Chapter 9

Post-traumatic stress disorder

Investigation

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INTRODUCTION

This chapter describes the nature of post-traumatic stress disorder (PTSD) and associated reactions to traumatic events. It provides the formal diagnostic criteria, an overview of the epidemiology of PTSD and a description of the different biopsychosocial factors that lead to the development and maintenance of PTSD. While the focus is on PTSD following single or a small number of traumatic events in adulthood, there is some discussion of other reactions to traumatic events. The assessment of PTSD is discussed in detail, including structured clinical interviews, self-report questionnaires and the assessment of cognitive themes and maintaining processes that can be addressed in treatment, based on Ehlers and Clark's (2000) cognitive model.

HISTORY

It has long been evident that experiencing a traumatic event can cause psychological problems. Perhaps the first mention of traumatic stress symptoms, following deaths in battle, comes from Sumerian cuneiform tablets dating from 2100 BCE (Ben Ezra, 2001). Various names have been used to refer to traumatic stress symptoms, including 'shell-shock' and 'concentration camp syndrome'. Initially, it was thought that such problems had an organic cause or were due to pre-existing psychological difficulties. PTSD is a relatively recent addition to psychiatric classification. It was first included in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) in 1980 (American Psychiatric Association (APA), 1980). One important factor was heavy lobbying in the US from Veterans' Associations following the war in Vietnam. At this stage it was formally recognised that traumatic events, including combat, natural disasters, accidents and physical and sexual assaults, give rise to a characteristic pattern of symptoms. The study of post-traumatic stress symptoms has often been a controversial area, subject to scientific, political and legal influences (Brewin, 2003).

DIAGNOSIS

The formal diagnostic criteria have changed as the understanding of PTSD has increased. A key question is 'what makes an event traumatic?'. DSM-III-R required the stressor be 'outside the range of usual human experience' and that it 'would be markedly distressing to anyone' (APA, 1987). However, PTSD is also caused by events that are actually very common, such as road traffic accidents and assaults.

DSM-IV is now more specific. It requires that the individual 'experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others' and that the person's 'response involved intense fear, helplessness, or horror'. The full current diagnostic criteria are given below (APA, 2000):

DSM-IV Criteria for PTSD

A. The person has been exposed to a traumatic event in which both of the following have been present:

(1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others (2) the person's response involved intense fear, helplessness, or horror.

B. The traumatic event is persistently reexperienced in one (or more) of the following ways:

(1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions.

(2) recurrent distressing dreams of the event.

(3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur upon awakening or when intoxicated).

(4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

(5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) efforts to avoid thoughts, feelings, or conversations associated with the trauma

(2) efforts to avoid activities, places, or people that arouse recollections of the trauma

(3) inability to recall an important aspect of the trauma

(4) markedly diminished interest or participation in significant activities

(5) feeling of detachment or estrangement from others

(6) restricted range of affect (e.g., unable to have loving feelings)

(7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) difficulty falling or staying asleep

(2) irritability or outbursts of anger

(3) difficulty concentrating

(4) hypervigilance

(5) exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than one month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (Copyright 2000). (Reprinted with permission from the American Psychiatric Association)

Similar criteria are also given by the World Health Organization (WHO) in the *International Statistical Classification of Diseases and Related Health Problems* (ICD; WHO, 1992). However, these are perhaps less widely used in the literature on PTSD, mainly due to the preponderance of US-based research in this area. Ehlers (2000) provides a comparison of the classification schemes. Of note is that PTSD is classified as an anxiety disorder in DSM whereas in ICD it is classified under reactions to severe stress and adjustment disorders. Furthermore, factor analyses of traumatic stress symptoms have indicated that a four-factor structure (re-experiencing, avoidance, numbing and hyperarousal) is a better fit to the available data than a three-factor structure (with avoidance and numbing combined together, as in DSM-IV; Foa et al., 1995). Those studies that examine psychological

health following traumatic events in non-Western populations have tended to adopt Western psychiatric classifications, although this approach has been criticised (Summerfield, 2001).

EPIDEMIOLOGY

It is normal to experience symptoms such as nightmares and flashbacks in the aftermath of traumatic events. However, it is inaccurate to say that meeting diagnostic criteria for PTSD is 'a normal reaction to an abnormal event'. In fact, most people recover from the early appearance of traumatic stress symptoms without any formal intervention and it is a subgroup that goes on to develop chronic PTSD. For example, Rothbaum et al. (1992) found that 94% of women who had been raped experienced traumatic stress symptoms 1 week after the event. This dropped to 65% at 1 month and 47% at 3 months. Furthermore, rates of PTSD following rape are higher than that following other events.

Methodological differences between studies provide differing estimates of frequency of traumatic events, conditional risk of developing PTSD and prevalence of PTSD (Ehlers, 2000; Lee and Young, 2001). These factors include the diagnostic criteria used, the method of inquiry, the population studied, the nature of the traumatic stressor and the country in which the research is conducted. Most research is from the US and research from developing nations is under-represented.

How often do traumatic events occur?

The estimates of lifetime rates of exposure to traumatic events in Western societies vary between 25% for men and 18% for women (Perkonigg et al., 2000) to 92% for men and 87% for women (Breslau et al., 1998). The largest sample, from the US National Comorbidity Survey, found rates of 61% in men and 51% in women (Kessler et al., 1995). Rates of exposure in some non-Western societies are higher due to greater exposure to natural disasters and warfare.

What is the risk of developing PTSD in response to a traumatic event?

Kessler et al. (1995) found the risk for men is 8% and for women 20%. In a young, urban population, Breslau et al. (1998) found the risk for men to be 13% and for women 30%. Research from outside the US has not fully replicated this sex difference (Creamer et al., 2001). PTSD rates also depend on the type of traumatic event. Events such as rape and torture are associated with the highest rates of PTSD and events such as accidents and natural

disasters have lower rates (Kessler et al., 1995). Further risk factors are discussed later.

How prevalent is PTSD?

Lifetime prevalence rates in Western community samples are usually around 5–10%. Kessler et al. (1995) found a lifetime prevalence in women of 10.4% and in men of 5.0%. In a valuable epidemiological study in survivors of war or mass violence who were randomly selected from community populations, de Jong et al. (2001) found prevalence rates of PTSD of 37% in Algeria, 28% in Cambodia, 16% in Ethiopia and 18% in Gaza. Higher rates of PTSD are found in refugees and asylum seekers who have fled from their country of origin. Turner et al. (2003) examined a large group of Kosovan Albanian refugees in the UK and found that 49% met criteria for PTSD.

Co-morbidity

Between 75 and 90% of people with PTSD also meet criteria for a co-morbid psychiatric diagnosis (Kessler et al., 1995; Creamer et al., 2001). The most common co-morbid conditions are affective disorders, substance-use disorders and other anxiety disorders. It is unsurprising that there is high co-morbidity as many symptoms overlap with other diagnoses. In most cases of co-morbid depression or substance-use disorders, the PTSD was primary (Breslau et al., 1997; Chilcoat and Breslau, 1998). In a review of co-morbidity profiles, Deering et al. (1996) found that they differ according to the type of trauma experienced and the population studied. For example, the rates of substance-use disorders among combat veterans with PTSD is higher than those with PTSD from other traumatic events, and trauma involving physical suffering may be more likely to lead to somatisation in PTSD.

OTHER TRAUMATIC STRESS REACTIONS

PTSD can only be formally diagnosed 1 month after the traumatic event. Within the first month, individuals may meet diagnostic criteria for acute stress disorder (ASD) if they have the requisite number of symptoms, similar to those in PTSD but also specifically requiring the presence of three dissociative symptoms. Although the diagnosis of ASD was introduced to help identify those people who were more likely to go on to meet criteria for PTSD, the utility of the diagnosis ASD has been questioned (Harvey and Bryant, 2002).

If an individual has symptoms characteristic of PTSD without meeting criterion A for the traumatic stressor, DSM would currently classify this as an adjustment disorder. A common example is the reaction to relationship

break-ups or work-place bullying in which no criterion A event has occurred but intrusive memories and nightmares relating to these events occur. There is relatively little research in this area and into the best available treatment strategies. Recent theorising about other PTSD-like presentations has focused on emotions such as sadness (e.g. grief reaction) and anger (Dalgleish and Power, 2004).

The PTSD literature often differentiates between type I trauma and type II trauma. Type I trauma is essentially a one-off traumatic event, such as a road traffic accident, assault or natural disaster; type II trauma refers to prolonged, repeated traumatic events such as repeated abuse or torture. Such circumstances may lead to more complex traumatic stress presentations. Herman (1992) refers to this as 'complex trauma'. This is characterised by poor affect and impulse regulation, dissociation, somatisation and pathological patterns of relationships. Following some debate, DSM-IV chose not to include the category 'disorders of extreme stress not otherwise specified' (DESNOS) to address such cases.

ICD-10 attempts to cover these presentations with the diagnosis 'enduring personality change following catastrophic experience' (EPC; WHO, 1992). The criteria include: a permanently hostile or distrustful attitude to the world; social withdrawal; a constant feeling of emptiness or hopelessness; an enduring feeling of feeling 'on edge', including hypervigilance and irritability; and a permanent feeling of being changed or different from others. Such difficulties may be seen clinically in some refugees and asylum seekers, who may have experienced multiple and prolonged traumatic events, in their country of origin, during flight and in the new 'safe' country.

It has also been suggested that Borderline Personality Disorder (BPD) is better conceptualised as a complex trauma reaction. Certainly, there are similarities in the criteria for BPD and the specified symptoms given above for EPC and 'complex trauma'. Furthermore, those people who could be diagnosed with BPD also often experience traumatic stress symptoms. However, epidemiological studies demonstrate that many individuals meet criteria for BPD without meeting criteria for PTSD, and that they are more likely to also meet criteria for a mood disorder, particularly depression, rather than PTSD (Zanarini et al., 1998). Similarly, people who present with dissociative disorders often have a long history of traumatic experiences. Psychological explanations of the controversial diagnosis 'dissociative identity disorder' have some focus on the reaction to traumatic events, usually in early childhood (Allen, 2001).

The utility of terms such as 'complex trauma' or the further specific diagnostic categories is currently unclear. The term 'complex trauma' is used in differing ways, all of which try to describe some sense of difficulty or profound impact on the client not captured by PTSD. It is preferable to describe the actual problems or symptoms an individual may have and to use an idiosyncratic psychological formulation. Models of depression, PTSD and

other anxiety disorders may be helpful in planning treatment approaches. Allen (2001) provides further descriptions and discussion of such presentations, particularly with respect to 'traumatic relationships' both in childhood and adulthood.

BIOLOGICAL PROCESSES

There has been considerable work investigating whether there are biological markers for PTSD (Yehuda, 2001). Urinary and plasma cortisol levels are considerably lower in PTSD patients than in non-PTSD trauma survivors and normal controls. People with PTSD tend to exhibit hyper-suppression of cortisol when given a low dose of dexamethasone, thus showing a different pattern of hypothalamic–pituitary–adrenal (HPA) response from those with depression. The HPA axis in PTSD is characterised by enhanced negative feedback, which is secondary to an increased sensitivity of glucocorticoid receptors in target tissues. The sensitisation of the HPA axis is consistent with the clinical picture of hyper-reactivity and hyper-responsiveness in PTSD. While this has raised the prospect that a biological test for PTSD could be found, no such test currently has sufficient sensitivity or specificity.

Several neurotransmitter systems are dysregulated in PTSD. Subgroups of PTSD patients exhibit sensitisation of noradrenergic and serotonergic systems, respectively (Southwick et al., 1997). Increased levels of noradrenaline can cause symptoms of hyper-arousal and re-experiencing. Serotonin depletion is associated with inability to modulate arousal. Overall, it appears that there may be numerous neurobiological mediators of stress-resilience and risk to development of PTSD (Southwick et al., 2003). The overall effect of these biological factors is that they may make people with PTSD hyper-responsive to stressful stimuli, especially stimuli that are reminiscent of the trauma (Van der Kolk, 1996; Ehlers, 2000).

In addition, magnetic resonance imaging studies have detected smaller hippocampal volumes in people with PTSD. However, a twin study and a prospective longitudinal investigation have demonstrated that smaller hippocampal volume is a risk factor for PTSD, rather than PTSD 'shrinking' the hippocampus (Bonne et al., 2002; Gilbertson et al., 2002).

PSYCHOSOCIAL RISK FACTORS FOR PTSD

Two thorough meta-analyses have provided strong evidence for particular risk factors for the development of PTSD (Brewin et al., 2000; Ozer et al., 2003). Female sex, younger age and membership of a minority ethnic group predicted PTSD in some populations but not others. Low education, previous trauma and general childhood adversity predicted PTSD more consistently

but still varying by population and study. Psychiatric history, reported childhood abuse and family psychiatric history had more uniform predictive effects. Importantly, stronger predictors of PTSD than prior characteristics were post-trauma support and life stress, and peri-traumatic psychological processes. Peri-traumatic processes are those happening during the traumatic event, encompassing both dissociation and indices of trauma severity. Interpersonal events such as rape and torture are more likely to lead to the development of PTSD than natural disasters or accidents. For example, refugees who have experienced torture are more likely to exhibit PTSD than those refugees who have experienced traumatic events that do not include torture (Holtz, 1998). Many prospective studies have demonstrated that peri-traumatic dissociation is a good predictor of later PTSD (Murray et al., 2002).

It may be that peri-traumatic responses to the trauma mediate pre-trauma factors, or that there is an interaction of pre-trauma factors with both trauma severity or trauma responses to increase the risk of PTSD (Brewin et al., 2000). Recent studies also indicate the role of post-traumatic cognitions as important predictors of the development of PTSD following road traffic accidents and assaults (e.g. Ehlers et al., 1998).

Experimental psychology studies are investigating possible risk factors for the development of intrusive memories. In non-clinical samples, increased intrusions after viewing a distressing film are associated with higher levels of schizotypy (Holmes and Steel, 2004) and performing a verbal distraction task as opposed to a visuo-spatial task at encoding (Holmes et al., 2004). It is yet to be established whether such results hold in clinical populations.

PSYCHOLOGICAL MODELS

The most effective psychological treatments for PTSD are cognitive-behavioural (Foa et al., 2000) and it is these models that are used as the basis for assessment approaches in this chapter. Brewin and Holmes (2003) provide a valuable summary of psychological models of PTSD. They briefly review a number of earlier approaches including social-cognitive, conditioning, information processing and anxious apprehension models of PTSD. While many of these have been influential in the field (e.g. Horowitz, 1986; Janoff-Bulman, 1992) they have essentially been superseded by more recent developments. Brewin and Holmes (2003) go on to compare Emotional Processing Theory (Foa and Rothbaum, 1998), Dual Representation Theory (Brewin et al., 1996; Brewin, 2001, 2003) and Ehlers and Clark's (2000) cognitive model. Each of these models addresses key elements of PTSD, including alterations in memory functioning and specific appraisals during and following the traumatic events. The models are not mutually exclusive but have differing emphases. Dual Representation Theory focuses more on the manner

in which trauma memories are represented. Ehlers and Clark (2000) focus more on the cognitive appraisals that help to maintain PTSD. It is beyond the scope of this chapter to describe these in detail.

Ehlers and Clark's (2000) model offers the clearest guidelines for therapy and also has increasing empirical evidence to support it (Ehlers et al., 2005). They propose that PTSD arises when individuals process traumatic information in a way that produces a sense of current threat, whether this is physical or psychological. The three mechanisms that produce and maintain this are the fragmented, relatively un-integrated nature of the trauma memory, negative appraisals of the trauma and/or its sequelae, and coping strategies that do not allow changes in these two areas (such as avoidance). This is described in more detail in Chapter 10.

Like other anxiety disorders, PTSD is associated with various cognitive biases. These include selective attention to external threat, explicit memory bias for trauma-related words, over-general memory, threatening interpretive biases and elevated expectancies for negative events (see Harvey et al., 2004, for a review).

PTSD ASSESSMENT

The most common aims of assessment are clinical assessment prior to possible treatment, assessment for research purposes and assessment for specific report writing, such as an expert witness report for court proceedings. The methods used for each are essentially the same but different elements will be emphasised in each. A number of texts provide considerable detail on the assessment of traumatic stress reactions and their many facets (e.g. Wilson and Keane, 1997). The main focus here is on general clinical assessment. This includes specific questions to identify emotional, cognitive and behavioural processes that are important in treatment, as derived from the cognitive model of Ehlers and Clark (2000). The areas covered are: structured interviews, self-report questionnaires, 'open' interview assessment, assessment of cognitive themes and assessment of possible maintaining factors.

Assessment is also an ongoing process throughout treatment. The person's reaction to particular treatment strategies will identify other issues, blocks to progress and problems that will need to be addressed. Such an approach is particularly necessary in complicated cases such as where there is fluctuating substance use or risk of suicide (Kimble et al., 1998).

A structured clinical interview is the most reliable and valid way of establishing whether someone meets the diagnostic criteria for PTSD. A common interview is the Structured Clinical Interview for DSM (SCID; First et al., 1996). However, probably the nearest thing that there is to a 'gold standard' for

PTSD assessment is the Clinician Administered PTSD Scale (CAPS; Blake et al., 1990), which is used extensively in current PTSD research. This covers the diagnostic criteria, with helpful follow-up questions and qualifiers to establish both frequency and severity of symptoms, and further associated features such as guilt and dissociation. It can sometimes be lengthy to complete (at least 45 minutes) but is very thorough and can provide lots of clinically useful information. It is in an easily accessible form, together with some self-report measures in a specialised assessment pack (Turner and Lee, 1998).

Self-report questionnaires are very useful instruments for efficiently obtaining a lot of information both at assessment and during the course of treatment. There are a number of well-established general symptom measures with good psychometric properties. The most widely used is the Impact of Event Scale (Horowitz et al., 1979). The better, revised version comprises 22 items asking about each of the symptom clusters of: intrusions, avoidance and hyperarousal (IES-R; Weiss and Marmar, 1997). A good alternative scale is the 17-item Posttraumatic Diagnostic Scale (Foa et al., 1997), which more carefully follows the DSM-IV criteria for PTSD. Other trauma-specific scales are also available.

These scales cannot provide a diagnosis of PTSD. Rather, they provide additional information that can corroborate and lend weight to a clinical assessment. Furthermore, it is sensible to enquire further about the answers provided on the self-report questionnaires. An individual may indicate that he or she regularly has 'intrusive memories' but this would not necessarily distinguish between flashbacks of the event or later rumination. Such distinctions have important treatment implications. You should ask what exactly the answer is referring to. If the person has experienced multiple traumatic events it is important to know with respect to which event or events the questionnaire has been completed.

There are also useful self-report questionnaires that ask about other aspects of traumatic stress reactions. The Posttraumatic Cognitions Inventory (PTCI; Foa et al., 1999) helps identify many cognitive themes, which help formulation and treatment.

For screening 3–4 weeks post-trauma, a recent 10-item scale that covers the re-experiencing and hyperarousal symptoms of PTSD can be used (Brewin et al., 2002).

General clinical assessment

The pre-requisites for an accurate clinical assessment, such as an ability to establish rapport and general counselling skills, are assumed. Assessing for PTSD can elicit high levels of affect. The emotional memories of the traumatic event are likely to enter the person's mind when asked about his or her experiences. An ability to acknowledge this difficulty and empathise with the

person while still managing to elicit sufficient information can be a difficult art. In particular, it can be reassuring for people to know that they will not have to go into details any more than they feel comfortable with in the first appointment. It is sensible to allow at least 90 minutes for an assessment of PTSD. It is uncertain in how much detail the person will be able to describe the traumatic events and how distressing it will be. It may be necessary to have more than one pre-treatment assessment session.

Although a large number of possible questions are provided below, it is not expected that you will need to ask every single question, nor that these are entirely comprehensive. The usual general assessment questions about family history, medication taken, etc. should also be asked. Where the words 'trauma' or 'the event' is used, whatever words the person themselves uses to describe their experience ('accident', 'attack', 'incident' etc.) should be used.

Current problems and symptoms

'What are the main the problems you are having at the moment?'
'Any other problems?'
'Which of these is the worst problem/most important problem?'

Description of event

'I only know a little about what actually happened'.
'It would be helpful if you could describe to me what you experienced.'
'Only do it in as much detail as you feel comfortable at the moment.'
During this description you continue to assess by careful observation of how the person describes the event. In particular, you should note emotional reactions, or a lack of them, and at what point these occur. This may include crying, becoming very quiet, skipping over parts more briefly than others, or spacing out/dissociating. You may also be able to observe how fragmented or coherent the memory is by how disorganised the account is or by how much trouble the person has putting it in chronological order. After this description, ask how the person felt describing it and whether that was how he or she felt at the time. This may elicit particular emotional or cognitive themes. In particular, it may help clarify, if necessary, whether the person experienced fear, helplessness or horror during the event, which is a requirement of criterion A for a formal diagnosis of PTSD to be made. During this first description of the event it is probably better to allow people to simply tell their story as they want to and then come back to ask questions about it afterwards if necessary.

'Have you told this story to many other people?'
'Did you do it like you did just here?'
Sometimes people have had to describe the event to many people such as

police, solicitors and assessors for legal reports and they have an 'agreed version' that they just tell without emotion as if it happened to someone else.

'Have you told anyone else in detail what has happened?'

'Had you been using alcohol or any other drugs at the time of the event?'
'Did you experience any blows to the head during the event?'
'Did you lose consciousness?'
'For how long do you think?'
'What bits can't you remember?'
'Did you have a scan at the hospital?'
'What did they tell you at the hospital?'
'Did anyone mention a head injury?'
'Have you had any treatment for this since?'

The possibility of a neuropsychological assessment should be considered, particularly if the person was unconscious, had a post-traumatic amnesia of more than a few minutes or has noticed other cognitive changes other than poorer concentration and memory for new material. It is important to try to distinguish organic from psychogenic amnesia.

Impact on life

'What impact have these problems had?'
'How have they affected your relationships with family?'
'With friends?'
'How have they affected work?'
'How have they affected social and leisure activities?'
'Are there things that you used to do that you no longer do?'

Co-morbidity

'Are there any other problems?'
'How much are you drinking?'
'Do you use recreational/street drugs?'
'How is your mood?'
'Have you been feeling down or depressed?'
'Any thoughts of harming yourself or killing yourself?'

Assessment of risk is important, especially as there is an increased risk of suicide in people with PTSD (Tarrier and Gregg, 2004).

Reactions of others

'How did other people react to you during this?'
'After this?'

'Now?'
'Who have you had support from?'
'How has that been?'
'Who are you closest to now?'
'Is that different from before?'
'Have you had any unhelpful reactions from others?'
'What?'
'What did you make of that?'

Current circumstances

'Are you receiving any other treatment as a result of the trauma?'
'Any ongoing medical treatment or physiotherapy?'
'Is there any ongoing legal action as a result of the trauma?'
'What is the situation with that?'
'What has your solicitor/the police told you about it?'
'How long is it likely to take?'

It may be necessary to have a discussion with the person prior to treatment being offered about the likely effect of treatment on legal action, such as a final settlement being lower if the person improves, what his or her motivation is to improve and whether he or she wishes to proceed. If the person is a witness in criminal proceedings it is wise to check with the solicitor that starting treatment now is acceptable, and not seen as 'coaching' of the story.

Prior trauma

'Have you ever experienced similar events before in your life?'
'Have you ever experienced other types of traumatic, life-threatening or very frightening events before in your life?'
'How about when you were a child?'
'How did you cope with them then?'
'Did you ever have intrusive memories or bad dreams following these events?'
'How did you cope with that?'
'How well did that work?'

Even if this is the first traumatic event a person has experienced, ask '*How have you coped with other stressful times in your life?*' and '*What sort of things do you usually do to cope with stress?*'

Goals

'What do you want to get out of treatment?'
'What would you most like to be different?'
'How would you know that you have improved?'

'What do you want to be doing again?'
'What don't you want to be doing any more?'

Assessment of cognitive themes

Intrusions

'What are the main intrusive memories you have?'
'Which come most often?'
'Which are the most emotional?'
'What emotions?'
'What is the "main" intrusive memory?'
'What were you thinking at that moment during the event?'
Care should be taken to distinguish intrusive memories of what actually happened at the time of the traumatic event from post-traumatic ruminative thoughts and images of the consequences and sequelae. Intrusive memories are also seen in disorders such as depression, and following bereavement. Reynolds and Brewin (1999) found no significant difference in the number of people with depression and PTSD who described their intrusive memories as involving 'reliving'. The subjective understanding of the 'reliving' nature of involuntary memories needs to be researched, particularly with respect to the possible uniqueness or otherwise of reliving to PTSD. However, there is some evidence that flashbacks have different features to ordinary autobiographical memories of trauma. Passages of trauma narratives written while experiencing flashbacks are characterised by greater use of detail, particularly perceptual detail, more mentions of death, fear, helplessness and horror and use of present tense than ordinary memory periods (Hellawell and Brewin, 2004). This can also potentially be observed during assessment.

Worst moments during the trauma (or 'hotspots')

'What were the worst moments during the event itself?'
'What were you feeling and thinking at that moment?'
There is more detail on the assessment of these hotspots in Chapter 10 (see also Grey et al., 2002). Further identification of hotspots may be guided by the intrusive memories, as most are also hotspots (Holmes et al., 2005).

Post-trauma and pre-trauma beliefs

In addition to the use of the PTCI, ask:
'*What have been the most difficult things since the trauma?*'
'*How has this event changed how you see: yourself as a person; other people; the world; the future?*'

Assessment of possible maintaining factors

Fragmentation of memory

Some sense of this can be gained from the observation of the description of event as described earlier. Also ask:
'*How much does it feel that the memory is all one narrative, or does it feel disjointed?*'
'*Is it unclear it what order some things happened?*'
'*Are there any gaps in important parts of what happened?*'

Rumination

'Do you ever dwell on what happened?'
'What aspects?'
'Do you ever think about how it could have been avoided, or of things that you could have done differently?'
'How long do you dwell for?'

Avoidance

'Are there things you avoid now, such as people, places, reminders, thoughts, feelings?'
'Why is that?'
'What do you think would happen if you didn't avoid these things?'

Thought suppression

'When you have intrusive memories or thoughts about what happened what do you do?'
'Do you ever push these out of your mind?'
'Do you try to suppress thoughts and feelings related to the trauma?'
'Why do you do that?'
'What do you think would happen if you didn't do that?'

Safety behaviours

'Do you ever take extra precautions now?'
'Are there particular things that you do to try to keep yourself safe?'
'Are there things you always make sure you have with you when you go out?'

Numbing

'Do you ever feel like you have no feelings at all?'
'Do you ever do anything to try to make this happen or take unpleasant feelings away?'
'Do you try to numb out?'
'Do you use alcohol and/or drugs to take these feelings away?'

Misinterpretation of symptoms

'What do you make of these symptoms that you are experiencing?'
'Do you have any particular concerns about what these symptoms mean?'
'Do you ever think that these symptoms mean you are going mad or "losing it"?'

Sense of permanent change

'Do you ever think that things are never going to change?'
'What things do you think will never change?'
'Are there things that have permanently changed since the trauma?'
'Any permanent physical changes?'
'What have the doctors told you?'
'Any things that you have lost due to the trauma? Work, home, friends?'
'Do you think that this is permanent?'

At the end of assessment you should explain that following an assessment it is common and normal for people to experience an increase in traumatic stress symptoms, especially intrusive memories and bad dreams. Additionally, people often feel very tired after an assessment and you should ask where the person is going next, e.g. work or home, and if there is anyone in particular there who he or she can ask for support if necessary.

Legal assessments and other reports

At some stage you will be asked to provide written reports on your clients with PTSD. This may range from a standard form to complete for the Criminal Injury Compensation Authority to a request from a solicitor for an expert witness report. It is important that the roles of treating clinician and expert witness are not combined or confused. If an expert witness report is needed on your client, an independent assessor should perform this, usually having asked for a copy of all your clinical notes. However, as the treating clinician you can provide a report in that specific capacity. While solicitors are usually aware of this distinction and the associated issues, this may not always be the case. When providing an expert witness report you are looking to combine information from all possible sources: structured interview,

self-report questionnaires, observation of reactions in the assessment session and other reports and notes made available. A key issue is to clearly separate facts and opinion. Facts can include what you observe in the session while performing the assessment (such as signs of distress when describing the trauma or an exaggerated startle response). It is the convergence of facts that lead to the strength of your opinion. Currently there is no specific test to detect malingering in people who claim to have PTSD (see Guriel and Fremouw, 2003, for a review).

CONCLUSION

Most people experience some traumatic stress symptoms, such as intrusive memories or nightmares, in the immediate aftermath of a traumatic event. Post-traumatic stress disorder develops in a subset of these people, with lifetime prevalence in Western community populations of about 5–10%. Vulnerability is mediated by both neurophysiological and psychological factors, with the current evidence suggesting that peri-traumatic responses and post-trauma stressors, support and appraisals are more important than pre-trauma factors. People who have experienced multiple or prolonged traumatic events may present with difficulties more profound than the term PTSD fully captures. Assessment of PTSD should include a combination of standardised interview (the gold standard being the CAPS), self-report questionnaires and a general clinical interview tailored to the needs of the specific assessment. Assessment is an ongoing process throughout treatment, particularly in more complicated cases.

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INTERNET RESOURCES

UK Trauma Group: http://www.uktrauma.org.uk
This includes listings of specialist UK trauma services.

David Baldwin's Trauma Information Pages: http://www.trauma-pages.com
Probably the longest established website on traumatic stress.

International Society for Traumatic Stress Studies: http://www.istss.org
The largest professional organisation focused on traumatic stress.

National Center for PTSD: http://www.ncptsd.org
This is a programme of the US Department of Veteran Affairs. Recent clinical and research updates are available, *Clinical Quarterly* and *Research Quarterly*, which can be downloaded for free. The Center also maintains the free-access Published International Literature on Traumatic Stress (PILOTS) database, which is the best place to start looking for trauma references.

National Institute of Health and Clinical Excellence: http://www.nice.org.uk
The recently published NICE report on PTSD is the current definitive summary of PTSD assessment, treatment, and service provision within the NHS. All clinicians will benefit from reading these guidelines.

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