Preventing and Treating Trauma-Related Mental Health Problems

44

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- Many people will experience a potentially traumatic event (PTE) in their lifetime.
- Everyone reacts differently to potentially traumatic events and some may experience no distress at all while others experience a range of emotional, cognitive, behavioural, sleep-related or physical symptoms.
- While these symptoms improve on their own for the majority of people, a minority may require professional help.
- Professionals recommend that trauma-exposed individuals do 'active monitoring' of their symptoms for the first 4 weeks after the event, during which time they should engage in self-care and reach out to those close to them for support.
- Factors predicting whether someone might develop mental health problems after a PTE include lack of social support and poor coping strategies.
- Those still struggling to cope 4 weeks after the PTE may benefit from professional help such as cognitive behavioural therapy.

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Introduction

Potentially traumatic events, which are experiences that put an individual (or someone close to them) at risk of serious injury, death or sexual violence [1], are unpredictable by nature. Throughout their lives, many people experience such incidents such as road accidents, natural disasters, war or terrorist attacks and interpersonal violence such as sexual assault and prolonged abuse. Indeed in the UK, around one in three people report having been exposed to traumatic events [2]. However, specific occupational populations such as military personnel [3] and emergency services workers [4] are more likely to be exposed and thus are at particular risk of trauma-related mental health disorders. Rates of post-traumatic stress disorder (PTSD) within the English population are around 4.5% [2] although rates of PTSD amongst trauma-exposed populations are higher. For instance, approximately 7.5% of UK military veterans report symptoms consistent with PTSD and studies of ambulance workers suggest that over 20% may experience PTSD [5].

Experiencing a potentially traumatic event can be extremely distressing in the short-term and can lead to a range of longer-term health consequences, both physical and psychological. In fact, it has been suggested that after experiencing a major traumatic event such as a disaster, the psychological injuries actually outnumber the physical injuries [6]. It is important to note that

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not everyone will react in the same way—while many people will be distressed, some will be unaffected, and only a minority will go on to develop mental health problems [7]. For those who do suffer long-term psychological effects, the impact can be wide-reaching, affecting their relationships with others, physical health, personal and professional lives and the lives of people close to them. It is therefore imperative to establish best practice for the prevention, early detection and treatment of trauma-related mental health disorders.

This chapter aims to provide information about the potential psychological impact of a traumatic incident and the prevention and treatment of trauma-related mental health disorders.

Immediate and Short-Term Responses to Potentially Traumatic Events

No two potentially traumatic incidents are exactly the same, and no two people will react to a trauma in exactly the same way, either. There is not one specific reaction to a traumatic incident which could be considered 'the norm'—rather, a wide range of different responses are all considered normal. It is also normal for people to show a variety of different reactions at different times; there is no usual flow, or pattern, to symptoms. This is why such events are referred to as *potentially* traumatic—because not everyone will be traumatised by their experience. What one person thinks is traumatic may not be to someone else and vice versa. Indeed, some people become more resilient after exposure to a traumatic event; this has been termed post-traumatic growth [8].

It is natural to feel fear during a traumatic event itself. When faced with a potentially traumatic event, we are evolutionally programmed to either fight or to run away; Cannon [9] coined the phrase 'fight or flight' to describe this response. When experiencing such an incident, the body creates the 'fight or flight' response which includes the secretion of many substances, including adrenaline, which prepare the body for an emergency—either to defend it against danger or to run away from it. This response includes physical symptoms such as muscle tension, sweating and increased heart rate. More recent research has considered an additional 'freeze' response, where the body 'freezes up' and is unable to either fight or run away [10].

Over the days and weeks following the event, people may experience other physical responses such as changes in appetite, fatigue, aches and pains, being easily startled, and difficulties sleeping or sleeping too much. In addition to these physical symptoms, it is common for people to experience immediate psychological reactions. While some people may experience no symptoms whatsoever after experiencing a potentially traumatic event, many will experience some level of distress symptoms in the short term. There are a wide range of potential psychological responses; these include shock, numbness, confusion, disorientation, feelings of helplessness, anger, guilt, shame, fear, anxiety, sadness and grief, intrusive thoughts, inability to concentrate, irritability and difficulty making decisions. People who have existing mental health problems may also find their usual symptoms exacerbated by the event. Experiencing any, all, or none of these symptoms in the immediate aftermath is normal in the short term. They are simply the mind's way of trying to process, make sense of and come to terms with such an extreme, unfamiliar and often unexpected event.

Key Points

Common stress reactions include *emotional; cognitive*; *behavioural*; *sleep-related*; and *physical.* These reactions can be further categorised into intrusive reactions, avoidant reactions, and physical arousal reactions.

It is entirely normal to experience such symptoms of distress after a traumatic incident. More often than not, these do not lead to serious long-term psychological consequences and improve on their own over the days and weeks following the incident.

Common stress reactions include *emotional* (such as fear, worrying, feeling depressed, feeling helpless, denial, hopelessness, anxiety, and guilt); *cognitive* (such as confusion, poor atten-

tion, flashbacks, preoccupation with the event, intrusive thoughts, feeling on-edge, being vigilant, and memory problems); *behavioural* (such as anger, emotional outbursts, irritability, withdrawal, isolation, and antisocial acts); *sleep-related* (such as insomnia, nightmares, waking frequently during the night, and poor quality sleep); and *physical* (such as fatigue, nausea, dizziness, indigestion, chest tightness, dry mouth, chills, sweating, trembling, difficulty breathing, and racing heart).

These reactions can be further categorised into intrusive reactions, avoidant reactions, and physical arousal reactions. *Intrusive reactions*—that is, continuing unwelcome and unavoidable thoughts of the event—include disturbing or upsetting thoughts, images or dreams of the traumatic incident; continuing to experience physical or emotional reactions to reminders of the event; and flashbacks or feelings of re-experiencing the event all over again. *Avoidant reactions* include wanting to avoid all reminders of the incident (such as talking or thinking about the event, specific people or places, and media coverage); feelings of numbness; feelings of detachment from other people. *Physical arousal reactions* may also occur, including feeling jumpy or 'on edge'; being easily startled (for example by loud noises), feeling irritable or angry, difficulties sleeping and difficulties concentrating. More recent classifications of trauma symptoms have also described *negative alterations in cognition and mood* which include feelings of guilt or shame, persistent and distorted perceptions of themselves, others or the world and becoming socially withdrawn; and loss of interest in usual activities.

It is entirely normal to experience such symptoms of distress after a traumatic incident. More often than not, these do not lead to serious long-term psychological consequences and improve on their own over the days and weeks following the incident without any need for professional help [11]. It is important to differentiate between *distress,* a 'normal' and common response to an abnormal situation, or a *disorder*—a clinically significant behavioural or psychological syndrome which occurs less commonly. There are fundamental differences between the two and merely suffering feelings of sadness or worry as a natural response to a stressful situation is not a mental disorder [12]. In the following section, the best ways to support people experiencing distress after a potentially traumatic event are outlined to prevent (as much as is possible) that distress becoming a disorder.

Post-Incident Care: What Should Be Done in the Immediate Aftermath of a Potentially Traumatic Event to Prevent Mental Health Disorders Developing?

There is, unfortunately, some controversy concerning the best ways to support those exposed to potentially traumatic events, particularly in the days and weeks immediately following the incident.

As far back as World War I, the term debriefing was used to refer to a meeting of military personnel and their commanders after potentially traumatic incidents (such as major battles) when they would talk through the episode. In the late twentieth century, psychological debriefing, sometimes referred to as critical incident stress debriefing, was suggested as a useful way to alleviate acute stress responses and reduce the risk of delayed stress reactions [13]. This type of debriefing generally involves a trained counsellor, or another mental health professional, speaking to those affected, either individually or as a group, to discuss their feelings towards what they have just experienced. This was with the aim of allowing them to process the event and reflect on its impact and provide psychoeducation about traumatic stress responses.

Key Points

It was also believed that a one-off session with a counsellor/mental health professional—discussing the experience, personal reactions and emotions, symptoms experienced since the event, and seeking reassurance about symptoms and education about what might be expected—would be helpful in processing the event. The idea behind this was to promote emotional processing of the

event and the venting of emotions, intending to reduce distress and prevent long-term mental health problems (like post-traumatic stress disorder) from setting in. However, despite the laudable aims of preventing the development of post-traumatic stress and similar disorders, there is little evidence to suggest this approach is effective. In fact, the majority of high-quality research in this area indicates that debriefing is ineffective at best and harmful at worst [14–16].

A systematic review of early interventions for post-traumatic stress disorder [17] found that not only did debriefing not prevent the disorder, but it actually increased the likelihood of such symptoms as a result of interfering with the natural recovery process. One particular study demonstrating the potentially detrimental effects of debriefing [18] involved randomly assigning burn victims to either a debriefing session or a no-treatment, assessment-only condition. At initial assessment, there were no significant differences between the two groups in terms of depression, anxiety or post-traumatic stress. After 3 months, the debriefed group had non-significantly higher levels of post-traumatic stress disorder than the assessment-only group, and after 13 months, the debriefed group had *significantly* higher levels of post-traumatic stress disorder. Similar findings were found in a study of road traffic accident victims [19], with debriefed participants reporting significantly more symptoms of post-traumatic stress disorder in the long term.

As a result of the lack of evidence for debriefing being helpful, and the increasing amount of evidence suggesting it is ineffective and can even be harmful, the publication of National Institute for Health and Care Excellence (NICE) guidelines in 2018 [20] emphasised that this kind of psychological debriefing, or immediate trauma counselling where initial symptoms are not severe, is unhelpful and not recommended. It is worthwhile noting that where evidence in support of a particular intervention is lacking, NICE ordinarily do not provide any recommendation on the intervention at all. As such, NICE's recommendation that psychological debriefing should not be used is a testament to NICE's view that it has the potential to cause harm. Explicitly, the guidelines state: "**Do not offer psychologically-focused debriefing for the prevention or treatment of PTSD…** Evidence on psychologically-focused debriefing, either individually or in groups, showed no benefit for children or adults, and some suggestion of worse outcomes than having no treatment."

So, if psychologically-focused debriefing cannot be provided, what *can* be done in the immediate aftermath of a potentially traumatic event? A variety of other psychosocial interventions have been explored, with limited evidence [17]. For example, memory-structuring interventions which help people who have experienced trauma to organise their memories of the traumatic event have yielded inconsistent results in terms of preventing post-traumatic stress disorder [21]. Self-help psychoeducation—that is, providing people who have experienced potentially traumatic events with self-help booklets describing likely responses and suggesting coping strategies—also have not been found to be particularly helpful [22]. Rather than any type of immediate mental health-focused intervention, the evidence suggests that offers of practical support, a temporary reduction in exposure to stress and remaining vigilant for how someone is coping appears to be the best approach unless initial symptoms are very severe and impairing.

Key Points

The National Institute for Health and Care Excellence 2018 guidelines for the management of post-traumatic stress disorder recommend a period of 'active monitoring' for the first 4 weeks after the trauma if symptoms are mild [23]. To put it simply, this means that trauma-exposed people (and/or those close to them) just need to monitor their symptoms.

The majority of people will recover on their own within this period, without requiring any formal intervention. This active monitoring period was previously referred to as 'watchful waiting' in earlier versions of the guidelines but is changed to active monitoring in the 2018 guidelines. This change is in order to be more explicit that individuals should not be passive about their symp-

toms, but should actively keep an eye on them. Healthcare professionals, in some cases, can perform active monitoring. However, more realistically family, friends, colleagues and line managers are often better placed to actively monitor as well as ensuring that appropriate support is offered. Some routinely trauma-exposed organisations, such as the media or emergency services, have implemented trauma risk management (TRiM) as a method of actively monitoring trauma-exposed staff members. TRiM is a peer support system which was developed in the UK military and has been widely researched since [24]. While TRiM is certainly not a panacea for trauma, there is good evidence that it is well accepted and improves social support and help-seeking [25] as well as being associated with a decrease in trauma-related sickness absence [26].

Consequently, if no professional treatment or intervention is recommended during the immediate aftermath of a potentially traumatic event, it falls to the individual and those close to them to manage their wellbeing while they come to terms with their experience. It can be challenging to cope with the experience of a traumatic event and adapt to life afterwards. Still, there are many simple things that trauma-affected people and their loved ones can do [27].

Recommendations for Self-Care

- It is recommended that people exposed to traumatic incidents stick to their regular, pre-incident routines as much as possible (where appropriate); stability is important, and people should get 'back to normal' as soon as they can.
- People should make particularly sure that they engage in activities which have previously made them feel good and which distract them from overthinking about the event. These activities will naturally differ from person to person but may include playing sports, reading, writing, doing arts and crafts, doing puzzles or participating in social activities with friends or family.
- Relaxation techniques may help calm the mind and lessen feelings of distress or anxiety—for example, yoga, meditation, deep breathing exercises, massage or calming self-talk. Relaxation techniques have been cited as being helpful by people involved in providing disaster mental health services [28].
- It is vital that people pay attention to their physical needs—they should ensure they get adequate rest (even if they may be struggling to sleep), sufficient healthy food (even though their appetite may be diminished) and fluid.
- Since feelings of helplessness are common in the aftermath of a potentially traumatic event, it helps if people focus on practical things they can do that may give them a sense of purpose or accomplishment.
- Exercise can be extremely beneficial; there is a wealth of literature on the benefits of physical activity for our mental health and general wellbeing [29], and a growing body of research on the positive effects of exercise for symptoms of distress after a trauma [30].
- Expressing feelings is often important. While some people may not feel ready or able to talk to other people, expressing emotions does not need to involve another person. It can be helpful just to write things down on paper whenever they feel the need to, keep a journal, or express themselves in other ways such as through art [31].
- Spending time with people they trust and seeking social support are particularly important and will be discussed more detail in the next section.
- It must also be noted that while participating in hobbies and interests, exercising, and taking part in activities which distract them are useful ways of taking one's mind off the potentially traumatic event and helping people to cope, individuals should not rely on distracting themselves to the point of altogether avoiding thinking or talking about the traumatic event they have experienced. Extreme avoidance can be just as harmful as focusing too much on the event—a balance is needed.

Social Support

Key Points

A good level of social support is one of the key factors increasing the chances of a positive outcome after a potentially traumatic event; that is, social support promotes resilience and positive adaptation despite adversity [32]. Social support can come from many different sources—it may be from friends, partners, family members, colleagues, or other people who experienced the same incident and may be dealing with similar feelings.

Reaching out to whoever people feel comfortable talking to can help individuals to gain clarity about the situation, and indeed merely sharing can lessen the psychological 'load'; the old adage of *a problem shared is a problem halved* holds true. However, some people may prefer to talk to someone they are less close to in order to have a more neutral space for talking—a colleague, religious leader, teacher, manager, or support group. Talking to other people who experienced the same event can be extremely helpful in terms of reflecting on the experience, gaining clarity and coming to terms with it. Indeed, evidence from military studies shows that military personnel favour speaking with colleagues who have had similar experiences and doing so is associated with better mental health [33]. It is important to note that people sharing their feelings with others who experienced the same incident should not compare their emotions, reactions or coping methods—because, as discussed, everyone reacts in different ways. Neither party should leave that interaction feeling that their response is 'abnormal' or that they are not coping as well as the other person.

People should make sure that the person they talk to is supportive, non-judgmental, and understanding. It is normal to feel anxious about talking to someone about feelings, so choosing a person they feel comfortable and calm with is essential. Before reaching out to someone—whoever that someone may be—it may be helpful for people to plan ahead of time what areas and aspects they want to discuss. This may even involve making some notes before any conversation begins. This can reduce feelings of anxiety about saying the wrong thing or not knowing what to say.

Recommendations for Trauma-Exposed People: Reaching Out

- The individual should not be afraid to tell others what kind of support they think they need, or how they think the other person can help. It may be that they want empathy, input, suggestions of how to cope, someone to simply listen while they talk about their experience or even just company in a comfortable environment. Also having typical, everyday conversations—not related to the event—with someone can be helpful.
- People must not feel pressured to talk about painful memories or feelings before they feel ready, or even to talk about details of the event itself if they do not feel comfortable to at first. Some people may be prepared to talk about it straight away, while others may feel unable to for some time. Again, everybody reacts to potentially traumatic events in different ways, and so naturally, their needs in the immediate aftermath are different.
- If someone *does* want to express their thoughts or feelings, they should do so; bottling them up is not helpful.
- If someone does not want to (or feel able to) discuss the event with their friends or family, they may find it useful to join a support group. Local community groups on social media and noticeboards in the local area are excellent ways of finding out about such groups; also, GPs can recommend any local groups that may be appropriate. 'Informal support groups' can also be created by those who experienced the same potentially traumatic event together, arranging to spend time with each other. However, it is not clear if these are always helpful. NICE recommends that such groups are facilitated or supervised to help ensure that they are of benefit to attendees' mental health.

Recommendations for Those Close to Trauma-Exposed People: How to Communicate

Key Points

The people who trauma-exposed individuals turn to are most often not trained mental health professionals. However, in most cases they do not need to be: anyone can help simply by listening, understanding and supporting. There are several things they can do, such as acknowledging the experience that the other person has been through; asking how they are and how they have been doing since the incident, maintaining an air of calm interest and engagement. It may seem like common sense, but simply showing interest in the person and their wellbeing can help, as it lets the trauma-exposed person see that they are valued.

The person they turn to should be careful to focus on the trauma survivor's own interpretation of their experience and should communicate calmly and efficiently, using neutral language to avoid creating extra anxiety or fear. They should engage in *active listening*, which involves fully concentrating on, understanding and responding to what is being said. The listener is active in trying to grasp the feelings of the person they are listening to and helping them to work out their problems, rather than passively listening [34]. This is key to building rapport, understanding and trust. Tips for active listening include subtle encouragement to show they are listening to the other person while keeping 'encouragers' (subtle actions or expressions which encourage the speaker to continue) at a minimum. Asking open-ended and non-leading questions, reflecting on what the other person has just said and maintaining good posture and eye contact are useful techniques. These can be enhanced by using effective pauses without needing to 'fill the gaps', and summarising or paraphrasing what the other person says to establish that they have understood. Drawing on their own, relevant experiences and talking about how they coped with those may be helpful, but they should be careful to avoid implying that they or other people have had it worse. The active listener should be mindful not to force the person to talk about things they may not be ready to discuss, not to try and alter their perceptions of the event, and not to re-traumatise the person. It is also important not to make any mention of feelings of shame or guilt unless the individual brings those up first. They should avoid exclamations of surprise, and avoid suggesting that it is weak or shameful to need help. They should also avoid 'why' questions, as these can make people defensive, as well as leading questions, digging for unnecessary information, preaching, interrupting, and patronising. Key advice would be to reassure the person that their feelings are normal and valid. However, if red flags come up, such as thoughts of self-harm, the individual should be helped to speak with an appropriately qualified professional.

Ongoing Psychological Issues

While the psychological symptoms of distress immediately following a traumatic experience tend to go away on their own with time (usually within 4 weeks) [35], in some cases, symptoms may worsen, and turn from 'distress' into 'disorder'. A minority of people will go on to develop mental health problems such as post-traumatic stress disorder, depression, anxiety, phobias or alcohol issues, which can significantly impair their functioning.

Post-Traumatic Stress Disorder

Key Points

While there are several mental health problems which can arise after experiencing a potentially traumatic event, by far the most commonly researched and believed to be the most central to post-event psychopathology is post-traumatic stress disorder, or PTSD [36, 37].

A diagnosis of PTSD is dependent on (i) being exposed to a traumatic event and (ii) suffering from distressing symptoms post-event [38]. Someone experiencing significant psychological

distress after having experienced a *non*-traumatic stressor would instead likely be diagnosed with an adjustment disorder. This raises the question of what constitutes a 'traumatic event', and there remains some controversy in this area35. The Diagnostic and Statistical Manual of Mental Disorders-IV [39] stated that a traumatic incident had to include a response of helplessness, horror or fear. However, this failed to take into account individuals who certainly experienced potentially traumatic events but responded in an entirely rational way (for example, many people whose job roles include being regularly exposed to potentially traumatic events) [40]. This was inappropriate as it confused an individual's subjective response with the objective experience of exposure to a potentially traumatic event [41]. Therefore, the updated diagnostic criteria in 2013 removed the requirement for a response of helplessness, horror or fear.

The current diagnostic category for PTSD as described in the Diagnostic and Statistical Manual of Mental Disorders-5 [1] lists eight criteria which must be met for a diagnosis of PTSD to be made.

1. *Exposure to a traumatic event*—that is, an event which included exposure to death, the threat of death, serious injury, threat of serious injury, sexual violence, or threat of sexual violence. Exposure includes the direct experience of the event, direct witnessing of the event, learning that a close other has been exposed to actual or threatened trauma and repeated or extreme indirect exposure, usually in the course of professional duties.
2. *Persistent re-experiencing of the event*—this may be through involuntary thoughts, images, dreams, hallucinations or flashbacks.
3. *Avoidance of stimuli associated with the trauma*—this may involve avoidance of thoughts or feelings related to the event, avoidance of discussions of the event, avoidance of media coverage of the event, or avoidance of any places, people or other stimuli which trigger the person to recall the incident.
4. *At least two symptoms of negative alterations in cognition and mood*—any two of the following: inability to remember a particular (important) aspect of the event; persistent negative beliefs about the self, others or the world; persistent distorted cognitions about the cause or consequences of the event, leading to blame of the self or others; persistent negative emotions; loss of interest in usual activities; feelings of detachment from other people; and inability to experience positive emotions.
5. *At least two symptoms of negative alterations in arousal and reactivity*—any two of the following: irritable and angry outbursts; reckless or self-destructive behaviour; hyper-vigilance; exaggerated startle response; difficulties concentrating; disturbed sleep.
6. The above symptoms *persist for at least 1 month*.
7. The above symptoms *cause significant distress or impairment in function.*
8. The above symptoms *cannot be attributed to either another medical condition or the physiological effects of a substance.*

Understanding Factors Contributing to Psychological Distress and Disorder

Understanding the risk factors for post-traumatic mental health problems is essential, as this allows us to identify who is most vulnerable. We might, over-simplistically, simply expect that the higher the level of exposure to the potentially traumatic event, the more likely an individual is to experience long-term psychological problems. Unsurprisingly, people with a high level of exposure to the event (those who are closest to the incident and for more extended periods, or who are involved in the immediate rescue and care of victims and survivors, or witness severe injury or death) tend to suffer more psychological consequences than those who are further away from the incident or caught up in it for less time, or who do not witness such atrocities [42]. However,

there are many other factors at play; we cannot automatically assume that those with high exposure will suffer psychological consequences, or that those with low exposure will not suffer. For example, while there has been a wealth of research on occupational groups at high risk of experiencing traumatic events, there are often strikingly low levels of mental health problems in such people. One study of police who dealt with the aftermath of the Madrid bombings found that only 1.2% of their participants were affected by post-traumatic stress after 5 weeks [40]. Other studies have reported much higher rates of mental health problems in similarly-affected employees [37]. So, it is clear that there are factors other than traumatic exposure itself which affect how people react to potentially traumatic events and whether or not they will develop psychological problems as a result.

Several comprehensive meta-analyses and systematic literature reviews have explored the risk factors for developing mental health disorders after experiencing a traumatic event. They have all noted that social and psychological factors are more significant predictors of mental health outcomes than demographic factors such as gender, age, race or education level [42–47].

Pre-Traumatic Event Predictors of Mental Health Outcomes

Key Points

There are several pre-event predictors of post-event mental health. A meta-analysis [47] identified prior trauma, prior psychological adjustment, and family history of psychopathology as risk factors for developing PTSD.

Previous experience of a traumatic event, even if it happened a long time ago, is associated with a higher risk of developing mental health problems. The more recent and relevant the experience, however, the more likely it is to matter, particularly if they have begun thinking about it again following the current trauma.

Stressful pre-disaster life events (such as divorce, bereavement, illness, work overload and any significant problems at home, work or with health) and prior mental health problems, in addition to family psychiatric history, are also predictive of mental health problems [46, 48]. It has been reported that the risk of experiencing mental health problems post-trauma increases with an increasing number of significantly stressful prior life events [49]. Childhood abuse is a particularly significant risk factor for mental health problems following exposure to a potentially traumatic event [46].

Peri-Traumatic Predictors of Mental Health

Key Points

An individual's experience and emotional responses during the potentially traumatic event can have a significant impact on the mental health symptoms they experience in the aftermath [47]. Feelings of risk or threat—in particular, thinking that one was going to die during the event—appear to be particularly important [42–44, 47].

Evidence suggests this is even more predictive of mental health problems post-incident than actual injuries experienced [50]. The longer the duration of time that the individual feels at risk, the worse their mental health outcomes are likely to be [51]. The critical factor here is about a significant threat to personal safety—whether the person felt unsafe, that their life was in danger, or that they *believed* they faced serious injury or death (even if they were not in fact at risk of either of these). Unsurprisingly, actual injury to the self or injury or death of close others is also predictive of poor mental health [42]. A study of fire-fighters [52] found an increase in PTSD risk with each additional death of a colleague experienced after the World Trade Center disaster in New York.

Also important are emotional reactions during the event. For example, studies of disaster workers have suggested that high levels of identification with the victims or imagining one's self or loved ones being victims are associated with poor post-disaster wellbeing [53, 54]. Peri-traumatic dissociation is also well-documented as predicting post-event mental health [42, 47, 55].

Social Support

Key Points

One of the key predictors of post-incident mental health is the quality of social support available during the recovery period [32, 42–45, 47].

A plethora of studies of military personnel have shown that unit cohesion, support from immediate managers and positive relationships with colleagues are associated with resilience. In contrast, poor support and poor cohesion are associated with mental health problems. Research on trauma-exposed organisations has shown that social support from colleagues and particularly managers is important for fostering resilience [42]. For this reason, the United Kingdom Psychological Trauma Society's guidelines for trauma-exposed organisations (2014) emphasises the importance of peer support and preparing those in managerial positions for supporting their staff.

Post-Event Coping Strategies

Coping strategies can generally be categorised as either positive or negative [56]. Negative coping strategies are ineffective, perpetuating stress rather than reducing it, and include deliberate avoidance of traumatic thoughts, denial of the experience, and self-destructive behaviours such as misuse of alcohol or drugs. These strategies appear to be associated with poorer mental health [42]. Positive coping strategies are effective in reducing feelings of stress, and include proactive coping, confrontive coping (such as planning, strategising or developing strategies to "beat" the problem), and planned problem-solving. Typically, positive coping strategies involve awareness of the situation; working towards a resolution of the problem; modifying behaviours to resolve the problem; and ultimately moving on with life [56]. These strategies tend to be associated with more positive mental health outcomes [42].

Often, people find themselves wanting to cope with their feelings by using alcohol, cigarettes, and/or prescription or recreational drugs. These can seem like an easy, quick way of escaping bad feelings and experiencing relief from stress. However, they are unhelpful long-term and can increase the chance of longer-term problems later by adversely affecting physical health, disrupting sleep patterns, negatively impacting relationships with others and potentially leading to addiction.

Post-Event Impact on Life

Key Points

If an individual experiences personal or professional loss as a result of the potentially traumatic event they appear to be at higher risk of mental health problems [42–44]. The more far-reaching the impact of the event on someone's life, the more likely they appear to suffer mental health problems. The impact may include property loss, job loss, financial problems, or insurance problems.

Multiple Exposures

It is also worth noting that exposure to multiple potentially traumatic events is another risk factor for mental health problems. Experiencing a singular traumatic event is known as Type I Trauma, while chronic exposure to multiple traumatic events over time is known as Type II Trauma [57]. Type II Trauma is often experienced by individuals working in occupations particularly at risk for trauma, such as emergency services and military personnel, humanitarian relief workers, healthcare professionals and journalists reporting from conflict zones or disaster scenes, as well as those frequently exposed to trauma vicariously such as therapists, child protection officers and social workers [58]. The chronic exposure experienced by those suffering from Type II Trauma can also lead to complex PTSD (C-PTSD) [38].

Early Detection of Trauma-Related Mental Health Disorders

Educating people about the symptoms of mental health problems (such as PTSD) is of utmost importance—if individuals cannot recognise symptoms in themselves or those close to them,

then they will not recognise if they (or close others) need professional help.

Unfortunately, many people who might benefit from professional help after a traumatic event avoid seeking help even if they do acknowledge their symptoms, for a variety of reasons. Perhaps they are unaware of where to go for help, feel ashamed about admitting they are struggling, or hope the problem will go away on its own. Indeed, there is still a substantial amount of stigma surrounding mental health problems [59].

For this reason, in the cases of major incidents or disasters, a 'screen and treat' approach could be helpful, ensuring that everyone affected by the event is screened for potential mental health problems. The 2018 National Institute for Health and Care Excellence guidelines [20] recommend that the people responsible for coordinating disaster plans should screen all affected individuals.

After acts of terrorism in Tunisia, Paris and Brussels in 2015–2016, the English Department of Health funded an outreach programme to identify and support all residents of England who had been affected by any of these three incidents. Mental health questionnaires were mailed to all people known to be affected [60]. An overwhelming majority of those who responded (91.8%, $n = 195$) screened positive, according to the questionnaire scores, for at least one of PTSD, anxiety, depression, increased smoking or problematic drinking of alcohol. The screen and treat programme allowed for these people to be offered clinical assessment and, where necessary, subsequent referral for appropriate professional treatment. So it seems from this study that screen and treat programmes are beneficial in community settings. Still, it should be noted that only a small percentage of those affected by the incidents responded to the questionnaires, and issues relating to data protection limited the ability to identify and communicate with other people who may have benefitted from the screening. Similar problems arose from the UK's first use of the screen and treat approach, following the July 7th 2005 bombings in London. Agencies were reluctant to share the contact details of those affected with the screening team, and as a result, only a small percentage of those affected were screened [61]. However, community-based screen and treat programmes appear to be broadly successful for those who do take part, and more explicit policies around data sharing after major traumatic incidents may help.

It is important to note, however, that while there is reasonable evidence of community-based screen and treat programmes being effective, the same is not valid for post-incident, or post-deployment, screening programmes within organisational settings. Studies carried out in US troops suggest that military personnel identified as having a mental health problem through being screened after deployment did not experience any benefit. Indeed, a 2007 paper showed that US personnel who were screened, advised to obtain professional care and did so had poorer longer-term mental health than those who were encouraged to seek professional care, but who ignored the advice [62]. A randomised controlled study of post-deployment screening carried out in around 9000 UK military personnel, published in 2017, found screening had no impact on mental health status or help-seeking behaviour over a year after the screening was carried out [63]. It is likely that stigma as well as concerns about confidentiality, reputation and career impact, as well as fluctuating post-deployment mental health symptoms, all act to make psychological health screening within organisations ineffective.

Of course, some potentially traumatic events affect only a small number of people, or even only one person, and in such cases community screen and treat programmes would clearly not be used. In these cases, it is the people closest to the trauma-affected individual who are best placed to notice if the individual is in distress. It can be useful to compare their behaviour to their usual behaviour; are they acting differently, no longer taking part in their usual hobbies or activities, or withdrawing themselves from their usual social activities? Those especially close to the person may well notice changes in sleep and appetite, too. If they do feel that their loved one needs professional help, they should be supportive of this, and reassure the person that needing help does not imply instability or weakness.

In cases where individuals have experienced chronic exposure to trauma as a result of their occupational roles, or who by chance have experienced a 'one-off' traumatic event in the workplace, it may be their colleagues and/or manager who is best-placed to notice any problems and provide support [59]. It would, therefore, be helpful for any manager who finds themselves in the position of needing to support trauma-exposed staff to familiarise themselves with appropriate guidelines for treating traumatic stress [20, 64] and ensure that they can appropriately support staff who need it.

Treatment of Trauma-Related Mental Health Disorders

Key Points

If, after the 'active monitoring' period of 4 weeks, symptoms are persisting, formal mental health assessment and intervention may be needed. It may also be that specific therapy is indicated if someone presents with very severe and impairing symptoms before 4 weeks, although the evidence as to what works is less robust for treatments delivered during this period.

If, after active monitoring, someone is still struggling to cope with intense thoughts, feelings or physical reactions surrounding the incident; is feeling numb and detached; if their personal or professional life is suffering; if they are smoking or drinking to excess, or using drugs; if they have self-injurious thoughts or behaviours; if they have found themselves engaging in violent, aggressive or destructive behaviour; if they feel unable to enjoy life; or if they have vague signs of physical illness that cannot be explained and were not present before the trauma they should be assessed by a suitably trained professional. In these cases, it is recommended that people contact their GP or local mental health service. If they are suffering from a mental health disorder such as PTSD, it is essential they are treated by a professional mental health provider.

According to the NICE guidelines (2018), GPs should take responsibility for the initial assessment (including risk assessment and assessment of physical, psychological and social needs) and coordination of care. The guidelines recommend providing advice to patients (and their families and carers where appropriate) about common reactions to traumatic events, including the symptoms of PTSD and its course; assessment, treatment and support options; and where their care will take place. Treatment from specialists is likely to be required, and the guidelines suggest that GPs should support the transition to different services by providing the patient information about the service they are moving to and ensuring information is shared between all services involved. They should also include the patient and their carers or family if appropriate in meetings to plan the transition and address any specific worries the patient has about the transition.

Whilst there is mixed evidence for what kind of treatment is best for any one person, NICE guidelines helpfully clarify that evidence-based, trauma-focused therapies are the mainstay of any treatment approach, though different types of trauma may require different interventions. For example, one potential intervention (eye movement desensitisation and reprocessing) has been shown to be successful in some cases [65]. This intervention involves patients recalling an image representing the traumatic incident, along with the negative cognitive and bodily symptoms that come with that image, and following alternating eye movements while they do this, as a way of dampening the power of those emotionally charged memories and images. Although this has been shown to be successful for many types of trauma, NICE guidelines (2018) do not recommend it for use in people with war trauma. For people with non-combat-related trauma, when eye movement desensitisation and reprocessing is recommended, it must be based on a validated manual (i.e. be delivered in accordance with a previously agreed, evidence based and accepted structure) and be provided over 8–12 sessions (or more if required). It must also be delivered by trained practitioners with ongoing supervision, be

delivered in a phased way and include psychoeducation about trauma responses, managing distressing symptoms, treating stressful memories and promoting alternative positive beliefs about the self. Each treatment session must repeat the eye movement stimulation until memories are no longer distressing and include the teaching of self-calming techniques for use between sessions.

Peer support groups can also be useful. The NICE guidelines (2018) recommend helping patients to access peer support groups if they want to, noting that these groups should always be led by people with mental health training. These sessions should be delivered in such a way that reduces the likelihood of exacerbating symptoms and provide useful information and help with accessing services.

Key Points

The most robust consistent evidence for the treatment of PTSD is for trauma-focused cognitive behavioural therapy [66, 67]. This may include exposure to the trauma in a safe way, such as by imagining or writing about the event to cope with feelings. It can also involve cognitive restructuring, which consists of the therapist helping the patient to look at the event in a more realistic way and reduce their feelings of guilt or shame.

Generally, 'talking therapies' which enable people to address their feelings about the event and improve their coping strategies, are recommended. NICE guidelines (2018) recommend four types of trauma-focused cognitive behavioural intervention: cognitive processing therapy, cognitive therapy for PTSD, narrative exposure therapy and prolonged exposure therapy. They note that all interventions should be based on a validated manual, be provided over 8–12 sessions (or more if required), be delivered by trained cognitive behavioural therapy practitioners with ongoing supervision from peers and include psychoeducation about trauma reactions, strategies for managing re-experiencing, and safety planning. They should also involve elaboration and processing of memories of the traumatic event, involve processing emotions related to the traumatic event (including shame and anger), involve re-structuring trauma-related meanings and help overcome avoidance of feelings. They should aim to re-establish normal functioning, prepare the patient for the end of treatment and include planning booster sessions if appropriate. Cognitive behavioural therapy can also be delivered online if the patient is deemed as not at risk of harm to themselves or others. Again, this type of intervention needs to be based on a validated programme and include guidance from a trained practitioner.

Medications are not usually the first line of treatment but can at times help lessen symptoms, particularly if coupled with therapy. The NICE guidelines (2018) suggest that medication should be a second-line strategy for people who do not want, or are not currently suitable for, talking therapies. There is some evidence that antidepressants such as paroxetine, sertraline and venlafaxine can help manage PTSD symptoms. The guidelines also recommend that specialists can consider the use of antipsychotics such as risperidone if the patient has disabling symptoms and behaviours, such as psychotic symptoms. Any pharmacological treatment should be reviewed regularly. Initial research on the effectiveness of pharmacological treatments for PTSD focused on benzodiazepines which were found to be ineffective and, at worst, could potentially lead to higher rates of PTSD [68]. Therefore, benzodiazepines are not recommended for use in the NICE guidelines (2018).

Often a combination of talking therapy and medication such as anti-depressants can be successful in treating mental health problems. It must be noted that talking therapies such as cognitive behavioural therapy are often delivered months after the trauma and are therefore significantly different from critical incident stress debriefing. Ideally, the treatment provided should help the patient understand and cope with their experience and their feelings; allow them to be able to relax; enable them to control their anger; return their sleep and diet habits to normal and teach the patient how to respond to reminders of the trauma without becoming distressed.

Summary

In the immediate aftermath of a potentially traumatic event, professional psychological help is not usually necessary or indeed recommended. While the majority of people affected by trauma will recover fully without psychological intervention, a minority will experience long-term mental health problems such as post-traumatic stress disorder and will need additional support. There are several pre-event, peri-event and post-event factors which are predictive of whether someone will go on to develop mental health problems. Perhaps most notably, a lack of social support and poor coping strategies are associated with poor mental health. Stigma around mental health, or simply not believing that professional help is needed, can stop people from seeking help even when they need it. Those who are still struggling to cope 4 weeks after the potentially traumatic event may benefit from talking therapies such as cognitive behavioural therapy and should be assisted to access professional help as often they fail to do so themselves.

Questions

1. What symptoms might people experience after a potentially traumatic event?
   (a) Fear, feeling depressed, feeling anxious
   (b) Confusion, poor attention, memory problems
   (c) Nausea, difficulty breathing, dizziness
   (d) All of the above

2. According to NICE PTSD management guidelines, what should someone do if they are experiencing non-severe symptoms of distress after a potentially traumatic event?
   (a) Seek professional help immediately
   (b) Monitor their symptoms and seek professional help if symptoms persist after a week
   (c) Monitor their symptoms and seek professional help if symptoms persist after four weeks
   (d) Monitor their symptoms and seek professional help if symptoms persist after six months

3. According to NICE guidelines, which of the following is NOT recommended for someone diagnosed with PTSD?
   (a) Prescription of benzodiazepines
   (b) Support groups
   (c) Cognitive behavioural therapy
   (d) Eye movement desensitisation and reprocessing

4. What should someone do if a loved one has recently experienced a potentially traumatic event?
   (a) Urge them to seek professional help immediately
   (b) Compare their behaviour to their usual behaviour and offer to listen to them/talk to them if they need it
   (c) Leave them alone
   (d) Ask them to describe the traumatic event in detail, in order to judge how much it might have traumatised them

5. What most commonly happens after a potentially traumatic event?
   (a) The majority of people are not affected at all
   (b) The majority of people experience some symptoms of distress, which improve on their own over time
   (c) The majority of people experience symptoms of distress which only improve with professional intervention
   (d) The majority of people are diagnosed with post-traumatic stress disorder

Answers

1. d
2. c
3. a
4. b
5. b

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