Post-traumatic Stress Disorder

Babette Rothschild

Post-traumatic Stress Disorder (PTSD) disrupts the functioning of those afflicted by it, interfering with the ability to meet their daily needs and perform the most basic tasks. Trauma continues to intrude on the lives of people with PTSD as they relive the life-threatening experiences they have suffered with visual, auditory and/or somatic reality reacting in mind and body as though such events were still occurring. Not everyone experiencing traumatic events develops PTSD; it is a complex psychobiological condition that can emerge in the wake of life-threatening experiences when normal psychological and somatic stress responses to a traumatic event are not resolved and released. In this paper it is proposed that Autonomic Nervous System hyperarousal is at the core of PTSD and the driving force behind phenomena such as dissociation, freezing and flashbacks. Acute traumatic reactions are differentiated from PTSD and strategies for intervention are suggested.

INTRODUCTION

Events that are threatening to life or bodily integrity will produce traumatic stress in its victim. This is a normal, adaptive response of the mind and body to protect the individual by preparing him to respond to the threat by fighting or fleeing. If the fight or flight is successful, the traumatic stress will usually be released or dissipated, allowing the victim to return to a normal level of functioning. PTSD develops: when fight or flight is not possible; the threat persists over a long period of time; and/or the threat is so extreme that the instinctive response of the victim is to freeze. The following are examples of people with PTSD:

A fire fighter quits his job two years short of retirement because of persistent fiery nightmares and chest pains.

A young girl has become hyperactive since her tonsillectomy nine months before.

A previously studious teenaged boy is no longer able to concentrate on his schoolwork and is failing his classes since the death of his grandmother last year. He no longer enjoys going to school, and is becoming increasingly housebound.

A Middle Eastern refugee is arrested after a fight in a bar. He says all he remembers is a smell that reminded him of the prison where he was tortured, then he woke up in a police cell.

A war veteran still awakes screaming from nightmares of combat, thirty years after he was discharged from service.

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A woman who was molested when she was six years old begins to be disturbingly over-protective of her own six-year-old daughter.

A man seeks psychotherapy because he is suffering from persistent anxiety and panic attacks.

A boy is observed aggressively trying to stick pencils and crayons under the tails of his stuffed animals.

POST TRAUMATIC STRESS DISORDER (PTSD)

There is a mistaken assumption that anyone experiencing a traumatic event will have PTSD. This is far from true. Studies vary, but confirm that only a fraction of those facing trauma will develop PTSD (Elliott 1997, Kulka et al 1990, Breslau et al 1991). What distinguishes those who do not, is still a hot topic of discussion, but there are many clues. Factors mediating traumatic stress appear to include: preparation for expected stress (when possible), successful fight or flight responses, prior experience, internal resources, support from family, community, and social networks, debriefing, emotional release, and psychotherapy.

PTSD is a relatively new diagnostic category in the history of psychology. It first appeared in 1980 in the internationally accepted authority on PTSD, the DSM (Diagnostic and Statistical Manual of the American Psychological Association), 3rd Edition (APA 1980). At that time the DSM had a limited view of what could cause PTSD, defining it as developing from an experience that anyone would find traumatic, leaving no room for individual perception or experience of an event. This definition was expanded when the DSM III was revised in 1987, and the DSM IV (APA 1994) provides even broader criteria. The currently accepted definition as presented in the DSM IV accepts that PTSD develops in response to events that are threatening to life or bodily integrity, witnessing

threatening or deadly events, and hearing of violence to or the unexpected or violent death of close associates. Events that could qualify as traumatic, according to the DSM IV, include: combat, sexual and physical assault, being held hostage or imprisoned, terrorism, torture, natural and man-made disasters, accidents, and receiving a diagnosis of a life threatening illness. PTSD can also develop in children who have experienced sexual molestation, even if this is not violent or life-threatening. The DSM IV adds, 'The disorder may be especially severe or long lasting when the stressor is of human design (e.g. torture, rape).' (APA 1994).

Symptoms associated with PTSD include, 1) re-experiencing the event in varying sensory forms (flashbacks), 2) avoiding reminders associated with the trauma, and 3) chronic hyperarousal in the Autonomic Nervous System (ANS). PTSD is present when these symptoms last more than one month and are combined with loss of function in areas such as job or social relationships (APA 1994).

I believe that at the core of PTSD is the last symptom increased ANS arousal. People who suffer from PTSD are plagued with frightening body symptoms, which are characteristic of hyperarousal: accelerated heartbeat, cold sweating, rapid breathing, heart palpitations, hypervigilance, and hyper startle response (jumpiness). These symptoms lead to sleep disturbances, loss of appetite, sexual dysfunction and difficulties in concentrating, which are further hallmarks of PTSD. Hyperarousal both instigates flashbacks and is also increased by them, and hyperarousal is the underlying cause of the symptom of avoidance, as traumatic reminders increase ANS arousal. Through understanding hyperarousal, the phenomenon of PTSD, becomes comprehensible.

SURVIVAL AND THE NERVOUS SYSTEM

Arousal, and therefore hyperarousal, is mediated by the Limbic System, which is located in the centre of the brain between the brain stem and the cortex. This part of the brain regulates survival behaviours and emotional expression, being primarily concerned with tasks of survival such as eating, sexual reproduction and the instinctive defences of fight and flight. It also plays a central role in memory processing.

The Limbic System has an intimate relationship with the Autonomic Nervous System (ANS). The ANS regulates smooth muscles and other viscera: heart and circulatory system, kidneys, lungs, intestines, bladder, bowel, pupils. It has two branches, the Sympathetic branch (SNS) and the

Parasympathetic branch (PNS), which usually function in balance with each other, meaning when one is activated, the other is suppressed. The SNS is primarily aroused in states of stress, both positive and negative. Signs of SNS arousal include increased heart rate and respiration, cold and pale skin, dilated pupils, raised blood pressure. The PNS is primarily aroused in states of rest and relaxation. Signs of PNS arousal include decreased heart rate and respiration, warm and flushed skin, normally reactive pupils, lowered blood pressure.

The Limbic System responds to extreme traumatic threat, in part, by releasing hormones that tell the body to prepare for defensive action, activating the SNS, which prepares the body for fight or flight through increasing respiration and heart rate to provide more oxygen, sending blood away from the skin and into the muscles for quick movement. When death may be imminent or the traumatic threat is prolonged, as with torture, rape, etc., the Limbic System can simultaneously release hormones to activate the PNS and a state of freezing can result, like a mouse going dead when caught by a cat, or a frightened bird becoming stiff (Gallup 1977, Levine 1997).

These nervous system responses, fight, flight and freeze, are survival reflexes. If perception in the Limbic System is that there is adequate strength, time and space for flight, then the body breaks into a run. If the Limbic perception is that there is not time to flee, but there is adequate strength to defend, then the body will fight. If the Limbic System perceives that there is neither time nor strength for fight or flight and death could be imminent, then the body will freeze. In this state, the victim of trauma enters an altered reality; it is one form of dissociation. Time slows down and there is no fear or pain. In this state, if harm or death do occur, the impact is not so great. People who have fallen from great heights, such as over cliffs, and survived, report just such a reaction. This freezing response may also increase chances of survival. If the cause of the freeze is an attack by man or beast, the attacker may lose interest when the prey has gone dead, as a cat will lose interest in a lifeless mouse.

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It is important to understand that these Limbic System/ANS responses are instinctive, not chosen by thoughtful consideration, but are reflex actions. Many who have suffered trauma feel great guilt about freezing or 'going dead' and not doing more to protect themselves or others by fighting back or running away. Understanding that freezing is a reflex, often helps the process of self-forgiveness.

DEFENSIVE RESPONSE IN THE ABSENCE OF THREAT

When the Limbic System of the brain activates the ANS to meet the threat of a traumatic event, it is a normal, healthy, adaptive survival response. When the ANS continues to be chronically aroused even though the threat has passed and has been survived, that is PTSD. The body continues to respond as though it were under threat. This is the most perplexing feature of PTSD.

Within the Limbic System of the brain are two related areas that are central in memory storage: the hippocampus and the amygdala. The last few years have produced a growing body of research that indicates these two parts of the brain are essentially involved in response to, and memory of, traumatic events. (van der Kolk 1994,

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Nadel & Jacobs 1996) It is believed that the amygdala stores highly charged emotional memories, such as terror and horror and it has been shown that the amygdala becomes very active when there is a traumatic threat. The hippocampus, on the other hand, stores memory of time and space, puts our memories into their proper perspective and place in our life's time line. During traumatic threat, it has been shown the hippocampus becomes suppressed. Its usual function of placing a memory into the past is not active. The traumatic event is prevented from becoming a memory in the past, causing it to seem to float in time, often invading the present. It is this mechanism that is behind the aforementioned PTSD symptom of 'flashback', episodes of reliving the trauma.

DISSOCIATION, FREEZING AND PTSD

Dissociation, a splitting in awareness, is not mentioned by either the DSM III or IV as a symptom of PTSD, but there is growing debate in the professional literature as to whether PTSD is a Dissociative Disorder (Brett, EA. 1996); it is currently classified in the DSM IV under Anxiety Disorders. There is also research that is beginning to point to the possibility that dissociation during a traumatic event may be a predictor of PTSD (Bremmer, et. al. 1992, Marmar, et.al. 1994). No one really knows what dissociation is or how it occurs, though there is much speculation. It appears to be, not one thing, but a set of related splitting responses. Bennett Braun, MD has studied dissociation for many years, treating clients with a variety of Dissociative Disorders. He proposes a continuum of dissociation that begins with simple forgetting, includes amnesia and PTSD and ends at the extreme of Multiple Personality, now referred to as Dissociative Identity Disorder (Braun 1988). The kind of

dissociation described by those with PTSD, altered sense of time, reduced sensations of pain, absence of terror or horror, resembles the characteristics of those who have responded with freezing to a traumatic threat. There will need to be more research before it can be known if the freezing reflex is a form of dissociation, but it looks as though it is. This is important because it appears that the greatest consequences of PTSD result from dissociation. While dissociation is an instinctive response to save the self from suffering, and it does this very well, it also exacts a high price in return.

CONSEQUENCES OF TRAUMA AND PTSD

The consequences of trauma and PTSD vary greatly depending on the age of the victim, the nature of the trauma, and the response to the trauma and the support to the victim in the aftermath. In general, victims of PTSD suffer reduced quality of life due to the intrusive symptoms, which restrict their ability to function. They may alternate periods of overactivity with periods of exhaustion as their bodies suffer the effects of hyperarousal. Reminders of the trauma they suffered may appear suddenly, causing instant panic, and possible flashbacks. They become fearful, not only of the trauma itself, but of their own reactions to the trauma. Body signals that were once providers of essential information, become dangerous. For example, heart beat acceleration that might indicate over-exertion or excitement becomes a danger signal in itself because it is a reminder of the trauma response, and therefore is associated with the trauma. The ability to orient to safety and danger becomes decreased when many things, or even everything, in the environment become perceived as dangerous. When the reminders of trauma become extreme, freezing or dissociation can be activated, just as if the trauma was occurring in the present. It can become a terribly vicious circle. Victims of PTSD can become extremely restricted, fearing to be together with others or go out of their homes.

Child victims of trauma are a special area for study. Robert Pynoos at the University of California at Los Angeles is a pioneer in researching the impact of trauma on children and adolescents. Psychological and motor development can be arrested in child victims of trauma, leading to increasingly negative impact on their lives if they continue to mature without intervention to restore lost or undeveloped resources and skills (Pynoos 1993).

DISTINGUISHING ACUTE TRAUMA FROM PTSD

Discussion with professionals who work with both the acute and the long-term aftermath of trauma has led me to conclude that aside from physical injury due to trauma, acute traumatic reactions may be indistinguishable from PTSD in the body and behaviour of the victim. The same disorientation, fear, and indications of ANS activations, elevations in heart rate, blood pressure, respiration, shaking, etc. may be present.

In the aftermath of a disaster, for example, most of those suffering from acute trauma will be easy to spot. Those who have been injured will be obvious. Among the uninjured there will also be many who look stunned, appear pale

and faint, or be shaking. Some of those who appear to be suffering from trauma may not even be the actual victims of the disaster, but witnesses or rescuers who may be deeply affected by what they have or are seeing. Some may not be immediately identifiable; they may be highly active, looking for others or after others, organizing help and rescue. A percentage of these may, in the next days or weeks, develop symptoms of trauma.

Months or years later, the vast majority of the survivors, witnesses and rescuers will no longer be suffering psychologically from the after effects of the event. However, a minority will be suffering to an extreme degree, their lives decreased in quality, and a diagnosis of PTSD will be appropriate.

While symptoms of acute trauma and PTSD may not differ very much, response to these must differ significantly.

Response to acute trauma may include emergency medical intervention for treatment of injuries and/or medical shock. On the psychological side, reassurance and comfort will be the key. Often talking about what happened will be important for the survivor in the immediate aftermath of the event. Telling and re-telling the story to caring individuals may help prevent dissociation, and aid in integrating the experience. Providing physical support, holding an arm around the shoulders, a comforting hand may be appropriate, especially if the survivor is hysterical or shaking violently. The victim may be cold and in need of blankets and warm beverages. The victim may need to be reminded that the event is passed and they have survived it, 'You're safe now.' The more complete and appropriate the response to acute trauma, the greater the chance of preventing subsequent PTSD.

Later, working with those who do develop PTSD may resemble some of the aspects of response to acute trauma. Certainly a reassuring and comforting attitude on the part of the psychotherapist is important. But when the trauma is long past, simple comfort and reassurance will not be enough. The victim of PTSD will feel unable to contain his traumatic experience(s), will have become afraid of his body, and will have lost the sense of what was then and what is now. It is these three areas, containment, positive body awareness, dual time awareness, that must first be strengthened, before addressing the memory of a traumatic event can be done productively.

Containment of out-of-control emotions and thinking processes will help restore a feeling of control over the psychological self. Positive body-awareness will help restore a sense of the body and its sensations as friend, not foe. Dual time awareness will help to separate that the trauma occurred in the past even though it feels as if it is occurring now (Rothschild 1996, Rothschild 1997).

CONCLUSION

Identification of a portion of those suffering from PTSD will be straightforward. But others may be difficult to spot owing to complicated life or defensive systems. Evaluation of the state of the ANS will assist in diagnosis and in setting treatment objectives where appropriate.

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She is a member of the International and European Societies for Traumatic Stress Studies, the Association for Traumatic Stress Specialists and the National Association of Social Workers (USA). Babette has trained extensively in Transactional Analysis, Gestalt Therapy, Psychodrama and Somatic Experiencing, and is a certified Bodynamic Analyst and certified Radix Teacher. After living 9 years in Denmark, she returned to Los Angeles, California, her home town, where she maintains a private practice while she continues travelling to Europe three times a year, offering professional training and therapy workshops, professional consultations and supervision. Institutions sponsoring her trainings have included: hospital, rehabilitation, refugee, dance, athletic, children and psychotherapy centres in Austria, Belgium, Denmark, England, France, Germany, Norway, Scotland, Switzerland and the USA. She can be reached at: PO Box 241783, Los Angeles, California 90024, USA Tel: (+1) 310 281 9646, Fax: (+1) 310 281 9729, E-mail: babette@nwc.net

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