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ADULT REACTIONS TO MULTIPLE TRAUMA

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A dissertation submitted to the Faculty of Arts, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the Degree of Master of Arts (Clinical Psychology).

Johannesburg, August 1996

DECLARATION

I declare that this dissertation is my own, unaided work. It is being submitted for the degree of Masters of Arts (Clinical Psychology) at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree at any other university or institution.

S M Benatar 26/8/1996

SIGNATURE DATE

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To

Mom,

Dad,

Dave

and the Venerable Akong Rinpoche

ABSTRACT

"Trauma does not heal trauma. Trauma only adds to trauma.
Trauma deepens trauma"
Berkman (Solomon, 1993; P209)

This study aims to explore the relationship between intrusion and avoidance symptoms as described in the diagnostic category in the DSM-IV (American Psychiatric Association,1994) and frequency and level of exposure to traumatogenic events. The effects of lay counselling after the event were taken into account in the analysis, and the sample consisted of voluntary First National Bank employees, who were exposed to more than one bank robbery between December 1989 and 1992.

The hypotheses of the study were that an increasing number of exposures to potentially traumatogenic events, and increasing levels of exposure to potentially traumatogenic events would be related to the development of avoidant and intrusion symptoms. Further, it was hypothesised that the interaction of these two variables would also be significantly related to the development of avoidant and intrusive symptoms and the nature of this interaction was explored. The scale used to measure the symptoms was the Impact of Events Scale (Horowitz, 1979). Level of exposure was measured on a four point scale, which included extreme exposure with physical injury; direct threat and confrontation; indirect contact with the perpetrators, and the fourth category was indirect exposure, or secondary victimisation.

The results indicated that level of exposure had a significant relationship with the development of both intrusion and avoidance symptoms. Contrary to expectations, frequency of exposure was not found to be related to symptomology and it was speculated that this might have been because of the crudeness of the measure. In this regard it is of note that level of exposure as measured in this study included frequency of exposure. The results indicated further that post trauma counselling was not significantly related to symptomology.

The implications of these findings were discussed in the light of the general literature in PTSD.

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CHAPTER ONE

LITERATURE REVIEW

1.1 THE NATURE AND DEFINITION OF PTSD

A key feature in psychotraumatology is the presumed relationship between exposure to an extreme stressor or potentially traumatogenic event and the development of PTSD. In this regard there appears to be consensus that a "dose-effect" relationship exists in which the risk of developing PTSD increases with intensity and duration of exposure to stressors. However, this relationship is mediated by other factors.

Davidson and Foa (1993) propose an interactive model in which the risk of developing PTSD is seen as a function both of the trauma ("external" factors) and of the victim ("internal factors"). PTSD can develop at any time, but depends partly on the severity and qualitative characteristics of the traumatogenic event, and partly on the individual's predisposing features. Certain extremely traumatogenic events, they suggest, are likely to produce PTSD in almost any individual regardless of their predisposition. However, lower grade traumatogenic events may produce PTSD in certain individuals with strong predisposing vulnerabilities, whereas others might experience the situation as minimally stressful. What the exact nature of these traumatogenic events are and what the specific individual vulnerabilities are that are implicated in the development of PTSD is, however, a matter of debate. Despite this debate, at this current time, the definition and diagnostic criteria specified by the DSM-IV (American Psychiatric Association, 1994) are still widely accepted. (Refer to Appendix 1).

In the following section, these five criteria will be expanded upon briefly, to gain a clearer overview of the disorder.

THE NATURE OF THE TRAUMATOGENIC EVENT

Criterion A considers the **nature of the traumatogenic event** and as indicated there are numerous debates and issues surrounding this, which will be discussed in section 3.1

INTRUSION

Criterion B consists of **intrusive thoughts** about the traumatogenic experience, characterised by a reliving of the event as if it were recurring in the present. This might include distressing "flashbacks" or intensely vivid reenactment experiences of the original traumatogenic situation, and may be represented by images (e.g. thematically related nightmares) or distressing affect (Foy, 1992). Triggering events or reminders of the original situation may result in the individual experiencing intense emotional distress or physiological reactivity. Theorists have explained the intrusive symptoms according to their different models (see Chapter 2). Common explanations suggest that intrusion is characterised by intense emotionality, and is considered a means of gaining mastery through reliving the event (Horowitz, 1993). Brett (Davidson and Foa, 1991) suggests that by actively reliving the event, the survivor is presented with an opportunity to work through the event with increased preparedness and efficacy. Intrusive symptoms provide opportunities to reconstruct the meaning of the traumatogenic event.

AVOIDANCE AND NUMBING

Criterion C includes **avoidance and numbing reactions;** The individual tries to avoid both reminders of the physical environment and a wide range of emotions felt at the time of the event or immediately afterwards (Foy, 1992). This reaction includes both numbing (of emotions and memories) and avoidance behaviours, such as social isolation, detachment and denial. Several approaches acknowledge that there are many forms of numbing or dissociative reactions, and these could include amnesia, depersonalisation and altered states of reality (Shilony and Grossman, 1993). Kilpatrick and Resnick (1993) found that the most highly predictive avoidance

symptoms of PTSD were distancing from others, reduced interest in activities and avoidance of reminders of the traumatic event.

Hammond, Raymond, Scurfield, Risse (1993) suggest that the purpose of these avoidance reactions is to counteract intrusive and arousal symptoms, especially when the survivor has been unable to overcome the initial trauma "crisis reaction". Far from being seen as pathologic, Shiloney and Grossman (1993) state that dissociation has an adaptive function, which protects the survivor from collapse in the face of terrifying events. They suggest that the terrible memories are split off from "normal consciousness" and forgotten. Intrusion symptoms are seen to be aspects of the resurfacing of these "forgotten" memories.

INCREASED AROUSAL

Criterion D consists of symptoms of **increased physiological arousal**, and consists of physiologic reactivity when confronted with reminders of the traumatogenic event. Many researchers have used physiologic assessment measures for autonomic nervous system arousal, which could include heart rate, sweat gland activity and blood pressure. The dividing line between physiologic arousal and somatisation of symptoms is an area that requires further consideration. Herman (1992b) proposes that severe and prolonged trauma can appear to amplify and generalise the physiologic symptoms of PTSD, suggesting that individuals somatise their traumatic experiences as a means of coping. She notes that survivors complain of somatic complaints over time, such as headaches, gastrointestinal disturbances and physical pain. This could result in difficulties in diagnosis and comorbidity (Refer Section 1.3.3).

DURATION AND ONSET

Criterion E includes the **duration** of the symptoms, specifying the presence of PTSD symptoms for more than one month. The DSM-IV (American Psychiatric Association, 1994) has included a new category of Acute Stress Disorder, which allows for the presence of PTSD symptoms for a maximum period of one month, and an **onset** of four weeks after the traumatogenic event. If the duration of symptoms was more than six

months after the event, the DSM-IV (American Psychiatric Association,1994) recommends that this is noted.

The lack of predictability surrounding the **onset** of symptoms and the fluctuating course of symptoms has created ongoing controversy and confusion. Typically, periods of intrusion and arousal alternate with periods of numbing and avoidance, but there are no discernible and predictable patterns of fluctuation with regard to individual reactions. This pattern of fluctuating symptoms can either remain or diminish as the survivor starts to cope with the traumatogenic effects (Dunner, 1993). Issues regarding duration and onset are discussed further in Section 1.3.4.

Criterion F, an addition to the DSM-IIIR (American Psychiatric Association, 1987) criteria, includes the **impairment of key functional areas** (such as occupation and social) after the event.

In addition, the DSM-IV (American Psychiatric Association, 1994) suggests that diagnosticians note whether the duration of symptoms was less or more than three months.

SUMMARY

The DSM-IV (American Psychiatric Association, 1994) has enumerated categories of symptoms, which form the basis for a diagnosis of PTSD, and which at first glance appear to consist of a cohesive and practically applicable set of criteria. However, under closer investigation, the definition of PTSD and what constitutes the symptom and diagnostic picture is highly confusing and controversial, and is further compounded by debates concerning which events should be classified as traumatogenic.

1.2 THE NOTION OF A POTENTIALLY TRAUMATOGENIC STRESSOR

In both the DSM-IIIR (American Psychiatric Association, 1987) and the DSM-IV (American Psychiatric Association, 1994) the definition of the nature of the trauma plays a gate-keeping role in the diagnosis of PTSD. They identify types of potentially traumatogenic events and experiences that allow or disallow individuals to be evaluated further for PTSD, using the remaining diagnostic criteria (Kilpatrick and Resnick, 1993). Nevertheless, March (Davidson and Foa, 1993) states that while PTSD has clear face validity, the scope of the diagnosis is unclear, and this is a result of several factors.

One of the key issues is whether events are in and of themselves potentially traumatogenic. The general stress literature conceptualises stress as the gap between the challenges posed by a life event and the individual's assessed capacity to deal with these challenges (Scott and Stradling , 1992). The DSM-IIIR (American Psychiatric Association, 1987) defined a traumatic event somewhat tautologically as one that was "outside the scope of usual human experience", the experiencing or observing of which would be extremely psychologically distressing to almost anyone. The DSM-IV (American Psychiatric Association, 1994) shifted the main emphasis away from the objective severity of the stressor, to a mix of the objective severity of the potentially traumatogenic stressor, and individual vulnerability and perception of the stressor. The implications are that vulnerable individuals exposed to a "minor" stressor may still experience PTSD symptoms.

This modified version is more in line with the proposed ICD-10 definition of the nature of the potentially traumatogenic stressor:

> ".... an exceptional mental or physical stressor, either brief or prolonged..... including military combat, sexual or other violent assault, human or natural disasters, and severe accidents. Infrequently, in the presence of heightened personal vulnerability, events that are objectively less threatening...(may be included)"
>
> (Kilpatrick and Resnick, 1993; p 245).

There is, however, ongoing controversy within the literature concerning the specific nature and interaction of the vulnerability and environmental factors.

While it may be true that extreme exposure to stressors of high intensity almost invariably results in PTSD, individual differences greatly influence whether milder forms of exposure to potentially traumatogenic events will result in PTSD or not (March, 1993). Some researchers suggest that individuals respond differently in similar traumatogenic situations, depending on how they perceive and interpret their environment (Tomb, 1994). In line with the theory of attributional style, Scott and Stradling (1992) propose that the meaning attributed to the potentially traumatogenic event by the individual is of utmost importance and can mediate its effects. They quote a study by Macfarlane (1988) in which a number of bushfire survivors felt personally challenged rather than traumatised and helpless. Concern, however, has been expressed that this shift in focus may lead to an increased risk of subjectivity when diagnosing stress reactions (Tomb, 1994).

This then leads onto the debate surrounding threshold level: at what critical point does the severity of the stressor play a greater role than individual vulnerabilities? There is clearly a need for more normative data regarding the definition of what kinds of events and what level of severity of these events may be experienced as traumatic, as well as the nature of the interaction of individual vulnerabilities and environmental factors. Leading on from the difficulties and debates around the definition of the traumatic event, is the major issue of the symptom picture and the impact this has on PTSD as a diagnostic category.

1.3 THE SYMPTOM PICTURE

The issue of the specific symptoms and the clustering of these symptoms which serve as criteria for diagnostic categorisation has become highly controversial and will be further considered.

1.3.1 GROUPING OF SYMPTOMS

An area of controversy in PTSD is what specific symptoms and/or clustering of symptoms are essential to the diagnosis. One concern has been whether different potentially traumatogenic stressors will result in diverse symptom complexes within PTSD. Research indicates that the nature of stressors does indeed alter the symptom picture and researchers have proposed that natural traumatogenic events (such as an earthquake) will have different effects to man-made assault (rape or murder) (Tomb, 1994). Other research distinguishes between the effects of single versus multiple or continuous stressors (Herman, 1992 a; 1992b ; Scott and Stradling, 1992).

Some researchers are of the opinion that the number of criteria listed in the DSM-IIIR (American Psychiatric Association, 1987) are fairly arbitrary and have suggested that the presence of fewer criteria (specifically avoidance criteria) could still be indicative of a diagnosis of PTSD (Kilpatrick and Resnick, 1993). This is in contrast to the DSM-IV (American Psychiatric Association, 1994) requirement that the presence of both avoidance of stimuli and a numbing of general responsiveness are necessary for a diagnosis, rather than either one or the other (Tomb, 1994). In view of this, it is suggested that further empirical studies on construct validity, consistency, and the relationship between traumatogenic events and predictable PTSD patterns needs to be carried out, before the epidemiology of the disorder can be firmly established (Foy, 1992).

1.3.2 PRIMARY AND SECONDARY SYMPTOMS

Which symptoms are primary in the presenting picture of PTSD and which are secondary symptoms is also a matter of debate, and the DSM-IV (American Psychiatric Association, 1994) has not changed from the DSM-IIIR (American Psychiatric Association, 1987) in this regard. Secondary symptoms seriously under consideration by several researchers include depression, anxiety, somatisation, various changes in ego functioning (Peterson, Prout, Schwartz, 1991); rage, damaged identity and loss of self respect (Hammond et al, 1993). Foy (1992) discusses loss of trust and a loss of

control, which could result in a continual monitoring of interpersonal and physical environments, and in excess could manifest as a phobic avoidance of trauma-related situations.

The effects of survivor guilt and shame have been described by many authors (Solomon, 1993; Peterson et al, 1991), but have not been formally included in the diagnostic criterion (DSM-IV, American Psychiatric Association, 1994). Nevertheless, the inclusion of these common symptom presentations could be important in deepening an understanding of PTSD and in making differential diagnoses.

1.3.3 COMORBIDITY AND DIFFERENTIAL DIAGNOSIS

The issue of differential diagnosis is complicated by that of comorbidity PTSD rarely exists as an isolated disorder once it has become chronic, and research has found that patients with PTSD are twice as likely to present with another psychiatric diagnosis than controls (Davidson and Foa, 1991; Peterson et al, 1991). Other anxiety disorders, depression and substance abuse are three disorders which have been found to have the highest level of comorbidity with PTSD (Davidson and Foa, 1991; Davidson and Baum, 1993; Peterson and O,Shanick, 1986). To further complicate the issue, broad epidemiological studies indicate that other comorbid disorders include somatisation disorder, schizophrenia, schizophreniform disorder and obsessive compulsive disorder (Davidson and Foa, 1991).

Current debates focus on whether PTSD is the primary or secondary disorder; whether PTSD caused the second disorder to develop, or whether the existence of the other disorder in fact created a pre-disposing vulnerability for PTSD. That several disorders can be diagnosed in comorbidity with PTSD has serious implications for the delimitation of diagnostic boundaries, which in turn will affect the selection of treatment strategies. One of the difficulties in this regard remains the fact that epidemiological studies use diverse data bases, and therefore do not consistently examine the same illnesses.

This is further complicated by the fact that notwithstanding the issues of comorbidity and diagnostic clarity, several sets of the symptoms associated with PTSD are not specific to it (Quarantelli, 1985). Once again, this makes a clear delimitation of PTSD extremely difficult. The symptoms of adjustment disorder, for example, presents at face value in a similar way to the symptoms of PTSD and one is dependent upon assessing the nature of the traumatogenic stressor when making a differential diagnosis. This raises the question of the importance of aetiology when defining diagnostic criteria which has major implications for the DSM project per se.

Clinicians might easily miss the diagnosis of PTSD because of comorbidity. To compensate for these difficulties, clinicians are advised to assess which disorder is primary and which is secondary, and (with extreme cases) to allow for multiple diagnoses as with the DSM-IV (American Psychiatric Association, 1994) axial classification. Because psychiatric comorbidity is so common in PTSD, diagnosing and addressing co-existing psychiatric illness is an essential step in planning PTSD treatment. An increased awareness of symptoms more specific to PTSD, such as nightmares, flashbacks, startle response and hypervigilance could assist clinicians in diagnosis, as could an understanding of secondary symptoms associated with PTSD (Davidson and Foa, 1991).

1.3.4 COMPLICATIONS CREATED BY THE TIME FRAME

Related to the debates around the symptom picture and the nature of the traumatogenic event is that of the course of PTSD: the time frame, onset and duration of PTSD symptomology. The core issue in this regard focuses on the discrimination between normal and disordered processes of recovery (Lyons, 1991). Several studies in the literature suggest that the course of PTSD varies considerably, depending on the duration, severity and complexity of the traumatogenic exposure, and how this interacts with the individual's pre-disposing characteristics and societal supports (Wilson and Raphael, 1993).

The DSM-IV (American Psychiatric Association, 1994) attempted to address these issues by introducing two subtypes of symptom duration: acute (less than three months) and chronic (more than three months). This does not, however, resolve the complexities surrounding the unpredictable fluctuation and onset of symptoms, the complexity of the disorder and the durability of symptoms.

A further issue which still requires consideration is whether or not the diagnostic criteria should be expanded to include a "normal response" to PTSD. In the first year following exposure to a traumatogenic event, many individuals manifest symptoms which cause distress but do not necessarily meet the diagnostic requirements of PTSD. In this regard, the DSM-IV (American Psychiatric Association, 1994) introduced a new category, namely Acute Stress Disorder. The symptom picture is almost identical to that of PTSD, differing in its emphasis on dissociative symptoms and a time frame that specifies between two days' and four weeks' duration of symptoms and an onset within four weeks of the event.

Another issue which complicates the establishment of a diagnosis of PTSD at any one point in time is that in some individuals, symptoms may attenuate and disappear over time, whereas in others they may increase or become periodic.

Blank (1993) strongly recommends that major differences in symptom constellation (subtype) be clearly differentiated from the course of symptoms (the time axis, e.g. onset, duration, waxing and waning of symptoms), a distinction which he believes is not clear in the DSM-IIIR (American Psychiatric Association, 1987). Greater awareness of the temporal features of PTSD can assist with assessment, positive diagnosis, treatment planning and intervention strategies.

1.3.5 CLASSIFICATION DIFFICULTIES

The adequacy of PTSD as a diagnostic category is closely related to the issue of the classification of PTSD in the nomenclature, focusing on its placement among the anxiety or the dissociative disorders.

The classification of PTSD among the anxiety disorders has created ongoing controversy, and sparked off research to provide evidence regarding the centrality of either or both avoidant and intrusive symptomology (Davidson and Baum, 1993; Davidson and Foa, 1991). Two of the issues are the degree of severity of symptom presentation, and comorbidity (and the overlapping of symptoms).

Arguments for the classification of PTSD in the anxiety category propose that fear, anxiety and avoidance behaviours are typical of anxiety disorders, and the presentation of PTSD symptomology shares much in common with panic disorder, phobic anxiety and generalised anxiety disorder (GAD). For example, symptoms associated with panic disorder are physiologic arousal and intense fear following exposure to a reminder of the stressor, as well as flashbacks, nightmares and numbing - similar symptoms required for a diagnosis of PTSD. The presence of a stressor in panic disorder relates closely to the traumatogenic stressor in PTSD.

Arguments for the inclusion of PTSD as a dissociative disorder propose that re-experiencing and numbing are typical of dissociative disorders, and are also features of PTSD. Supporting this argument, Davidson and Foa (1993) note that psychogenic amnesia is a common response with chronic PTSD, and that in treatment, recapturing dissociated material facilitates the recovery process. They also suggest that the magnitude of dissociative response predicts outcome in PTSD. Also supporting the notion that PTSD is a dissociative disorder is the inclusion of a new diagnostic category in the DSM-IV (American Psychiatric Association, 1994), viz. Acute Stress Disorder, which has a strong emphasis on dissociative symptoms, including numbing and detachment, reduced awareness of surroundings, derealisation, depersonalisation and dissociative amnesia.

Arguing against this classification are the findings that dissociation tends to decrease over time and is not found in all PTSD sufferers (Davidson and Foa, 1993). Further, dissociative symptoms may be of lesser importance than anxiety symptoms, insofar as dissociation can be seen as an attempt to deal with extreme fear or anxiety through avoidance, and is therefore secondary to anxiety symptoms. Further complicating the picture is the fluctuating nature of symptoms and the complex time frame. However at this moment the weight of opinion is that the degree of dissociation in PTSD is not severe enough to warrant classification as a dissociative disorder.

1.4 SUMMARY

The issue of the categorisation of PTSD as a psychiatric disorder warrants further research. There is currently confusion concerning the symptomatology, course and onset of symptoms, comorbidity, and treatment response. Greater clarity in these areas could contribute to a better understanding of the etiological process and the presentation of the symptom picture.

This study follows the current classification of PTSD as an anxiety disorder as presented in DSM-IV (American Psychiatric Association, 1994). The focus in this study is on both the etiological importance of the stressor and on the presenting symptom picture, and it explores their interaction. This leads into a discussion of conceptual models of PTSD.

CHAPTER 2

CONCEPTUAL MODELS OF PTSD

A variety of conceptual models have been developed in order to explain the formation and resultant symptom picture of PTSD. A central consideration in the various models is what Solomon (1993) terms "differential attribution of responsibility". Some models attribute responsibility (or blame) to the survivors themselves and suggest that survivors of traumatogenic events manifesting distress (and PTSD) do so as a result of characterological weakness or deficiency. This model implies an accusatory stance, which has had implications for war combatants ("shirkers") with regard to legal and financial compensation issues. Other models attribute responsibility for distress and PTSD to environmental factors such as the nature of the stressor itself. This approach, while generally accepted does not, however, explain why survivors respond in different ways. An integration of models is therefore recommended so as to provide more satisfactory explanations.

2.1 PSYCHOANALYTIC APPROACH

There is no single psychoanalytic approach to the understanding of the pathogenesis of PTSD, although most of the theories are complementary and can be synthesised into a basic description.

The majority of psychoanalytic writers focus on individual factors, stressing genetic predisposition, pre-trauma conflicts and the pre-morbid capacity to handle stress. Trauma is viewed in the context of the individual's disposition, which includes the state of mind at the time of the event, the traumatogenic situation and the existing psychic conflicts which prevent the integration of the traumatogenic experience into the conscious personality. In this model, the individual's fantasies that arise out of the trauma are considered to have more impact than the nature of the trauma itself.

Freud and the early analytic writers contributed greatly to this field with the concept of a "protective shield" or "stimulus barrier". This shield is shattered when external events lead to an excessive stimulation which occurs abruptly and unexpectedly, resulting in a situation of "energy overload". The ego libido can no longer be contained in this situation, and alterations in psychic functioning occur in order to restore balance. This can result in disturbed integration, upset equilibrium and disorganisation in mental functioning, even to the point of permanent irreversible damage to the psyche and structural personality changes. Disturbances can include chronic use of denial, escape into the inner world of memories and fantasy, fearfulness of repetition resulting in constant alertness, shattered basic trust and a fragile ego structure (Peterson et al, 1991). Other issues stressed in Freud's theory of trauma is early infantile conflict and the repetition compulsion.

In contrast to Freud, Object Relations theorists suggest that in the face of internal trauma, the individual defends himself by "splitting" of the personality, which can bring about splitting of the "self system". There is a resultant loss of identity, a sense of omnipotence and the emergence of a protective or false self (Peterson et al, 1991). This approach stresses the importance of the dissociative aspect of PTSD.

Critics of the dynamic approach have argued that it is constrictive and judgmental. The approach is limited to an individual focus and does not take into account the nature of the stressor, the realities of war, social disaster and current social stressors (Peterson et al, 1991). However, current psychodynamic writings do stress the nature of the traumatic stressor and environmental factors (Peterson et al, 1991). Critics also state that dynamic treatment strategies on their own are not effective, especially where traumatisation is severe and time constraints are important.

2.2 BEHAVIORAL/LEARNING THEORY FORMULATION

Two Factor Learning Theory states that psychopathology is a function of both classic conditioning (a fear response is learned through associative principles) and instrumental learning (individuals learn to avoid the conditioned cues that evoke anxiety).

To explain the development of symptoms of PTSD, Peterson et al (1991) suggest that the unconditioned negative stimulus (UCS) of the traumatic event serves to elicit extreme physiological and psychological distress. Both environmental and internal physiological and psychological responses which accompany the UCS may become conditioned stimuli (CS) eliciting a stress response similar to that elicited by the UCS, and this accounts for the reexperiencing of the event.

Instrumental conditioning asserts that individuals will develop several behaviours in order to avoid aversive CS and UCS, and that they will learn to avoid cues that elicit negative emotions. This avoidance prevents deconditioning to the CS, and by providing immediate relief from anxiety, perpetuates the avoidance. The complexity of PTSD symptomology is explained through stimulous generalisation, higher order conditioning, and incomplete exposure to traumatic memories (Peterson et al, 1991).

Seligman's theory of Learned Helplessness (Solomon, 1993) is particularly helpful in offering an understanding of the individual's sense of helplessness and loss of proactivity in threatening situations. When an individual is exposed to adverse conditions that he cannot control or escape, he derives a conviction that no matter how hard he tries, he cannot control (or has little influence over) the environment. The survivor comes to believe (learn) that he is a helpless victim of circumstances.

Adding to this theory, Milgram (Figley, 1985) explains that the "externalisation attribution" results in reduced motivation levels and a loss of initiative to respond to

stressful situations. The eventual outcome is depression, withdrawal, isolation and chronic anxiety associated with the fear that the trauma will reoccur. However, the external locus of attribution may provide a rationalisation for survivors' [illegible]nal and behavioral states, and this attitude can serve as an aid in the recovery process. Solomon (1993) proposes that Seligman's theory is particularly relevant to survivors of multiple traumatisation.

The behavioral approach is limited in that cannot adequately explain changes in personality associated with ongoing trauma (Kolb, 1987). The strengths of this approach include the effectiveness of treatment modalities, such as desensitisation, relaxation and attempts to shift the external locus of control to an internal focus. Several studies have advocated the behavioral treatment of PTSD as the treatment of choice (Peterson et al, 1991).

2.3 PSYCHOBIOLOGIC MODELS

Recognition that psychological trauma has an enduring effect on biological changes has resulted in increasing psychobiological studies of trauma and PTSD, with exploration of hyperarousal, disequilibrium and neurophysiological processes (Van Der Kolk and Fisler, 1995; Lipper, 1990; Davidson and Edna, 1993; Giller, 1990). The traumatogenic event upsets the stasis of the individuals functioning, leading to disequilibrium at both psychological and physical levels. The psychobiology of PTSD attempts to understand symptom expression and related disturbances in learning processes by studying the changes in the central nervous system, the autonomic nervous system and related neural mechanisms following exposure to trauma.

In this regard, Van Der Kolk and Sapporta (1993) analyse the neural structures and subsystems and how they mediate PTSD symptoms and learning processes after a traumatogenic event. The areas studied include: 1) autonomic hyperreactivity and intrusive reexperiencing, 2) numbing of responsiveness, 3) developmental levels and

the effects of traumatogenic events, 4) the limbic system, 5) noragenic and serotonic pathways, 6) endogenous opioid system, 7) the role of the locus coeruleus and related structures.

Van Der Kolk and Sapporta (1993) propose that there is a biologically significant relationship between autonomic arousal and intrusive recollections, and they quote studies of several researchers who (through physiological measurements) noted conditioned reactions when individuals were presented with stimuli similar to that of an original traumatogenic event. These findings provided further support for the notion of common biological underpinnings for certain PTSD symptoms, such as flashbacks, anxiety and panic attacks. Van der Kolk and Sapporta (1993) researched whether increased autonomic arousal might occur in response to a variety of stimuli and not just to the conditioned stimulous alone, and they found that "habituation may follow repeated exposure to the traumatogenic stimuli itself, but associated events continue to elicit hyperreactivity". This occurs because emotional reactivity (at the core of PTSD symptomology) is increased due to a loss of neuromodulation, and further, hyperarousal contributes to the loss of memory of the traumatogenic event and therefore prevents a process of working through the painful memories.

Another important area of research has been the effects of the limbic system on PTSD symptoms. The limbic system plays an important role in modulating emotions that control survival and self-preservation behaviours, and constitutes the primary area in the CNS where the processing of memories takes place. Suppression of hippocampal functioning, following a traumatogenic event, could result in the creation of amnesia for the specifics of traumatogenic related situations, but not the feelings associated with them. Therefore, the locating of memory in spatial and temporal dimensions is disturbed, which in turn could lead to a lack of encoded symbolic linguistic language, which is essential for information retrieval (Van der Kolk and Sapporta, 1993).

Van Der Kolk and Saporta (1993) state that with the growing awareness and research in the areas of the nervous functions, that "the psychobiology of trauma (is) one of the most promising areas of psychiatry" (p4). However, these models lack focus on

environmental factors such as the nature of the stressor, and the interaction of the individual with his environment and support systems.

2.4 INFORMATION PROCESSING MODEL

Perhaps one of the most influential models of PTSD is that of Horowitz's Information Processing Model, which emphasises information processing and cognitive theories of emotion (Wilson and Raphael, 1993; Green, 1993). This model impacted on PTSD theory and formed the foundations for the diagnostic criteria of the DSM-III (Peterson et al, 1991).

Horowitz (1993) proposes that a disaster or traumatogenic event creates an internal excess of information, resulting in information overload. The individual is too overwhelmed to cognitively integrate the material and copes defensively by numbing and denial. He proposes a type of active memory which stores the information, and which has an intrinsic tendency towards repetition of the contents (Peterson et al, 1991).

There, traumatogenic contents will periodically seep into awareness and manifest as intrusive imagery, flashbacks, nightmares, and ur ed thoughts and emotions. When this intrusive information becomes too great, t fens ve mechanisms kick into place again in the form of numbing and denial, and as a result there is an oscillation between intrusive and avoidant (numbing) symptoms. In an adaptive situation, completion of information processing continues until the information is fully integrated into existing cognitive schema (Peterson et al, 1991; Tomb, 1994).

Horowitz (1993) postulated that survivors typically progress through a well-defined sequence of stages when assimilating the trauma, and he lists these as outcry, avoidance, intrusive imagery and reexperience of the event (this phase may alternate cyclically with avoidance and numbing), transition, and integration (Figley, 1985). This

concept of stage theory has been questioned by several authors (Peterson et al, 1991) who argue that data supporting the stage theories have been descriptive rather that empirical, and that the extreme variability of the response patterns to stressful and aversive life events does not support this concept.

The strength of Horowitz' approach is the importance placed on the individual's cognitive style, patterns of conflict and coping mechanisms. It stresses the necessity for individualised treatment strategies, as the course of PTSD may differ for individuals at certain points of the process (Peterson et al, 1991).

2.5 TOWARDS AN INTEGRATION OF APPROACHES

While all the approaches presented so far have relevance and make important contributions towards the research of PTSD, there is a move towards integration of several approaches, to gain a broader, more encompassing understanding of the development and process of PTSD, and the relationships between interacting variables. Certain contributions of the psychoanalytic, learning theory, psychobiologic and information processing approaches can be integrated in the Psychosocial Model. Its framework is based on the Information Processing model proposed by Horowitz (Peterson et al, 1991). This model is widely accepted in the field of PTSD, and its relevance lies in its focus on the interaction of various aspects of the trauma process, such as the nature of the trauma, individual characteristics, the social/cultural environment, and normal and pathologic reactions to trauma (Peterson et al, 1991).

The starting point is the assumed traumatogenic nature of the event or stressor (Figley, 1985; Peterson et al, 1991). The nature of the stressor, its duration, the level of life threat, bereavement and loss are components that constitute the objective stressor/stimuli (Tomb, 1994). The individual's subjective evaluation of the event is the next factor in the equation (DSM-IV, American Psychiatric Association, 1994; Joseph, Yule and Williams, 1993b; Tomb, 1994), as is the relationship between these two areas (Tomb, 1994; Joseph et al, 1993a).

The components of the individual's personal frame of reference which influence their responses to the environment and mediate their responses to trauma in the model are believed to be ego-strength, nature of coping resources and defences, presence of pre-existing psychopathology, prior stressful/traumatogenic events, and demographics (such as age and developmental stage).

Environmental factors include not only levels of support during the post-trauma phase, but also the protectiveness of the family, social services and the community, the commonly held attitudes of society, the level of intactness of the community, and cultural characteristics. These factors can strongly influence how the individual absorbs, interprets and reacts to events and situations (Dawes and Donald, 1994; Peterson et al, 1991).

In summary then, in this model it is believed that in understanding PTSD the starting point is the individuals exposure to an event which is objectively defined as potentially traumatogenic (the nature of the stressor, the intensity, level of physical harm, death, destruction, etc.) which is then subjectively experienced and evaluated according to existing schema and past experiences (in terms of level of personal life threat, personal attribution, level of helplessness, bereavement etc.), and then responded to at a physiological level. How the response is then assimilated depends on whether social supports (which could include family support, counselling, community involvement, existing societal mores, etc.) were perceived to be available.

All the above factors then serve to mediate (exacerbate or ameliorate) the reaction to the stressor over time, and influence whether pathologic reactions to the event will occur or whether the individual will achieve either homeostasis or possibly a higher level of functioning than prior to the event.

This model contributes towards an understanding of why certain individuals develop PTSD while others do not, and it takes into account the interaction of both external mediating and individual vulnerability factors.

2.6 SUMMARY

Shalev (Van Der Kolk and Fisler, 1995) proposes that PTSD is a result of a complex interaction and co-occurrence of several pathogenic processes. These include altered cognitive schemata and social understanding; a change in neurobiological processes which affect the individual's ability to discriminate stimuli, and thirdly, conditioned fear responses acquired in relation to traumatogenic stimuli. The previous chapter has attempted to provide a summary of several different approaches to the understanding of the development of trauma reactions, and concludes with an attempt at integration of models. While the models are drawn from differing paradigms, it is suggested that they share several areas of commonality.

In regard to the theoretical understanding which informs the present dissertation, an integrated model was adopted insofar as in regard to the development of symptomology, it acknowledged the role and interaction of environmental factors, (the nature and number of exposures to traumatogenic stressors), the post-trauma environment (counselling after the event) as well as subjective appraisals of the events (ratings of the perceived level of exposure to the event).

However, the study itself only examined the effects of a limited number of the variables implicated in this integrated model and this was a limitation of the study. The variables chosen for focus are discussed in Section 6.3, and the limitations of the study are discussed in Section 8.2.

CHAPTER 3

FACTORS WHICH INFLUENCE THE DEVELOPMENT OF PTSD

Three factors, identified by the literature, which influence the development of PTSD are the nature of the traumatogenic event, the post-trauma environment and individual differences (Green, 1993; Peterson et al, 1991; Solomon, 1993; Scott and Stradling, 1992; Foy, 1992; Figley, 1985).

3.1 THE NATURE OF THE TRAUMATOGENIC EVENT

These factors are also referred to as "environmental factors", and refer to the level of exposure to the traumatogenic event, the number of traumatogenic events experienced, and the nature of the traumatogenic event itself. Researchers have argued that the nature and the degree of the traumatogenic event/s are the most powerful predictors of PTSD symptomology, as opposed to individual factors (March, 1993; Peterson and O,Shanick, 1986). Research, however, presents contradictory findings.

3.1.1 THE LEVEL OF EXPOSURE

Development of PTSD has been linked with level of exposure to objective aspects of the stressor experience (Yule et al, 1990; Yule and Williams, 1990; Tomb, 1994). Increasing levels of exposure or involvement raises the risk of PTSD symptomology, with high levels of exposure being associated with more than twice the risk found for low levels (Pynoos, Frederick, Nader, Arroyo, Steinberg, 1987; Foy, 1992). High levels of exposure have been defined as personal involvement with the traumatogenic event, injury and perceived threat to life. March (Davidson and Edna, 1993) states quite

emphatically that the empirical literature demonstrates that the stressor-dose is the major risk factor for the development for PTSD, especially where the traumatogenic event involves injury, life threat and object loss. The "brush with death" appears to have a deeply shattering effect, and actual physical injury (especially when intentionally inflicted) has been shown to have a high correlation with increasing levels of PTSD, anxiety and depression (Green, Grace and Glessor, 1985; Gleser, Green, Winget, 1981; Foy, Resnick Sipprelle, Carroll, 1987; Kilpatrick and Resnick, 1993).

Conklin (Figley, 1985) coined the term "secondary victimisation" to include individuals not present at the time of the traumatogenic event, who are nevertheless "psychologically involved" and may suffer from milder forms of PTSD. Green (1993) suggests that the individual suffers vicariously upon hearing about the harm or violence to a partner or family member. Lower levels of exposure to traumatogenic events appear to effect individuals differently, and in some cases no traumatisation appears to take place, whereas high levels of exposure to extreme traumatogenic situations seem to affect everyone, regardless of pre-existing individual vulnerabilities (Gibbs, 1989; Yule et al, 1990). The point at which this takes place is unclear and has resulted in further research to discover varying threshold levels especially with lower magnitude events.

Subjective perception of the traumatogenic stressor as has already been indicated, appears to mediate PTSD reactions, explaining to some degree, varying individual responses to similar traumatogenic events. The DSM-IV (American Psychiatric Association, 1994) revised criterion A (the stressor) to include both the objective factors and the subjective perception of the traumatogenic event. Objective factors would consist of the magnitude (or level of exposure), number and length of exposure and the type of traumatogenic event. Subjective experience of the event includes the level of perceived threat or danger (to life), perception of suffering, the perception of loss (such as death) and perception of low controllability, or perceived responsibility for failure to assist in a socially approved manner (March, 1993; Wilson and Raphael, 1993; Green et al, 1985; Gibbs, 1989). The importance of the individual's subjective perception of the event was illustrated by Pilowsky (Davidson and Foa, 1991), who found that PTSD symptoms appeared in accident victims whose subjective perception of the danger level

and life threat was far greater than the actual risk assessed by others, once the facts had been gathered.

Green (1993) reports that where the survivor perceives harm and violence to be purposeful and intentional (as opposed to harm arising from nature or mishap), PTSD symptoms present at higher levels.

3.1.2 MULTIPLE AND CUMULATIVE TRAUMATOGENIC SITUATIONS

"Trauma does not heal trauma. Trauma only adds to trauma.

Trauma deepens trauma"

Berkman(Solomon, 1993, p209)

The majority of studies focus on single traumatogenic events, whereas multiple traumatisation appears to be the norm rather than the exception (Foy, 1992). Repeated traumatisation appears to intensify and deepen PTSD symptoms, with two-time survivors of traumatogenic events experiencing significantly more intrusion, general distress and depression (Solomon, 1993; Sorenson and Golding, 1990). One explanation for these reactions is that some survivors emerged with scars, increased vulnerability and a depletion of coping resources following attempts to function adequately:

> "Retraumatisation left a deeper imprint on all areas of the casualties lives - from their psychiatric and social status to their perception of themselves and their world - than one time trauma" (Solomon, 1993, p207).

Survivors of multiple traumatisation report having more anticipatory anxiety, having poor family, social and work adjustment after the second traumatogenic event. It appears that multiple traumatisation reactivates old themes and unresolved issues which have not yet been worked through and resolved, especially related to past traumatisation.

This lack of resolution can create a vulnerability through the accumulation of layers upon layers of damage and hurt (Scott and Stradling, 1992; Foy, 1992). Solomon (1993) suggests that an "imprint" from the initial traumatogenic event is embedded in the individual's psyche, and the survivor of multiple traumatisation has to contend "with not one failure, but two - with two sets of appalling memories, guilt stacked upon guilt, rage upon rage, and stress upon stress" (p208).

Furthermore, it is possible that the survivor's resources have been depleted through coping with the effects of the first traumatogenic event. Hill (Solomon, 1993) proposes a "roller-coaster" model, in which reorganisation occurs at a lower level from that on which the survivor originally functioned, especially where second traumatogenic event is perceived to be more devastating.

The result of this focus on multiple traumatisation has encouraged researchers to shift from a "cross-traumatisation" to a "multiple-traumatisation" approach, which has resulted in a broader conceptualisation of traumatogenic situations. Green (1994) notes that more longitudinal research is being carried out with multiple traumatogenic events, with emphasis on onset and the course of symptoms.

3.1.3 PROLONGED, REPEATED TRAUMATOGENIC SITUATIONS

Evidence has been collected to support the existence of more complex types of traumatogenic reaction than single events, involving situations of hostages, torture, combat and criminal victimisation, with the main effect being changed characterological features of survivors (Herman, 1992a, 1992b).

In the context of South Africa's socio-political turbulence, Straker (1987) cites youth and adults' exposure to extreme and ongoing levels of traumatogenic incidents, and introduces the term "continuous traumatic stress". She proposes that dissociation and numbing can play an integral protective function for the survivor while he is still under

threat from ongoing traumatisation, which has serious treatment implications. The concept of continuous traumatisation has led to a valuable exploration of the concept of resilience of survivors, a focus that shifts sole emphasis away from pathological considerations of traumatised individuals.

3.1.4 SUMMARY

In situations of multiple and prolonged traumatisation, clinical observations have led to the acknowledgement that the symptoms displayed tend to be more complex, diffuse and deeply rooted than in simple PTSD. Literature surveys offer wide support for this notion, although evidence is as yet unsystematised (Horowitz, 1986; Herman, 1993). Multiple and chronic events are not as clearly fitted into a stressor or traumatogenic event conceptualisation as are acute and one-off events, although the DSM-IV (American Psychiatric Association, 1994) has attempted to take cognisance of this by broadening the definition of the traumatogenic stressor.

Nevertheless, the syndrome of multiple and continuous traumatisation appears to be sufficiently different from simple PTSD to warrant further consideration and research (Foster, 1987; Green, 1993). However the notion of continuous traumatisation is problematic. March (1993) questions how researchers can quantitatively reconcile a chronic exposure to low level threat with exposure to more severe events of shorter duration. Despite this and the difficulties that the concept of multiple and prolonged traumatisation poses for conceptualisation and measurement, the need to continue such research is clear.

3.2 THE POST-TRAUMA ENVIRONMENT

There is definite evidence that factors in the post-trauma environment mediate the effects of traumatogenic event/s. These factors include counselling, levels of social support and current life events. These are described below.

3.2.1 COUNSELLING

Several researchers suggest that counselling after exposure to trauma is essential to lessen its impact, because it serves to contain the survivors feelings in the context of a safe environment (Peterson et al, 1991; Pynoos and Eth, 1986; Manton and Talbot, 1990; Scott and Stradling, 1992; Foy, 1992). Counselling appears to be particularly important when assault or crime are involved (Peterson et al, 1991). Counselling assists the survivor to negotiate his/her way through the shock phase, and ensures that the beginnings of the "working-through" process is not delayed or blocked, and thereby facilitates the assimilation and integration of the traumatogenic effects (Scott and Stradling, 1992; Foy, 1992; Solomon, 1993). Counsellors achieve this through supporting adaptive ego skills, normalising the abnormal, decreasing avoidance reactions and altering attribution of meaning, techniques adopted in most forms of therapeutic intervention with PTSD (Peterson et al, 1991).

An argument for early intervention is that at crisis points, therapeutic leverage is at its greatest and furthermore once PTSD has become chronic, treatment is more difficult (Peterson et al, 1991). A further argument for early intervention is that it can assist in identifying survivors who may be at greater risk for developing complicated PTSD reactions (Manton and Talbot, 1990), and that it can also assist individuals to identify new strengths and resources, and reaffirm or develop new relationships (Wilson and Raphael, 1993).

The issue of counselling or therapy of trauma survivors has generated several debates, one of the most important questions being whether survivors can recover without therapy (through natural recovery or spontaneous remission) or whether PTSD is exacerbated where there has been no intervention. The length and type of intervention, and what constitutes effective treatment outcome has also been debated at length, as has the role of social support in ameliorating the effects of exposure to trauma.

3.2.2 LEVELS OF SOCIAL SUPPORT

As discussed previously, the recovery of the survivor is partly dependent on a supportive post-trauma environment (Foy, 1992; Straker, 1992; Scott and Stradling, 1992). Definitions of external support systems include the family, therapists/trauma counsellors, medical support, relief organisations, and those involved in recreating order or cleaning up after the event (police, lawyers, municipalities, etc.). The individual's perception of support can also contribute to the buffering the stressors effects.

The concept of a "trauma membrane" has been used to describe the level of protectiveness provided by family and friends in the recovery environment, with Yule and Williams (1990) emphasising the role played by parents and family members:

> "families who did not share their immediate reactions to disaster may have had more trouble with their long term adjustment... and experienced a greater degree of estrangement" (p282).

In small close-knit communities, the sense of loss experienced by individuals can be intensified by the impact on others of the traumatogenic event (Peterson and O,Shanick, 1986; Sewell, 1993). The level of intactness of the immediate community will therefore have an impact on the survivor and the survivor's family. The role of the community in socially constructing the traumatogenic event, as well as constructing the

role of the victim and legitimising certain coping responses will also have a vital impact on whether PTSD develops. Quarantelli (Gibbs, 1989) maintains that the shared experience of trauma can serve in the recovery process to bind and integrate a traumatised community, and in this process protect the individual by providing new and more acceptable social meanings of traumatogenic events. Straker (1992) presents examples of the role of traditional healers and community rituals in defining such events and shows how these may help individuals to become more reintegrated into the community

In like vein, religious or political ideologies can serve to justify and motivate actions and behaviours, and can be sustaining through traumatogenic situations. The strength of religious conviction may offer the survivor relief through spiritual justification and by providing an external global causal attribution for the traumatogenic event. Reciprocally, loss of faith following trauma can be devastating in itself, in that it can reinforce an experience of a world that is meaningless and destructive, and reinforce feelings of hopelessness and helplessness (Ochberg, 1993).

The above-mentioned are all areas requiring further research in relation to PTSD, but they clearly effect its course as do current life events.

3.2.3 CURRENT LIFE EVENTS OR LIFE CHANGE

Additional stressors in the survivor's life can lead to an exacerbation of the effects of the traumatogenic event, because they disallow a focus on recovery after the traumatogenic event. Stressors can include family difficulties, relationship problems and work-related difficulties. These situations can lead to a depletion of coping resources, already taxed by the traumatogenic event. Further, additional stressful life events can act as triggers for PTSD and stimulate other psychological disorders, raising the complex issue of comorbidity (Matsakis, 1992), as discussed in Section 1.3.3.

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3.3 PERSONAL FACTORS

One area of controversy in the study of traumatology has been the variability of individuals' reactions to similar traumatogenic events. While the nature and force of the traumatogenic event play a critical role in this regard, the extent of the survivor's ability to deal with the situation and after effects have been debated. The following factors are taken into account when exploring individual differences: constitution, coping style and attribution.

3.3.1 CONSTITUTIONAL FACTORS

Inherited psychological and developmental aspects of the individual will contribute to the manner in which the traumatogenic event is handled. These include predisposing vulnerability factors (which might consist of genetic vulnerability to psychopathology in general, or to specific psychological disorders in particular); early adverse or traumatogenic experiences; personality characteristics (in particular borderline, sociopathic, dependent, paranoid or neurotic features), and cognitive style.

3.3.1.1 PRE-EXISTING PERSONALITY OR EMOTIONAL DISORDER

> "It is acknowledged that pre-trauma disorders such as depression can function as "fault-lines" along which the individual may break down in the wake of a major trauma" (Scott and Stradling, 1992, p69).

Research has both confirmed and refuted that individuals with a history of psychiatric or emotional disturbance are at higher risk for developing PTSD. Several researchers confirm that predisposing vulnerabilities significantly contribute to the development of PTSD, with emphasis on more acute PTSD reactions, higher levels of PTSD

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symptomology, and a more chronic course of PTSD (Peterson and O,Shanick, 1986; Solomon, 1993; Creamer, Burgess, Buckingham, Pattison, 1993).

However, several researchers found that other factors played a more important role in contribution to the development of PTSD (Best, 1991). Green et al (1985) conducted a study and found that factors associated with the traumatogenic experience itself (such as life threat, longer exposure to the trauma, and bereavement) played a more predominant role than previous history of psychiatric illness. In addition, Silverman (Peterson et al, 1991) argued that even previously healthy and adaptive individuals suffer from PTSD after a traumatogenic event.

This is an area where little consensus has been reached, possibly due to the difficulty in conducting retrospective studies with the survivors themselves or with the survivors' family. Gibbs (1989) suggests that another complication is that the current traumatogenic experience can bias the survivor to report higher pre-traumatogenic disturbances.

3.3.1.2 OTHER PERSONALITY FACTORS

Peterson et al (1991) suggest that the individual's premorbid ways of viewing himself and his world will influence the development of PTSD. The individual's early childhood experiences could lead to a development of abilities or inabilities to engage actively and adaptively in the world, to form strong networks of friends and support, and to seek and incorporate this support (Peterson et al, 1991; Straker, 1992). The presence or absence of these factors could serve to reduce or increase the risk of damaging consequences of traumatogenic events.

Findings with regard to the effects of age on traumatic responses are conflicting. Children are considered to be especially vulnerable to traumatogenic events, because of the underdeveloped nature of their coping mechanisms and limits on their ability to act independently (Straker, 1992; Ullman, 1995). However, Gibbs (1989) notes that

individuals responses according to age vary as a result of other factors, such as the nature of the traumatogenic event itself. Moreover, older persons may have more exposure to additional environmental and life stressors, which could exacerbate the likelihood of PTSD developing; on the other hand, older persons also have more age-related experience with coping which could assist in mediating the effects of the traumatogenic events.

In line with this, Gibbs (1989) has suggested that an individual's coping style is most predictive of outcome after a traumatogenic event. Coping styles include avoidance versus intrusion, activity versus passivity, and a high or low locus of control.

3.3.2 COPING STYLES

3.3.2.1 AVOIDANT OR INTRUSIVE

Individuals tend towards either an avoidant or intrusive mode of response in dealing with stressful or traumatogenic situations. McFarlane (Gibbs, 1989) reported that those with high avoidance scores were prone to acute and chronic distress. He proposes that avoidance approaches might interfere with action taken during and after the traumatogenic situation, which could lead to feelings of inadequacy and guilt. Several researchers suggest that, in the long term, avoidance can lead to a lack of problem solving, adaptive psychological integration of experiences, and possibly an exacerbation of PTSD symptoms (Scott and Stradling, 1992; Gibbs, 1989). Alternatively, this style could temporarily relieve stress and allow for a temporal reprieve during which trauma may be processed.

3.3.2.2 ACTIVE OR PALLIATIVE

Coping styles are described in terms of the role and behaviour of the survivor during and immediately after the traumatogenic experience. Lazarus (Scott and Stradling, 1992) describes two coping styles: active and palliative. The active style involves a direct confrontation of the problem where the individual attempts to do something about

the situation. A higher level of proactivity and involvement (self help activities and assisting socially, such as cleaning up after a disaster), and a concern for others are factors which could reduce the risk for PTSD (Solomon, 1993; Herman, 1992a). This type of coping was found to be predictive of a reduced level of psychopathology following the Buffalo Creek Flood (Gleser, 1981). Active concern and involvement can result in higher levels of self regard and personal efficacy (Gibbs, 1989), which can be connected with the individuals move towards re-establishing a greater perception of controllability of the event and personal locus of control.

An emotion-focused or palliative approach focuses on alleviation of distressful feelings caused by the traumatogenic event and often involves avoidance of the issue and situation itself. This style might provide temporary alleviation, but is no cure for the basic problem.

3.3.2.3 LOCUS OF CONTROL

The issue of internal versus external locus of control is related to the notion of coping styles and as implicated in PTSD. The loss of the individual's belief in a world that is safe and predictable, and in his own coping abilities, plays an important role in the way in which traumatogenic situations are handled. Individuals who perceive that they have played a responsible role in partially controlling the outcome of a situation appear less likely to be affected by the traumatogenic event than those who perceive that control resides externally. However, a limitation in this field of research is that pre-measures of locus of control are not always available.

An important facet of the appraisal process following a traumatogenic event is causal attribution, discussed in the following section.

3.3.3 ATTRIBUTION FACTORS

Individuals appear to have a need to explain why events happen in their lives; attribution theory explores the manner in which individuals account for their experiences, and suggests that there is an interaction between emotional processing of the event, the individual's personality factors and the social environment. Conventionally, causal attributions are rated along the following dimensions: external and internal, global and specific, stable and unstable. The manner in which individuals interpret events along these indices has major consequences for how they respond to exposure to trauma.

When both the internal and external factors involved in the occurrence of a traumatic event are perceived to be beyond the individuals control, there is a higher association between exposure to trauma and depression, anxiety and PTSD (Joseph et al, 1993b; Gibbs, 1989). Similarly , when individuals make causal attributions to stable and global factors, expectations of hopelessness develop. Alternatively when internal attributions are made and the traumatic events are believed to have been avoidable, then guilt and lowered self-esteem are the likely consequences (March, 1993).

Joseph et al (1993b), taking a slightly different approach, suggest that in any event, external, stable, and global attributions are likely to be made in traumatogenic situations, especially when the traumatogenic event is severe, and is generally acknowledged to be so. In this situation, attributions are more likely to be external, because of the amount of obvious information the situation provides (Joseph et al, 1993b). However, individuals who attribute the causes of the event externally could also perceive the event as more stressful and use less active coping mechanisms. The "victim role" can be assumed and internalised when the survivor believes he has no personal responsibility or power, which may exacerbate PTSD symptoms (Matsakis, 1992).

In summary, the role of causal attributions, following a traumatogenic event, may influence the coping strategies chosen. Greater levels of PTSD symptoms are associated with an external locus of control, external, stable and global attributions and

an emotionally-focused style of coping. Difficulties with this type of research include the changing nature of PTSD as a diagnostic category, and the tendency of intrusive and avoidant symptoms to oscillate, which may account for the lack of consistency in research findings, as these variables may interact differently at various phases of PTSD (Joseph, Williams and Yule, 1993a). Further research is necessary to explore the link between causal attributions and emotional states, such as guilt and shame, as well as behaviours involved in seeking of social supports, and how these interact with cognitive styles.

3.3.4 COGNITIVE STYLES

Davidson and Baum (1993) suggest that the individual's pre-existing style of information processing and coping influence the long term outcomes of traumatogenic events, because cognitive and behavioral tendencies set up similar patterns of response across situations. When an individual cognitively appraises his world, Peterson et al (1991) suggest that the more the traumatogenic event threatens the survivor's basic assumptions concerning his world along dimensions such as his trust in himself, others, and the safety and protectiveness of his universe, the more severe the PTSD reaction is likely to be.

In examining the way in which cognitive factors are implicated in PTSD it would seem that intellectual capacity is a further variable which needs to be taken into account. Lower intellect may serve to decrease awareness of the impact and consequences of a traumatogenic event, yet the counter argument suggests that a higher intellect could assist the survivor in adapting and assimilating the traumatogenic event more readily. Once again, further research is required in these areas.

3.3.5 SUMMARY AND IMPLICATIONS FOR THIS STUDY

To summarise, the literature emphasises that responses to traumatogenic events are multiply determined and it is impossible to apply simplistic and reductionistic cause/effect explanations to traumatology research. Three key factors interact to produce individual reactions in the face of traumatogenic events, and these are the nature of the traumatogenic event itself, individual differences and the post-trauma environment. This study focuses on the nature of the traumatogenic event, with the level of intensity and number of traumatogenic exposures explored individually and in interaction with one another. Counselling in the post-trauma environment is also taken into consideration. Individual differences are not explored, which is a limitation. A strength of this study is however, that it explores these issues in the context of criminal victimisation and armed robbery, which is an area of exposure to trauma that has been relatively underresearched.

CHAPTER 4

CRIMINAL VICTIMISATION AND ARMED ROBBERY

This study focuses on criminal victimisation and armed robbery in a bank setting; the group consists of bank employees who had experienced or observed multiple bank robberies over a three year period.

Armed robberies are characterised in general by violence and life threat, accompanied by physical and verbal assault; in rarer cases with injury, death and bereavement. Gabor, Baril, Cusson, Elie, Leblanc, Normandeau (1987) propose that armed robberies typically involve a lack of predictability and suddenness, in which the perpetrators attempt to establish control over the situation as quickly as possible. The most common and effective means of establishing this control is through the use of weapons (mainly firearms) and explicit or implicit threats, which often induces an immediate level of compliance with the victims. In terms of the stressor definition in the DSM-IV (American Psychiatric Association, 1994), individuals either directly experience or observe the robberies, and respond with feelings of intense terror, helplessness and horror.

Studies show that victims of crime suffer major psychological trauma similar in many respects to survivors of other types of disaster, with the type of crime predictive of the level of PTSD (Kilpatrick and Resnick, 1993; Sorenson and Golding, 1990). In this regard, the occurrence of life threat and injury were significantly associated with the presence of PTSD, and where both factors were present the risk of PTSD increased fourfold. However in this regard a note of caution is introduced by Creamer et al, 1993) who conducted a study of multiple shootings in a corporate setting and found that perceived threat was more predictive of the development of PTSD symptoms than the objective threat itself. Nevertheless, other researchers have found that objectively higher levels of threat are significantly related to distress as indicated by the fact that crimes of domestic robbery, burglary (with no physical violence) and non-rape sexual

assaults are less predictive of PTSD than crimes involving physical violence and weapons (Davidson and Foa, 1991; Kilpatrick and Resnick, 1993).

Gabor et al (1987) conducted a study involving 182 small businesses in the Montreal area which had been involved in one or more armed robberies in a 2 year period. He found that all the victims questioned responded with a baseline of psychological and physical distress, irrespective of level of exposure and individual differences. Close to 60% of the cases investigated reported experiencing both physical and psychological symptoms immediately after the event, and between 60-70% of these respondents reported either (or both) physical and psychological symptoms 7 months after the event. The victims' overall lifestyle and family life were substantially affected in 20% of the sample (such as job changes, increasing absence from work, and family difficulties). One complication of this study was the lack of knowledge regarding individuals status prior to the event, and he suggests that those already experiencing familial, financial and health problems were more likely to be seriously effected by the robbery. However, the findings do point to the traumatogenic nature of armed robberies and points to the need to research this area further.

As has already been indicated, there is a relative sparsity of research on violent armed robberies, and this is true especially in South Africa. The aim of the present study is to contribute to the literature in this area. As such, this study focuses on the effects on symptoms of avoidance and intrusion of exposure to multiple armed robberies, at different levels of intensity of exposure and furthermore, examines the influence of counselling on the effects of these exposures.

CHAPTER 5
RESEARCH AIMS AND HYPOTHESES

5.1 RESEARCH AIMS

The basic aim of this study is to explore the relationship between the number of traumatogenic events to which the individual is exposed and the level of exposure to these potentially traumatogenic events and the development of intrusion and avoidance symptoms as described in the diagnostic category of Post-Traumatic Stress Disorder (DSM-IV, American Psychiatric Association, 1994). This study also examines the interaction of these two variables, in relation to the development of symptomology. These interactions are examined within the context of criminal victimisation in bank robberies. The effects of counselling after the event are taken into account in considering the impact of these variables on PTSD.

In order to achieve the aims of the study, intrusion and avoidance symptoms were assessed by means of the Impact of Event Scale (Horowitz, 1979) and subjects were requested to supply details of the number of robberies they had been exposed to, the level of exposure to each robbery, which was subjectively graded on a scale of one to four, and whether they had received counselling after the event.

5.2 RESEARCH HYPOTHESES

The hypotheses of this study are as follows:

HYPOTHESIS ONE

Increasing numbers of exposure to potentially traumatogenic events will be significantly related to the development of PTSD avoidant and intrusive symptoms, as measured by the Impact of Events Scale.

HYPOTHESIS TWO

Increasing levels of exposure to potentially traumatogenic events will be significantly related to the development of PTSD avoidant and intrusive symptoms, as measured by the Impact of Events Scale.

HYPOTHESIS THREE

The interaction of higher levels of exposure to the traumatogenic event and higher numbers of traumatogenic events will be significantly related to the development of intrusive and avoidant symptoms.

HYPOTHESIS FOUR

Counselling taken as a co-variate will significantly alter the relationships between the independent and dependent variables.

CHAPTER 6
METHOD

6.1 SUBJECTS

Five branches of the First National Bank in central Johannesburg, where more than one robbery had taken place, participated in the study. Contact was initiated with the Human Resources department, and then the branch managers were contacted. The subjects met in group sessions and completed the questionnaire. There were 80 respondents in total. All respondents knew that participation was voluntary.

All the participants were currently employed by the bank, had been exposed to more than one bank robbery over a four year period, 1990 to 1993, and had a good grasp of the English language.

6.1.1 COMPOSITION OF SUBJECTS

The total sample consisted of 80 respondents, and they came from various age, sex, racial and marital groups.

Of the 80 respondents, 26 (32,5%) were male, and 54 (67,5%) were female. The subjects ranged in age from 20 years to 59 years (with a mean age of 30 years and a standard deviation of 8.8 years). The racial composition of the group consisted of 36 (45%) white persons, 27 (33.8%) so-called "coloured" persons, 9 (11.3%) Indian persons, and 8 (10%) black persons. The marital status of the subjects was as follows: 42 (52.5%) married, 3 (3.75%) divorced, 1 (1.25%) separated, and 34 (41.25%) single.

6.2 PROCEDURE

A questionnaire, to be described later, was administered to the bank employees during working hours, at a group meeting pre-arranged by the branch manager. As already indicated, they were told that participation was voluntary, that they could choose to remain anonymous and they were informed of reason for the study.

The administrator explained the procedure and the format of the questionnaire to the staff, in order to ensure that the instructions were clear. The subjects then completed the questionnaire. There was no set time limit for completion of the questionnaire, and the average time taken ranged between 30 to 60 minutes. The administrator made herself available during and after the procedure to discuss any questions or concerns on an individual basis. Where personally requested, onward referrals for counselling were made either to the Human Resource department or to the community or university trauma counselling units.

6.3 INSTRUMENTS

Data were gathered by means of administration of a questionnaire to the sample described above. A copy of the questionnaire is included in Appendix 1. The questionnaire included an introductory letter and a section for obtaining limited biographical information; a section for documenting the number of robberies to which the individual was exposed, as well as a section which rated the intensity of exposure to each traumatogenic event. In addition there was a section detailing the number of counselling sessions received after each robbery. The Revised Impact of Events Scale (Horowitz, 1979) was also included in the questionnaire.

6.3.1 IMPACT OF EVENT SCALE (IES) (Horowitz, 1979)

The IES (Horowitz, 1979) is a self-report instrument, which provides a subjective measure of the impact of a specific event, focusing on intrusive and avoidant thinking, and it provides a measure of PTSD. Research shows that the scale correlates with the criterion for PTSD as set out in the DSM-IIIR (American Psychiatric Association, 1987) and that it measures the subjective degree of severity of the person's distress (Lees-Haley, 1990)

The index consists of 15 PTSD reaction items, categorised as avoidant or intrusive. The questionnaire requires a response to self-reports on the frequency of listed PTSD symptoms as experienced in the past seven days.

Empirical clusters support the concept of subscores for intrusion and avoidance responses. The scale has an internal consistency of 0.78 for intrusion subscales and 0.82 for avoidance subscales. Horowitz points out that a correlation of 0.42 ($p>0.0002$) between intrusion and avoidance subscales indicates that the two subsets are associated but do not measure identical dimensions. Results indicated a test-retest reliability of 0.87 for the total scores (Horowitz, 1979). In a later study aimed at further validating the scale, Zilberg, Weiss, Horowitzl (1982) consolidated these findings and confirmed that the scale has a high measure of internal consistency across repeated measurement in time.

Research by the authors of the IES (Horowitz, 1979) has suggested that the scale can be utilised with individuals from differing educational, economic and cultural backgrounds. This instrument has been widely used in studies with adults (Joseph et al, 1993a; Amick-McMullan et al, 1989; Lees-Haley, 1990; Davidson and Foa, 1993) and has been described as one of the most widely accepted and established PTSD assessment instruments (Joseph et al, 1993a; Lyons, 1991; Peterson et al, 1991).

6.3.2 LEVEL OF EXPOSURE TO THE ROBBERIES

Subjects were required to briefly describe each robbery and to rate the intensity of their level of exposure to trauma along the pre-selected dimensions. Past research has indicated that a high intensity of exposure to traumatogenic events (defined as personal injury and perceived threat to life) results in a higher risk of developing PTSD symptoms (Yule and Williams, 1990; Foy, 1992).

Level of exposure was classified as follows;

HIGH	Level 4	Exposure involving physical injury or hospitalisation
	Level 3	Being confronted, threatened, but not physically hurt
	Level 2	Being in the vicinity of the robbery (in the same room as an observer but not being directly confronted)
LOW	Level 1	Being in an outside office or room or even out of the building at the time of the robbery, and being exposed to the aftermath upon return to the situation.

The participants rated themselves on the above categories in regard to each robbery to which they were exposed, and no test-retest data or inter-rater data were obtained which is a limitation in this research.

6.3.3 TOTAL NUMBER OF ROBBERIES

Subjects were asked to list the number of robberies to which they had been exposed to during the time period specified. The categories of numbers ranged from 2 to 5 robberies.

6.3.4 NUMBER OF COUNSELLING SESSIONS

The subjects were asked to list the number of formal counselling sessions they received after each robbery.

6.4 DATA ANALYSIS AND SCORING

The IES yields two scores ranging from 1 to 4 for intrusion and 1 to 4 for avoidance, with 1 representing a low occurrence of the symptom and 4 representing a high occurrence of the symptom.

The **level of exposure** to robberies was scored on a 4-point scale as follows

4 Exposure involving physical injury or hospitalisation

3 Being confronted, threatened, but not physically hurt

2 Being in the vicinity of the robbery (in the same room as an observer but not being directly confronted)

1 Being in an outside office or room or even out of the building at the time of the robbery, and being exposed to the aftermath upon return to the situation.

The sum of all the scores across each robbery were taken together for statistical purposes, and a median split calculated so that approximately half the scores were above the median and called "high" and approximately half the scores were below the median and called "low".

The **number of exposures** to robberies was scored on a 4 point scale as follows:

2 Two robberies

3 Three robberies

4 Four robberies

5 Five or more robberies.

The four point scale was then used to divide the total sample into:

Two and three robberies (Low Frequency).

Four, five or more robberies (High Frequency).

Counselling as a variable was indicated as present or not.

6.5 STATISTICAL ANALYSIS

Given the sample size and the nature of the data described above, parametric statistics were considered appropriate. The hypotheses explored a stated interest in the relationship between the variables. The usual tool is the correlation co-efficient; however, the variables in this study are not appropriate for this technique, specifically level of exposure and number of robberies. This study examined the relationships by means of Anovas which examine the mean differences in avoidance and intrusion for the different levels of the variables.

Several two-way ANOVAs and ANCOVA's were conducted, where the dependent variables were the intrusion and avoidance symptoms, and the independent variables were the level of exposure to the robberies and the number of robberies.

Counselling was taken as the covariate, in order to partial out its effect.

ANOVAs were run to assess the effects of the independent variables (level of exposure and number of robberies) on the dependent variables (intrusion and avoidance symptoms) separately.

CHAPTER 7
RESULTS

7.1 MEAN SCORES

Prior to presenting the results of the statistical tests, the mean scores of the intrusion and avoidance scales in relation to the level of exposure and number of robberies will be presented in Tables 1 and 2.

TABLE 1 MEAN SCORES FOR AVOIDANCE AND INTRUSION SYMPTOMS IN RELATION TO THE LEVEL OF EXPOSURE

LEVEL OF EXPOSURE	NO. OF S	VARIABLE	MEAN	N	SD
HIGH	47	AVOID	2.5265957	47	0.727
		INTRUDE	2.7568389	47	0.821
LOW	33	AVOID	2.1439394	33	0.566
		INTRUDE	2.1688312	33	0.882

TABLE 2 MEAN SCORES FOR AVOIDANCE AND INTRUSION SYMPTOMS IN RELATION TO THE NUMBER OF ROBBERIES

NO. OF ROBBERIES	NO OF S	VARIABLE	MEAN	N	SD
FEW	38	AVOID	2.3421053	38	0.688
		INTRUDE	2.5112782	38	0.882
MANY	42	AVOID	2.3928571	42	0.708
		INTRUDE	2.5170068	42	0.866

7.2 ANALYSES OF VARIANCE

Table 3 reflects the relationship between avoidance symptoms and both level of exposure and number of robberies.

TABLE 3 LEVEL OF EXPOSURE AND NUMBER OF ROBBERIES IN RELATION TO AVOIDANCE SYMPTOMS

SOURCE	TYPE III SS	df	MS	F	p
LEVEL OF EXPOSURE	3.29165117	1	3.29165117	7.21	0.0089
ROBBERY LEVEL (NUMBERS)	0.56614758	1	0.56614758	1.24	0.2689
INTERACTION: LEVEL OF EXPOSURE AND ROBBERY LEVEL (NUMBERS)	0.00003655	1	0.00003655	0.00	0.9929

As can be seen from the above, the only significant relationship was between level of exposure and avoidance symptoms ($p<0.0089$). This is reflected in the graph below.

GRAPH 1 THE RELATIONSHIP BETWEEN LEVEL OF EXPOSURE AND AVOIDANCE SYMPTOMS

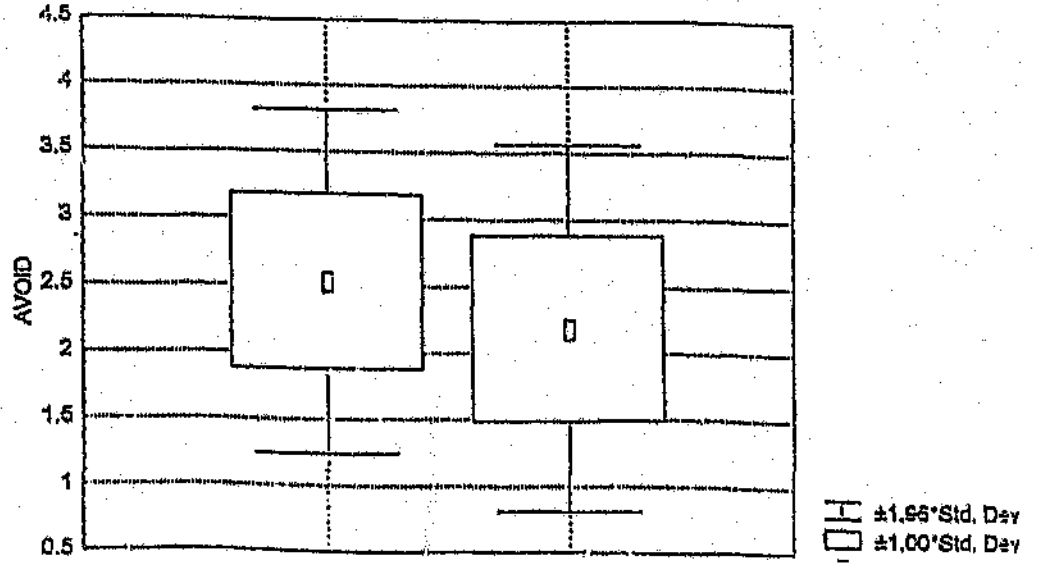


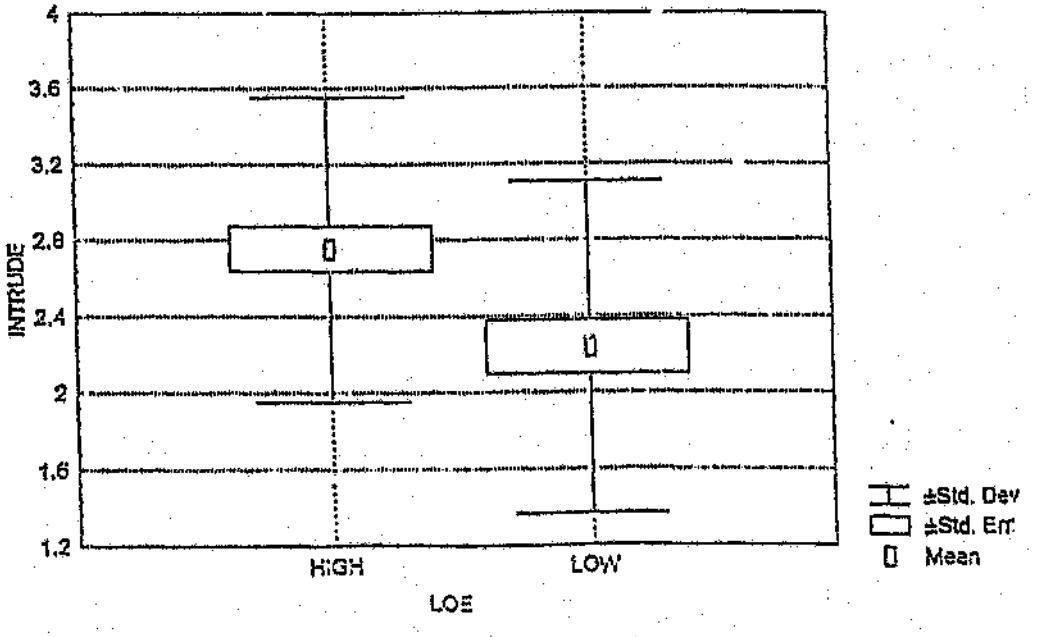
Table 4 reflects the relationship between intrusion symptoms and level of exposure and number of robberies.

TABLE 4 LEVEL OF EXPOSURE AND NUMBER OF ROBBERIES IN RELATION TO INTRUSION SYMPTOMS

SOURCE	TYPEIII SS	df	MS	F	p
LEVEL OF EXPOSURE	9.00216971	1	9.00216971	13.58	0.0004
TOTAL ROBBERIES	2.39425884	1	2.39425884	3.61	0.0611
INTERACTION: LEVEL OF EXPOSURE AND ROBBERY LEVEL (NUMBERS)	0.01105446	1	0.01105446	0.02	0.8976

As can be seen from the above, the only significant relationship was between level of exposure and intrusion symptoms ($p<0.0004$). This is reflected in the graph below.

GRAPH 2 THE RELATIONSHIP BETWEEN LEVEL OF EXPOSURE AND INTRUSION SYMPTOMS



Given that counselling is known to influence the individuals level of functioning, the above analyses were repeated taking counselling into consideration as a co-variate. The results of these analyses were similar to those obtained when counselling was not taken into account.

TABLE 5 THE EFFECTS ON AVOIDANCE SYMPTOMS OF LEVEL OF EXPOSURE AND NUMBER OF ROBBERIES, WITH COUNSELLING AS THE COVARIATE

SOURCE	TYPEIII SS	df	MS	F	p
LEVEL OF EXPOSURE	2.84273596	1	2.84273596	6.21	0.0149
TOTAL ROBBERIES	0.49218006	1	0.49218006	1.07	0.3032
INTERACTION: LEVEL OF EXPOSURE AND ROBBERY LEVEL (NUMBERS)	0.00506159	1	0.00506159	0.01	0.9166
COUNSELLING	0.33846389	1	0.33846389	0.74	0.3927

As can be seen from the above results, when counselling was taken as a covariate, there was one gnificant relationship, viz. that between level of exposure and avoidance symptoms ($p<0.0149$).

TABLE 6 THE EFFECTS ON INTRUSION SYMPTOMS OF LEVEL OF EXPOSURE AND NUMBER OF ROBBERIES WITH COUNSELLING AS THE COVARIATE

SOURCE	SS	df	MS	F	p
LEVEL OF EXPOSURE	8.49669987	1	8.49669987	12.67	0.0007
TOTAL ROBBERIES	2.31896126	1	2.31896126	3.46	0.0669
INTERACTION : LEVEL OF EXPOSURE AND ROBBERY LEVEL (NUMBERS)	0.01699619	1	0.01699619	0.03	0.8740
COUNSEL	0.05347234	1	0.05347234	0.08	0.7785

Results from Table 6 indicate that when counselling was taken as a covariate, there was one significant relationship viz. that between level of exposure and intrusion symptoms ($p<0.0007$).

CHAPTER EIGHT

DISCUSSION

8.1 DISCUSSION

The hypotheses of the study were firstly that increasing numbers of exposure to potentially traumatogenic events would relate significantly to the development of PTSD avoidant and intrusive symptoms, as measured by the Impact of Events Scale: secondly that increasing levels of exposure to potentially traumatogenic events would relate significantly to the development of PTSD avoidant and intrusive symptoms, as measured by the Impact of Events Scale; thirdly, level of exposure to the traumatogenic event and numbers of exposures to traumatogenic events would show a significant interaction effect in regard to the development of intrusive and avoidant symptoms; fourthly that counselling would significantly alter the relationship between the dependent and the independent variables .

It is clear from the results that only the hypothesis that there would be a significant relationship between level of exposure and intrusion and avoidance symptoms was confirmed.

The hypotheses that frequency of exposure and that the interaction between frequency and level of exposure would relate significantly to the development of intrusion and avoidance symptoms were not confirmed and this requires comment, because these findings were contrary to the predictions of the literature. In attempting to explain this anomalous finding, the author revisited the literature which points to a relationship between frequency of exposure to trauma and PTSD. What was clear from this literature was that it often used more sophisticated scoring procedures than the ones used in this study. For example Davidson et Foa (1993) assess both intensity and duration of the stressor. Turner, Thompson and Rosser (1995) include both objective and subjective ratings on life risk and level of threat

From the above then it would seem that most studies which specified "stressor-dose" include variables other than simple frequency of exposure. In other words they used measures more akin to the level of exposure measure used in this study which in fact factored the frequency of exposure into the equation, and as such was a compound measure. Thus it is speculated that the hypothesis in regard to frequency of exposure was not confirmed in this study, because of the crudeness of the measure used to assess it.

The findings of this study that level of symptomology and level of exposure to trauma are related is in keeping with current literature and research. They are in keeping with the findings of Hardin, Weinrich, Weinrich, Hardin, Garrison (1994), who found that as adolescents' exposure to Hurricane Hugo increased, so did their levels of psychological distress; Green et al (1985) in their study on the Beverley Hills Supper Club Fire, found that increasing levels of exposure to the stressor (measured both objectively and subjectively) were positively correlated to levels of stress. They also found that bereavement, life threat and extent of injury were highly correlated to levels of post-trauma stress. Joseph et al (1993b) noted that while response to trauma is multiply determined, the intensity and nature of exposure is the primary determinant. Green (1994) found that "intensity of exposure is a clear-cut risk factor for the development of PTSD" (p356). Creamer et al (1993) found that subjective evaluation of threat during the event was more significant than the measured objective level of threat.

Thus the findings of the study were largely confirmatory of the literature, albeit in an area of exposure to trauma that has been relatively little studied, that is in the area of criminal victimisation.

The finding in regard to counselling was, however, not in accord with the literature, although previous research has produced mixed findings with regard to the effects of counselling. This study partialled out the effects of counselling, but an examination of the data indicated that whether counselling took place or not, made no significant difference to the level of symptomology, yet the bulk of the literature in this area appears to support the notion that post-trauma counselling will significantly reduce the

presentation and development of PTSD symptomology (Peterson and O,Shanick, 1993; Meek, 1990; Wilson and Raphael, 1993; Tomb, 1994).

However, even when the literature does support the notion that counselling makes a significant difference to the development of PTSD, there are still debates in the literature concerning what form it should take and how long after the event it should occur (Peterson and O,Shanick, 1993; Tomb, 1994; Ochberg, 1993). Therefore, the finding in this study requires further comment. On the one hand it is possible that the counselling offered in this study was ineffective, because it appears to have been conducted in a superficial manner in most cases. The counselling was given by lay counsellors and according to some of the respondees, consisted of a brief talk after the robbery, a question "how are you feeling" and a cup of tea. There was no in-depth debriefing in all cases. There were only two respondents, out of a sample of 80, who stated that they had gone for professional counselling after the robberies. On the other hand, it is possible that it was not the nature of counselling offered in this study that was at fault, but that counselling in general may not always be as effective as we would like to think. Several authors have noted that there have been few if any randomised or controlled studies to support the hypothesis that early intervention with counselling can prevent the development of PTSD (Tomb, 1994). Carlier (1995) conducted a study of policemen who had been debriefed after an air crash, and the study found that there was no significant relationship between structured debriefing and reduction of PTSD symptomology.

Another possible explanation is that the results in this study were biased insofar as a few of the seriously injured survivors (i.e. with gun shot or knife wounds) either chose not to participate in the study or had left the bank at the time of the study. It is possible that those more seriously wounded are those who would benefit most from individual counselling. Numbers were not available in this regard and this information was only offered informally by the bank's representative.

The effects of the social support networks in the community and family were not taken into account as mediating influences in this study, which could also be a factor contributing to the lack of significant findings in regard to the effects of counselling on symptomology. Creamer et al (1993) suggest that stronger mediating factors on PTSD

are more likely to be the availability and integration into social networks, as opposed to the singular effects of psychiatric counselling. Dawes and Donald (1994) in their research with children, stressed the important contribution of sociocultural context in understanding how individuals appraise events and correspondingly function in different situations. The values and social mores of the population studied could influence how the traumatised individual is integrated back into his group, and this may be a more important mediating factor than counselling (Lyons, 1991).

In conclusion then the results of this study were supportive of the literature with regard to the importance of the stressor-dose in PTSD, but did not support the weight of opinion with regard to the importance of counselling.

With regard to the literature pertaining to the relationship between symptoms of avoidance and intrusion, the following pertains:

8.1.1 INTRUSION AND AVOIDANCE SYMPTOMS

Horowitz (1993) found that there is a fairly predictable overall pattern of response following a traumatogenic event. However, whether intrusive or avoidance symptoms are more prevalent, and which symptom plays a more important role in determining long term outcomes of PTSD is an ongoing concern. The next section briefly considers these symptoms in relation to the findings of this study.

Research conducted by Davidson and Baum (1993) in a study of the Three Mile Island nuclear power station accident, found that intrusive symptoms are important when considered independently of symptoms of avoidance. Davidson et Baum (1993) found that survivors from the Vietnam War displayed significantly higher intrusive symptoms compared to avoidance symptoms and that degree of symptomology in regard to the former was significantly related to level of combat exposure. The findings of both these studies suggest that symptoms of intrusion are related to PTSD independently of symptoms of avoidance and that furthermore they are predictive of long term responses to stress, which might present as much as fourteen years after the event.

While it is generally agreed that intrusive symptoms are problematic, the same is not necessarily true in relation to avoidance symptoms. In a study of university students who had experienced traumatogenic events, Shiloney and Grossman (1993) suggested that avoidance symptoms serve a protective and adaptive function in the face of terrifying and potentially overwhelming events, and that individuals who experienced depersonalisation (one of the avoidance symptoms) during or immediately after the event, were less symptomatic in the long term. However, opposing these findings, several researchers found that dissociation and avoidance symptoms are more predictive of long term PTSD symptomology. Van Der Kolk and Fisler (1995) found that dissociation was indicated as the "central pathogenic mechanism that gives rise to PTSD" (p 505). Research has found that dissociation is a common response to situations of massive, ongoing abuse with child populations (Herman, 1992b). Similar findings were obtained in a study of a population of non-clinical college students (Herman, 1992b). Thus although avoidance symptoms may sometimes be considered to be adaptive, the presentation of dissociative symptoms appears to have long term consequences for disturbed individual functioning.

Horowitz (1993) suggested that intrusion and denial symptoms of PTSD may succeed each other, and that the nature of the interplay between the two symptom clusters is characterised by a waxing and waning process. It is however, widely acknowledged that the time of onset and nature of fluctuation varies according to the situation and according to individual differences, and is fairly unpredictable. Thus, Shiloney and Grossman (1993) found that the amount of time to elapse after the traumatogenic event and its relationship to symptom manifestation was not significant, while Gibbs (1989) found that the time factor considerably effected reactions to disaster.

It is thus clear that the PTSD literature is littered with inconsistent findings. Nevertheless, the issue of whether intrusive symptoms or avoidance symptoms are more prevalent, and which plays a more important role in determining long term outcomes of PTSD is central to the debate about where PTSD should be placed in the nomenclature (Refer Section 1.3.5). Similarly the time factors and issues of the waxing and waning of symptoms has implications for research designs, and also has implications for post-trauma interventions.

In this research, it was hypothesised that level of exposure, number of robberies and their interaction, would relate significantly to the development of both intrusion and avoidance symptoms. The findings in this research illustrated that level of exposure related significantly to the development of both avoidance and intrusion symptoms, which is in line with other research findings. Furthermore, in this study, the Intrusion and Avoidance subscales correlated highly with each other ($R=.67185$; $p<0.01$), a finding supported in research carried out by Davidson et Foa (1993), indicating that intrusion and avoidance symptoms are not independent of one another.

8.1.2 SUMMARY

The previous section has dealt with the discussion of results of the three hypotheses presented in Chapter 5. Hypothesis two was found to be significant, indicating that level of exposure has a significant relationship to level of symptomology (avoidance and intrusion symptoms). In this research, the level of exposure was assessed by the individuals' personal ratings of level of exposure, guided by objective indicators of threat. A limitation of the study is that subjective perception of threat or danger was not taken into account, and this is discussed further in Section 8.2.

Both hypotheses one and three were found to be non-significant, indicating that frequency of exposure and the interaction of frequency and level of exposure to traumatogenic events did not relate significantly to the development of PTSD symptoms. An explanation of this was that the frequency count of robberies was too simplistic a score to accurately measure stressor-dose.

In regard to counselling, the results indicated that the variable did not relate significantly to the development of PTSD. A possible explanation for this was offered.

The following section discusses the limitations of the study and implications for future research.

8.2 LIMITATIONS OF THE RESEARCH

The limitations of this study will be discussed under the following headings: research design, measures of PTSD, and sampling.

8.2.1 RESEARCH DESIGN

The study was cross-sectional, and this is a possible limitation because longitudinal studies of reactions to traumatogenic situations could result in deeper understanding of the course and nature of post-traumatic symptoms (Green, 1994; Solomon, Regier, Burke, 1989; Shiloney and Grossman, 1993). However, this alternative was not feasible because of the limited availability of samples in the banks, and the time delays that would have been involved in measuring post-trauma reactions to multiple robberies. To obtain even a sample of 80 subjects, several branches were approached, and it took three years to obtain data involving multiple robberies. The bank representatives noted that robberies were rare at the time of the study as a result of increased preventative measures, pre-empting future research on such a scale. Gibbs (1989) reiterates that pre-test measures are hard to come by in longitudinal research because of the difficulties posed by the lack of predictability of traumatogenic events.

A further limitation of the study was the degree to which exposure to other trauma and life events could have influenced the outcome of the study. In Johannesburg (where the bank's branches are located), potentially traumatogenic events often occur. These events include car hijackings, theft, personal and physical assault. There was no independent measure in this study which assessed whether the subjects had been exposed to other traumatogenic life events, which would complicate the separation of bank robberies out as a research focus, as was attempted in this study.

Several researchers have advocated the use of integrated models of trauma (Davidson and Foa, 1991; Scott and Stradling, 1992; Peterson et al, 1991; Meek, 1990; Lyons,

1991), and while level of exposure, number of robberies and counselling were included in this study, it is acknowledged that several important variables were excluded. Future research could include measures such as perceived levels of life/physical threat (Wilson and Raphael, 1993; Green et al, 1985), the nature of internal versus external causal attributions and locus of control (Joseph et al, 1993b; Gibbs, 1989); past psychiatric history and exposure to past traumatogenic events (Green et al, 1985), current life events (Gibbs, 1989), and family and social support (Hardin et al, 1994), the nature and timing of counselling (Meek, 1990), each of which could have an important moderating effect.

The measures used for counselling involved a "yes/no" response across all robberies. As a simplistic score this constituted a weakness in this study, insofar as the nature and duration of the counselling were not taken into account.

8.2.2 MEASURES USED IN THE STUDY

The researcher used one assessment instrument (the IES) to determine the presence of intrusion and avoidance symptoms. While the IES has sound psychometric properties, and has been described as the most efficient diagnostic assessment tool for PTSD (Neal, Busuttil, Rollins, Herepath, Strike, Turnbull, 1994), and the most widely used (Joseph et al, 1993a; Yule, 1991), a limitation of the study is the use of only one instrument to assess PTSD (Allen, 1994; Kean, Wolfe, Taylor, 1987; Lyons, 1991). The use of two or three measures of PTSD, subjective ratings and a clinical interview could have produced more comprehensive data.

Another limitation of the IES is its failure to measure arousal symptoms as listed in Criterion D of the DSM-IV (American Psychiatric Association, 1994). The symptoms include sleep patterns, hypervigilance, startle response and increased irritability (Lees-Haley, 1990). However, the IES was developed in 1979, and an updated version that is in line with the new criterion in the DSM-IV (American Psychiatric Association, 1994) is not currently available, although Horowitz did include a few arousal criteria as items in the intrusion sub-set.

Another weakness of the IES is that it is a self-report scale. The problem of the accuracy of self report has been a criticism levelled at the Impact of Events Scale by a number of researchers including Lees-Haley (1990) and Allen (1994). It is for this reason, among others, that the additional use of other measures of traumatic stress and the use of clinical interviews have been recommended by many researchers in the field (Wilson and Raphael, 1993). The use of these measures would also obviate other criticisms in regard to the IES, such as those pertaining to its cross-cultural validity.

Horowitz (1979) himself states that the IES has cross cultural validity. Lees-Haley (1990) however queries this, stating that while testing has been carried out on broad-based populations, the issue of whether norms generated in regard to multi-cultural Americans and Asian populations are generalisable beyond this group has not yet been resolved. Further, critics of the Scale propose that the norms generated even in regard to multi-cultural American and Asian groups are insufficient, and that more reliable and comprehensive normative data bases need to be collected (Lees-Haley, 1990). This would also be helpful in providing base-rates for responses to specific items on the scale scores. Furthermore, Allen (1994) notes that differently weighted scoring systems have been used in various studies, making valid comparisons difficult.

With regard to frequency of exposure as a measure, its limitations have already been discussed. With regard to self ratings of the level of exposure, the researcher relied on the subjects' own ratings, and did not incorporate objective ratings by independent researchers (Davidson et Foa, 1991), and this was a limitation of the study. However, it was beyond the scope of this study to generate rating scales whose psychometric properties it had ensured.

8.2.3 SAMPLING

One of the recurring criticisms in trauma research has been the difficulties in comparing populations across different traumatogenic events (Fontana et al, 1993). This criticism

applies to the present study where the non-random selection of subjects also limited the generalisability of findings. Furthermore, while the sample size was adequate with regard to the number of variables examined, the sample was not fully representative, in that not all bank employees involved in multiple robberies participated in the study, and this also limited the generalisability of the findings.

8.2.4 LACK OF MEASUREMENT OF MEDIATING VARIABLES

The literature recommends the adoption of an integrated model when researching trauma reactions (Horowitz, 1993) (refer to Section 2.5). A limitation of this study was the paucity of the mediating variables incorporated into the study despite the fact that their importance has been established in the literature.

Mediating factors which have found to be important related to the event itself include the nature of the event, whether it was physical attack, rape, combat, natural disaster and intentional (Ullman, 1995); extent of loss and bereavement (Meek, 1990); whether the event was accidental or intentional (Davidson and Foa, 1993). Individual factors include subjective perception of threat and locus of control (Gibbs, 1989); attribution (Joseph et al, 1993b); approach/avoidance coping styles (Green et al, 1988); levels of pre-morbid functioning (Turner et al, 1995); prior and current life events (Green et al, 1985). Mediating factors in the post-trauma environment include levels of social support and availability of debriefing (Turner et al, 1995); the family support system (Yule and Williams, 1990); level of proactivity and involvement (Gibbs, 1989); cultural mores and values (Dawes and Donald, 1994; Straker, 1992)

This study incorporated only level of exposure, frequency and counselling and this was a short-coming of this study.

8.3 IMPLICATIONS OF THIS RESEARCH

Several implications emerge from this research.

Firstly, it is clear that both objective and subjective aspects of the traumatogenic stressor should be included in further research, in that both appear to play an essential role in the development and/or the mediation of PTSD symptomology.

Secondly, attention needs to be paid to the exact nature of the stressors of interest. The difficulties in comparing the accumulation of several lower magnitude events as opposed to a single and severe traumatogenic exposure of short duration needs to be acknowledged (March, 1993; Green, 1993). In this regard, further research is required to explore the threshold levels of different events across different populations, especially where the stressor is of lower magnitude and appears to rely more on individual differences (Gibbs, 1989; Yule et al, 1990).

Furthermore, recent literature has been focusing on multiple traumatic events as process, as opposed to the effects of single and simple traumatic exposure. Tomb (1994) note that it is rare for individuals to have been exposed to a single traumatogenic event, and it is difficult to separate out individual traumatogenic events and corresponding mediating factors. Furthermore, ongoing stressors do not easily lend themselves to measurement and classification. Green, (1993) comments that in a situation of

> "multiple or repeated traumatic experiences.... the process is ongoing and contains within it a number of discrete events" (p138).

Further complicating the picture is the concept of continuous stress (Straker, 1987) which has been described as "routinised trauma" as opposed to exposure to a single and individual event (Green, 1993).

The result of this focus on multiple traumatisation has encouraged researchers to shift from a "cross-traumatisation" to a "multiple-traumatisation" approach (Green, 1994; Wilson and Raphael, 1993), and there is clearly a need to develop a broader conceptualisation of traumatogenic situations and mediating factors. In similar vein, Baum et al (1993) comment on the difficulty in comparing traumatogenic events which are very different in nature and severity. There are wide variations in the types of traumatogenic events studied, and there is a lack of systematic classification of various components of disaster.

Further difficulties with research into PTSD pertains to sociocultural issues (Dawes and Donald, 1994). There is certainly, currently, ongoing debate around the generalisability of PTSD responses to other populations. This issue hinges around whether PTSD reactions are universal or group and context-dependent (Dawes and Donald, 1994). In order to assess the degree to which PTSD is context dependent, some researchers have recommended that research be designed in such a way as to facilitate comparative analyses between populations, and to discern common pathways as well as differences specific to stressor events (Feinstein, 1993). As mentioned above, this type of research should consider both individual differences, the nature of the stressor and the sociocultural context in which stress occurred. Thus future research in this area needs to be more sophisticated than this present study, which was limited in scope and in the methodology it employed.

Nevertheless, the findings of the current research as far as they went were supportive of the general trends in the literature in regard to the role of stressor dose in producing PTSD, and this was an important finding as the nature of the trauma investigated, viz. criminal victimisation, is relatively under-represented in the literature.

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Appendix 1: DSM-IV (American Psychiatric Association, 1994)
Criteria for the Diagnosis of Post-Traumatic Stress Disorder. Pp 427 - 429.

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 disorganised or agitated behaviour.

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 recognisable 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 re-enactment may occur.
4 intense psychological distress at exposure to internal or external cues that symbolise or resemble an aspect of the traumatic event
5 physiological reactivity on exposure to internal or external cues that symbolise 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 feelings of detachment or estrangement from others
6 restricted range of effect, (e.g., unable to have loving feelings)
7 sense of a foreshortened future, (e.g., does not expect to have a career, marriage, or 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 concentrating
4 hypervigilance
5 exaggerated startle response

E Duration of the disturbance (symptoms in criteria B, C, and D) is more than one 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 symptoms 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 six months after the stressor.

Appendix 2: DSM-IIIR (American Psychiatric Association, 1987)
Criteria for the Diagnosis of Post-Traumatic Stress Disorder. Pp 250 - 251.

A The person has experienced an event that is outside the range of usual human experience and that it would be markedly distressing to almost anyone. e.g. serious threat to one's life or bodily integrity; serious threat or harm to one's children, spouse, or other close relatives and friends; sudden destruction of one's home or community; or seeing another person who has recently been , or is being, seriously injured or killed as the result of an accident or physical violence.

B The traumatic event is persistently reexperienced in at least one of the following ways:

1 recurrent and intrusive distressing recollections of the event, (in young children, repetitive play in which themes or aspects of the trauma are expressed)
2 recurrent distressing dreams of the event
3 sudden acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative (flashback) episodes, even those that occur upon awakening or when intoxicated).
4 intense psychological distress at exposure to events that symbolise or resemble an aspect of the traumatic event, including anniversaries of the trauma

C Persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness (not present before the trauma), as indicated by at least three of the following:

1 efforts to avoid thoughts or feelings associated with the trauma
2 efforts to avoid activities or situations that arouse recollections of the trauma
3 inability to recall an important aspect of the trauma (psychogenic amnesia)
4 markedly diminished interest in significant activities (in young children, loss of recently acquired developmental skills such as toilet training or language skills)
5 feelings of detachment or estrangement from others
6 restricted range of effect, (e.g., unable to have loving feelings)
7 sense of a foreshortened future, (e.g., does not expect to have a career, marriage, or children or long life)

D Persistent symptoms of increased arousal (not present before the trauma), as indicated by at least two of the following:

1 difficulty falling or staying asleep
2 irritability or outbursts of anger
3 difficulty concentrating
4 hypervigilance
5 exaggerated startle response
6 physiological reactivity upon exposure to events that symbolise or resemble an aspect of the traumatic event (e.g. a woman who was raped in an elevator breaks out into a sweat when entering any elevator)

E Duration of the disturbance (symptoms in B, C, and D) of at least one month.

Specify delayed onset if the onset of symptoms was at least six months after the trauma.

Appendix 3: Questionnaire

INFORMATION SHEET

This research aims to find out more about the effects of bank robberies or hold-ups on bank staff, and what the effects are on those people who have experienced more than one.

To participate, we will request you to complete a brief questionnaire and then to provide more detail about your various experiences in the bank robberies. The more details you can provide, the more helpful this will be.

Depending on how many robberies you were involved in, this should take you between 20 minutes to an hour. (Please take your time and give as many details as possible)

ALL THE INFORMATION WILL BE KEPT STRICTLY CONFIDENTIAL.
Only the researcher will have access to the completed questionnaires and descriptions provided by yourselves. This information will be coded to ensure further confidentiality. You will have the choice to include your name or not.
I would therefore urge you to be as open as you can about your experiences.

This information will only be used for research purposes.

Participation in this research is volountary and you may withdraw at any time without prejudice.

SHOULD YOU REQUIRE ANY OTHER INFORMATION OR FURTHER COUNSELLING, PLEASE CONTACT THE RESEARCHER (SHARON BENATAR).

GENERAL INSTRUCTIONS

There are 4 parts to this questionnaire:

1 General Information.
2 Revised Impact of Events Scale.
3 Level of Exposure to the Event.
4 Counselling after the Event/Past History

PLEASE COMPLETE ALL FOUR SECTIONS.

GENERAL INFORMATION

SURNAME: _____

FIRST NAME: _____

(You may choose NOT to include your name)

AGE: _____

SEX: MALE FEMALE

MARITAL STATUS: SINGLE MARRIED DIVORCED SEPARATED

RACE: WHITE COLOURED BLACK INDIAN

HOME LANGUAGE: ENGLISH AFRIKAANS ZULU SOTHO TSWANA
OTHER:

HIGHEST LEVEL OF EDUCATION OBTAINED:

_____

_____

REVISED IMPACT OF EVENT SCALE

You have been involved in a stressful event -- several stressful events.

Below is a list of comments made by people after stressful life events. Please check each item, indicating how frequently these comments were true for you **DURING THE LAST SEVEN DAYS.** If they did not occur during that time, please write "not at all".

Please write after each question how often the statement was true for you (use the code provided) **DURING THE LAST SEVEN DAYS:**

NOT AT ALL	1
RARELY	2
SOMETIMES	3
OFTEN	4

1 I thought about it when I didn't mean to _____

2 I avoided letting myself get upset when I thought about it or was reminded of it _____

3 I tried to remove it from memory _____

4 I had trouble falling asleep or staying asleep because of pictures or thoughts about it that came into my mind ____

5 I had waves of strong feelings about it _____

6 I had dreams about it _____

7 I stayed away from reminders of it _____

8 I felt as if it hadn't happened or it wasn't real _____

9 I tried not to talk about it _____

10 Pictures about it popped into my mind _____

11 Other things kept making me think about it _____

12 I was aware that I still had a lot of feelings about it, but I didn't deal with them _____

13 I tried not to think about it _____

14 Any reminder brought back feelings about it _____

15 My feelings about it were kind of numb _____

LEVEL OF EXPOSURE TO THE EVENT

You have experienced one or more bank robberies in the last four years. For EACH of the robberies you were involved in, please fill in the date and describe in as much detail as you can the situation that you were involved in. (Should you experience any difficulties please ask the researcher for assistance.)

Please mark on the scale of 1 - 4 the level of exposure that you experienced with each stressful event.

RATING SCALE:

1 **I was not involved with the event.**
IE. I was in a back office, toilet, tea room, etc at the time of the event,
I was out of the branch/building at the time of the event,
I had no contact (visual or physical) with the robbers.

2 **I observed the event; I was a bystander at the event.**
IE I was in the vicinity or area where the event took place and I could observe what happened, but I had no direct contact (physical or verbal) with the robbers.

3 **I had direct involvement with the robbers , but I was not hurt or assaulted.**
IE I was ordered to the ground;
told to hand over money/keys etc;
told to carry out an instruction;
threatened;
taken hostage;
had a gun pointed directly at me or a knife held to me; etc

4 **I was directly involved and I was physically injured and/or assaulted.**
IE I was hit; shot; knifed; beaten; thrown;
I had to receive medical treatment/assistance for physical injury/I was hospitalised.

Please turn over to complete the description of the event/s and give your rating of the level of exposure.

BANK ROBBERY 1

DATE: _____

DESCRIBE HOW YOU WERE INVOLVED (AND WHAT JOB YOU WERE DOING AT THE TIME):

_____

_____

_____

_____

_____

_____

_____

_____

_____

RATING:

1	2	3	4

BANK ROBBERY 2

DATE: _____

DESCRIBE HOW YOU WERE INVOLVED (AND WHAT JOB YOU WERE DOING AT THE TIME):

_____

_____

_____

_____

_____

_____

_____

_____

_____

RATING:

1	2	3	4

BANK ROBBERY 3

DATE: _____

DESCRIBE HOW YOU WERE INVOLVED (AND WHAT JOB YOU WERE DOING AT THE TIME):

RATING:

1	2	3	4

BANK ROBBERY 4

DATE: _____

DESCRIBE HOW YOU WERE INVOLVED (AND WHAT JOB YOU WERE DOING AT THE TIME):

RATING:

1	2	3	4

BANK ROBBERY 5

DATE: _____

DESCRIBE HOW YOU WERE INVOLVED (AND WHAT JOB YOU WERE DOING AT THE TIME):

_____

_____

_____

_____

_____

_____

_____

_____

_____

RATING:

1	2	3	4

BANK ROBBERY 6

DATE: _____

DESCRIBE HOW YOU WERE INVOLVED (AND WHAT JOB YOU WERE DOING AT THE TIME):

_____

_____

_____

_____

_____

_____

_____

_____

_____

RATING:

1	2	3	4

BANK ROBBERY 7

DATE: _____

DESCRIBE HOW YOU WERE INVOLVED (AND WHAT JOB YOU WERE DOING AT THE TIME):

_____

_____

_____

_____

_____

_____

_____

_____

_____

RATING:

1	2	3	4

COUNSELLING AFTER THE EVENT

How many sessions of counselling did you receive after the traumatic event/s (as listed above)? Please mark the appropriate block.

	NUMBER OF COUNSELLING SESSIONS					
	1	2	3	4	5+	REFERRAL TO PROFESSIONAL
ROBBERY 1						
ROBBERY 2						
ROBBERY 3						
ROBBERY 4						
ROBBERY 5						
ROBBERY 6						
ROBBERY 7						

PREVIOUS HISTORY

Please circle the correct answer.

1 I have consulted with a psychiatrist or psychologist BEFORE the event/s YES/NO

2 I have previously been treated for a psychiatric or psychological problem BEFORE the event/s YES/NO

3 The reason was:

_____

_____

_____

ALL INFORMATION GIVEN WILL BE KEPT STRICTLY CONFIDENTIAL

THANK YOU VERY MUCH FOR YOUR PARTICIPATION.

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