

**PSYCHOLOGICAL CONSEQUENCES AND COPING MECHANISMS OF BOMB BLAST SURVIVORS: THE EXPERIENCE OF SIX CIVILIAN VICTIMS IN THE CITY OF COLOMBO**

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In the many violent conflicts currently active in the world, torture, bombings and other atrocities are a norm, and over 90% of all casualties are civilians; nearly one in hundred of the entire global population is war-displaced. The long-term impact of such experiences for the present generation and for subsequent generations, is thus, one of the resonant questions of our age.

Whereas war between nations traditionally focussed upon battles between armies, developments in the twentieth century have led to a concept of total war where the civilian population has increasingly become victims of war activities. Civil war seems to have affected the civilian population to a degree as never witnessed before.

During the last few years, civilian centered bomb explosions have been a common occurrence in Sri Lanka. These bomb blasts do not seem to target an individual or any authority. Rather, they are designed to create economic damage, cause general fear among people and commit mass murder. As such, bomb blasts have proven to be a strategy that promotes a constant fear of its possible occurrence in the minds of civilians that are not exposed to active combat in their daily lives.

Over the last several years, several major bomb explosions occurred in the country's capital city, Colombo. The more prominent of these may be the Central Bank bomb blast, the Torrington bomb blast and the Dehiwela train bomb blast. Many persons were seriously injured and several sustained varying degrees of physical and/or mental suffering due to these explosions. Other than regular bomb blasts such as the above, people living in the country's capital city do not get exposed to constant war activities.

## **War and its Psychological Consequences**

The relationship between a war and its psychological consequences are complex. There is no linear relationship between the severity of the exposure and the consequent psychological ramifications. Yet, it is invariably seen that the effects of intense stress may have severe traumatic implications for the persons concerned.

A war often enforces an alteration in the meaning of life and death through the exposure to life threatening situations. In times of war it is the military profession that runs severe risks to life and actual loss of life. However, in times of war, the risk of harm to civilians increases. In fact, we generally see an increase in psychological problems in a society ravaged by war. Violence, theft and other forms of unhealthy societal pathologies are often seen. In the lives of civilians too – whether being constantly exposed to combat or whether living in combat free areas – the war is an ever-present hazard, constantly looming in their minds. In such a context, when civilians are actually affected by a war strategy such as a bomb blast, the psychological ramifications are very complex. It would be dependent on several factors, such as:

- \* The person's pre-trauma personality (i.e. premorbid personality);
- \* The person's pre-trauma coping style;
- \* The person's current social support system;
- \* The person's political/religious ideology;
- \* The person's personal views on war, democracy, freedom etc.

## **Psychological Disorders Resulting from Exposure to Severe Traumas**

We all encounter stressors (physical, emotional, and mental pressures) in our daily lives. These may be physical, psychological and /or social. All types of stress place a certain demand on us and require us to adapt to it. When we have difficulty in adapting, we experience this as stress. The intensity with which we experience stress varies depending on a variety of factors. These include (Bisbey, S. and Bisbey L. B., 1998):

- \* The nearness of the stressor;
- \* The perception of the threat level of the stressor - including beliefs about our ability to cope with the stress;
- \* The stress tolerance of the individual;
- \* The availability of external resources and support;
- \* The number of stressors;
- \* The period of time in which the stressors occur.

Most people experience periods of heavy stress. Larzarus (1966) refers to these periods as a “**crisis**” and defines stress as a critical period during which an individual or group is exposed to threats or demands which are at or near the limits of their resources. During a crisis, people are often challenged to develop new coping skills to come through the crisis and readjust.

A traumatic experience is an abnormal experience. i.e. the individual does not have any pre-existing mental structure that allows him/her to assimilate the experience into his/her memory. Data or experiences for which an individual has no pre-existing understanding require the creation of an entirely new set of mental structures which, if it contradicts an already existing old one, may be experienced as confusing or traumatic.

There are two psychological disorders (as stated in the *Diagnostic and Statistical Manual of Mental Disorders – IV*, 1994) pertaining to stress: Post Traumatic Stress Disorder and Acute Stress Disorder. The diagnostic criteria for these two disorders are cited in the annex. Acute Stress Disorder is distinguished from Post Traumatic Stress Disorder because the symptom pattern in Acute Stress Disorder must occur within four weeks of the traumatic event and resolve within that four week period. If the symptoms persist for more than one month and meet the criteria for Post Traumatic Stress Disorder the diagnosis is changed from Acute Stress Disorder to Post Traumatic Stress Disorder. Thus, Post Traumatic Stress Disorder is a more long term condition than Acute Stress Disorder. In this paper we are primarily concerned with Post Traumatic Stress Disorder due to it being a more long term psycho-pathological condition.

## **Culture, Stress & Post Traumatic Stress Disorder (PTSD)**

Much has been written about the cultural aspects of mental health and ill health. Research writings have shown that there are specific culture-bound psychological illnesses. The presentation of universally found psychological illnesses might have cultural manifestations. In fact, the concept of mental illness varies from culture to culture and the nature of traditional therapies used to treat such illnesses may also vary from culture to culture.

There are several issues that need to be addressed with regard to the relevance of culture to the study and understanding of Post Traumatic Stress Disorder. De Silva (1999) has presented the following:

1. Perception of trauma and the reaction in society-the socio-cultural meaning of the traumatic event, whatever the event may be, is a crucial variable;
2. Social support is an important mediator of the impact of the traumatic events - as cultures differ markedly in the extent to which support systems exist - such as the extended family - this factor should be considered seriously;
3. Role of the military culture in war with regard to the soldiers in combat situations - it has been argued that the prevailing culture in the military organization as well as the national culture of the country, can have an effect on the soldiers' vulnerability to stress reactions and thus to PTSD;
4. Cultural and national differences in response to trauma - the kind of empirical, up-to-date information needed for any conclusions to be drawn about national differences in vulnerability to stress and in the manifestations of stress reactions is limited.

Janoff-Bulman (1985, 1992) refers to the notion of 'shattered assumptions'. According to her, the experience of a major trauma shatters the individual's belief that (i) the world is benevolent, (ii) the world is meaningful, and (iii) the self is worthy. This shattering of assumptions may lead to traumatic reactions possibly in the form of PTSD. The core assumptions identified by Janoff-Bulman (1985, 1992) are representative of a western civilization or culture. What of people of a very different culture which do not propagate such assumptions about the world they live in and themselves? Do persons in such cultures experience similar stress reactions in facing traumatic situations? It is indisputable that, even in countries where the predominant world view accepts hardships and disasters as entirely in the nature of things (e.g. the concept of "karma" in some Indian religions), those who experience major traumatic events are no more protected against PTSD than their western counterparts (de Silva, 1999).

The above discussion points out the notion of the cultural sensitivity of the diagnostic criteria of PTSD to non-western countries, such as Sri Lanka. Specifically, it is possible to use the diagnostic criteria of PTSD to understand and thus identify the individuals in our culture who have experienced traumatic events.

### **Psychological Consequences of Bomb Blasts: an Insight to the Sri Lankan Experience**

During the past few years, several bomb blasts have occurred in Colombo and its suburbs. Most of the victims have been civilians who have been attending to their daily activities when the unfortunate incident occurred.

In order to understand the psychological ramifications and the consequent long-term coping strategies used by survivors to overcome the trauma, the second author personally interviewed a group of six bomb blast survivors. The interview was based on the criteria for assessing Post Traumatic Stress Disorder, in accordance with the *Diagnostic and Statistical Manual - IV specifications* (1994).

The age range of those interviewed was 36 – 53 years. All interviewees were males. One interviewee was a Buddhist, and the other five were Christians. These bomb blast survivors were either affected by the Central Bank bomb blast, the Torrington bomb blast or the Dehiwela train bomb blast.

A brief description of the interviewees and how the incident had affected them is presented below:

*Interviewee no. 1 (age-53 years)*

He was injured in the Central Bank bomb blast. He is completely blind and has sustained injuries to his arms and some disfigurement to his face. He had amnesia for a period of eight days after the incident and was then taken to India for treatment. He used to constantly dream that he, dressed in a white suit, was looking down at himself. He did not have these dreams at the time of the interview. He feels marginalised from society and does not wish to discuss his blindness. Whenever he hears a noise he gets overly startled. He is currently unemployed and is heavily dependent on others, even for small tasks such as getting from one place to another in the house.

*Interviewee no. 2 (age-36 years)*

He was injured in the Dehiwela train bomb blast. His left arm was injured, left ear lobe damaged and face disfigured. He had lost consciousness on admission to the National Hospital of Sri Lanka and was there for 40 days for skin grafting. He feels intense fear even at the sound of a tyre puncture blast. He feels much discomfort when in the midst of others, especially when travelling. He avoids all places and situations that remind him about the bomb blast and feels estranged from society and disgusted with himself due to the disfigurement in his face. He has difficulty concentrating and is unable to remember day to day matters. Despite these difficulties he is able to function as a storekeeper and maintain reasonably acceptable social relationships.

*Interviewee no. 3 (age-47 years)*

He was thrown to the ground and sustained injuries to his forehead, during the Central Bank bomb blast. From a distance he saw gunmen shooting at the Central Bank. He still has flashbacks of these gunmen, especially when there is the sound of firecrackers and at times of traffic congestion. At these times he feels helpless and extremely fearful. When he is in the midst of a crowd, he is very vigilant of any possible danger. Apart from these difficulties he is able to operate reasonably well in social, personal and occupational settings.

*Interviewee no. 4 (age-37 years)*

He became completely paralysed and bedridden due to the Dehiwela train bomb blast. On the day of the explosion, he fell to the rail track from the train compartment and was crying out for help and was taken to the Kalubowila Hospital. He had lost consciousness on the way and lost the ability to speak for about four days. He received treatment at the National Hospital of Sri Lanka for nearly six months. For a period of about three months after the bomb blast, even the sound of coconuts being cracked made him shiver uncontrollably. For about seven months after the incident the scene of the train used to come back to him, leaving him dizzy with fear. He avoids seeing wounds or blood in television or pictures and has an intense anger towards the terrorists. He has difficulty falling asleep at night and is irritable with his family members, especially his children. He does not expect to live long and states that the little social support he has had is also diminishing. His wife is the breadwinner now, and she operates a small boutique. He feels economically burdened.

*Interviewee no. 5 (37 years)*

He sustained damage to the cervical spine due to the Central Bank bomb blast. He has continuous pain in the right shoulder and has spasms in the right shoulder, fingers, legs and spine. For at least a period of six months he used to have flashbacks of the event, especially in times of thunder and lightning. He used to eat excessively after the incident, but has now brought it under control. For about a year, he avoided

talking about the event and avoided any person that may have any resemblance to terrorists or gunmen. He feels irritable, especially with his father, and has lost interest in things he used to like (e.g. cricket and football).

*Interviewee no. 6 (age-44 years)*

He was injured in the Torrington bomb blast and is now bedridden. He spent about a year in the hospital where he had to undergo an operation (due to some particles lodged in the stomach) and was in intensive care for about 20 days. For about a period of five months, he used to feel that the hospital would burst and that he was floating. When there are loud noises or crackers being lit, he used to get flashbacks of the incident. He feels irritable with others and has difficulty falling asleep. He is unable to do any form of work and his wife is the breadwinner now.

### **Concept of Coping**

Coping strategies have been defined in many different ways, usually along dichotomized dimensions, as person based vs. environment based, stable coping styles vs. flexible coping styles, conscious coping vs. unconscious coping, adaptive vs. pathology producing coping, and coping as a general adaptive response vs. task related coping ability (Freud 1967; Eitinger 1974; Murphy 1976; Haans 1977; Roth and Cohen 1986; Kahana, Harel and Rosner 1998; Vaillant 1977; Aldwin 1994).

The main functions of coping are (Paez *et al* 1995):

1. To solve a problem/change a situation;
2. To regulate emotion by reducing strong emotional upheavals or regulating the emotional relationships with others;
3. To manage and share social interaction;
4. To protect the person's self esteem, integrity, and survival when faced with the consequences of extreme stress.

Coping is a dynamic process that changes over time and is transactional in nature. It is seen in the first author's clinical experience that survivors of traumas invariably react in confusion during the short aftermath of the traumatic incident and then adopt various coping strategies in the long term. These coping strategies depend heavily on the individual's pre-trauma personality and social support system to which s/he belongs.

### **Coping Strategies of Bomb Blast Survivors: the Experience of Six Civilian Victims in the City of Colombo**

The coping strategies employed by the study sample were classified as:

- \* Psychological coping strategies;
- \* Social coping strategies;
- \* Spiritual coping strategies.

A description of the coping strategies used by the participants in the study is indicated below:

#### *Psychological coping strategies*

In this sample the more therapeutic or cathartic forms of psychological coping techniques were not observed. While psychological coping strategies were noted only in the case of two interviewees, they were also the more common sense, simple, layman's strategies of immersing oneself in one's job (case no: 3) or consuming sweets to distract oneself from the intensity of the pain (case no: 5).

#### *Social coping strategies*

Most of the interviewees (except case no: 3) had some form of social support. Four interviewees (case no: 1, 2, 4, 6) stated that they had support from their spouse and children and in one interviewee's case it was indicated that this support and his positive relationship with them had been very helpful in managing his difficulties. Interviewee no: 4 indicated that he had support from friends.

### *Spiritual coping strategies*

All the victims got some solace by turning towards religion and getting involved in religious activities or religious beliefs which afforded meaning to their traumatic experiences. Four interviewees (case nos. 2, 3, 5 and 6) strongly believed in God's protection of them and in God's will. These beliefs gave them comfort and provided a meaning to what had happened to them. One interviewee (case no. 1) practised Buddhist meditation regularly and this offered him some comfort. Interviewee no. 4 believed that what had happened to him was due to sins committed in a past life and that his wife had suffered due to her own karmic sins.

### **Post Traumatic Coping**

In the case studies presented, the bomb blast survivors showed the entire range of post traumatic indications of depression, anxiety, hyper-vigilance, social withdrawal and outbursts of anger. This is not to say that all individuals having faced a traumatic event such as a bomb explosion would necessarily develop characteristics of Post Traumatic Stress Disorder (PTSD). As indicated elsewhere in the paper, having experienced a traumatic situation is not necessarily an indication of future psychological difficulties. In fact, we have met extreme resourcefulness, courage and bravery with which people face physical and psychological difficulties (as well as economic difficulties, arising out of inability to hold a job due to blindness, deafness, paralysis etc.) caused by traumatic events.

The coping strategies used by the survivors were categorized as psychological, social and spiritual. It is seen that spiritual coping strategies are resorted to more than psychological coping mechanisms and social support. Every person in the study - irrespective of their religion - tried to attach a religious meaning to their traumatic experience and that assisted them to understand and assimilate the traumatic event into their already existing belief system. According to the notion of Janoff-Bulman (1985, 1992), an individual has certain core assumptions about the universe and self as, (i) the world is benevolent, (ii) the world is meaningful and (iii) the self is

worthy. This is more a Christian outlook to life. Such individuals consider explanations such as "God's will", "destiny" etc. in helping them to assimilate the stressful experience to their existing mental schema. These explanations help them in their coping process. In persons belonging to Buddhist and Hindu religions - which believe in a karmic outlook to life - explanations based on concepts such as "karma", "past sins" and "God's desire/punishment" may be used. They would resort to various religious rituals and practices such as praying and meditation to overcome the psychological discomfort and thus cope with the traumatic incident.

In the persons interviewed, psychological coping strategies seem to be less used than spiritual coping strategies - i.e. the individual does not seem to be doing much internally - within him/herself, to overcome the emotional discomfort. Psychological coping strategies such as emotional self-disclosure, hope and the viewing of the (traumatic) event as a challenge for growth are some of the resilient psychological coping strategies that may be used by survivors of extreme stress. In fact, it has been documented in research that social sharing and emotional self-disclosure are the best predictors for good mental health after a trauma (Paez *et al*, 1995). Yet, we did not see any of these positive psychological coping strategies in our interviewees. In fact, the two participants who did show psychological coping strategies used unhealthy techniques such as overeating and immersing himself in office work, rather than confronting the core issue of the trauma.

## **Conclusion**

It is in this area of traumatic stress due to the civil war in Sri Lanka, that mental health professionals, in co-operation with other professionals, have a major function in this country. Through support, counseling and psychotherapy, it is possible to help people confined within their own suffering and self destructive small world to alter their cognitive, emotional and behavioral coping, to accept support and sympathy from others, rely on themselves, plan for the future and create better conditions for themselves and thus the society at large.

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**Annex**

The *Diagnostic & Statistical Manual of Mental Disorders-IV* (1994) defines Post-Traumatic Stress Disorder as follows:

- “A. The person has been exposed to a traumatic event in which both of the following were present:
- (1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others;
  - (2) the person’s response involved intense fear, helplessness, or horror. **Note:** In children, this may be expressed instead by disorganized or agitated behavior.
- B. The traumatic event is persistently reexperienced in one (or more) of the following ways:
- (1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. **Note:** In young children, repetitive play may occur in which themes or aspects of the trauma are expressed
  - (2) recurrent distressing dreams of the event. **Note:** In children there may be frightening dreams without recognizable content;
  - (3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations and dissociative flashback episodes, including those that occur on awakening or when intoxicated). **Note:** In young children, trauma-specific reenactment may occur.
  - (4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event;

- (5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.
- C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:
- (1) efforts to avoid thoughts, feelings or conversations associated with the trauma
  - (2) efforts to avoid activities, places or people that arouse recollections of the trauma
  - (3) inability to recall an important aspect of the trauma
  - (4) markedly diminished interest or participation in significant activities
  - (5) feeling of detachment or estrangement from others
  - (6) restricted range of affect (e.g. unable to have loving feelings)
  - (7) sense of foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span).
- D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:
- (1) difficulty falling or staying asleep
  - (2) irritability or outbursts of anger
  - (3) difficulty in concentrating
  - (4) hypervigilance
  - (5) exaggerated startle response.
- E. Duration of the disturbance (symptoms of criteria B, C and D) is more than 1 month.
- F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

*Specify if:*

**Acute:** if duration of symptom is less than 3 months

**Chronic:** if duration of symptoms is 3 months or more

*Specify if:*

**With Delayed onset:** if onset of symptoms is at least 6 months after the stressor”

*The Diagnostic and Statistical Manual of Mental Disorders - IV* (1994), defines Acute Stress Disorder as follows:

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

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

B. Either while experiencing or after experiencing the distressing event, the individual has three (or more) of the following dissociative symptoms:

- (1) a subjective sense of numbing , detachment or absence of emotional responsiveness
- (2) a reduction in awareness of his or her surroundings (e.g. “being in a daze”)
- (3) derealization
- (4) depersonalization
- (5) dissociative amnesia (i.e., inability to recall an important aspect of the trauma)

C. The traumatic event is persistently reexperienced in at least one of the following ways: recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress on exposure to reminders of the traumatic event.

- D. Marked avoidance of stimuli that arouse recollections of the trauma (e.g., thoughts, feelings, conversations, activities, places, people).
- E. Marked symptoms of anxiety or increased arousal (e.g., difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, motor restlessness).
- F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or impairs the individual's ability to pursue some necessary task, such as obtaining necessary assistance or mobilizing personal resources by telling family members about the traumatic experience.
- G. The disturbance lasts for a minimum of 2 days and a maximum of 4 weeks and occurs within 4 weeks of the traumatic event.
- H. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition, is not better accounted for by the Brief Psychotic Disorder, and is not merely an exacerbation of a preexisting Axis I or Axis II disorder."