The aftermath of traumatic incidents

A model in support of early intervention

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The Greek word 'trauma' means 'wound' and a traumatic incident can wound by piercing psychological defences. Here we present a model of what happens psychologically to those struggling with the wounding of their normal coping strategies. It shows how successful, early management of acute stress reactions can help to prevent the development of chronic post-traumatic stress disorder.

A study of the needs of those affected by the larger incidents can help us to understand the equally complex needs of others who have experienced their own individual trauma. It is also important to realise that, even if delayed, treatment for post-traumatic stress disorder (PTSD) can have very successful outcomes. Our model illustrates how a bereaved person may respond at the time of a traumatic incident and at two future stages.

STAGE ONE: THE INCIDENT

The criteria for PTSD were defined in the *Diagnostic and Statistical Manual of Mental Disorders (DSM III)*, written and published by the American Psychiatric Association in Washington, DC in 1980, and later revised in *DSM IV* in 1994. The traumatic incident is defined there as a specific event 'which is beyond normal experience', and is represented in our model as a bolt of lightning. The symptom clusters identified as criteria for PTSD can be grouped under the headings:

I Re-experiencing
II Avoidance
III Arousal.

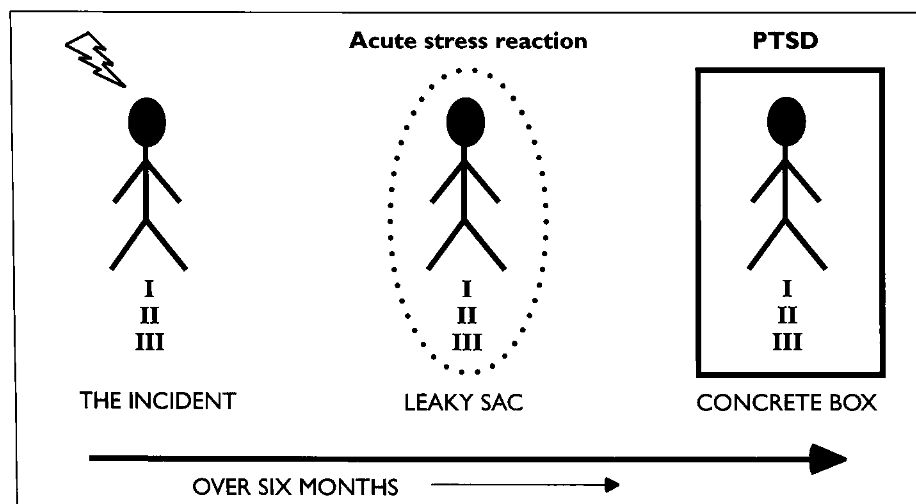
These clusters are present in Stage 2 and Stage 3 also but vary in intensity and severity as the stages progress.

I Re-experiencing

The most important feature of this symptom is **flashbacks**. Flashbacks are intrusive and occur when you least want them to, by day, and by night in the form of nightmares. Flashbacks are real and can be seen on modern brain scans. They are 'beamed out' from a part of the brain which stores memory in the short-term. Usually, memories are processed easily and are passed on to long-term memory storage in a different part of the brain, the archives of life experience. The process is very similar to downloading information from a floppy disk to the hard disk of a computer.

Flashbacks are assembled from memories of traumatic situations which are 'beyond usual experience', so those who suffer them have no frame of reference already in existence. Before an

The model



EDITOR'S NOTE

Recent incidents such as the Greek ferry disaster and the train crash at Hatfield remind us that being prepared to respond is essential if the multiple needs of those involved are to be met. There has been much debate on the efficacy of early intervention including questions about what kind of support is necessary and whether or not people really want to talk to strangers. These issues have been addressed as a matter of policy by the UK charity, Cruse Bereavement Care, but there is a need for all bereavement counsellors to be prepared to respond, to work with other agencies and to be aware that practical needs are of paramount importance at the early stages. Bereavement counselling will be appropriate later but can also aid the initial recovery process for the bereaved.

understanding of what actually happened can be achieved, the imprinted messages may need to be re-run on many occasions. The more strange, the more massive, the more unpleasant, the more emotionally chilling the flashback imprint is, the more it will be resisted and the longer it will take to get its message through to the long-term archives where it can be locked away. When the message is allowed through and stored, control will be restored and there will be a sense of the danger being left behind in the past.

Until then the flashback will continue to lead a life of its own, intruding when it wants to. This raw, unprocessed form of a survival message from a past event will pervade the present with fear and feelings of vulnerability. It must do this because it carries an invaluable memory-imprint of a survival experience, and there is no stronger instinct in human beings than survival. Flashbacks can be said to be adaptive, which means they are intended to be helpful.

Features of re-experiencing
- Recurrent flashbacks
- Recurrent dreams/nightmares
- Acting or feeling as if the trauma was recurring
- Intense emotional distress when reminded of the trauma
- Intense physical reactions when reminded of the trauma such as trembling, nausea, heart palpitations and cold sweats.

II Avoidance and numbing

The second cluster of symptoms is characterised by **avoidance and numbing**. These occur because individuals suffering from PTSD find that re-experiencing symptoms is so intolerable and so difficult to deal with that a number of behavioural and cognitive strategies are brought into play to minimise the recollections. Avoiding situations that will predictably remind them of the trauma is one such strategy, and numbing symptoms can involve shutting down emotions, inability to relate to others, and withdrawal. Sometimes there is a state of disconnection from the present and everything can feel unreal.

Features of avoidance and emotional numbing
- Avoidance of thoughts and feelings related to the trauma
- Avoidance of activities and situations related to the trauma
- Inability to recall important parts of the trauma (psychogenic amnesia)
- Reduced interest in previously enjoyed activities
- Feelings of being detached from reality
- Reduced ability to feel normal feelings like love, happiness etc
- A sense of foreshortened future.

III Hyperarousal

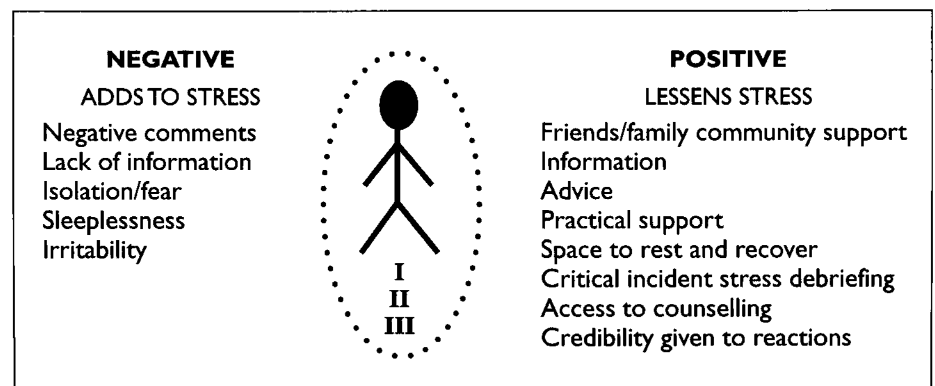
The third cluster of **hyperarousal symptoms** closely resembles the symptoms of other anxiety states – increased irritability, sleeping disturbance and so on – but what is most strongly characteristic of PTSD is 'hypervigila', a heightened state of arousal. This comes about because those who have been traumatised never want to repeat the experience and feel on guard most, if not all of the time.

Features of hyperarousal
- Sleep disturbance
- Increased irritability and outbursts of anger
- Difficulty in concentrating
- Increased sense of wariness and vigilance for danger and risk
- 'Startle' reactions to loud noises and unexpected movements.

STAGE TWO: THE LEAKY SAC

Normal individuals will experience an acute stress reaction (ASR), a normal reaction to an abnormal, life-threatening event. The gatekeeper criterion, the first criterion for making the diagnosis, is satisfied if the trauma either threatens life or exposes the participant to an event which involves life-threat to, or death of, others and brings about powerful emotional reactions such as intense fear, horror or helplessness. This is not a psychiatric disorder although when these reactions persist for over a month, the symptoms are very similar to the chronic version, PTSD. The porous membrane or 'leaky sac' represents the ability of the core symptoms – re-experiencing, avoidance and hyperarousal – to trickle out (dissipate). Of course, the pores can also allow the influence of further, or secondary, stresses to maintain the sac or even increase its size by seeping in.

Stage Two: the leaky sac



Negative features listed on the left of the diagram reinforce distress. Unhelpful comments such as 'you should be able to pull yourself together by now' and 'I don't know why you are upset, you should be thankful that you are alive', can add to the trauma. These make people feel isolated and nervous of talking about the impact because they fear that others may treat them as 'mad' or 'weak'.

Positive features listed on the right side of the diagram help some of the tension to leak out. Many are the responsibility of the emergency services and represent psychological first aid. Information sensitively sought and delivered is of paramount importance. Victims appreciate small kindnesses such as delicate delivery of bad news, someone staying with them, or a cup of tea. A survivor of the Omagh bomb recounts how paramedics covered her injured body because her clothes had been blown off; her injuries felt minor compared to the embarrassment of being naked.

It is common experience that talking things through with trusted relatives, friends or colleagues makes matters clearer. We say 'a problem shared is a problem halved', and we believe it to be so. Critical incident stress debriefing (CISD) was first introduced by emergency workers familiar with the victims of trauma to imitate this natural psychological safety valve. Recently there has been some criticism of particular ways of going about this talking things through when it is organised formally, but it is generally felt that this should not deflect us from finding the best way to achieve the process. After all, that is what the criticism is about – finding better ways to help primary and secondary victims to mentally process their exposure to catastrophic situations which may have pierced their psychological defences and left them feeling helpless and isolated. It is hardly surprising that we have not yet found the optimum way to conduct

psychological debriefing after only two decades of trying, but we like to think that some of us we have got it right some of the time!

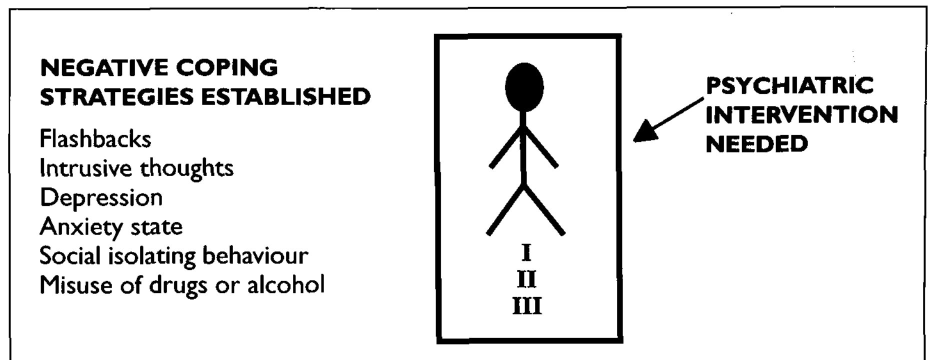
Those involved in debriefing do need to be specially trained to be able to look after other people and, of course, themselves, because of the risk of secondary vicarious traumatisation. Interestingly, one of the strongest supports for one aspect of debriefing – the piecing together as soon as is practicable of fragments of traumatic incursives and impressions (flashbacks) into as the fullest picture possible – is coming from new biological discoveries concerning the nature of memory-processing. The two hemispheres of the brain appear to need to 'talk together' to assemble a reasonable explanation for what has been experienced. The right hemisphere contributes the sensory impressions and the emotional impact, while the left with its verbal power carefully edits the new experience into an acceptable piece of useful information to lay down in the long-term cellars of memory.

STAGE THREE: THE CONCRETE BOX

If the leaky sac symptoms just seep away, then the acute stress reaction will have resolved and victims will have become survivors. However, where the severity and duration of the symptoms do not appear to be lessening, it is essential to seek help from more specialised services. If the acute stress reaction does not resolve, the reaction inevitably progresses to a chronic form represented in the model by the hard, external capsule – the 'concrete box'. The reaction has become engrained and, while there is less fluctuation in the symptoms, they all persist because the traumatic memories have not been processed. The memories now have to be avoided and vigilant arousal has to be maintained. By this time the victims have become stuck in survival and the negative coping strategies listed on the left-hand side of the diagram become established.

The timing of the evolution from the acute reaction to chronic PTSD is usually at about one to three months and counsellors will notice the hardening up process during their sessions. A word of caution, though, because sometimes people who have been exposed to trauma appear to have coped very well and do not go through an acute stress reaction at all. Later, sometimes years later, they can present with a concrete box full of PTSD symptoms – a delayed onset PTSD.

Stage Three: the concrete box



Generally, the more interpersonal the trauma the more likely it will be to progress to PTSD. For example, natural disasters generate 5% chronic PTSD; road traffic accidents, 10%; combat and terrorism, 25%; assault, 50%; rape, 75%, and torture, 90%. The symptom complexes are the same as in ASR but are locked away. Once the time-capsule is broken into *and* an attempt is made to process the contents then this can be achieved quickly and successfully. The essential opening tool is to make the victim feel safe to disclose.

The walls of the concrete box not only symbolise the reasons why the chronic stage has been entered and the acute stage has not been resolved, but they also represent obstructions to effective therapy. To give an example, if the traumatic experience ultimately leads the victim to develop profound feelings of guilt, then it is that very guilt which holds together the thick walls of the box and, if effective therapy is to be achieved, an intervention will need to be designed to overcome this obstruction. This means that the specific components in the walls have to be identified as early as possible in treatment. There may not be just one particular emotion, as in the example above, but a complex of guilt, anger, shame, fear etc.

Cognitive-behavioural therapy and other forms of talking therapies definitely help the two cerebral hemispheres to put the trauma picture together. Eye movement desensitisation and re-processing (EMDR) is an interesting, very specialised and effective treatment which facilitates the processing of trauma by stimulating both sides of the brain as the disturbing memories are recalled. Group therapy brings victims with differing trauma experiences to work together to become survivors and often proves effective in a remarkably short time. All of these treatments need to be handled by specially trained therapists.

CONCLUSION

This model should help bereavement workers to understand that, from the moment a traumatic incident occurs, the way traumatised people are dealt with has an influence on the recovery process. This should encourage all involved to see the importance of practical support and dignified treatment for the victims. It should also reinforce the need for bereavement counselling as a significant component in the amelioration of acute stress reactions to help to prevent the development of chronic PTSD. Finally, when considering the needs of victims we must also be aware of the needs of the helpers themselves.

This model is not based on philosophy, opinion or on speculation or hope, but is firmly rooted in biological science. It challenges organisations to support their helpers appropriately if they are not to become secondary victims. BC

CONFERENCES AND SYMPOSIA IN 2001

The loss of a twin. Multi-disciplinary symposium, part of the 10th International Congress on Twin Studies. 4 July. London Enquiries to Dr Elizabeth Bryan. Fax 01981 550521, ebryan@higgins7.co.uk

Bereavement in later life. 8th International Conference of the Manchester Area Bereavement Forum. 12 September. Manchester. Keynote speaker, Margaret Stroebe. Contact MABF, 362 Manchester Road, Manchester M43 6QX. ☎ 0161 371 8860; grief@mabf.org.uk

Baby and child death: managing the issues. Child Bereavement Trust conference. 15 May. London. Contact Conference Creations: ☎ 01491 419800; cbtinfo@conference-creations.com

Research in the 21st century. Bereavement Research Forum, 'New Voices' symposium. 5 June. Bristol. Contact Anne Burrows c/o Bereavement Care, Linda Machin Rooms, Dudson Centre, Hope Street, Stoke on Trent ST1 5DD. ☎ 01782 683155; brf@bereavementcare.freeserve.co.uk