more research on the effectiveness of PTSD treatment and strategies for implementation in these settings is greatly needed.

Considerations for Practitioners

- Mental health practitioners are advised to note the presence and severity of comorbidities in their assessments, with a view to considering their implications for treatment planning.
- Residual symptomatology should be addressed after the symptoms of PTSD have been treated.
- The development of a robust therapeutic alliance should be regarded as the necessary basis for undertaking specific psychological interventions and may require extra time for people who have experienced prolonged and/or repeated traumatic exposure.
- Mental health practitioners should provide a clear rationale for treatment and promote realistic and hopeful outcome expectancy.
- Mental health practitioners and rehabilitation practitioners should work together to promote optimal psychological and functional outcomes.
- In most circumstances, establishing a safe environment is an important precursor to commencement of trauma-focussed therapy or, indeed, any therapeutic intervention. However, where this cannot be achieved (for example, the person is seeking treatment for their PTSD whilst maintaining a work role or domestic situation that may expose them to further trauma), some benefit may still be derived from trauma-focussed therapy. This should follow careful assessment of the person's coping resources and available support.

Potential mechanisms of change

While some treatments are clearly more effective than others, the fact is that a variety of therapeutic approaches have demonstrated beneficial effects in the treatment of PTSD. In light of that, there is a strong argument for suggesting that future research should focus on furthering our understanding of what mechanisms are involved in the development and maintenance of PTSD and, by extension, what mechanisms need to be targeted in treatment.¹⁸⁰ Research identifying common mechanisms may help to explain why some apparently quite different therapeutic approaches can all produce improved outcomes. Although much has been written regarding mechanisms underlying trauma-focussed approaches (see, for example, Ehlers et al.¹⁸¹ or Foa et al.¹⁸²), it is important to understand the mechanisms by which present-focussed therapy, interpersonal therapy, stress inoculation training, and other forms of therapy that do not involve a focus on the traumatic memories, may work. If the mechanisms were better understood, refinement of procedures that target these mechanisms in treatment may lead to improved outcomes.

In this context, it is important to note that the concept of placebo controls in psychological treatment trials is problematic¹⁸³ and, as noted below, can make comparisons between psychological and pharmacological treatments difficult. Psychological control treatments aim to control for non-specific elements of treatment such as a trusting relationship, emotional support, education about PTSD, mobilisation of hope, giving a rationale, or homework assignments.¹⁸⁰ Some of these non-specific elements may actually be active mechanisms of change. For example, many patients with PTSD following interpersonal violence believe that they cannot trust anybody. Establishing a trusting relationship with the therapist can help shift this belief, modifying the 'traumatic memory network' so central to trauma-focussed approaches.

At this stage of our knowledge, identifying the active ingredients of treatment – the mechanisms of change beyond those non-specific components – must remain largely speculative. On the basis of existing

evidence-based guidelines regarding successful treatment, however, it may be speculated that the most effective treatments for PTSD may all involve:

- an opportunity to activate or confront the traumatic memories in a safe environment
- an opportunity to modify the traumatic memories, with particular reference to the relationship between the stimulus material (the sights, sounds, etc.) and the response components (physiological, behavioural, cognitive appraisals, etc.)
- an opportunity to repeatedly (but safely) confront situations or activities that had been avoided or that provoked high anxiety, since the trauma.

The manner in which these elements are delivered may, of course, differ widely across treatment approaches.

Treatment goals

The goals of treatment should be established collaboratively with the patient following the initial assessment, and should be guided by a comprehensive assessment of the individual and their personal priorities. Treatment goals should be collaboratively reviewed, and modified as required, at regular intervals during the treatment process. Ideally, goals should be SMART: specific, measurable, attainable, relevant, and time-bound (or, better, SMARTER – with the addition of evaluate and re-evaluate).

The first goal of treatment is likely to be a reduction in PTSD and related symptoms. The evidence-based treatment research routinely uses measures of PTSD symptom severity as the primary outcome, and it is this goal that the interventions are designed to achieve. In addition to core PTSD symptoms, likely targets may include comorbid depression and anxiety, as well as anger and guilt. All have implications for treatment, with some likely to adversely affect outcomes of PTSD symptoms. For some, especially those who have been subjected to protracted child sexual abuse or torture, clinical interventions often need to focus initially on symptoms of dissociation, impulsivity, emotional lability (affect regulation), somatisation, and interpersonal difficulties.¹⁸⁴

While most of the evidence-based literature focusses on symptom reduction, the practitioner should not lose sight of the broader wellbeing, daily functioning and quality of life issues. Achievement of optimal psychosocial functioning is as important, if not more so, than symptom reduction. Indeed, for those with chronic PTSD, improvements in psychosocial functioning may be the primary goal over and above reduction of PTSD symptoms. With this end in mind, immediate needs for practical and social support should be assessed, and treatment planning focussed on wellbeing and psychosocial recovery from the outset.

Psychosocial support and stabilisation may improve functional ability and facilitate recovery by addressing and minimising associated problems such as homelessness, social inactivity, high-risk behaviours, and unemployment.¹⁸⁵ Targeted clinical and disability management interventions may assist people with PTSD improve their role functioning, and develop skills and resources specific to their individual needs with the aim of averting, preventing further, or reducing, disability associated with the disorder.¹⁸⁶

Psychosocial interventions have strong empirical support in populations experiencing a range of mental disorders,¹⁸⁷ and a growing literature identifies such approaches as being beneficial for people with PTSD (for reviews see^{185,188}). Interventions including family psychoeducation, supported education, housing and employment, intensive case management, peer counselling, and 'vet to vet' services are being

implemented with positive outcomes in veteran populations with varying mental disorders and several randomized control trials of their efficacy are currently underway.¹⁸⁸ Among other mental health populations, similar interventions are associated with a range of positive outcomes, including symptom reduction, decreased risk of relapse, increased housing stability, improved social and work functioning, reduced stress in families, and enhanced quality of life.¹⁸⁹⁻¹⁹²

Therefore, attention should be paid to social reintegration and vocational rehabilitation needs during the initial assessment and treatment planning phase. In some cases, this may include supporting the individual's capacity to stay at work or facilitating return to work as soon as is practical, even if on restricted work duties. It should also involve review of, and if necessary, intervention to optimise the person's social support networks. The family and broader system of care should be engaged early and provided with information about PTSD, as well as being involved in the collaborative care and recovery plan as far as is possible.

Considerations for Practitioners

- The practitioner should assess immediate needs for practical and social support and provide education and referrals accordingly.
- Appropriate goals of treatment should be tailored to the unique circumstances and overall mental health care needs of the individual and established in collaboration with the person.
- From the outset, there should be a collaborative focus on recovery and rehabilitation between the person and practitioner, and where appropriate, family members.

Cultural and linguistic diversity (CALD)

Australian adults with PTSD come from diverse ethnic and cultural backgrounds, with English a second language for many. Services should be made as accessible as possible, with information available in a number of different languages. This information should be distributed through general practitioners and health centres that provide primary care services to ethnic and cultural groups. Further, interpreters should be available as required. Several issues for consideration when working with interpreters (and other issues related to CALD populations) are included in the section on Refugees and Asylum Seekers in Chapter 9 of these Guidelines. Considerations for working with Aboriginal and Torres Strait Islander people are also included in Chapter 9.

An obvious question for the mental health field in general, and the PTSD field in particular, is the extent to which treatments that have proven efficacy in Western countries can be applied in other contexts and cultures. Clearly, culturally sensitive adjustments to the manner in which treatment is delivered are crucial. Beyond that, however, as noted in the systematic literature review that follows, several well-controlled trials of evidence-based treatment for PTSD have now been completed in non-Western cultural settings with encouraging results (though none as yet with Aboriginal and Torres Strait Islander peoples). Hence, there is good reason to assume that these treatments can be effective across cultures, provided that they are delivered in culturally sensitive and appropriate ways. When working with an individual from a non-English speaking background, the practitioner should become familiar with the person's cultural background and liaise with population-specific health care providers as necessary, to understand cultural expressions of distress and support the appropriate applications of the interventions described in these Guidelines.

Considerations for Practitioners

- Recommended treatments for PTSD should be available to all Australians, recognising their different cultural and linguistic backgrounds.

The impact of PTSD on family

The impact of PTSD can extend beyond the individual directly affected to those around them – family and close friends. As such, the practitioner should consider the support and treatment needs of those close to the person with PTSD, as well as the person's own needs. In involving family members, the person's confidentiality must be respected and the family members' clinical needs considered. In exceptional circumstances, where there are issues of risk of harm to self or others, family involvement may need to occur without the person's consent.

Family members can be affected both directly and indirectly by the person's PTSD symptoms.¹⁹³ Research has consistently shown that partners of people with PTSD experience significant psychological distress in comparison to the general population.¹⁹⁴ They may develop significant emotional difficulties of their own as a result of their partner's PTSD. Symptoms such as irritability and anger, withdrawal from family involvement, emotional numbing, or substance abuse can have profound effects on close personal relationships.¹⁹⁵ Additional problems such as being unable to cope at work or impaired work performance may emerge, leading to financial pressures for the family.¹⁹³ Family members may adjust their own lives in an attempt to support the family member with PTSD or to conceal difficulties from those outside the family.

In some cases, family members may develop problems that mirror those of the person with PTSD, for example, adopting similar views of the world as a dangerous place, and resultant fear and avoidant behaviours. In other cases, emotional problems of family members may be in response to living with the person with PTSD, for example, developing feelings of helplessness and hopelessness if the person with PTSD's condition remains untreated and unchanged over time, or turning to alcohol to avoid having to face the problems at home.

Although empirical evidence is lacking, good clinical practice would suggest that effective treatment of PTSD should involve partners at some level, where appropriate (and with the person's permission). Partners have the potential to be a great ally if they understand the nature of PTSD and the likely course of treatment. A lack of understanding is not uncommon,¹⁹⁶ and can contribute to partners inadvertently undermining treatment efforts. It is often useful to invite the partner to a session early in the treatment process to discuss the rationale for subsequent interventions and to clarify the partner's role – usually simply one of support and gentle encouragement (but not one of co-therapist). The partner's own need for mental health care or support should be considered and, where appropriate, referral made to another provider for assessment and possible treatment.

Considerations for Practitioners

- Wherever possible, family members should be included in education and treatment planning, and their own needs for care considered alongside the needs of the person with PTSD.

General professional issues

These Guidelines make recommendations about treatment for people with ASD and PTSD on the assumption that treatment is being provided by appropriately qualified and professionally supported practitioners. In effect, this means that individual practitioners should not deliver interventions that are beyond their level of expertise.

It needs to be recognised that various practitioners will contribute to the care of the individual with PTSD in different ways. In most cases, the specialist symptom-focused interventions will be undertaken by psychiatrists, psychologists, and other mental health practitioners specifically trained in recommended treatments, while occupational therapists, rehabilitation counsellors, and social workers are more likely to address family, social and occupational recovery, and rehabilitation issues. Ideally, the general practitioner will have an existing relationship with the individual that allows provision of holistic care and support to the person and family over time. In some settings, particularly in the military and following large-scale disasters in the civilian community, chaplains and other pastoral care providers can play an important role. Where a number of practitioners are involved in care, the general practitioner is well placed to assume overall management of care, making appropriate referrals and coordinating the contribution of other practitioners. The introduction of payment for case coordination would support this. The individual, their family and carers also play a critical role in support and recovery. Effective collaboration between all relevant people is important for optimal care of the person with PTSD.

Unfortunately, this ideal circumstance is not always possible, most notably in rural and remote parts of Australia where a visiting nurse or general practitioner may be the sole health professional in the region. In these circumstances, the responsibility for care of people with ASD and PTSD may largely rest with these primary care practitioners. It needs to be recognised that these practitioners are unlikely to have the time or training to undertake the full range of recommended psychological and psychosocial rehabilitation interventions for ASD and PTSD. Their role is more likely to involve screening, assessment, pharmacotherapy, and possibly general psychological interventions such as psychoeducation and simple arousal management. Where the person with PTSD is using self-help materials (e.g., web-based treatment) the primary care practitioner may also offer support and monitoring. Wherever possible the person should be referred to an appropriately trained mental health practitioner who can provide time-limited specialist psychological treatment and ongoing consultation to the primary care practitioner. In some cases, it may be possible to achieve this through telehealth or even telephone consultations.¹⁹⁷⁻¹⁹⁹ Most mental health professional associations provide specialty listings to aid primary care practitioners in the referral process. To address psychosocial rehabilitation needs, the primary care practitioner should ideally consult with a psychosocial rehabilitation specialist in planning interventions. In their care of people with ASD and PTSD, primary care practitioners should be supported with provision of education and training materials that can be accessed remotely, for example, via the internet. These Guidelines are one resource that may be helpful in this regard.

Considerations for Practitioners

- Practitioners who provide mental health care to children, adolescents, or adults with ASD and PTSD, regardless of professional background, must be appropriately trained to ensure adequate knowledge and competencies to deliver recommended treatments. This requires specialist training, over and above basic mental health or counselling qualifications.

- Primary care practitioners, especially in rural and remote areas, who assume responsibility for the care of people with ASD and PTSD in the absence of specialist providers, should be supported with accessible education and training, as well as access to specialist advice and supervision where possible.

Self-care

All practitioners in the field of posttraumatic mental health need to be aware of the potential adverse impacts of the work on themselves. Repeated exposure to the traumatic experiences of others, combined with the high levels of distress often seen when people recount their experiences, can take a toll on the practitioner. Often referred to as 'compassion fatigue', health professionals can be at risk of general stress or adverse psychological reactions such as depression, substance abuse and professional burnout. In circumstances where the practitioner lives in a community affected by widespread trauma or natural disaster, there is particular risk involved in supporting large numbers of trauma-affected individuals while still being part of the affected community themselves.

Compassion fatigue can negatively impact upon the practitioner's clinical skills and consequently on patient care.²⁰⁰ These adverse impacts may be particularly apparent if the practitioner does not place appropriate limits on the nature and size of their caseload, and if he or she does not receive sufficient training and support.

Responsibility for self-care should be shared between the individual practitioner and, where appropriate, their employer organisation and professional body.²⁰¹ With evidence that isolation is a risk factor for developing stress-related problems, the needs of practitioners working in isolated rural and remote communities warrant special consideration. For these practitioners, routine training and support may need to be addressed remotely (e.g., via the internet and teleconferencing). For general practitioners who are geographically isolated, Balint groups offering peer support operate in some areas of Australia.²⁰²

Considerations for Practitioners

- In their self-care, practitioners should pay particular attention to skill and competency development and maintenance including regular supervision, establishing and maintaining appropriate emotional boundaries with people with PTSD, and effective self-care. This includes maintaining a balanced and healthy lifestyle and responding early to signs of stress.
- For those practitioners who work in an organisational context, broader policies and practices should support individual practitioners in these self-care measures.

References

1. American Psychiatric Association. *Diagnostic and statistical manual of mental disorders (DSM-5)*. Washington DC: American Psychiatric Association; 2013.
2. Creamer M, Burgess P, McFarlane AC. Post-traumatic stress disorder: Findings from the Australian National Survey of Mental Health and Well-being. *Psychological Medicine*. 2001;31(7):1237-1247.
3. Kessler RC, Sonnega A, Hughes M, Nelson CB. Posttraumatic stress disorder in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1995;52(12):1048-1060.
4. Yehuda R, Bell A, Bierer LM, Schmeidler J. Maternal, not paternal, PTSD is related to increased risk for PTSD in offspring of Holocaust survivors. *J Psychiatric Res*. 2008;42(13):1104-1111.
5. Yehuda R, Halligan SL, Bierer LM. Relationship of parental trauma exposure and PTSD to PTSD, depressive and anxiety disorders in offspring. *J Psychiatric Res*. 2001;35(5):261-270.
6. Norris FH, Friedman MJ, Watson PJ. 60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. *Psychiatry-Interpers Biol Process*. 2002;65(3):240-260.
7. Bryant RA, O'Donnell ML, Creamer M, McFarlane AC, Clark CR, Silove D. The psychiatric sequelae of traumatic injury. *Am J Psychiatry*. 2010;167(3):312-320.
8. Bryant RA. Acute stress disorder as a predictor of posttraumatic stress disorder: A systematic review. *J Clin Psychiatry*. 2011;72(2):233-239.
9. Friedman MJ, Resick PA, Bryant RA, Brewin CR. Considering PTSD for DSM-5. *Depression and Anxiety*. 2011;28(9):750-769.
10. Stein DJ, Koenen KC, Friedman MJ, et al. Dissociation in posttraumatic stress disorder: evidence from the world mental health surveys. *Biological psychiatry*. 2013;73(4):302-312.
11. Hansen M, Ross J, Armour C. Dissociative PTSD review. Paper presented at: 15th European Conference on Traumatic Stress2017.
12. Terr LC. Acute responses to external events and posttraumatic stress disorders. In: Lewis M, ed. *Child and adolescent psychiatry: A comprehensive textbook*. Baltimore, MD: Williams and Wilkins; 1991:755-763.
13. van der Kolk BA, Roth S, Pelcovitz D, Sunday S, Spinazzola J. Disorders of extreme stress: The empirical foundation of a complex adaptation to trauma. *J Trauma Stress*. 2005;18(5):389-399.
14. Ford JD, Courtois CA. Defining and understanding complex trauma and complex traumatic stress disorders. In: Courtois CA, Ford JD, eds. *Treating complex stress disorders: An evidence-based guide*. New York: Guilford Press; 2009:13-30.
15. Herman JL. Complex PTSD: A syndrome in survivors of prolonged and repeated trauma. *J Trauma Stress*. 1992;5(3):377-391.
16. Zlotnick C, Zakriski AL, Shea MT, Costello E. The long-term sequelae of sexual abuse: Support for a complex posttraumatic stress disorder. *J Trauma Stress*. 1996;9(2):195-205.
17. World Health Organisation. *International Classification of Diseases, 11th Revision (ICD-11)*. Geneva, Switzerland: World Health Organisation; 2018.
18. Mills KL, McFarlane AC, Slade T, et al. Assessing the prevalence of trauma exposure in epidemiological surveys. *Aust N Z J Psychiatry*. 2011;45(5):407-415.
19. Koenen K, Ratanatharathorn A, Ng L, et al. Posttraumatic stress disorder in the world mental health surveys. *Psychological Medicine*. 2017;47(13):2260-2274.
20. Goldstein RB, Smith SM, Chou SP, et al. The epidemiology of DSM-5 posttraumatic stress disorder in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions-III. *Social psychiatry and psychiatric epidemiology*. 2016;51(8):1137-1148.
21. Breslau N. The epidemiology of posttraumatic stress disorder: What is the extent of the problem? *J Clin Psychiatry*. 2001;62(Suppl17):16-22.
22. McEvoy PM, Grove R, Slade T. Epidemiology of anxiety disorders in the Australian general population: Findings of the 2007 Australian National Survey of Mental Health and Wellbeing. *Aust N Z J Psychiatry*. 2011;45(11):957-967.
23. Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005;62(6):617-627.
24. Brewin CR, Andrews B, Valentine JD. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*. 2000;68(5):748-766.

25. Van Ameringen M, Mancini C, Patterson B, Boyle MH. Post-traumatic stress disorder in Canada. *CNS neuroscience & therapeutics*. 2008;14(3):171-181.
26. Forbes D, Fletcher S, Parslow R, et al. Trauma at the hands of another: Longitudinal study of differences in the posttraumatic stress disorder symptom profile following interpersonal compared with noninterpersonal trauma. *J Clin Psychiatry*. 2012;73(3):372-376.
27. Richardson LK, Frueh BC, Acierno R. Prevalence estimates of combat-related post-traumatic stress disorder: Critical review. *Aust N Z J Psychiatry*. 2010;44(1):4-19.
28. Wisco BE, Marx BP, Wolf EJ, Miller MW, Southwick SM, Pietrzak RH. Posttraumatic stress disorder in the US veteran population: results from the National Health and Resilience in Veterans Study. *J Clin Psychiatry*. 2014;75(12):1338-1346.
29. Neria Y, Nandi A, Galea S. Post-traumatic stress disorder following disasters: A systematic review. *Psychological Medicine*. 2008;38(4):467-480.
30. Bryant RA, Friedman MJ, Spiegel D, Ursano R, Strain J. A review of acute stress disorder in DSM-5. *Depression and Anxiety*. 2011;28(9):802-817.
31. Creamer M, O'Donnell ML, Pattison P. The relationship between acute stress disorder and posttraumatic stress disorder in severely injured trauma survivors. *Behav Res Ther*. 2004;42(3):315-328.
32. Bryant RA, Harvey AG. Relationship between acute stress disorder and posttraumatic stress disorder following mild traumatic brain injury. *Am J Psychiatry*. 1998;155(5):625-629.
33. Chapman C, Mills K, Slade T, et al. Remission from post-traumatic stress disorder in the general population. *Psychological Medicine*. 2012;42(8):1695-1703.
34. Elhai JD, Grubaugh AL, Kashdan TB, Frueh BC. Empirical examination of a proposed refinement to DSM-IV posttraumatic stress disorder symptom criteria using the National Comorbidity Survey Replication data. *J Clin Psychiatry*. 2008;69(4):597-602.
35. Pietrzak RH, Goldstein RB, Southwick SM, Grant BF. Personality disorders associated with full and partial posttraumatic stress disorder in the U.S. population: Results from wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. *J Psychiatric Res*. 2011;45(5):678-686.
36. Gomez-Beneyto M, Salazar-Fraile J, Marti-Sanjuan V, Gonzalez-Lujan L. Posttraumatic stress disorder in primary care with special reference to personality disorder comorbidity. *Br J Gen Pract*. 2006;56(526):349-354.
37. Bollinger AR, Riggs DS, Blake DD, Ruzek JI. Prevalence of personality disorders among combat veterans with posttraumatic stress disorder. *J Trauma Stress*. 2000;13(2):255-270.
38. Southwick SM, Yehuda R, Giller EL. Personality disorders in treatment-seeking combat veterans with posttraumatic stress disorder. *Am J Psychiatry*. 1993;150(7):1020-1023.
39. Yule W, Bolton D, Udwin O, Boyle S, O'Ryan D, Nurrish J. The long-term psychological effects of a disaster experienced in adolescence: I: The incidence and course of PTSD. *Journal of Child Psychology and Psychiatry*. 2000;41(4):503-511.
40. Lowell A, Suarez-Jimenez B, Helpman L, et al. 9/11-related PTSD among highly exposed populations: a systematic review 15 years after the attack. *Psychological medicine*. 2018;48(4):537-553.
41. Kenardy J, Heron-Delaney M, Hendrikz J, Warren J, Edmed SL, Brown E. Recovery trajectories for long-term health-related quality of life following a road traffic crash injury: Results from the UQ SuPPORT study. *Journal of affective disorders*. 2017;214:8-14.
42. Sterling M, Hendrikz J, Kenardy J. Similar factors predict disability and posttraumatic stress disorder trajectories after whiplash injury. *Pain*. 2011.
43. Lloyd D, Nixon R, Varker T, et al. Comorbidity in the prediction of Cognitive Processing Therapy treatment outcomes for combat-related posttraumatic stress disorder. *J Anxiety Disord*. 2014;28(2):237-240.
44. O'Toole BI, Catts SV, Outram S, Pierse KR, Cockburn J. The physical and mental health of Australian Vietnam veterans 3 decades after the war and its relation to military service, combat, and post-traumatic stress disorder. *Am J Epidemiol*. 2009;170(3):318-330.
45. McFarlane AC, Papay P. Multiple diagnoses in posttraumatic stress disorder in the victims of a natural disaster. *Journal of Nervous and Mental Disease*. 1992;180(8):498-504.
46. Solomon Z, Mikulincer M. Trajectories of PTSD: A 20-year longitudinal study. *Am J Psychiatry*. 2006;163(4):659-666.
47. Solomon Z. PTSD and social functioning: A three year prospective study. *Social Psychiatry and Psychiatric Epidemiology*. 1989;24(3):127-133.

48. Kenardy J, Edmed SL, Shourie S, et al. Changing patterns in the prevalence of posttraumatic stress disorder, major depressive episode and generalized anxiety disorder over 24 months following a road traffic crash: Results from the UQ SuPPORT study. *Journal of affective disorders*. 2018;236:172-179.
49. Bonanno GA, Galea S, Bucchiarelli A, Vlahov D. Psychological resilience after disaster: New York City in the aftermath of the September 11th terrorist attack. *Psychol Sci*. 2006;17(3):181-186.
50. Shalev AY, Tuval-Mashiach R, Hadar H. Posttraumatic stress disorder as a result of mass trauma. *J Clin Psychiatry*. 2004;65:4-10.
51. Luthar SS, Cicchetti D, Becker B. The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*. 2000;71(3):543-562.
52. Agaibi CE, Wilson JP. Trauma, PTSD, and resilience: A review of the literature. *Trauma, Violence, & Abuse*. 2005;6(3):195-216.
53. Resnick HS, Galea S, Kilpatrick DG, Vlahov D. Research on trauma and PTSD in the aftermath of 9/11. *PTSD Res Quarterly*. 2004;15:1-7.
54. Almedom AM, Glandon D. Resilience is not the absence of PTSD any more than health is the absence of disease. *Journal of Loss & Trauma*. 2007;12(2):127-143.
55. Layne CM, Warren JS, Watson P, Shalev A. Risk vulnerability, resistance and resilience: Towards and integrative conceptualization of posttraumatic adaptation. In: Friedman MJ, Kean TM, Resick PA, eds. *PTSD: Science and practice: A comprehensive handbook*. New York: Guilford; 2007.
56. Liebschutz J, Saitz R, Brower V, et al. PTSD in urban primary care: High prevalence and low physician recognition. *Journal of General Internal Medicine*. 2007;22(6):719-726.
57. Clement S, Schauman O, Graham T, et al. What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological medicine*. 2015;45(1):11-27.
58. Weathers F, Blake D, Schnurr P, Kaloupek D, Marx B, Keane T. The Life Events Checklist for DSM-5 (LEC-5). 2013. *National Center for PTSD Retrieved from www.ptsd.va.gov*. 2019.
59. Brewin CR. Systematic review of screening instruments for adults at risk of PTSD. *J Trauma Stress*. 2005;18(1):53-62.
60. Meltzer-Brody S, Churchill E, Davidson J. Derivation of the SPAN, a brief diagnostic screening test for post-traumatic stress disorder. *Psychiatry Research*. 1999;88(1):63-70.
61. Fullerton CS, Ursano RJ, Epstein RS, et al. Measurement of posttraumatic stress disorder in community samples. *Nordic Journal of Psychiatry*. 2000;54(1):5-12.
62. Chou FH, Su TT, Ou-Yang WC, Chien IC, Lu MK, Chou P. Establishment of a disaster-related psychological screening test. *Aust N Z J Psychiatry*. 2003;37(1):97-103.
63. Weathers FW, Litz BT, Herman DS, Huska JA, Keane TM. The PTSD Checklist (PCL): Reliability, validity, and diagnostic utility. Paper presented at: 9th Annual Conference of the ISTSS1993; San Antonio.
64. Weathers FW, Litz BT, Keane TM, Palmieri PA, Marx BP, Schnurr PP. The PTSD checklist for DSM-5 (PCL-5). 2013. *Scale available from the National Center for PTSD at www.ptsd.va.gov*. 2017.
65. Prins A, Bovin MJ, Smolenski DJ, et al. The primary care PTSD screen for DSM-5 (PC-PTSD-5): development and evaluation within a veteran primary care sample. *Journal of general internal medicine*. 2016;31(10):1206-1211.
66. Prins A, Ouimette P, Kimerling R, et al. The primary care PTSD screen (PC-PTSD): Development and operating characteristics. *Primary Care Psychiatry*. 2003;9(1):9-14.
67. Ozer EJ, Best SR, Lipsey TL, Weiss DS. Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychol Bull*. 2003;129(1):52-73.
68. Prati G, Pietrantonio L. The relation of perceived and received social support to mental health among first responders: A meta-analytic review. *Journal of Community Psychology*. 2010;38(3):403-417.
69. Simon RI. *Posttraumatic stress disorder in litigation: Guidelines for forensic assessment*. 2nd ed. Washington, D.C.: American Psychiatric Publishing, Inc; 2003.
70. Wilson JP, Keane TM. *Assessing psychological trauma and PTSD*. 2nd ed. New York: Guilford Press; 2004.
71. Shear MK, Simon N, Wall M, et al. Complicated grief and related bereavement issues for DSM-5. *Depression and Anxiety*. 2011;28(2):103-117.
72. Prigerson HG, Horowitz MJ, Jacobs SC, et al. Prolonged grief disorder: Psychometric validation of criteria proposed for DSM-V and ICD-11. *PLoS medicine*. 2009;6(8).
73. Loftus EF, Davis D. Recovered memories. *Annual review of clinical psychology*. 2006;2:469-498.

74. McNally RJ. *Remembering trauma*. Boston: Harvard University Press; 2005.
75. Young G, Kane A, Nicholson K. *Psychological knowledge in court: PTSD, pain, and TBI*. New York: Springer Publishing Co.; 2006.
76. Blake DD, Weathers F, Nagy LM, et al. The development of a clinician administered PTSD scale. *J Trauma Stress*. 1995;8(1):75-90.
77. Weathers FW, Keane TM, Davidson J. Clinician-administered PTSD scale: A review of the first ten years of research. *Depression and Anxiety*. 2001;13(3):132-156.
78. Weathers FW, Bovin MJ, Lee DJ, et al. The Clinician-Administered PTSD Scale for DSM-5 (CAPS-5): Development and initial psychometric evaluation in military veterans. *Psychological Assessment*. 2018;30(3):383.
79. Weiss DS. Structured clinical interview techniques. In: Wilson J, Keane T, eds. *Assessing psychological trauma and PTSD*. New York: Guilford Press; 1997:493-511.
80. Foa EB, Riggs DS, Dancu CV, Rothbaum BO. Reliability and validity of a brief instrument for assessing post-traumatic stress disorder. *J Trauma Stress*. 1993;6(4):459-473.
81. Foa E, Capaldi S. Manual for the administration and scoring of the PTSD symptom scale-interview for DSM-5 (PSS-I-5). 2013.
82. Norris FH, Riad JK. Standardized self-report measures of civilian trauma and posttraumatic stress disorder. In: Wilson JP, Keane TM, eds. *Assessing psychological trauma and PTSD*. New York: Guilford Press; 1997:7-42.
83. Solomon Z, Keane T, Newman E, Kaloupek D. Choosing self-report measures and structured interviews. In: Carlson EB, ed. *Trauma Research Methodology*. Lutherville, MD: Sidran Press; 1996:56-81.
84. Forbes D, Creamer M, Biddle D. The validity of the PTSD checklist as a measure of symptomatic change in combat-related PTSD. *Behav Res Ther*. 2001;39(8):977-986.
85. Horowitz MJ, Wilner N, Alvarez W. Impact of Events Scale: A measure of subjective stress. *Psychosomatic Medicine*. 1979;41(3):209-218.
86. Weiss DS, Marmar CR. The Impact of Event Scale--Revised. In: Wilson JP, Keane TM, eds. *Assessing psychological trauma and PTSD: A handbook for practitioners*. New York: Guilford Press; 1997:399-411.
87. Moshier SJ, Lee DJ, Bovin MJ, et al. An Empirical Crosswalk for the PTSD Checklist: Translating DSM-IV to DSM-5 Using a Veteran Sample. *J Trauma Stress*. 2019;32(5):799-805.
88. Blanchard EB, Jones-Alexander J, Buckley TC, Forneris CA. Psychometric properties of the PTSD Checklist (PCL). *Behav Res Ther*. 1996;34(8):669-673.
89. Blevins CA, Weathers FW, Davis MT, Witte TK, Domino JL. The posttraumatic stress disorder checklist for DSM-5 (PCL-5): Development and initial psychometric evaluation. *J Trauma Stress*. 2015;28(6):489-498.
90. Ashbaugh AR, Houle-Johnson S, Herbert C, El-Hage W, Brunet A. Psychometric validation of the English and French versions of the posttraumatic stress disorder checklist for DSM-5 (PCL-5). *PLoS one*. 2016;11(10):e0161645.
91. Falsetti SA, Resnick HS, Resick PA, Kilpatrick DG. The modified PTSD Symptom Scale: A brief self report measure of posttraumatic stress disorder. *Behavior Therapist*. 1993;16:161-162.
92. Zlotnick C, Davidson J, Shea MT, Pearlstein T. Validation of the Davidson Trauma Scale in a sample of survivors of childhood sexual abuse. *Journal of Nervous and Mental Disease*. 1996;184(4):255-257.
93. WHOQOL Group. Development of the World Health Organisation WHOQOL-BREF Quality of Life Assessment. *Psychological Medicine*. 1998;28(3):551-558.
94. Skevington SM, Lofty M, Connell KA. The World Health Organization's WHOQOL-BREF quality of life assessment: Psychometric properties and results of the international field trial. A Report from the WHOQOL Group. *Quality of Life Research*. 2004;13(2):299-310.
95. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*. 2008;15(3):194-200.
96. Wagnild GM, Young HM. Development and psychometric evaluation of the Resilience Scale. *Journal of nursing measurement*. 1993;1(2):165-178.
97. Connor KM, Davidson J. Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*. 2003;18(2):76-82.
98. Foa EB, McLean CP, Zang Y, et al. Psychometric properties of the Posttraumatic Stress Disorder Symptom Scale Interview for DSM-5 (PSSI-5). *Psychological Assessment*. 2016;28(10):1159.

99. Foa EB, Tolin DF. Comparison of the PTSD Symptom Scale-Interview Version and the Clinician-Administered PTSD scale. *J Trauma Stress*. 2000;13(2):181-191.
100. Davidson J, Malik M, Travers J. Structured interview for PTSD (SIP): Psychometric validation for DSM-IV criteria. *Depression and Anxiety*. 1997;5:127-129.
101. Bovin MJ, Marx BP, Weathers FW, et al. Psychometric properties of the PTSD checklist for diagnostic and statistical manual of mental disorders–fifth edition (PCL-5) in veterans. *Psychological Assessment*. 2016;28(11):1379.
102. Wortmann JH, Jordan AH, Weathers FW, et al. Psychometric analysis of the PTSD Checklist-5 (PCL-5) among treatment-seeking military service members. *Psychological assessment*. 2016;28(11):1392.
103. Mollica RF, Caspi Yavin Y, Bollini P, Truong T, et al. The Harvard Trauma Questionnaire: Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease*. 1992;180(2):111-116.
104. Duffy M, Gillespie K, Clark DM. Post-traumatic stress disorder in the context of terrorism and other civil conflict in Northern Ireland: Randomised controlled trial. *British Medical Journal*. 2007;334(7604):1147.
105. Shalev AY, Ankri Y, Israeli-Shalev Y, Peleg T, Adessky R, Freedman S. Prevention of posttraumatic stress disorder by early treatment: Results from the Jerusalem Trauma Outreach and Prevention Study. *Arch Gen Psychiatry*. 2012;69(2):166-176.
106. Gillespie K, Duffy M, Hackmann A, Clark DM. Community based cognitive therapy in the treatment of posttraumatic stress disorder following the Omagh bomb. *Behav Res Ther*. 2002;40(4):345-357.
107. Resick PA, Nishith P, Weaver TL, Astin MC, Feuer CA. A comparison of cognitive-processing therapy with prolonged exposure and a waiting condition for the treatment of chronic posttraumatic stress disorder in female rape victims. *Journal of Consulting and Clinical Psychology*. 2002;70(4):867-879.
108. Boulos D, Zamorski MA. Do shorter delays to care and mental health system renewal translate into better occupational outcome after mental disorder diagnosis in a cohort of Canadian military personnel who returned from an Afghanistan deployment? *BMJ open*. 2015;5(12):e008591.
109. Stein NR, Dickstein BD, Schuster J, Litz BT, Resick PA. Trajectories of response to treatment for posttraumatic stress disorder. *Behavior Therapy*. 2012;43(4):790-800.
110. Tarrier N, Sommerfield C, Pilgrim H, Faragher B. Factors associated with outcome of cognitive-behavioural treatment of chronic post-traumatic stress disorder. *Behav Res Ther*. 2000;38(2):191-202.
111. Feeny NC, Zoellner LA, Foa EB. Treatment outcome for chronic PTSD among female assault victims with borderline personality characteristics: A preliminary examination. *J Pers Disord*. 2002;16(1):30-40.
112. Forbes D, Creamer M, Allen N, et al. The MMPI-2 as a predictor of symptom change following treatment for posttraumatic stress disorder. *Journal of Personality Assessment*. 2002;79(2):321-336.
113. Foa EB, Riggs DS, Massie ED, Yarczower M. The impact of fear activation and anger on the efficacy of exposure treatment for posttraumatic stress disorder. *Behavior Therapy*. 1995;26(3):487-499.
114. Forbes D, Creamer M, Hawthorne G, Allen N, McHugh T. Comorbidity as a predictor of symptom change after treatment in combat-related posttraumatic stress disorder. *Journal of Nervous and Mental Disease*. 2003;191(2):93-99.
115. Forbes D, Bennett N, Biddle D, et al. Clinical presentations and treatment outcomes of peacekeeper veterans with PTSD: Preliminary findings. *Am J Psychiatry*. 2005;162(11):2188-2190.
116. Forbes D, Parslow R, Creamer M, Allen N, McHugh T, Hopwood M. Mechanisms of anger and treatment outcome in combat veterans with posttraumatic stress disorder. *J Trauma Stress*. 2008;21(2):142-149.
117. Perconte ST, Griger ML. Comparison of successful, unsuccessful, and relapsed Vietnam veterans treated for posttraumatic stress disorder. *Journal of Nervous and Mental Disease*. 1991;179(9):558-562.
118. Steindl SR, Young RM, Creamer M, Crompton D. Hazardous alcohol use and treatment outcome in male combat veterans with posttraumatic stress disorder. *J Trauma Stress*. 2003;16(1):27-34.
119. Ehlers A, Clark DM, Dunmore E, Jaycox LH, Meadows EA, Foa EB. Predicting response to exposure treatment in PTSD: The role of mental defeat and alienation. *J Trauma Stress*. 1998;11(3):457-471.

120. Thrasher S, Power M, Morant N, Marks I, Dalgleish T. Social support moderates outcome in a randomized controlled trial of exposure therapy and (or) cognitive restructuring for chronic posttraumatic stress disorder. *Canadian Journal of Psychiatry*. 2010;55(3):187-190.
121. Cloitre M, Koenen KC, Cohen LR, Han H. Skills training in affective and interpersonal regulation followed by exposure: A phase-based treatment for PTSD related to childhood abuse. *Journal of Consulting and Clinical Psychology*. 2002;70(5):1067-1074.
122. Clarke SB, Rizvi SL, Resick PA. Borderline personality characteristics and treatment outcome in cognitive-behavioral treatments for PTSD in female rape victims. *Behavior Therapy*. 2008;39(1):72-78.
123. Olatunji BO, Cisler JM, Tolin DF. A meta-analysis of the influence of comorbidity on treatment outcome in the anxiety disorders. *Clin Psychol Rev*. 2010;30(6):642-654.
124. van Minnen A, Arntz A, Keijsers GPJ. Prolonged exposure in patients with chronic PTSD: Predictors of treatment outcome and dropout. *Behav Res Ther*. 2002;40(4):439-457.
125. van Dam D, Vedel E, Ehring T, Emmelkamp PM. Psychological treatments for concurrent posttraumatic stress disorder and substance use disorder: A systematic review. *Clin Psychol Rev*. 2012;32(3):202-214.
126. Mills KL, Teesson M, Back SE, et al. Integrated exposure-based therapy for co-occurring posttraumatic stress disorder and substance dependence: A randomized controlled trial. *JAMA*. 2012;308(7):690-699.
127. Persson A, Back SE, Killeen TK, et al. Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure (COPE): A Pilot Study in Alcohol-dependent Women. *J Addict Med*. 2017;11(2):119-125.
128. Hien DA, Jiang HP, Campbell ANC, et al. Do treatment improvements in PTSD severity affect substance use outcomes? A secondary analysis from a randomized clinical trial in NIDA's clinical trials network. *Am J Psychiatry*. 2010;167(1):95-101.
129. Hien DA, Smith KZ, Owens M, López-Castro T, Ruglass LM, Papini S. Lagged Effects of Substance Use on PTSD Severity in a Randomized Controlled Trial With Modified Prolonged Exposure and Relapse Prevention. *Journal of Consulting and Clinical Psychology*. 2018.
130. Fontana A, Rosenheck R, Desai R. Comparison of treatment outcomes for veterans with posttraumatic stress disorder with and without comorbid substance use/dependence. *J Psychiatric Res*. 2012;46(8):1008-1014.
131. Substance Abuse and Mental Health Services Administration. *Pharmacologic guidelines for treating individuals with post-traumatic stress disorder and co-occurring opioid use disorders (HHS Publication No. SMA-12-4688)*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2012.
132. Gros DF, Price M, Strachan M, Yuen EK, Milanak ME, Acierno R. Behavioral activation and therapeutic exposure: An investigation of relative symptom changes in PTSD and depression during the course of integrated behavioral activation, situational exposure, and imaginal exposure techniques. *Behavior Modification*. 2012;36(4):580-599.
133. Nixon RDV, Nearing DM. Treatment of comorbid posttraumatic stress disorder and major depressive disorder: A pilot study. *J Trauma Stress*. 2011;24(4):451-455.
134. Adams SW, Bowler RM, Russell K, Brackbill RM, Li J, Cone JE. PTSD and comorbid depression: Social support and self-efficacy in World Trade Center tower survivors 14-15 years after 9/11. *Psychological trauma : theory, research, practice and policy*. 2019;11(2):156-164.
135. Richardson JD, Fikretoglu D, Liu A, McIntosh D. Aripiprazole augmentation in the treatment of military-related PTSD with major depression: A retrospective chart review. *BMC Psychiatry*. 2011;11(article no.86).
136. Philip NS, Aiken EE, Kelley ME, Burch W, Waterman L, Holtzheimer PE. Synchronized transcranial magnetic stimulation for posttraumatic stress disorder and comorbid major depression. *Brain stimulation*. 2019;12(5):1335-1337.
137. Ahmadi N, Moss L, Hauser P, Nemeroff C, Atre-Vaidya N. Clinical outcome of maintenance electroconvulsive therapy in comorbid Posttraumatic Stress Disorder and major depressive disorder. *J Psychiatr Res*. 2018;105:132-136.
138. Feldman DB. Posttraumatic stress disorder at the end of life: Extant research and proposed psychosocial treatment approach. *Palliat Support Care*. 2011;9(4):407-418.
139. Hoge CW, McGurk D, Thomas JL, Cox AL, Engel CC, Castro CA. Mild traumatic brain injury in US soldiers returning from Iraq. *New England Journal of Medicine*. 2008;358(5):453-463.

140. Bryant RA. Disentangling mild traumatic brain injury and stress reactions. *New England Journal of Medicine*. 2008;358(525-527).
141. Vanderploeg RD, Belanger HG, Curtiss G. Mild traumatic brain injury and posttraumatic stress disorder and their associations with health symptoms. *Arch Phys Med Rehabil*. 2009;90(7):1084-1093.
142. Jak AJ, Jurick S, Crocker LD, et al. SMART-CPT for veterans with comorbid post-traumatic stress disorder and history of traumatic brain injury: a randomised controlled trial. *Journal of neurology, neurosurgery, and psychiatry*. 2019;90(3):333-341.
143. Carlson KF, Kehle SM, Meis LA, et al. Prevalence, assessment, and treatment of mild traumatic brain injury and posttraumatic stress disorder: A systematic review of the evidence. *Journal of Head Trauma Rehabilitation*. 2011;26(2):103-115.
144. Sharp TJ, Harvey AG. Chronic pain and posttraumatic stress disorder: Mutual maintenance? *Clin Psychol Rev*. 2001;21(6):857-877.
145. Langford DJ, Theodore BR, Balsiger D, et al. Number and Type of Post-Traumatic Stress Disorder Symptom Domains Are Associated With Patient-Reported Outcomes in Patients With Chronic Pain. *The journal of pain : official journal of the American Pain Society*. 2018;19(5):506-514.
146. Ramage AE, Laird AR, Eickhoff SB, Acheson A, Williamson DE, Fox PT. A coordinate-based meta-analysis of trauma processing in PTSD: Associations with the pain monitoring network. *Biological Psychiatry*. 2011;69(9):262.
147. Moeller-Bertram T, Keltner J, Strigo IA. Pain and post traumatic stress disorder: Review of clinical and experimental evidence. *Neuropharmacology*. 2012;62(2):586-597.
148. Shipherd JC, Keyes M, Jovanovic T, et al. Veterans seeking treatment for posttraumatic stress disorder: What about comorbid chronic pain? *Journal of Rehabilitation Research and Development*. 2007;44(2):153-165.
149. Andersen TE, Lahav Y, Ellegaard H, Manniche C. A randomized controlled trial of brief Somatic Experiencing for chronic low back pain and comorbid post-traumatic stress disorder symptoms. *Eur J Psychotraumatol*. 2017;8(1):1331108.
150. Marx BP, Jackson JC, Schnurr PP, et al. The reality of malingered PTSD among veterans: Reply to McNally and Frueh (2012). *J Trauma Stress*. 2012;25(4):457-460.
151. McNally RJ, Frueh BC. Why we should worry about malingering in the VA system: Comment on Jackson et al. (2011). *J Trauma Stress*. 2012;25(4):454-456.
152. Laffaye C, Rosen CS, Schnurr PP, Friedman MJ. Does compensation status influence treatment participation and course of recovery from post-traumatic stress disorder? *Mil Med*. 2007;172(10):1039-1045.
153. Gabbe BJ, Cameron PA, Williamson O, Edwards E, Graves S, Richardson M. The relationship between compensation status and long-term patient outcomes following orthopaedic trauma. *Medical Journal of Australia*. 2007;187(1):14-17.
154. O'Donnell ML, Creamer M, McFarlane A, Silove D, Bryant R. Does access to compensation have an impact on recovery outcomes after injury? *Medical Journal of Australia*. 2010;192:328-333.
155. Spearing NM, Connelly LB, Gargett S, Sterling M. Does injury compensation lead to worse health after whiplash? A systematic review. *Pain*. 2012;153(6):1274-1282.
156. Cloitre M, Stovall-McClough KC, Miranda R, Chemtob CM. Therapeutic alliance, negative mood regulation, and treatment outcome in child abuse-related posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*. 2004;72(3):411-416.
157. Ruglass LM, Miele GM, Hien DA, et al. Helping alliance, retention, and treatment outcomes: A secondary analysis from the NIDA Clinical Trials Network Women and Trauma Study. *Substance Use & Misuse*. 2012;47(6):695-707.
158. Hatcher RL, Barends AW. Patients' view of the alliance in psychotherapy: Exploratory factor analysis of three alliance measures. *Journal of Consulting and Clinical Psychology*. 1996;64(6):1326-1336.
159. Chen JA, Fortney JC, Bergman HE, et al. Therapeutic alliance across trauma-focused and non-trauma-focused psychotherapies among veterans with PTSD. *Psychol Serv*. 2019.
160. Collins J, Hyer L. Treatment expectancy among psychiatric inpatients. *J Clin Psychol*. 1986;42(4):562-569.
161. Borkovec TD, Costello E. Efficacy of applied relaxation and cognitive-behavioral therapy in the treatment of generalized anxiety disorder. *Journal of Consulting and Clinical Psychology*. 1993;61(4):611-619.
162. Devilly GJ, Borkovec TD. Psychometric properties of the Credibility/Expectancy Questionnaire. *Journal of Behavior Therapy and Experimental Psychiatry*. 2000;31:73-86.

163. Chambless DL, Tran GQ, Glass CR. Predictors of response to cognitive-behavioral group therapy for social phobia. *J Anxiety Disord.* 1997;11(3):221-240.
164. Price M, Anderson PL. Outcome expectancy as a predictor of treatment response in cognitive behavioral therapy for public speaking fears within social anxiety disorder. *Psychotherapy.* 2012;49(2):173-179.
165. Goossens M, Vlaeyen JWS, Hidding A, Kole-Snijders A, Evers S. Treatment expectancy affects the outcome of cognitive-behavioral interventions in chronic pain. *Clin J Pain.* 2005;21(1):18-26.
166. Prochaska JO, Diclemente CC. Stages and processes of self-change of smoking: Toward an integrative model of change. *Journal of Consulting and Clinical Psychology.* 1983;51(3):390-395.
167. Murphy RT, Rosen CS, Cameron RP, Thompson KE. Development of a group treatment for enhancing motivation to change PTSD symptoms. *Cognitive and Behavioral Practice.* 2002;9(4):308-316.
168. Clapp JD, Beck JG. Treatment of PTSD in older adults: Do cognitive-behavioral interventions remain viable? *Cognitive and Behavioral Practice.* 2012;19(1):126-135.
169. Bottche M, Kuwert P, Knaevelsrud C. Posttraumatic stress disorder in older adults: An overview of characteristics and treatment approaches. *International Journal of Geriatric Psychiatry.* 2012;27(3):230-239.
170. Munley PH, Bains DS, Frazee J, Schwartz LT. Inpatient PTSD treatment: A study of pretreatment measures, treatment dropout, and therapist ratings of response to treatment. *J Trauma Stress.* 1994;7(2):319-325.
171. Foa EB, Rothbaum BO, Riggs DS, Murdock TB. Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive-behavioral procedures and counseling. *Journal of Consulting and Clinical Psychology.* 1991;59(5):715-723.
172. Jaycox LH, Foa EB, Morral AR. Influence of emotional engagement and habituation on exposure therapy for PTSD. *Journal of Consulting and Clinical Psychology.* 1998;66(1):185-192.
173. Marks I, Lovell K, Noshirvani H, Livanou M, Thrasher S. Treatment of posttraumatic stress disorder by exposure and/or cognitive restructuring: A controlled study. *Arch Gen Psychiatry.* 1998;55(4):317-325.
174. Stein DJ, Ipser J, McAnda N. Pharmacotherapy of posttraumatic stress disorder: A review of meta-analyses and treatment guidelines. *CNS Spectrums.* 2009;14(1 Suppl 1):25-31.
175. Neuner F, Onyut PL, Ertl V, Odenwald M, Schauer E, Elbert T. Treatment of posttraumatic stress disorder by trained lay counselors in an African refugee settlement: A randomized controlled trial. *Journal of Consulting and Clinical Psychology.* 2008;76(4):686-694.
176. Neuner, Schauer M, Klaschik C, Karunakara U, Elbert T. A comparison of narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an African refugee settlement. *Journal of Consulting and Clinical Psychology.* 2004;72(4):579-587.
177. Heckman CJ, Cropsey KL, Olds-Davis T. Posttraumatic stress disorder treatment in correctional settings: A brief review of the empirical literature and suggestions for future research. *Psychotherapy.* 2007;44(1):46-53.
178. Valentine PV, Smith TE. Evaluating traumatic incident reduction therapy with female inmates: A randomized controlled clinical trial. *Research on Social Work Practice.* 2001;11(1 Special Issue SI):40-52.
179. McLay RN, McBrien C, Wiederhold MD, Wiederhold BK. Exposure therapy with and without virtual reality to treat PTSD while in the combat theater: A parallel case series. *Cyberpsychology, Behavior, and Social Networking.* 2010;13(1):37-42.
180. Ehlers A, Bisson J, Clark DM, et al. Do all psychological treatments really work the same in posttraumatic stress disorder? *Clin Psychol Rev.* 2010;30(2):269-276.
181. Ehlers A, Clark DM. A cognitive model of posttraumatic stress disorder. *Behav Res Ther.* 2000;38(4):319-345.
182. Foa EB, Steketee G, Rothbaum BO. Behavioral/cognitive conceptualizations of post-traumatic stress disorder. *Behavior Therapy.* 1989;20(2):155-176.
183. Schnurr PP. The rocks and hard places in psychotherapy outcome research. *J Trauma Stress.* 2007;20(5):779-792.
184. Foa EB, Keane TM, Friedman MJ. *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies.* New York: Guilford Press; 2000.
185. Glynn SM, Drebing CE, Penk W. Psychosocial rehabilitation. In: Foa EB, Keane TM, Friedman MJ, Cohen JA, eds. *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies.* New York: The Guildford Press; 2009:388-426.

186. NSW Health and Hunter Institute of Mental Health. *Moving forward: A focus on recovery, wellbeing and rehabilitation directions*. Newcastle, NSW: HIMH; 2002.
187. Corrigan PW, Mueser KT, Bond GR, Drake RE, Solomon P. *Principles and practice of psychiatric rehabilitation: An empirical approach*. New York: The Guilford Press; 2009.
188. Penk W, Little D, Ainspan N. Psychosocial rehabilitation. In: Moore BA, Penk WE, eds. *Treating PTSD in military personnel: A clinical handbook*. New York: Guilford Press; 2011.
189. Bond GR, Drake RE, Becker DR. An update on randomized controlled trials of evidence-based supported employment. *Psychiatr Rehabil J*. 2008;59(4):280-290.
190. Dieterich M, Irving CB, Park B, Marshall M. Intensive case management for severe mental illness. *Cochrane Database of Systematic Reviews*. 2010; Issue 10. Art. No. CD007906.
191. Dixon L, McFarlane WR, Lefley H, et al. Evidence-based practices for services to families of people with psychiatric disabilities. *Psychiatric Services*. 2001;52(7):903-910.
192. Mueser KT, Corrigan PW, Hilton DW, et al. Illness management and recovery: A review of the research. *Psychiatric Services*. 2002;53(10):1272-1284.
193. Vogt D, Smith BN, Fox AB, Amoroso T, Taverna E, Schnurr PP. Consequences of PTSD for the work and family quality of life of female and male U.S. Afghanistan and Iraq War veterans. *Soc Psychiatry Psychiatr Epidemiol*. 2017;52(3):341-352.
194. Monson CM, Taft CT, Fredman SJ. Military-related PTSD and intimate relationships: From description to theory-driven research and intervention development. *Clin Psychol Rev*. 2009;29(8):707-714.
195. McGaw VE, Reupert AE, Maybery D. Military Posttraumatic Stress Disorder: A Qualitative Systematic Review of the Experience of Families, Parents and Children. *Journal of Child and Family Studies*. 2019;28(11):2942-2952.
196. Pinciotti CM, Bass DM, McCarthy CA, et al. Negative Consequences of Family Caregiving for Veterans With PTSD and Dementia. *J Nerv Ment Dis*. 2017;205(2):106-111.
197. Acierno R, Knapp R, Tuerk P, et al. A non-inferiority trial of prolonged exposure for posttraumatic stress disorder: in person versus home-based telehealth. *Behav Res Ther*. 2017;89:57-65.
198. Morland LA, Mackintosh MA, Rosen CS, et al. Telemedicine versus in-person delivery of cognitive processing therapy for women with posttraumatic stress disorder: A randomized noninferiority trial. *Depression and Anxiety*. 2015;32(11):811-820.
199. Olden M, Shingleton R, Finkelstein-Fox L, et al. Telemedicine Exposure Therapy and Assessment for PTSD: a Systematic Clinical Practice Narrative Review. *Journal of Technology in Behavioral Science*. 2017;1(1-4):22-31.
200. Smith PL, Moss SB. Psychologist impairment: What is it, how can it be prevented, and what can be done to address it? *Clinical Psychology: Science and Practice*. 2009;16(1):1-15.
201. Phelps A, Lloyd D, Creamer M, Forbes D. Caring for carers in the aftermath of trauma. *Journal of Aggression, Maltreatment & Trauma*. 2009;18:313-330.
202. Benson J, Magraith K. Compassion fatigue and burnout: The role of Balint groups. *Aust Fam Physician*. 2005;34(6):497-498.