20

Post-traumatic stress disorder

Elaine Iljon Foreman and Alexandra Hough

History of the Disorder

Early reference to post-traumatic stress is found in the literature of Ancient Greece (cited by Niles, 1991), and is also described by Samuel Pepys when writing about the Great Fire of London in his diary in 1666 (cited by Daley, 1983). Shakespeare's 'Macbeth' contains clear reference to the phenomenon, in the immortal lines: 'Out, out, damned spot! out, I say!' (Lady Macbeth is suffering visual illusions of bloodstains on her hands and so troubled is she by all of her symptoms that she eventually is driven to suicide.)

The diagnosis 'post-traumatic stress disorder' (PTSD) first appeared in 1980 in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) of the American Psychiatric Association. Prior to this, the symptoms were referred to under the heading of 'gross stress reactions' and 'transient situational disturbance' in DSM (1952) and DSM-II (1968). Examples of other terms for the disorder include physio-neurosis, hysteria, whiplash injury syndrome, effort syndrome, soldier's heart, shell shock, traumatic neurosis, combat exhaustion, battle stress, operational fatigue, survivor syndrome, concentration camp syndrome, rape trauma syndrome and gross stress reaction.

In the current classification of Mental Disorders, PTSD falls under the heading of an anxiety disorder. Gersons and Carlier (1992) add that with the introduction of the diagnosis 'PTSD' into DSM-III, it is possible to recognize victims of war and violence as psychiatric patients, without the stigma of their being classified among the more serious psychiatric conditions such as hysteria, depression or psychosis. It also allows the facilitation of compensation claims, they contend. However, Spragg (1992) points to the controversy over the application of the diagnosis, given that it depends on the reasons for making the diagnosis: these could relate to clinicians concerned solely with treatment issues, institutions assessing for compensation, forensic assessment preliminary to legal decisions, or for epidemiological purposes. Solomon *et al.* (1991) refer to the suspicions regarding malingering and the opportunity of secondary gain in compensation among PTSD patients.

Legal implications for compensation have led to a change in the 1977 legislation concerning statutory compensation for victims of civil violence in Northern Ireland. The Criminal Injuries Scheme now requires that people provide evidence of 'serious mental impairment', as opposed to claiming compensation for 'nervous shock'. The latter did not specify that the person

had to be present at the time and place of the event, and thus claims could be received from people in another part of the country. The new legislation also requires that the person's life be changed for 'a considerable time', and that the condition is serious enough to warrant professional intervention, rather than be self-healing over time. Interestingly enough, there is a discrepancy between the minimal amount claimable for psychological versus physical injury, the former being £2500, and the latter £1000. This discrepancy does not apply to the Criminal Compensation Scheme operating in Great Britain.

Description of the syndrome

The DSM-III(R) (1987) has clarified five criteria for a diagnosis of PTSD:

- a history of exposure to severe stress
- re-experiencing the trauma through intrusive recollections, nightmares or flashbacks
- persistent avoidance of emotionally charged stimuli through numbing of responsiveness, avoidance of charged stimuli or psychogenic amnesia
- persistent hyperarousal, as indicated by insomnia, irritability, hypervigilance and increased startle response
- the symptoms must be of at least 1 month's duration; if the symptoms occur 6 months or more after the trauma, it is known as delayed onset PTSD.

In addition to the above, Miller *et al.* (1992) mention additional symptoms which commonly occur: depression, obsessive compulsive behaviour, dissociation, and a difficulty in concentrating.

Other features, such as identity problems and violent behaviour, are less constant, and relate to the premorbid personality (Spragg, 1992).

The physiological reactions to a threatening provocation, such as heightened perception, increased muscle tension and quickening heart beat, which are experienced by the individual as a feeling of overwhelming fear, are entirely appropriate responses to the preparation of dealing with danger. However, in PTSD, these symptoms also contain lasting features such as increased arousal, irritability, concentration difficulties, extreme alertness and excessive shock reactions. The individual seems to stay mobilized in a state of heterostasis, even when the outside danger has long passed. Thus, Gersons and Carlier (1992) comment that it is for this reason that PTSD has been called a 'physio-neurosis'. It is more than an adequate or inadequate psychic reaction to a frightening experience, as it also comprises a lasting physical and psychological reacting mechanism. Discussion continues to abound as to whether PTSD is in fact a normal reaction to an abnormal event, or whether it is an abnormal pathological reaction to an abnormal experience.

It is considered to be a process, not an illness, with a cause and effect. Mejo (1990) states that with PTSD there is no single cause that creates the disorder. Rather, the personality and the resistance of the individual, the strength and nature of the trauma and the individual's past and present environment all play powerful roles in PTSD's development.

PTSD may be explained, Gersons and Carlier (1992) suggest, as an initially adequate reaction to danger, which becomes pathological if it does not disappear after the danger has gone. PTSD, they continue, is the central syndrome at the

junction between 'outside' traumatic events and the individual's capacity for adaptation to some horrific reality.

In addition to the above symptoms, a preoccupation with bodily function, where there are no demonstrable organic findings, is often noted in PTSD patients (Miller *et al.*, 1992). Such cases can well be misdiagnosed as primarily a physical disorder and be referred for physiotherapy.

The concept of 'somatic re-enactment' is put forward by Lindy *et al.* (1992), and can provide a way of understanding the lack of organic involvement found in certain ostensibly physical presentations. These somatic re-enactments are seen as physical representations of the intrusive symptoms characteristic of PTSD. Four case studies are reported, where persistent, severe physical pain and symptoms such as difficulty in walking were identified as paralleling incidents within a traumatic experience. Psychotherapeutic treatment enabled the link to be made, and the symptoms disappeared. The symptoms had repeated the actual memories with 'uncanny precision'. The way in which the symptoms themselves contain a somatic repetition of the trauma is also highlighted in the work with survivors of torture. The latter is discussed more fully in the second part of this chapter.

Diagnostic issues

The disorder is distinguished from other stress-related problems in that the diagnosis should only be applied to people who have experienced 'a psychologically traumatic event that is generally outside the range of usual human experience' (DSM-III-R 1987). It thus excludes psychiatric conditions precipitated by a divorce, bereavement excluding traumatic causes, loss of employment, chronic illness and marital conflict. The distinction between normal and pathological is not clear cut in all cases.

Lindemann (1944) suggested that grief reactions would normally be worked through in a period of 4–6 weeks. However, Parkes (1972) and others demonstrated that this 'normal' process could take up to a year or more, and it has been suggested that PTSD may be included as a possible component of pathological grief reaction (Parkes and Weiss, 1983). Likewise, Miller *et al.* (1992) suggest that in certain special cases of bereavement, separation or divorce, there can be traumatic elements which produce distinctive qualities consistent with PTSD.

Certain changes in the definition of PTSD are apparent in the revised edition of DSM-III (DSM-III-R, 1987); additional detail about avoidance response and a sense of foreshortened future are included, as is the recognition that PTSD can occur in children. 'Survivor guilt' has been deleted as one of the primary features, and the separation of acute from chronic PTSD has also been dropped. However, numerous authors report that the acute versus chronic PTSD distinction has both clinical and prognostic implications, and therefore it continues to be employed in many studies (Famularo *et al.*, 1990; Davidson, 1992). Likewise, a number of studies published since 1987 still refer to the feature of 'survivor guilt' (Spragg, 1992). Niles (1991) adds that many clinicians believe that helping trauma victims work through survivor guilt is often fundamental to the intervention process.

Studies that employ the categories of 'acute, chronic and delayed PTSD' are generally in agreement with the following criteria. Acute signs usually develop

within hours of the trauma, and persist for at least a month. They generally abate within 6 months. In chronic PTSD, symptoms persist for over 6 months and may continue for decades. Delayed PTSD refers to a delay in onset, such that the symptoms only surface 6 months or longer after the event, and once again can last for many years (Murray and Huelskotter, 1987). A minimal trigger can be sufficient for delayed PTSD to emerge. For example, Lovell (1991) describes an electrician who suffered severe injuries through an accident at work. No symptoms of PTSD occurred at the time, but 7 years later a minor incident in which a fuse blew, creating a small spark, resulted in a full-blown presentation of PTSD, requiring psychological treatment. Lim (1991) also cites a case where, following an accident, some avoidance and a degree of anxiety were experienced, but otherwise the patient showed no additional symptoms. However, witnessing a different trauma led to delayed PTSD emerging after a period of 6 years. Weisaeth, in 1985, cited by North and Smith (1990), states that such cases are relatively uncommon.

Nevertheless, Kaplan *et al.* (1992) emphasize that individuals who have apparently recovered from PTSD retain a heightened vulnerability to subsequent stress, and are more likely to suffer a reactivation of symptoms, even when the second trauma differs from the original event.

Distinguishing PTSD from other physical and psychiatric disorders

The first DSM-III-R criterion for the diagnosis of PTSD is that the individual has 'experienced' an extreme, or catastrophically stressful, life event. However, an interesting point is raised by Burges Watson (1990) when considering victims who are rendered unconscious by the trauma, and who suffer head injury. Given that certain survivors are rescued while unconscious, they have not in fact 'experienced' the event. This, he suggests, can explain the absence of flashback phenomena, given the amnesia that can surround the event. However, he cites two cases of victims of road traffic accidents who had total amnesia of the accident, but did show patchy awareness of their surroundings in the ambulance. Both had symptoms satisfying the criteria for PTSD, with the exception of re-experiencing the event. This report is supported by Baggaley and Rose (1990) and McMillan (1991) who each describe a single case study. Behavioural techniques, it is asserted, can be employed to ameliorate the symptoms of PTSD in such cases, despite amnesia of the traumatic event.

Looking at the ambulance crew, rather than the patients travelling in the ambulance, Kinchin (1993) refers to a British study which shows that 15% of London's ambulance crews suffer from PTSD. He suggests that PTSD can often be preceded by physical symptoms such as back pain, migraine or depression, and adds that if the underlying 'psychological injuries' are not addressed, PTSD may develop.

This issue is of central importance to the phsyiotherapist, who may have referrals for ostensibly physical treatments, but where the precipitating trauma has been overlooked. Patients can be reluctant to talk about the trauma, as doing so brings back the distressing, unpleasant and highly stressful event. The possibility of misdiagnosis is referred to by Choy and De Bosset (1992) who state that PTSD may be treated as another physical disorder, for example post-concussion syndrome.

Hickling *et al.* (1992) support this concern, reporting that of patients referred for post-traumatic headache following a motor vehicle accident, 80% had either full-blown PTSD or a subsyndromal manifestation of this diagnosis. They add that in order to treat post-traumatic headache successfully, attention needs to be paid to the post-traumatic stress disorder as well as the headache.

This point is emphasized by Davidson (1992) who reports that chronic PTSD often presents with non-specific symptoms such as headache, insomnia, irritability, depression, tension, interpersonal or professional dysfunction, and substance abuse. The latter is a common reaction to trauma, as people often attempt to dull their emotions and suppress the trauma using various drugs. The result can then be substance addiction, which can cause additional difficulties (Miller *et al.*, 1992). The need for careful assessment is stressed, as the underlying cause can otherwise remain undetected.

However, Solomon *et al.* (1991) query the much reported finding of the link between substance abuse, antisocial behaviour and PTSD sufferers. Their sample of Israeli veterans did not show this association, and it is therefore suggested that the findings may reflect trends among Vietnam combat veterans, rather than features of PTSD.

Famularo *et al.* (1992) warn that children presenting with possible personality disorder diagnoses should be reviewed carefully for any evidence of earlier history of maltreatment, and a diagnosis of PTSD.

Several studies have statistically examined whether PTSD is a separate diagnostic category that can be distinguished from other psychiatric disorders (Solomon *et al.*, 1991; Watson *et al.*, 1991). Despite a high degree of overlap (McFarlane, 1989, reports that 50% of persons with PTSD have a coexistent psychiatric diagnosis), the overall conclusion is that PTSD can be discriminated from other patient groups.

Davidson and Smith (1990) suggest that PTSD is not sufficiently recognized, even by psychiatric personnel. This view is supported by Kolb (1989), who states that many cases of PTSD go unrecognized by both medical and psychiatric communities. The reasons given are that PTSD is often confused with other anxiety disorders, alcoholism and depressive reactions. In addition, it is suggested that sufferers may wish to avoid all enquiries concerning the trauma, and seldom offer information. Ramsay (1990) states that a significant proportion of rape victims do not report the event.

Gersons and Carlier (1992) comment that the treatment and study of PTSD have generally been characterized by confusion and a failure to generalize from or elaborate upon earlier findings and clinical experience abroad.

Events which may lead to PTSD

Man-made disasters are thought to be more emotionally devastating than natural disasters (Table 20.1), given that the latter are out of human control and therefore outside human responsibility (Baum Fleming and Davidson, 1983; Beigel and Berren, 1985; Fisher and Reason, 1988).

It is suggested by Green *et al.* (1990) that witnessing another person's grotesque death is the strongest predictor of PTSD. North and Smith (1990) cite several authors who suggest that the elements of terror and horror contribute to

Table 20.1 Man-made and natural disasters which could lead to PTSD*

Man-made/technological			*Natural*
Accidental/error	*Deliberate*	*Byproduct*	
Ferry sinking	War	Hospital procedures	Earthquakes
Collisions	Concentration camp/	Dental procedures	Floods
(air, land, sea)	torture	Immigration	Bushfires
Fire/explosion	Violent crime		Tornadoes
Accidents	Rape/mugging/abuse		Volcanoes
(domestric/work)	Kidnapping		
Leakages	Terrorist attacks		
	Hostage		
Experiencing any of the above, individually or within a group.			
Witnessing any of the above, especially if a loved one is involved.			

* The population potentially developing PTSD can include all ages, those injured or involved, onlookers and carers.

the impact of disaster, providing the material for intrusive recollections of the trauma.

With this in mind, one of the most horrific forms of trauma must be that of deliberately inflicted pain and harm, as evinced in torture. Amnesty International estimates that brutal torture and ill-treatment have been practised by one out of every three governments in the 1980s (Allinson, 1991). Because of the deliberate nature of torture, it has been taken as outside the sphere of the first part of this chapter, and is discussed in detail in the second section.

PTSD can be an occupational hazard in such professions as firefighters, police, ambulance crew, soldiers, sailors, medical and paramedical staff, jurors and aircrew. The spouses and children of people suffering from the disorder can also be affected (Niles, 1991). A woman whose husband was sent to Zeebrugge to help assist in the disaster response described how her husband went away, but 'a stranger' returned (Iljon Foreman, 1991). Nevertheless, as recently as 1991, Duckworth reports that 'there is no shortage of experienced police officers who flatly refuse to believe that post-traumatic stress reactions are anything other than a sign of "weakness" in those who are affected'.

Incidence and predictors of PTSD

The incidence of PTSD occurring at some point in a person's life has been reported as 1.3% by Davidson *et al.* (1991) and as 1% by Helzer *et al.* (1987). Breslau *et al.* (1990) reported a prevalence of PTSD as 9.4% in young adults.

Looking at specific groups, the following has been reported: 3.5% in civilians exposed to an attack and non-wounded Vietnam veterans, 20% in wounded Vietnam veterans (Helzer *et al.*, 1987; Kinzie *et al.*, 1990). Thirty per cent of the 23 million Americans involved in motor vehicle accidents or indirect victims of homicide will develop PTSD (Choy and De Bosset, 1992). The incidence rises to 50% of the schoolchildren assessed a year after a shipping disaster (Yule, 1992), and to 50% in adult survivors referred for a medicolegal assessment following the Eniskillen bombing (Curran *et al.*, 1990), while 85% of Nazi death

camp survivors developed PTSD (Kinzie, 1989), and 100% of children involved in the kidnapping of their school bus (Terr, 1981).

The attitudes of society, which tend to be positive towards hostages and victims of natural disasters, but somewhat negative towards refugees, may alleviate or exacerbate the original trauma (Kinzie, 1989). Likewise, the differences in the reception of soldiers returning from the Vietnam war, versus the Falklands conflict, are referred to by O'Brien and Hughes (1991). Despite the comparative heroes' welcome that the Falkland soldiers received, O'Brien and Hughes calculate that 22% of the veterans suffered from PTSD. This indicates that though there may be certain 'protective features' against the development of PTSD in soldiers (Spragg, 1992), in that they are fit, healthy men, who most importantly have been trained, and should not be particularly susceptible to PTSD, it nevertheless does arise.

Foa (1992), in a review of the treatment of PTSD in civilian contexts, cites 16 studies, 13 of which concern rape or sexual abuse. Sexual abuse has been reported to give rise to PTSD in 48.4% of children studied by McLeer *et al.* (1988). Donaldson and Gardner (1985) add that delayed PTSD may be more severe and long lasting when the abuser is not an anonymous rapist, but someone presumed to be trustworthy and whose presence persists, i.e. when the stressor is part of the family.

It has been suggested that PTSD in both adults and children is more likely to be triggered if the person involved has experienced the precursors of domestic violence and child abuse (Speed *et al.*, 1989; Klusnick *et al.*, 1986, in Miller *et al.*, 1992). Likewise, Davidson *et al.* (1991) report that those who developed PTSD had frequently suffered from adverse events during childhood, early parental divorce or separation, parental poverty, and had been victims of abuse. They showed conduct disorder, had a higher risk of attempted suicide, and an increased likelihood of suffering from psychiatric and physical disorders. Some of the above childhood events can be seen as both predisposing risk factors to the later development of PTSD, following other traumatic events, or as traumata themselves, leading to acute, chronic or delayed PTSD.

Graziano (1992) points out that adult survivors of child sexual abuse may not necessarily present for outpatient psychotherapy related to the abuse, and for treatment of subsequent PTSD, but could appear in a variety of inpatient and outpatient, medical, psychiatric and community settings. Care needs to be taken, when offering treatment which includes touch, to ensure that it does not inadvertently give rise to memories of the abuse.

Solomon *et al.* (1989) report that following a traumatic event, subsequent negative life events increase the probability of developing PTSD, while positive events have the reverse effect. It was also reported that previous life events were unrelated to the probability of developing combat stress reaction, but that people who did develop combat stress after battle were more likely to suffer from PTSD (Solomon and Flum, 1988).

A study of psychological sequelae following accidental injury (Feinstein and Dolan, 1991) revealed that 66% of patients, within a week of the injury, reported sufficient symptoms to be rated as 'psychiatric cases'. Without intervention, less than 25% remained as 'cases' by 6 months. Physical morbidity at 6 months was minimal, and did not influence psychiatric outcome. Neither the nature of the stressor nor its perceived stressfulness influenced outcome, in contrast to the DSM-III-R view which correlates severity of the stressor with the

development of PTSD. Reference is made to the lack of consistent findings in this area (March, 1990), and also to the view of Horowitz *et al.* (1987) in which the stressor is seen as a trigger to the development of psychopathology, rather than acting as an aetiological agent *per se*. The importance of constitutional and environmental factors is stressed, and the focus is shifted to the individual's subjective response to the traumatic event.

Supporting this, McFarlane (1988) reported that psychiatric impairment is more closely related to levels of distress following the disaster than to the victim's severity of exposure or loss.

Pre-existing pathological conditions may predispose to the development of PTSD (Thompson, 1989; Watson *et al.*, 1991), with premorbid depressive tendencies and neuroticism predisposing to the development of PTSD, and psychopathic traits protecting from it. Thompson and Solomon (in press) found support for the relationship between neuroticism and psychological distress, and for the protective effect of extraversion, but were surprised to find that psychoticism was a vulnerability factor. However, Allison (1991) stresses that the vast majority of cases of PTSD arise in 'perfectly normal individuals'.

Considering incidence and predictors, it is concluded by North and Smith (1990) that, despite the appearance of systematic studies, there is little agreement on the proportion of affected populations that can be expected to develop a clinically significant PTSD syndrome following a given disaster. Reported rates have ranged from 2% to 100%.

One way of reducing the likelihood of PTSD is the early identification of people who are likely to develop it. Yule and Udwin (1991) have developed an assessment battery, which appears highly predictive in identifying school-children who are likely to seek help following a trauma, and are at high risk of experiencing longer term psychological distress.

Looking specifically at the emergency services, Thompson and Solomon (in press) refer to the way in which effective management of the personnel involved in disaster work can reduce the likelihood of psychological problems being experienced. The main features highlighted in this effective management are: talking about the events, with high-quality social support available, praise from leaders, debriefing, appropriate training and education. They also point to the need for careful selection of stable and extroverted individuals.

An indication of the extent of interest in PTSD is shown by a bibliography from the British Library (1991) on 'Treatment of psychological aspects of war 1986–1990', which lists 379 studies. Of considerable relevance to therapists working with military casualties is the suggestion by Solursh (1989) that certain PTSD sufferers are actually experiencing 'combat addiction'. The intrusive memories can give a 'high' experience, so exciting that the person may resent and resist treatment, despite the other accompanying problems of PTSD.

Given the depth of study and interest that PTSD has aroused, it is easy to forget the point made by Choy and De Bosset (1992) that, apart from extremely prolonged catastrophic conditions, most who experience a trauma do not develop PTSD. Likewise North and Smith (1990) make the point that in spite of the fact that psychiatric distress often plagues the survivors of extreme traumatic events, the general mental health of a significant proportion, sometimes even the majority, of the subjects in most studies attests to the resilience and strength of the human mind to withstand even the most extreme stress.

Treatment

General considerations

The days of suggesting that PTSD is merely feigned, and that sufferers should be imprisoned or summarily executed, are fortunately past (Gersons and Carlier, 1992). Gone are the World War I days when the English psychiatrists working with soldiers in mental institutions, separated from the front line by only the English Channel, advised the soldiers to 'ignore it', and 'don't talk about it'. Unfortunately, but not surprisingly, this advice led to a consolidation of symptoms.

While one cannot expect to prepare the whole population for the experience of disasters, several studies, e.g. Thompson and Solomon (in press), Iljon Foreman (1991) and others, stress the need to provide appropriate training for personnel who are going to be working with disaster victims. This, in conjunction with many of the post-disaster therapeutic support mechanisms that the victims receive, can reduce the likelihood of the helpers themselves becoming victims of PTSD (Allinson, 1991).

Yet despite the increased awareness of PTSD, it can easily be overlooked by both the sufferer, friends and colleagues. Hinks (1991) describes his personal aftermath of the Hillsborough disaster, and how despite working as a mental health professional, it still took a year to recognize and admit to symptoms of PTSD and to seek help. He adds that therapy enabled him to identify the specific effects of post-traumatic stress, and to separate these from other painful aspects of his life. Previous to this, he had been blaming every negative aspect of his life on Hillsborough – from domestic arguments to minor illness.

The need for treatment is stressed by Kolb (1989), who suggests that it may prevent the long-term psychosocial problems of alcoholism, divorce, suicide, violence and difficulty in holding employment. Allinson (1991) stresses the need to highlight the lack of information available for the UK on PTSD. The potentially severe consequences of the disorder are given in the following grim summary: 'If untreated, PTSD can lead to prolonged distress, misery, and even death. It can have a devastating effect on children, and in adults chronic PTSD can predispose to major personality breakdowns.' Loughrey *et al.* (1988) and Kaplan (1989) also mention the increased likelihood of sexual and marital difficulties. On the more optimistic side, Duckworth (1991) asserts that there is great scope for preventative management following a specific disaster, and that satisfactory adjustment to experiences which have provoked strong initial disturbance is something toward which a person can be guided, from the very early stages.

The forms of treatment offered vary, and at present there appear to be no clearly agreed criteria for the choice of one over others. Ramsay (1990) suggests that in the first instance 'many of the symptoms of PTSD can be successfully self-medicated with alcohol'. While this may be so, the dangers of dependence are stressed throughout the literature. However, certain authors do have strong views as to which treatment should be initially offered, as can be seen within the various therapeutic approaches considered below.

It is suggested by Burgess Watson *et al.* (1988) that PTSD, with its multiplicity of diagnostic labels, can only be understood by an approach which takes

into account biological, psychological and social factors, and that a single treatment modality is unlikely to be identifiable. Ramsay (1990) stresses the necessity of an integrated way of understanding the nature of the human response to trauma, in order to be able to provide a rational approach to the treatment of its casualties.

Certain controlled trials comparing different therapeutic approaches are being undertaken, such as the comparison of psychotherapy with exposure-based cognitive therapy, currently running at the stress clinic (Thompson, 1992).

There are, however, certain elements common to all the forms of treatment reviewed, such as the provision of information regarding the normal symptoms experienced after trauma. This normalizing of the experience can provide considerable relief to people, who can otherwise fear that the symptoms themselves are dangerous, and that having them is a signal of impending mental breakdown, that they will never end, and that they signify a 'weak personality'.

A study by Patterson *et al.* (1990) examined patients with burn injuries. The findings replicated that of Perry *et al.* (1987) that PTSD inpatients with burn injuries can be regarded as a non-pathological syndrome, unless symptoms are found to persist unduly. While PTSD appeared to resolve in most cases with standard hospital care, it is suggested that it may be preventable if those who are at risk are identified and receive appropriate psychological treatment soon after the injury. 'At risk' indices were related to total body surface burn area, length of hospital stay, sex (females more likely to develop PTSD) and lack of responsibility for injury. This finding replicates results of previous research (Perry *et al.*, 1990), and is consistent with findings with spinal cord injury which suggest that 'innocent victims' have more difficulty adjusting to the disability than those who were in some way responsible for their injuries (Treishman, 1980). It was also noted that patients with PTSD reported higher levels of pain than those without PTSD, despite receiving equivalent doses of analgesic medication. Detecting this disorder can therefore have important implications for pain control. Likewise, the need for training and awareness of this feature is important for phsyiotherapists, who may be working with these patients.

Sturgeon *et al.* (1991) give a case report of burn injuries sustained during the King's Cross fire. The patient required skin grafts to her back and legs, which caused her considerable physical discomfort, and this was exacerbated by her physiotherapy. In addition to several symptoms of PTSD, she also developed intense anticipatory anxiety before her dressings were changed, which necessitated further treatment with morphine compounds to contain her distress.

Psychological first aid

Rose and Richards (1991) provide the following list of the principles of 'psychological first aid'. They are of relevance to all professionals who may be involved in the treatment of the patient.

1. Reassurance that stress symptoms are normal, will pass, and are not signs of 'madness'. This can be given both verbally to patients and staff, and also as printed leaflets for later reference.
2. Rest and sleep, preferably without medication as far as possible, although this may sometimes be necessary.
3. Recall of traumatic experiences and personal injury with other patients or

staff – gentle encouragement to talk and sympathetic listening. This can initially take place at a 'psychological debriefing' (Dyregrov, 1988; Allinson, 1991) soon after the event, and then within therapy sessions. Yule and Udwin (1991), however, point out that the assumption that debriefing sessions significantly reduce later clinical morbidity has not yet been empirically tested, though a later study by Yule (1992) does indicate that early intervention, including psychological debriefing, group support as well as group and individual therapy, appears helpful in reducing reported levels of psychopathology. Both intrusive, painful, traumatic memories and feelings of loss and bereavement require addressing.

4. (Truthful) reassurance concerning personal medical condition, with, where possible, news and information on friends, comrades, relatives (killed, wounded and survived).
5. Rehabilitation by encouragement in self-care tasks, activity and mobilization as soon as possible. This is clearly an area for involvement of the physiotherapist.

In addition, McFarlane (1989) stresses the need to encourage reduction of social isolation.

Warning is given of the danger of therapist overkill, whereby 'crowds of well meaning counsellors descended on survivors and carers alike ...(lurked) around staff rooms trying to spot people in distress'. Staff felt very angry at being forced into sessions that they did not need or want (Rose and Richards, 1991). Iljon Foreman (1991) reports that, on average, victims of the Kings Cross fire were interviewed by 11 different agencies. This form of communication can be anti-therapeutic. Turner *et al.* (1989) suggest that, for most therapeutic effectiveness, a smaller number of longer sessions should be offered, where unpleasant emotional material can gradually become less painful. There is a risk that many brief interventions, perhaps by multiple agencies, will make the individual more sensitive to the event, and they may experience more emotional distress as a result.

Psychotherapy

Psychotherapy places a great focus on the way in which the present trauma revives memories of past experiences. Spragg (1992) argues that various primary treatment methods can be adopted, be they drugs, cognitive behaviour therapy or psychotherapy. However, he stresses that none is likely to succeed, unless the clinician is alert to looking for the unconscious element that underlies the manifest statement. He suggests that throughout the treatment, whatever its length, one cardinal principle prevails. The therapist must remain objective and exercise patience, and resist any temptation to innovate or introduce manoeuvres when progress seems to have halted. If an impasse has been reached, the therapist should consult a colleague, who may be able to perceive elements of transference or counter-transference that have been missed (see Chapter 4). The overriding principle is: 'Do not assume or dictate. Listen and try to understand what is being said.'

Miller *et al.* (1992) add that often the symptomatology associated with traumatic stress generates an avoidant type of personality disturbance – a self-imposed isolation from other people. This becomes a critical factor in the treatment process, and requires the therapist to work towards decreasing the trauma

survivor's isolation and to providing a therapeutic component which can address the dissociative aspects of the traumatizing experience. (It is recognized, however, that at times the survivor will have the need for privacy and solitude, and this must be respected, and is therapeutic.)

Niles (1991) refers to the moment of trauma precipitating an instant regression to an infantile state, in which fundamental trust in self and others is disrupted, along with basic assumptions about existence. Therapy requires facilitating the process of reintegration. He adds that medication does not affect such symptoms as mistrust, self-doubt, guilt, isolation, moral pain, and problems with intimacy.

It is stressed by Sturgeon *et al.* (1991) that people who have experienced a disaster often use a variety of psychological defence mechanisms to protect themselves against the psychic pain of the disaster. It is proposed that a psychotherapeutic approach in such cases is vital in assisting recovery.

Allinson (1991) hypothesizes that in delayed PTSD the trauma is internalized to avoid immediate pain.

Five important treatment interventions in working with PTSD have been outlined by Scurfield (1985):

- *Therapeutic trust within the treatment relationship.* It can take longer than a year of therapy before survivors build up enough trust to expose the trauma of sexual abuse, for example.
- *Educating the client regarding the recovery process.*
- *Stress management* or reduction of. It is suggested that this be achieved through a combination of therapeutic endeavours such as behavioural techniques, relaxation exercises, physical exercises and general coping strategies.
- *Helping the patient regress back or re-experience the trauma.* This needs to be done with care and sensitivity, and to consider the client's ability to tolerate this experience. Some clients may feel abused if they are asked to speak about the details of their experiences, or feel totally overwhelmed. If the clinician is too directive, the client may experience the clinician as the torturer. (Allinson, 1991, adds that hypnosis may be used as a technique to facilitate the experience of reliving the event.)
- *An integration of the trauma experience.* This encourages a greater understanding of both the positive and negative aspects.

Timing of the intervention has been considered by several authors. Mejo (1990) suggests that 1–3 months post-trauma is considered optimal, as after that patients begin the process of sealing off the trauma. The rate of drop-out from treatment was 81.6% in a study when treatment began 40 weeks after the trauma (Burstein, 1986).

While the above differs in many ways from the next treatment intervention described, cognitive behaviour therapy, both approaches stress the need to address avoidance behaviour, despite giving different theoretical rationales for the causes of the behaviour.

Cognitive behaviour therapy

Cognitive behaviour therapy emphasizes the understanding of the person's current means of dealing with the stress. Avoidances are examined and decisions reached as to whether these are of a phobic nature, or are based on a new, more

accurate perception of the likelihood of danger. Two case studies give an example of the way in which these methods can be applied.

Case 1
A railway worker was told to carry out a certain task, despite inadequate safety precautions. An accident occurred, resulting in him falling onto the electrified line, and suffering a massive electric shock. He survived, despite severe injuries, but presented for psychological help 18 months later, suffering the classic symptoms of PTSD. Treatment focused on explaining the normal responses to trauma, with reassurance that he was not going mad, and that the experience of reliving the electrocution, particularly during nightmares, would not cause heart damage. Withdrawal from sleep medication was achieved, and a return to full working activities was achieved, abolishing the avoidances he had established. Safe working practices were discussed, and it was agreed that if demands were made for unsafe tasks in the future, these would be refused, despite pressure from superiors and colleagues. Within five sessions over a 2-month period, a return to premorbid functioning was established, with reduction in nightmares, improvement in mood, concentration and self-confidence.

A second trauma was then experienced, in which the patient was witness to a roadworker suffering a similar electric shock, and was involved in providing first aid. This experience cause a recurrence of the original flashbacks concerning his own accident, as well as adding extra material to these relating to the horrific sight of the second incident. Two additional sessions of therapeutic support were required to work through this, and once again return to normal functioning was achieved.

Case 2
A woman suffered an unprovoked attack in a pub. She described a complete cessation of social activities and symptoms of panic when she went out of the house. She would only go out if accompanied, and avoided social events wherever possible. Treatment focused on discriminating between safe and dangerous environments, and then testing out the prediction that it was extremely unlikely for such an attack to happen again. She had also stopped dressing attractively and wearing make-up, as a way of presenting a lower profile. The fact that the attack had happened when she was wearing casual clothes, and therefore was unrelated to smart appearance, was discussed, and she agreed to start dressing smartly for occasions for which she would have done so in the past. Over a period of 2 months she reported an increase in self-confidence and was able to return to college and complete her studies. The nightmares gradually ceased, and she also reported that when they did happen, she was able to dismiss then as a normal stress reaction and did not fear that they would last for ever.

Considering overall management of PTSD, in the short term post-disaster period when resources are often scarce, services should be directed at those with greatest risk of developing PTSD. Research quoted by North and Smith (1990) suggests that these are people who have had the greatest exposure or proximity to the disaster event, and those with a past history of psychological problems. If PTSD occurs, the given individual is then at greater risk of developing other

psychiatric disorders as well. Systematic screening with these factors in mind may yield a potentially high-risk group for intensive intervention.

Yule and Udwin (1991) point to the paucity of studies of 'psychological triage' with adults, and add that there are no such studies at all on children. Despite the dangers of therapist 'overkill' previously referred to, it is suggested that in the immediate aftermath of a disaster there is a need to provide psychological first aid, and then to consider which survivors are at highest risk of developing further symptoms. Particularly where disasters involve large numbers of survivors, it is crucial to have a means of screening them in order to identify those at high risk for psychological difficulties, so that they can be given immediate access to psychological help and then be monitored over time.

This theme is expanded in a recent article (Joseph *et al.*, 1993) in which crisis support was assessed over an 18-month period following a disaster. Higher crisis support in the immediate aftermath was found to predict less post-traumatic symptomatology at a later period. Joseph and colleagues refer to findings by Cook and Bickman (1990) in which post-traumatic symptoms decline with time elapsed since a disaster. The hypothesis that support received from other people also declines over time was tested by Joseph *et al.* (1993) and found to be the case.

Yule (1992) reports on a study carried out with child survivors of a shipping disaster. The therapy employed a problem-solving approach, based on cognitive behavioural methods to target anxiety, avoidance and intrusive thoughts. Comparing results to a contrasting school where no outside support was accepted until a year after the disaster, he found that pupils in the school that organized early intervention showed significantly lower scores on the Impact of Events scale (Horowitz *et al.*, 1979), especially for intrusive memories.

The implications for treatment identified by Yule (1992) are that the first need is to help children make sense of what has happened to them and to gain mastery over their feelings. They should therefore be treated in small groups, where they are asked to write a detailed account of their experience, and are helped to cope with the emotions that that brings up. In addition, they should be given specific treatment for fears, phobias and any other avoidant behaviours. They should get practical help with sleeping disorders. As intrusive thoughts are often worse at night just before falling asleep, the use of tape-recorded music to distract the children and blot out the thoughts is suggested. With better sleep, the thoughts are more easily dealt with in daylight.

Deblinger *et al.* (1990) report a clinical trial of cognitive behaviour therapy for children suffering from PTSD as a result of sexual abuse, in which the treatment programme includes training of the non-offending adult. The study concludes that treatment appears to result in significant improvement, compared to baseline measures. It is stressed that PTSD can severely disrupt a child's emotional, cognitive and behavioural development, and that the formulation and implementation of an effective treatment programme is imperative.

Another variant of treatment has considered the 'flashback' symptoms of PTSD as aversively conditioned stimuli. The therapy involves 'image habituation training', i.e. the repeated presentation of the aversive event, in imagination, until gradually habituation takes place, and the image no longer triggers avoidance or anxiety. The treatment was reported as especially effective for patients experiencing repeated intrusive images and thoughts, and high levels of arousal (Vaughan and Tarrier, 1992). Richards and Rose (1991) used an

audiotaped imaginal exposure as part of a treatment programme incorporating *in vivo* exposure. These authors conclude that when *in vivo* exposure is ineffective with PTSD, imaginal exposure to trauma memories should be employed before abandoning behavioural approaches. They add that controlled research is now indicated to assess the relative importance of *in vivo* and imaginal exposure in PTSD, so that the optimum combination of treatments can be determined.

Thompson (1992) concludes that therapies which are based on habituation and extinction of a conditioned response have a firm theoretical base and appear to be producing powerful results. In the light of present knowledge, he therefore states that this is the treatment of choice for post-trauma reactions.

Drugs

Several case studies and large clinical trials have been reported that antidepressants may alleviate flashbacks, nightmares and panic attacks (APA, 1989; Turchin *et al.*, 1992). The latter study gives two case examples of trimodal therapy for PTSD, including supportive therapy, behavioural interventions and pharmacotherapy. It is suggested that the introduction of antidepressants appears to have been crucial in recovery. However, a detailed description of the other two therapies is not provided, thus leaving open the question of how their effectiveness can be evaluated.

Pharmacological intervention has been documented employing tricyclic antidepressants, monoamine oxidase inhibitors, antipsychotic agents, lithium, beta-blockers, clonidine and benzodiazepines. ECT has also been used in cases presenting with severe depression (Davidson, 1992). Ramsay (1990) reports the hypothesis that there is an underlying organic basis to the response to extreme stress. There can be a generalized suppression of affective arousal or exhaustion of adrenal cortical function following chronic stimulation. The suppression of affective arousal could lead to a numbing of responsiveness. Summarizing the literature on the use of pharmacotherapy in PTSD, Davidson (1992) concludes that the efficacy is certainly less than that seen for depression and panic disorder. However, the conclusion given is that the efficacy of pharmacotherapy has been demonstrated in PTSD. A minimum of 2 months' treatment is likely to be required to achieve a benefit which exceeds that of placebo (Davidson, 1992). Ramsay (1990) adds that drug treatment showed a 70% improvement in patients' motivation to psychotherapy.

Six goals for pharmacotherapy in PTSD are identified by Davidson (1992):

- reduction of phasic intrusive symptoms
- improvement of avoidance symptoms
- reduction of tonic hyperarousal
- relief of depression, anhedonia
- improvement of impulse regulation
- control of acute dissociative and psychotic features.

The use of pharmacotherapy as an adjunct to other forms of treatment is suggested by Friedman (1988), who comments that pharmacotherapy alone is rarely sufficient to provide complete remission of PTSD. Symptom relief provided by medication can enable the patient to participate more thoroughly

in individual, behavioural or group psychotherapy. The potential additive effect of both psychotherapy and pharmacological treatment is referred to by several authors (Miller, 1989; Mejo, 1990). However, it is suggested that it is important to wait for specific indications, rather than giving medication immediately after a trauma, in order to see if the person can work through the event without the use of medication (Roth, 1988).

Davidson (1992) emphasizes the need to distinguish between acute and chronic PTSD, as he suggests that there are indications to use different medication for the two conditions. With regard to efficacy, he cites the almost total lack of response to placebo in chronic PTSD.

A warning is sounded when considering using medication for those people with PTSD who are feeling hopeless or out of control, as there is a potential danger of suicide by overdose (Mejo, 1990).

Reference is made to patients with PTSD being at risk for comorbid psychiatric disorders which decrease treatment response (Davidson *et al.*, 1990). Thus the opposite view is also stated – that immediate antidepressant therapy may be protective against the anxious and depressive complications of PTSD, and allow earlier intervention and better response to traditional behavioural and supportive therapies in an individual who has significant signs and symptoms of PTSD, even before meeting the criteria of DSM-III-R.

While it has been mentioned earlier that there is a risk of misdiagnosing PTSD as an organic disorder, the danger of the reverse is mentioned by Roth (1988).

The overall conclusion is thus that controlled research needs to be carried out on the timing of pharmacological intervention in the treatment of PTSD, with respect to both chronology and to the use of multiple therapies.

Nursing management

Several authors describe ways in which the nurse can act as co-therapist in the treatment of PTSD. It may be the nurse to whom the patient speaks about the trauma, thereby having the opportunity to reduce the emotional impact of the experience. Clearly when patients are attending physiotherapy for injuries sustained during trauma, the role of the physiotherapist can parallel that of the nurse with respect to treatment for PTSD. The involvement of physiotherapists in this manner was not referred to in any of the literature which was identified in the research for this chapter. It would seem from conversations with physiotherapists that they clearly have a clinical involvement in the treatment of PTSD, but that published studies describing this are probably few and not well known.

It is also suggested that the nurse can teach such cognitive techniques as thought-stopping, and participate in a graded desensitization programme, such that the patient is gradually reintroduced to the things that they have avoided, for example uniforms, in the case of traumatized soldiers, or other cues associated with the event (Petit, 1991).

The need to have a shared understanding of the proposed underlying causes and maintaining factors of PTSD would seem to be crucial, if more than one therapist is involved. Studies reviewed did not appear to address this issue, nor that of deciding which role is to be taken by each particular therapist, in the case of input from multiple professions such as medicine, nursing, physiotherapy and psychology.

Physiotherapy

Issues within physiotherapy training
Conversations with physiotherapists who have worked with patients suffering from PTSD have highlighted the following needs:

1. The disorder should be addressed during training, thus allowing appropriate recognition and understanding by the physiotherapist. An example was given of a patient, a guitarist, who had suffered severe burns to his hands in the King's Cross fire. He made no eye contact and was almost mute. This was rare in the physiotherapist's experience. Treatment necessitated the provision of analgesics, and a warm, sympathetic but firmly directive approach. The patient was informed that he would receive physiotherapy, whether or not he participated. Once trust was established, and in conjunction with other therapeutic inputs, the social withdrawal gradually lessened and progress was made.
2. The ability to differentiate between people who appear to have 'compensation neurosis' versus genuine PTSD sufferers. This was considered vital to prevent the experience of repeated clinical failure, which could give rise to a self-image of poor competence in the therapist, when the more likely explanation was that the patient needed to maintain the symptoms.
3. To work within a multidisciplinary context, in particular with a psychologist and a doctor. This would enable specific psychological help to be provided, and could enable a joint decision of when to stop offering treatment, in cases where no progress is achieved.

Physiotherapy for survivors of torture and PTSD sufferers

There,
where the light of the sun
lost itself
more than a century ago,
where all gaiety
is impossible
and any smile
is a grimace of irony,
where the stone stench of darkness
inhabits those corners
even the spiders
have abandoned as inhospitable,
and where human pain eludes
that which can be called human
and enters the category
of the unprintable ...
There, I am writing.

[From a Chilean jail, quoted by Sheila Cassidy (1974)]

Background to torture
Torture makes you dead without killing you.*

Torture breaks some fundamental human contract. But over 110 countries are now reported to torture their own citizens (Amnesty International Report, 1993).

* Unattributed quotes are from clients.

Because it is the antithesis of humanity, the concept of torture is difficult to grasp or even accept. But it is more than just the aberrant expression of sadism by individuals in a few wayward banana republics; it is part of the process of government in many countries. The wretchedness of the experience follows survivors and continues to isolate them even in the midst of family life.

It's there 24 hours a day, even when I'm laughing. I'm crying inside.

Effects of torture

Something in you dies when you bear the unbearable (Levine, 1988).

The reactions to these abnormal events can be extreme and are experienced by most survivors. Thus survivors show normal reactions to abnormal events. They need reassurance that these reactions are not signs that they are mentally sick.

Symptoms include chronic hyperventilation, nightmares, phobias, intractable pain, social withdrawal, intense vigilance, an increasingly restricted lifestyle as survivors avoid situations that trigger fear, and a sense of meaningless (Turner and Gorst-Unsworth, 1990). Feelings of guilt, powerlessness and weakness become their new prison (Jacobsen and Vesti, 1990). They may freeze in the street when they see a friendly British policeman.

It is so unusual an experience. You are facing something out of mind, out of biology, out of nature.

Anger at their torturers has had to be suppressed, so it may be turned inward to become depression. This is compounded by a deep sense of loss. Many have lost family, friends, health, culture, self-esteem, sense of self, familiar mechanisms for expressing grief, and belief in the good within themselves and others (Garland, 1993). 'We are men without shadows', one survivor commented. 'I have become a zero', said another. It is as if both internal and external worlds have disintegrated (Bustos, 1990). This destruction of the identity of the victim is one of the main aims of the torturer (Skylv *et al.*, 1990).

The mere act of survival may bring guilt (Turner and Gorst-Unsworth, 1990). This is intensified if survivors' families or friends have been punished for helping them escape, or if they themselves have given away their friends' names under torture. Guilt is compounded by a sense of shame and humiliation, which adds to the difficulty of speaking about the experience. There may also be the fear that putting feelings into words will make the feelings worse.

Survivors diagnosed with PTSD sometimes find that this identification helps to validate their experience. They may have been disbelieved if they attempted to speak about what has happened; they may have come to disbelieve themselves, such is the loss of their sense of self.

When I am with people who were not tortured I cannot speak because there are no words.

Physiotherapy treatment

Working with people who have been tortured requires an acute sensitivity to their responses, an extra awareness of the importance of autonomy, and an understanding of issues of power and helplessness.

The aim of physiotherapy is to act as a bridge between mind and body. It is to facilitate clients in their own physical, mental and spiritual rehabilitation, so that they find strength to recover from their broken expectations of life. It is to enable, not to disable by succumbing to our rescuer instincts.

The pain is not like ordinary pain. With this, something happens in your heart.

Physiotherapy forms a vital link in rebuilding the personality of survivors of torture because trust can be fostered in the context of physical contact. A physical therapist who subsequently trained as a psychotherapist said: 'I often lament how laborious a task it can be to cultivate a relationship with a client when it was so much more accessible in my experience as a physical therapist' (Cimini, 1991).

Verbal expression may be frustrated by a tendency to 'forget' painful experiences. If the mind cannot encompass the task of making sense of what has happened, the body remembers. Physiotherapists are privileged in being authorized to touch. Touch can communicate acceptance and allow clients to connect with a body from which they have become dissociated.

Some clients feel safe to see a physiotherapist because they expect us to work on the physical level without expectation of disclosure. If they are not ready to talk about their experiences, this should be respected. If we follow rather than lead, it is easier to maintain a balance between allowing denial but preventing a form of collusion in which both client and physiotherapist avoid traumatic material by focusing solely on physical symptoms and maintaining a 'conspiracy of silence'.

When survivors are able to speak about their experiences, we need to bear witness. They need to know that their pain can be acknowledged, even if it is beyond the range of our experience. Our job is to both listen and hear, and it is not always easy to hear what they tell us. We must create an environment in which they feel able to talk, be silent, cry, be angry or even laugh. When survivors know that they are given full attention and are believed and responded to, they begin to develop trust.

I realized that pain can increase without end. That feeling is devastating to the mind. The desperation is hard to describe. Suddenly an entire culture collapses. Nothing is possible in such a universe. It is hard to be a survivor.

Precautions. During assessment and treatment, we must maintain vigilance in order to avoid triggering fear. The first session may involve no physical contact, because although touch is particularly healing for survivors, we must be wary of where and how we touch. The intimacy of our relationship with survivors is matched by the perverted intimacy of their previous relationship with their torturer. We always obtain permission before touching, and extra care is taken to respect culture and modesty. All procedures are explained in advance, in detail.

Some discussion is needed to explain what physiotherapy is, to clarify expectations, and identify methods of communication and practice that are culturally appropriate. Questions which mimic interrogation are avoided. Questions such as 'Was the damage here?' are more acceptable than 'What happened here?'

When working with interpreters, it is useful to arrange the chairs in a circle, to talk to the client rather than the interpreter, to avoid jargon, use only a few sentences, and if extra conversation is needed with the interpreter, to explain to the client what is being said. Debriefing sessions with the interpreter are helpful after the session.

During examination, we avoid coming up from behind the client, we avoid bright lights, and we allow them to stay fully clothed if preferred. Techniques to avoid include electrical treatment if they have suffered electric shocks, and water if they have been subjected to near-drowning. Grade five manipulation is seldom

used because of the force and noise, and acupuncture rarely because it cannot be guaranteed to be painless. Mirrors should not be visible because many survivors find them disturbing, and traction couches are not used because most survivors have been tied down. Indeed, some find it difficult simply to lie down.

If there is doubt about a treatment technique, it is discussed in detail with the client, and sometimes demonstrated on a volunteer such as the ever-willing interpreter. Most women have been sexually tortured, and may tense up, sometimes barely perceptibly, if there is physical touch near the pelvis.

It is sometimes necessary to resist the need to 'do something' at all costs, when it might be more beneficial to listen, discuss, or simply allow the creative use of silence. 'Being' is often more important than 'doing'.

> Once the impossible, the unspeakable, has happened, *nothing* is ever impossible again. Every creak upon the stair is an enemy (Sheila Cassidy, 1988).

Pain. Pain is often closely linked to PTSD. Pain can result from physical injury and/or somatic re-enactment and/or from an attempt to block out the experience of intense emotional pain by a form of 'holding on' to physical pain.

This last form of seemingly intractable pain has similarities to pathological grief reactions (Parkes and Weiss, 1983), which include the unresolved grief of some bereaved people, who fear that letting go of the grief would mean experiencing the loss. In torture survivors there may also be an element of expiation of guilt.

One way of working with this form of pain is to support clients in focusing on the pain rather than avoiding it, to 'breathe into the pain', identify the form it takes and explore what it means. Visualization can be used, clients being asked in imagination to touch, warm, nurture and massage the painful part, to describe its form, colour, texture, weight, taste and smell.

Clients can be asked to tune into their body, to find out what they are feeling: 'What do you think this pain is about? What form does your pain take? Speak as your pain, give it a voice.'Accompanying clients on this journey may assist them to find some meaning to their pain.

Talking about pain often changes it. Sometimes clients also feel able to express emotional pain, which may relieve their physical pain.

Hyperventilation syndrome. The association between breathing and emotion is recognized by the gasp of surprise, the sigh of relief, the disrupted breathing of laughing or crying, and the acute hyperventilation of stress. Chronic hyperventilation is less frequently recognized because sufferers are rarely breathless in an obvious way, and most symptoms are unrelated to breathing.

The hyperventilation syndrome (HVS) is a common response to stress in a society which has little appropriate outlet for the 'fight-or-flight' reaction, but it is notoriously underdiagnosed (Grossman and DeSwart, 1984). The diagnosis is also often missed in survivors of trauma, who have developed it as a useful adaptive response to help dissociation from pain. It is particularly common in survivors who have suffered suffocation or struggled at length to avoid screaming or speaking their friends' names. If HVS becomes established, instead of serving its original purpose it produces an array of alarming and sometimes disabling symptoms (Hough, 1991).

The pattern of HVS is illustrated by a vicious cycle in which hyperventilation, symptoms and anxiety reinforce each other (Figure 20.1). The pattern is maintained by the additional stresses of life for survivors, including loss of family, flight to an unknown country, coping with immigration and state agencies, loneliness, uncertainty, lack of the thread of continuity of life or a context for living. The pattern can be triggered by seemingly insignificant events such as being in an enclosed space or hearing an electrical gadget.

If HVS is identified, it is eminently treatable, with symptoms being abolished in 75% of cases (Lum, 1981). Clients can break out of the cycle by regaining control of their breathing. Physiotherapy can support them in this, but with sensitivity so that panic is not caused by the client feeling that something as personal as their breathing is being interfered with.

Treatment starts with preliminary discussion and explanation, then the client settles comfortably into half-lying or lying, with a pillow under the knees. Awareness of breathing is encouraged by suggesting that he or she visualize air passing down a tube from throat to abdomen.

Breathing cannot usually be re-educated in a stressed person, and a session of relaxation follows. A relaxed state should then be maintained throughout breathing re-education by bringing the client's attention to any areas of tension. Physiotherapists should ensure that they themselves are relaxed because a quiet breathing style is contagious. Relaxation occasionally exacerbates symptoms if letting down the wall of tension releases disturbing feelings. Beware the interpreter falling asleep during relaxation sessions!

Abdominal/diaphragmatic breathing is then taught, taking care to maintain small gentle breaths. Clients are guided towards reducing the rate and, if relevant, the depth, of breathing (Hough, 1991).

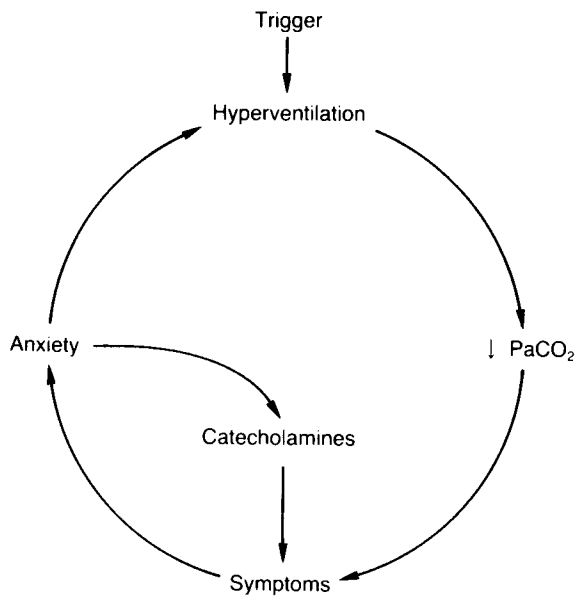

Figure 20.1 Vicious cycle into which people with hyperventilation syndrome become locked

If clients tense up, the emphasis should be on smooth, gentle rhythmic breathing, rather than focusing solely on low, slow breathing. They may need a reminder that slow breathing does not mean deep breathing.

The concept of control is important for people who hyperventilate, because it reduces anxiety and the sense of helplessness that is often a legacy of their experience of torture.

An hour is needed for each session, with regular appointments at the same time each week. This reliability helps to counteract the unpredictability that was fostered by their torturer to engender fear. After discharge, telephone contact is maintained for as long as necessary.

Conclusion. Physiotherapy may be needed for months, healing takes years, and the wound never closes completely. But, with support, the memory gradually becomes less intrusive by day, and nightmares take over less of the night. Survivors learn to trust, to form relationships and to pick up their lives again.

There is no formula for working with the tortured. We continue to refine our understanding of their needs, and we gain much from working with them as they seek to find a sense of creative endeavour in their lives.

My personal revenge will be your children's right to schooling and to flowers.
My personal revenge will be this song bursting for you with no more fears.
My personal revenge will be to offer these hands you once ill treated with all their tenderness intact.

[Thomas Borge, Nicaraguan Minister of the Interior, written in prison to his torturers]

Conclusion

Indicators of good prognosis are summarized by Choy and De Bosset (1992). These include healthy premorbid functioning, trauma of lesser magnitude and brief duration, adequate post-traumatic social support, absence of individual or family history of psychiatric disorder and the absence of medical and psychiatric co-morbidity. Other studies have mentioned early intervention (Sturgeon *et al.*, 1991; Yule, 1992). McFarlane (1989) reiterates the need for further research to target the most appropriate timing for a particular intervention, and also mentions the need for highly experienced therapists.

Although the DSM-III-R does not include the categories of acute and chronic PTSD, such differentiation has clinical utility. Acute disorders, in which symptoms either develop within up to 6 months, and last no longer than a further 6 months, usually have a better prognosis. With severe and prolonged stressors, more victims tend to develop chronic or delayed PTSD. In addition, depression, alcoholism, drug abuse and dependence frequently complicate or are associated with chronic course PTSD.

Despite the number of different forms of treatment available, and the lack of consensus as to which to employ in which particular case, the need for psychological help is overwhelmingly apparent. Gersons and Carlier (1992) state that emergency help in large-scale calamities, accidents at work and violence in the home should be available on request, with opportunity for a subsequent diagnosis of PTSD. They add that PTSD does not only stand for 'crisis' or something like it, but it is also an illness in the sense that it seriously hampers an individual's ability to function socially. As the studies quoted in this chapter

indicate, this impairment of functioning ability can be apparent in all aspects of the person's life.

To conclude on a note of optimism, the following aims for the treatment of PTSD are suggested by Mejo (1990) and, if achieved, can go some way toward answering the agonized question, '*Why*?':

Both client and clinician need to be able to think in terms of helping the client integrate the traumatic episode in such a way that the individual is able to see himself or herself as stronger, wiser and with a new value to his or her life.

References

Allinson, A.J. (1991) Post-traumatic stress disorder: a British perspective. *Medical Science and Law*, **31**, 264–270

Amnesty International Report (1993) AI Publications, London

APA (1952) *Diagnostic and Statistical Manual*, Vol. I, American Psychiatric Association, Washington DC

APA (1968) *Diagnostic and Statistical Manual*, Vol. II, American Psychiatric Association, Washington DC

APA (1980) *Diagnostic and Statistical Manual*, Vol. III, American Psychiatric Association, Washington DC

APA (1987) *Diagnostic and Statistical Manual*, Vol. III (Revised), American Psychiatric Association, Washington DC

Baggaley, M.R. and Rose, J. (1990) Post traumatic stress disorder. *British Journal of Psychiatry*, **156**, 910–911

Baum, A., Fleming, R. and Davidson, L.M. (1983) Natural disaster and technological catastrophe. *Environment and Behaviour*, **15**, 333–354

Beigel, A. and Berren, M.R. (1985) Human-induced disasters. *Psychiatric Annuals*, **15**, 143–150

Breslau, N., Davis, G.C. and Andreski, P. (1990) PTSD: risks for event exposure and syndrome, American Psychiatric Association, *New Research Program and Abstracts*, Abs NR 275, 151

British Library Medical Information Service (1991) Bibliography on treatment of psychological aspects of war 1986–1990. British Library Document Supply Centre, Boston Spa, West Yorkshire, UK

Burgess Watson, P. (1990) Post traumatic stress disorder. *British Journal of Psychiatry*, **156**, 1910–911

Burgess Watson, I.P., Hoffman, L. and Wilson, G.B. (1988) The neuropsychiatry of post-traumatic stress disorder. *British Journal of Psychiatry*, **152**, 164–173

Burstein, A. (1986) Treatment non-compliance in patients with post-traumatic stress disorder. *Psychosomatics*, **27**, 37–40.

Bustos, E. (1990) Dealing with the unbearable. In *Psychology and Torture* (ed. Suedfiedl, P.), Hemisphere, London

Cassidy, S. (1974) *Audacity to Believe*, Darton

Cassidy, S. (1988) *Sharing the Darkness*, Darton

Choy, T. and De Bosset, F. (1992) Post-traumatic stress disorder: an overview. *Canadian Journal of Psychiatry*, **37**, 578–583

Cook, J.D. and Bickman, L. (1990) Social support and psychological symptomatology following a natural disaster. Cited by Joseph, S., Yule, W., Williams, R. and Andrews, B. (1993) Crisis support in the aftermath of disaster: a longitudinal perspective. *British Journal of Clinical Psychology*, **32**, 177–185

Curran, P.S., Bell, P., Murray, A. *et al.* (1990) Psychological consequences of the Enniskillen bombing. *British Journal of Psychiatry*, **156**, 479–482

Daly, R.J. (1983) Samuel Pepys and post traumatic disorder. *British Journal of Psychiatry*, **143**, 64–68

Davidson, J. (1992) Drug therapy of post-traumatic stress disorder. *British Journal of Psychiatry*, **160**, 309–314

Davidson, J.R., Hughes, D., Blazer, D.G. and George, L.K. (1991) Post-traumatic stress disorder in the community: an epidemiological study. *Psychological Medicine*, **21**, 713–721

Davidson, J., Kudler, H. and Smith, R. (1990) Treatment of post-traumatic stress disorder with amitryptaline and placebo. *Archives of General Psychiatry*, **47**, 259–266

Davidson, J.R.T. and Smith, R.D. (1990) Traumatic experience in psychiatric outpatients. *Journal of Traumatic Stress*, **3**, 459–474

Deblinger, E., McLeer, S. and Henry, D. (1990) *Journal of the American Academy of Child and Adolscent Psychiatry*, **29**, 747–752

Donaldson, M.A. and Gardner, R. (1985) Diagnosis and treatment of traumatic stress among women after childhood incest. *Trauma and its Wake* (ed. Figley, C.R.), Brunner/Mazel, New York

Duckworth, D.H. (1991) Managing psychological trauma in the police service: from the Bradford Fire to the Hillsborough Crush. *Journal of Social and Occupational Medicine*, **41**, 171–173

Dyregrov, A. (1988) Critical incident stress debriefings. Unpublished manuscript. Research Center for Occupational Health and Safety, University of Bergen, Norway

Famularo, R., Kinscherff, R. and Fenton, T. (1990) Symptom differences in acute and chronic presentation of childhood post-traumatic stress disorder. *Child Abuse and Neglect*, **14**, 439–444

Famularo, R., Kinscherff, R. and Fenton, T. (1992) Psychiatric diagnoses of maltreated children: preliminary findings. *Journal of the American Academy of Child and Adolscent Psychiatry*, **31**, 863–867

Feinstein, A. and Dolan, R. (1991) Predictors of post-traumatic stress disorder following physical trauma: an examination of the stressor criterion. *Psychological Medicine*, **21**, 85–91

Fisher, S. and Reason, J. (1988) *Handbook of Life, Stress, Cognition and Health*, Wiley

Foa, E. (1992) Treatment of PTSD in civilian contexts. *British Journal of Clinical Psychology*, **31**, 505–506

Friedman, M.J. (1988) Toward rational pharmacotherapy for post-traumatic stress disorder: an interim report. *American Journal of Psychiatry*, **145**, 281–285

Garland, C. (1993) The lasting trauma of the concentration camps. *British Medical Journal*, **307**, 97–104

Gersons, B.P.R. and Carlier, V.E. (1992) Post-traumatic stress disorder: the history of the recent concept. *British Journal of Psychiatry*, **161**, 742–748

Graziano, R. (1992) Treating women incest survivors: a bridge between 'cumulative trauma' and 'post-traumatic stress'. *Social Work in Health Care*, **17**, 69–85

Green, B.L., Grace, M.C., Lindy, J.D. *et al.* (1990) Risk factors for PTSD and other diagnosis in a general sample of Vietnamese veterans. *American Journal of Psychiatry*, **146**, 729–733

Grossman, P. and DeSwart, J.C.G. (1984) Diagnosis of hyperventilation syndrome on the basis of reported complaints. *Journal of Psychosomatic Research*, **28**, 97–104

Helzer, J.E., Robins, L.N. and McEvoy, L. (1987) Post traumatic stress disorder in the general population. *New England Journal of Medicine*, **317**, 1630–1634

Hickling, E.J., Blanchard, E.B., Silverman, D.J. and Schwarz, S.P. (1992) Motor vehicle accidents, headaches and post-traumatic stress disorder: Assessment findings in a consecutive series. *Headache*, 147–151

Hinks, M. (1991) Post-traumatic stress: you'll never walk alone. *Nursing Times*, **87**, 34–35

Horowitz, M.J., Weiss, D.S. and Marmer, C. (1987) Diagnosis of post-traumatic stress disorder. *Journal of Nervous and Mental Disease*, **175**, 267–268

Horowitz, M.J., Wilner, N. and Alvarez, W. (1979) Impact of event scale: a measure of subjective stress. *Psychosomatic Medicine*, **41**, 209–218

Hough, A. (1991) *Physiotherapy in Respiratory Care – a Problem-Solving Approach*, Chapman and Hall, London

Iljon Foreman, E. (1991) Planning disaster response services: the role of a multi-agency steering group. *British Journal of Guidance and Counselling*, **19**, 23–30

Jacobsen, L. and Vesti, P. (1990) *Torture Survivors – A New Group of Patients*, Danish Nurses Organisation, Copenhagen

Joseph, S., Yule, W., Williams, R. and Andrews, B. (1993) Crisis support in the aftermath of disaster: a longitudinal perspective. *British Journal of Clinical Psychology*, **32**, 177–185

Kaplan, P.M. (1989) Post-traumatic stress syndrome and sexual dysfunction. *Journal of Sex and Marital Therapy*, **15**

Kaplan, Z., Singer, Y., Lichtenberg, M.D., Solomon, Z. and Bleich, A. (1992) Post-traumatic stress disorders in Israel during the Gulf War. *Israeli Journal of Psychiatry and Related Science*, **29**, 14–21

Kinchin, D. (1993) High risk PTSD candidates. *Counselling Psychology Review*, **8**, 24–26

Kinzie, J.D. (1989) Post-traumatic stress disorder. In *Comprehensive Textbook of Psychiatry*, 5th edn (eds Kaplan, H.I. and Sadock, B.J.), Williams and Wilkins, Baltimore

Kinzie, D.J., Boehnein, J.K. and Leung, P.K. (1990) The prevalence of post-traumatic stress disorder and its clinical significance among South East Asian refugees. *American Journal of Psychiatry*, **147**, 913–917

Kolb, L. (1989) Editorial in *Psychological Medicine*, **19**, 821–824

Levine, S. (1988) *Who Dies?* Gateway, Bath, UK

Lim, L.C.C. (1991) Delayed emergence of post-traumatic stress disorder. *Singapore Medical Journal*, **32**, 92–93

Lindemann, E. (1944) Symptomatology and management of acute grief. *American Journal of Psychiatry*, **101**, 141–148

Lindy, J.D., Green, B.L. and Grace, M. (1992) Somatic reenactment in the treatment of post-traumatic stress disorder. *Psychotherapy and Psychomatics*, **57**, 180–186

Loughrey, G.C., Bell, P., Kee, M., Roddy, R.J. and Curran, P.S. (1988) Post-traumatic stress disorder and civil violence in Northern Ireland. *British Journal of Psychiatry*, **153**, 554–560

Lovell, K. (1991) Post-traumatic stress management. *Nursing Standard*, **6**, 30–31

Lum, L.C. (1981) Hyperventilation and anxiety state. *Journal of the Royal Society of Medicine*, **74**, 1–4

McFarlane, A.C. (1988) Relationship between psychiatric impairment and a natural disaster: the role of distress. *Psychological Medicine*, **18**, 129–139

McFarlane, A.C. (1989) The treatment of post-traumatic stress disorder. *British Journal of Medical Psychology*, **62**, 81–90

McLeer, S.V., Deblinger, E., Atkins, M., Foa, E. and Ralphe, D. (1988) Post-traumatic stress disorder in sexually abused children: a prospective study. *Journal of the American Academy of Child and Adolescent Psychiatry*, **27**, 650–654

McMillan, M. (1991) Post-traumatic stress disorder and severe head injury. *British Journal of Psychiatry*, **159**, 431–433

March, J.S. (1990) The nosology of post-traumatic stress disorder. *Journal of Anxiety Disorders*, **4**, 61–82

Mejo, S.L. (1990) Post-traumatic stress disorder: an overview of three etiological variables, and psychopharmacologic treatment. *Nurse Practitioner*, **15**, 41–45

Miller, T.W., Kamenchenko, P. and Krasniasnki, A. (1992) Assessment of life stress events: the etiology and measurement of traumatic stress disorder. *International Journal of Social Psychiatry*, **38**, 215–227

Miller, T.W. (1989) *Stressful Life Events*, International Universities Press, Madison, Connecticut

Murray, R. and Huelskotter, M. (1987) *Psychiatric/Mental Health Nursing: Giving Emotional Support*, 2nd edn, Appleton and Lange, Norwalk, Connecticut

Niles, D.P. (1991) War trauma and post-traumatic stress disorder. *American Family Physician*, **44**, 1663–1669

North, D. and Smith, E.M. (1990) Post-traumatic stress disorder in disaster survivors. *Comprehensive Therapy*, **16**, 3–9

O'Brien, L.S. and Hughes, S.J. (1991) Symptoms of post-traumatic stress disorder in Falklands veterans five years after the conflict. *British Journal of Psychiatry*, **159**, 135–141

Parkes, C.M. (1972) *Bereavement: Studies of Grief in Adult Life*, Tavistock, London

Parkes, C.M. and Weiss, R. (1983) *Recovery from Bereavement*, Basic Books

Patterson, D.R., Carrigan, L., Kent, A., Questad, K.A. and Robinson, R.S. (1990) Post-traumatic

stress disorder in hospitalised patients with burn injuries. *Journal of Burn Care and Rehabilitation*, **11**, 181–184

Perry, S.W., Cella, D.F. and Falkenburg, J. (1987) Cited by Patterson, D.R., Carrigan, L., Kent, A., Questad, K.A. and Robinson, R.S. Post-traumatic stress disorder in hospitalised patients with burn injuries. *Journal of Burn Care and Rehabilitation*, **11**, 181–184

Petit, M. (1991) Nursing the mind: recognising post-traumatic stress. RN 56–58

Ramsay, R. (1990) Invited review: post-traumatic stress disorders; a new clinical entity? *Journal of Psychosomatic Research*, **34**, 355–365

Richards, D.A. and Rose, J.S. (1991) Exposure therapy for post-traumatic stress disorder. *British Journal of Psychiatry*, **158**, 836–840

Rose, J. and Richards, D. (1991) Post-traumatic stress: healing the mind. *Nursing Times*, **87**, 40–42

Roth, W.T. (1988) The role of medication in post-traumatic stress therapy. In *Post-Traumatic Therapy and Victims of Violence*, Brunner/Mazel, New York

Scurfield, R.M. (1985) Post-trauma stress assessment and treatment: overview and formulations. In *Trauma and its Wake* (ed. Figley, C.R.), Brunner/Mazel, New York

Skylv, G., Block, I., Hohne, L. *et al.* (1990) Muscle tension and articular dysfunction in torture victims. *Journal of Manual Medicine*, **5**, 158–161

Solomon, Z., Bleich, A., Koslowsky, M., Kron, S., Lerer, B and Waysman, M. (1991) Post-traumatic stress disorder: issues of co-morbidity. *Journal of Psychiatric Research*, **25**, 89–94

Solomon, Z. and Flum, H. (1988) Life events, combat stress reaction and post-traumatic stress disorder. *Social Science and Medicine*, **26**, 319–325

Solomon, Z., Mikulincer, M. and Flum, H. (1989) The implications of life events and social integration in the course of combat related post-traumatic stress disorder. *Social Psychiatry and Psychiatric Epidemiology*, **24**, 41–48

Solursh, L.P. (1989) Combat addiction: overview of implications in symptom maintenance and treatment planning. *Journal of Traumatic Stress*, **2**, 451–462

Spragg, G.S. (1992) Post-traumatic stress disorder. *Medical Journal of Australia*, **156**, 731–733

Sturgeon, D., Rosser, R. and Shoenberg, P. (1991) The King's Cross Fire. Part 2: the psychological injuries. *Burns*, **17**, 10–13

Task Force of the American Psychiatric Association (1989) *Treatments of Psychiatric Disorders*, Vol. 3, American Psychiatric Association, Washington DC

Terr, L.C. (1981). Psychic trauma in children: observations following the Chowchilla school-bus kidnapping. *American Journal of Psychiatry*, **138**, 14–19

Thompson, C. (1989) PTSD. *Psychiatry in Practice*, Summer, 17–21

Thompson, J. (1992) Stress theory and therapeutic practice. *Stress Medicine*, **8**, 147–150

Thompson, J. and Solomon, M. Police body recovery teams at disasters: trauma or challenge? *Anxiety Research* (in press)

Toomey, T.C., Hernandez, J.H., Gittelman, D.F. *et al.* (1993) Relationship of sexual and physical abuse to pain and psychological assessment variables in chronic pelvic pain patients. *Pain*, **53**, 105–109

Treishman, R.B. (1980) *Spinal Cord Injuries: Psychological, Social and Vocational Adjustment*. Pergamon Press, New York

Turchin, S.J., Holmes, V. and Wasserman, C.S. (1992) Do tricyclic antidepressants have a protective effect.in post-traumatic stress disorder? *New York State Journal of Medicine*, **92**, 400–402

Turner, S. and Gorst-Unsworth, C. (1990) Psychological sequelae of torture. *British Journal of Psychiatry*, **157**, 476–480

Turner, S.W., Thompson, J.A. and Rosser, R.A. (1989) The King's Cross fire: planning a phase two psychological response. *Disaster Management*, **1**, 31–37

Vaughan, K. and Tarrier, N. (1992) The use of image habituation training with post-traumatic stress disorders. *British Journal of Psychiatry*, **161**, 658–664

Watson, C., Kucala, J., Manifold, V. and Vasser, P. (1991) Childhood stress disorder behaviour in veterans who do not develop PTSD. *Journal of Nervous and Mental Diseases*, **177**, 92–95

Yule, W. (1992) Post-traumatic stress disorder in child survivors of shipping disasters: the sinking of the 'Jupiter'. *Psychotherapy and Psychosomatic Medicine*, **57**, 200–205

Yule, W. and Udwin, O. (1991) Screening childhood survivors for post-traumatic stress disorders: experiences from the 'Jupiter' sinking. *British Journal of Clinical Psychology*, **30**, 131–138