Management of trauma and PTSD

Up to 50% of the population will experience a significant traumatic event in their lifetime.

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Whereas the majority of trauma survivors recover without clinical sequelae, 10 - 20% of these individuals develop the syndrome of post-traumatic stress disorder (PTSD).[1] In the USA, the National Comorbidity Survey estimated that between 5% and 9% of the general population suffer from PTSD.[2,3] In the primary healthcare setting the prevalence of PTSD is estimated to be two to three times higher.[4] The South African Stress and Health Study (SASH) – the first large population-based study of mental disorders in South Africa – found anxiety disorders, as a class, to be the most prevalent 12-month and lifetime disorder, while the 12-month prevalence of PTSD was 2.3%.[5]

Acute stress disorder (ASD) and PTSD are manifestations of mental illness in relation to exposure to a severe traumatic event.

Anxiety and trauma

Normal anxiety is universally experienced in response to a threat. It is associated with a range of cognitions and physiological responses from apprehension, intense feelings of dread, as well as hyperactive autonomic phenomena (e.g. abdominal discomfort, restlessness, perspiration, palpitations). It is a normal reaction to an abnormal or unpredictable event.

Trauma is described in the *Diagnostic and Statistical Manual IV* – Text Revised (DSM-IV-TR) as the experience or the witnessing of 'an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others'. It evokes feelings of intense fear, horror and helplessness. The individual perceives the event as a potential threat to their or others' well-being or life and experiences clinically significant distress or impairment in functioning as a result of this distress.[6]

Diagnosis

Mental pathology as a result of a traumatic event was first entered in the *Diagnostic and Statistical Manual III* (DSM-III), but was formerly known in soldiers as 'war neurosis'. The nosology has been refined over time, and is in the process of further change in the proposed DSM-V. Acute stress disorder (ASD) and PTSD are manifestations of mental illness in relation to exposure to a severe traumatic event.

The expected response to a severe trauma is one of shock, fear, horror and helplessness. With time this response should disappear and the vast majority of individuals experience spontaneous recovery from these feelings. The problem arises when this spontaneous recovery fails to occur. PTSD and related pathology could therefore be conceptualised as a disorder where there is failure to recover:[7]

- ASD is limited to the first 4 weeks after the traumatic event, with the disturbance lasting at least 2 days.[6] It is characterised by the presence of four sets of symptoms: dissociative features (numbing, derealisation, depersonalisation); persistent re-experiencing of the event; marked avoidance of stimuli associated with the trauma; and symptoms of anxiety and hyperarousal.
- Acute PTSD is diagnosed after 4 weeks with the presence of the triad of re-experiencing, avoidance and signs and

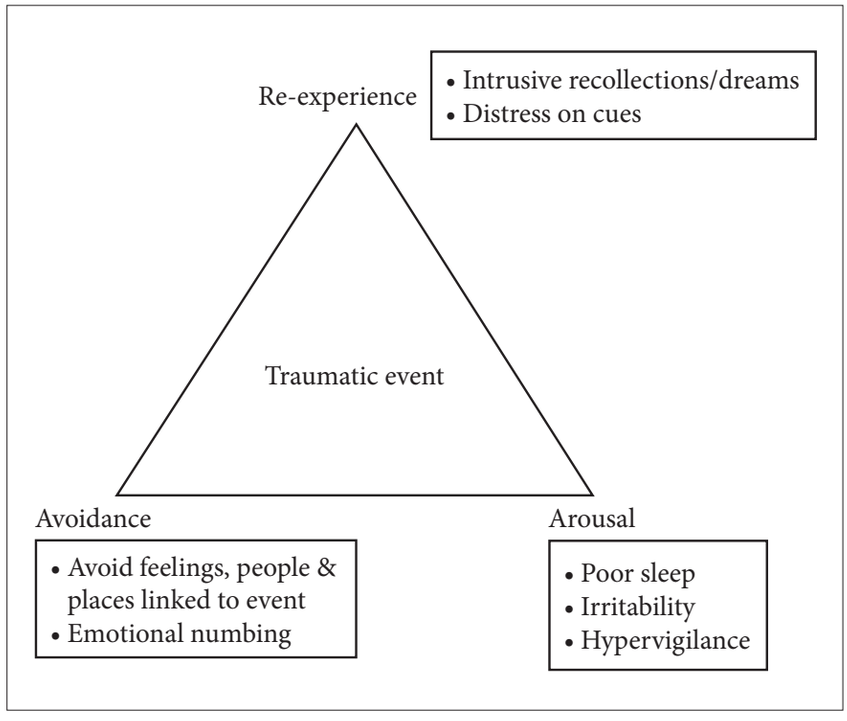

Fig.1. PTSD symptoms.

symptoms of heightened arousal (Fig. 1). There is a large overlap between ASD and PTSD, the difference being the duration and dissociative symptoms of ASD.

- Chronic PTSD refers to the presence of symptoms for 3 months or longer. It is often co-morbid with depression, substance use disorders, and other anxiety disorders. The individual remains reactive to environmental triggers or reminders and therefore symptoms often fluctuate.[8]
- Delayed PTSD is the emergence of symptoms for the first time more than 6 months after the trauma.
- A subtype of PTSD has been described and is called 'disorders of extreme stress not otherwise specified' (DESNOS). It highlights a more chronic and disabling path and is associated with early age of onset of trauma, chronic interpersonal violence and sexual abuse.[9]

The timelines described are important as they determine the appropriate action to be taken. The rest of this article focuses on the identification and management of ASD and PTSD.

Risk factors for the development of PTSD

A meta-analysis conducted by Brewin *et al.*[10] found that factors such as gender, age at trauma and race predicted PTSD in some populations but not in others. Other pre-trauma predictive factors such as previous trauma, education, general childhood adversity and family psychiatric history were more uniform in their predictive effects. It was noted, however, that factors operating during the trauma and immediately afterwards had the strongest effects. Therefore emotional reactions during the event, such as panic-like responses, dissociative responses, and pronounced distress, were associated with a higher frequency of developing PTSD, as well as trauma severity, additional life stressors and lack of support.[11]

Assessment and treatment

Acute aftermath: Secondary prevention in PTSD – 'the golden hour/s'

Previously, the concept of debriefing, which involved the recall and rehearsing of the traumatic event, was recommended as the treatment of choice. The impetus for this was the understanding that this type of intervention could reduce continuing psychological difficulties and prevent the onset of PTSD. There is now strong evidence to suggest that psychological debriefing or critical incident stress management is no longer beneficial and in fact could delay recovery.[12]

Recent work suggests that an alternative approach could potentially prevent the emergence of PTSD. Just as re-perfusion of an infarct-related artery in the first hour could reduce mortality, trauma researchers are suggesting that appropriate intervention immediately after trauma could prevent potential stress-related pathology such as PTSD. A distinction has been made in the literature between acute distress management and acute stress treatment, where treatment would traditionally refer to psychological debriefing and administration of medication. The aim of intervention at this stage is to assist with maintaining emotional control, restoring interpersonal communication, and helping the person to return to full functional capacity. This can be accomplished by ensuring that safety and basic needs such as shelter and nutrition are provided for. Appropriate care for injuries, including pain control, is essential. Convey compassion and enlist basic listening skills. However, it is important not to force emotional reactions from the individual. Provide adequate information and assist in re-orientating the individual. Facilitate with mobilising support, which could involve practical processes such as contacting relatives. Lastly, affirm the expectation of returning to normality.[11] Zohar suggests using the mnemonic ERASE (Table 1).

Normal anxiety is universally experienced in response to a threat.

The early administration of benzodiazepines to ameliorate distress or as a stress-busting prophylactic measure is no longer recommended. Studies suggest that it actually worsens outcome by interfering with the potent natural recovery process.[13] Other novel interventions such as risperidone (an atypical antipsychotic),[14] propanonol, and gabapentin,[15] administered after traumatic events, all demonstrated no benefit in the

Table 1. Goals of acute stress management – ERASE

E	Reduce **E**xposure to stress (e.g. secure place)
R	**R**estore physiological needs (nutrition, pain control)
A	Provide **A**ccess to information/orientation
S	Locate source of **S**upport (relatives, religion)
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prevention of PTSD. Preliminary results from a study by Shelling *et al.* where the administration of prophylactic doses of cortisol to injured trauma survivors showed reduction in PTSD symptoms emergence is promising but needs to be replicated.[16]

However, there are certain procedures that should not be done. These are summarised as the 3 Ps: do not pathologise; do not psychologise; and do not pharmacologise (Table 2).

Acute stress disorder

ASD develops in the first 4 weeks after a traumatic event. Zohar *et al.* recommend 'watchful waiting' and reassurance during this period.[7] There is no evidence for the routine use of medication, but if the patient suffers from insomnia a short-acting hypnotic may be used. The patient must be followed up within 4 weeks to check if the symptoms have resolved, preferably by the doctor who initially saw the patient.

There is now strong evidence to suggest that psychological debriefing or critical incident stress management is no longer beneficial and could delay recovery.

The clinician should provide information to the victim and the carers about symptoms and when to seek help, as well as of treatments available to treat symptoms if they should emerge. The ultimate aim is to normalise the experience, provide reassurance that only a minority of people will develop PTSD, but also to ensure help-seeking behaviour if symptoms should develop. If symptoms are distressing or continue, it is highly likely that the patient has developed acute PTSD.

PTSD

As a healthcare provider it would be pertinent to screen for symptoms of PTSD. Breslau and colleagues devised a 7-item short screening scale for PTSD,[17] which has been shown to have validity and reliability in both primary care settings[18] and general population samples[19] (Table 3). A score

Table 2. What not to do – 3 Ps

Do not pathologise	i.e. 'This is a normal response to an abnormal situation'
Do not psychologise	Do not facilitate emotional reactions by e.g. group counselling or debriefing
Do not pharmacologise	Do not use benzodiazepines etc. in the first few hours

Adapted with permission from Zohar *et al.*[7]

Table 3. Screening PTSD

DSM- IV items that constitute the 7-item screening scale. In: Breslau N, Peterson EL, Kessler RC. Short screening scale for DSM-IV posttraumatic stress disorder. Am J Psychiatry 1999;156:908-911.[17]

C2	Did you avoid being reminded of this experience by staying away from certain places, people or activities? (Remind respondent of life event if necessary)	1.Yes 2. No
C4	Did you lose interest in activities that were once important or enjoyable? (Remind respondent of life event if necessary)	1.Yes 2. No
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D1	After this experience were you having more trouble than usual falling asleep or staying asleep? (Remind respondent of life event if necessary)	1.Yes 2. No
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Based on the Diagnostic Interview Schedule for DSM-IV (DIS-IV), Washington Univ., St Louis, 1995).

The 7-item scale screens for DSM-IV PTSD in persons exposed to traumatic events as defined in DSM-IV. It is intended to be used only after establishing that the respondent has experienced a qualifying event. Please read the paper carefully. It contains all the information needed for using the scale. As we emphasise in the paper, the screening scale is not an adequate substitute for a psychiatric diagnosis.

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of 4 or above would identify patients who would benefit from further evaluation and management or referral to a specialty mental health service.

The expected response to a severe trauma is one of shock, fear, horror and helplessness. With time this response should disappear and the vast majority of individuals experience spontaneous recovery from these feelings.

Meta-analyses by the Cochrane Review[20] and the National Institute of Clinical Excellence (NICE)[21] found that trauma-focused cognitive-behaviour therapy (TF-CBT) and eye movement and desensitising reprocessing (EMDR) as psychological interventions have the strongest evidence for efficacy in PTSD. Both processes involve forms of exposure – TF-CBT with a cognitive therapy component, while EMDR involves the therapist asking the patient to visualise aspects of the trauma while inducing saccadic eye movements.

Evidence from large randomised controlled trials support the use of selective serotonin re-uptake inhibitors (SSRIs) and the serotonin and noradrenaline re-uptake inhibitor (SNRI) venlafaxine as first-line treatment in the short- and long-term management of PTSD. Sertraline and paroxetine are FDA-approved for use in this disorder.[22] Response can be seen as early as 2 - 4 weeks after starting medication but could take up to 12 weeks. In the long term, there is evidence that medication for the treatment of chronic PTSD should continue for at least 12 months to prevent relapse.[23] Despite this, a large proportion of patients fail to respond to treatment with pharmacotherapy, and therefore augmentation is often needed. Furthermore, the morbidity of chronic PTSD is often high as a result of co-morbid conditions such as substance abuse, depression, suicidality and other anxiety disorders that are associated with chronicity of the condition. Findings from a Cochrane review on augmentation strategies in anxiety disorders[24] suggest that adding a course of antipsychotics to ongoing treatment of SSRIs could be beneficial. Similarly, prazosin, an alpha-1 antagonist, holds promise.

Despite a substantive and growing body of evidence on the treatment of PTSD, there still remains a paucity of information on the long-term treatment of PTSD, symptom remission, treatment-refractory patients and the effectiveness of treatments in naturalistic or 'real-world' settings.

Conclusion

Even though major advances have been made in PTSD research in the last few years, there still remain some pertinent unanswered questions. Currently, recommendations are the 'watch and wait' approach in the early days after a traumatic event. CBT and EMDR have the best evidence base as psychological interventions for the treatment of PTSD. However, the availability and cost-effectiveness of such interventions in a developing world setting have to be taken into consideration as both CBT and EMDR are specialised interventions usually performed by trained mental health providers. Furthermore, there is a valid place for pharmacotherapy in the management of PTSD, with the most compelling evidence for the use of SSRIs and venlafaxine.

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IN A NUTSHELL

- According to the SASH study the 12-month prevalence for PTSD is 2.3%.
- Immediate intervention after a traumatic event involves stress management rather than stress treatment.
- Acute stress management aims to assist with maintaining emotional control, restoring communication and helping the individual to return to full functionality.
- ASD is characterised by the presence of dissociative features, re-experiencing phenomena, avoidance behaviour, and symptoms of hyperarousal within 4 weeks of a traumatic event.
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- PTSD is often associated with multiple co-morbidities such as depression, other anxiety disorders and substance abuse.
- Trauma-focused CBT and EMDR have the most evidence base as psychological treatments.
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