Chapter 2

Moderating & support factors in children's response to trauma

2.1 Introduction

People who go through traumatic experiences often have symptoms and problems as a consequence. How serious the symptoms and problems are depends on many aspects including a person's life experiences before the trauma, a person's own natural ability to cope with stress, how serious the trauma was, and what kind of help and support a person gets from family, friends, and professionals immediately following the trauma. It is often difficult to separate the effect of war trauma from that of potential compounding factors such as pre-migration stress, separation from family, post-migration stress, socioeconomic adversities, and acculturation difficulties (Berman, 2001). Hall (2001) shows that many maltreated children suffer adverse psychological consequences, but less evidence exists to identify which children may be more or less at risk from such effects.

There are many studies which assess the factors that influence the development of post-traumatic stress reactions among the exposed children and adolescents such as characteristics of the traumatic experience, social-cultural influences (Terr, Bloch, Michel *et. al*., 1999; Sutton, 2002); history of depression (eth, 2001); personal history (Sutherland & Cooper, 1990; Smith *et al.,* 2001); family support (Pfefferbaum,1997; Sutton, 2002); stage of development & age(Pfefferbaum,1997; Perry & Pollard,1998); personality (Giel, 1998; Sutherland & Cooper, 1990); the coping style (Punamaki & Suleiman, 1990; Scott & Stradling, 1992); the ideological commitment (Baker, 1990; Punamaki, 1996); social support (Shisana &Celentano, 1987; Scott & Stradling, 1992); duration of traumatic stressor (Perry & Pollard,1998); gender (Pfefferbaum,1997; Perry & Pollard,1998); previous exposure to trauma (Smith *et al.,* 2001; Sutton, 2002); poverty (Pfefferbaum,1997); intelligence & education (Sutherland & Cooper, 1990); chronic traumatic experiences (Sutton, 2002); family history of psychiatric disorder (Scott & Stradling, 1992); levels of exposure to trauma (Scott & Stradling, 1992); type of traumatic event (Pelcovitz & Kaplan , 1996; Sutton, 2002) attitudes & values (Sutherland & Cooper, 1990); media exposure (Pfefferbaum,1997; Sutton, 2002); friend support (Sutton, 2002); amount of traumatic experiences (Sutton, 2002).

There are no standard responses to traumatic experiences. The levels of intensity of post-traumatic stress and distress experienced are not clearly related. So a rape, death or loss of property can cause different levels of distress depending on protective factors relating to the individual, and his/her family and community. For example, some people respond without a problem to their initial displacement and have symptoms of stress later, while others have symptoms at the beginning that later disappear (De Jong, 2002). One of the important mediators that can have a moderating and protective effect for children is family support. The role of the family and the reactions of parents have been shown in the British studies after World War II as well as in studies in kibbutzim and among Palestinians (Punamaki, 1987; Williams, 1990). Other mediators are stage of development (Pynoos *et al*., 1996); personality (Giel, 1998); the coping style of the child (Punamaki & Suleiman, 1990; Shisana & Celentano, 1987); the ideological commitment of the child (Baker, 1990; Punamaki, 1996); and social support (Halpern,1982; Shisana & Celentano, 1987).

In this chapter I will present some factors which play important roles in response to traumatic experiences such as age and developmental level, gender, family, school, culture, friends, temperament/personality traits, style of coping, amount of trauma, type of degree of trauma, social and community support and spiritual/religious support.

2.2 Individual factors

There are a number of factors such as age and developmental level and gender. These will be discussed below.

2.2.1 Age and developmental level

The age of the children and adults being studied appears to be associated with the level of trauma symptoms. Age was the strongest risk factor for predicting global distress following trauma and also the symptoms of PTSD vary widely depending on the age of the child (e.g., Resick, 2001, Ahmad *et al*., 2000; Johnson, 1998). In addition, some youngsters are more vulnerable to trauma than others, for reasons scientists do not yet fully understand. It has been shown that the impact of a traumatic event is likely to be greatest in the child or adolescent who previously has been the victim of child abuse or some other form of trauma, or who already had a mental health problem (Duncan *et al*., 1996; Boney-McCoy & Finkelhor 1995;

Roth *et al*., 1997).

Eth and Pynoos (1985) have suggested that, although the manifestation of post-traumatic symptoms may differ according to age, the general pattern of responses is similar. These authors have described a variety of responses that correspond to children's cognitive and developmental abilities at different stages and have concluded that children's efforts to cope with traumatic stress are a function of maturity. Age and developmental level influence the child's perception and understanding of trauma (Realmuto *et al.,* 1992; Weisenberg *et al.,* 1993). Age also influences the response of others to traumatized children, with younger ones more likely to be earmarked for protection. Furthermore, trauma and the child's response to it have the potential to disrupt normal development (Perry, 1994). A child's age and developmental level also play an important role, influencing a child's perception and understanding of the trauma, susceptibility to parental distress, quality of response, coping skills, and memory of the event (Realmuto *et al.,* 1992; Weisenberg *et al*., 1993).

Symptoms for children aged six to 12 years may include refusal to eat and frequent physical complaints with a psychosomatic basis, such as headaches, dizziness, and abdominal pain. These children may also display behaviour appropriate of much younger children, such as prolonged muteness and bed-bound incontinence or clinging behaviour. They frequently show repetitive traumatic play (Terr, 1991). Those children may show generalized fear for events that resemble the original traumatic event, or for specific objects that had to do with the event, or fear of being left alone in a room (Goodwin, 1988).

Vila *et al*. (1999) found that many elementary school–age children developed clinically confirmed disorders when faced with a traumatic event of average intensity and involving no physical injury. Also, several studies (Giaconia *et al*., 1995; Scheeringa & Zeanah, 1995) reported that traumatized school-age children show specific reactions to trauma (e.g. separation anxiety, guilt, clinging, diminished interest in activities, re-enactment of the trauma in play, reduced impulse control, physical complaints, avoidance of being reminded of trauma, intrusive thoughts/images/ sounds, recurrent distressing dreams, hyper-vigilance, fear of further trauma, sadness, regression, sleep disturbances, sense of foreshortened future, difficulty paying attention, difficulty trusting, decrease in school performance).

Traumatic events experienced before the age of eleven are three times more likely to result in serious emotional and behavioural difficulties than those experienced later in life (Goodman *et al*., 2002). Lystad (1984) reported that although confusion and anxiety were apparent in children across all developmental stages, psychosomatic symptoms and depression did not emerge until middle childhood for traumatized children. Terr (1991) reported that trauma-related dreams and nightmares become more prevalent in school-aged children, although parents and teachers initially report that young children do not easily talk about the trauma (Sullivan, Saylor & Foster, 1991; Misch, Phillips, Evans & Berelowitz, 1993).

There is general agreement that the death of a parent of school-age children is a very stressful experience (Garmezy, 1987). Differences in the manifestation of traumatic effects in boys and girls also become more visible during middle childhood. Boys tend to display more aggressive and disruptive behaviours and attitude, whereas girls begin to show less obvious symptoms and signs of trauma, for example, eating disorder and changes in relationships (Mahony & Camplell, 1998).

Several studies (Goldstein, Wampler, and Wise, 1997; Ajdukovic, 1998; Saylor, Sweanson, and Powell, 1992) reported that traumatized adolescents show specific reactions to trauma (e.g., dreams of traumatic incidents, avoidance of anything that reminded them of the trauma, guilt, sense of foreshortened future, diminished interest in activities, hyper-vigilance, intrusive imagery (flashbacks), difficulty concentrating, difficulty sleeping, emotional numbing, appetite disturbance, depression, anger, problems with alcohol and drugs, suicidal thoughts and attempts, somatic complaints).

Several studies have found significant differences in PTSD between groups of older and younger children (e.g., Perry & Pollard,1998; Pfefferbaum,1997; Black, 1998) and have recorded that PTSD symptoms in young children are notably higher than in adolescents (e.g., Dinan *et al*., 2004; Qouta & El-Sarraj, 2004; Rummens & Seat, 2004). A few studies have found that the age is not related to symptoms of PTSD (e.g., Hubbard *et al*., 1995; Goldstein *et al.*, 1997; Melhem *et al.*, 2004). However, Klingman's (1992) and Mintz's (1992) showed that age was a significant factor in children's responses to the war, with younger adolescents (12 to 13 year olds) manifesting greater distress than older ones. Elementary school children showed

more stress symtomatology and PTSD than junior high schoolers; and junior high schoolers demonstrated more stress than high schoolers (Klingman, 1992; Mintz, 1992; Schwarzwald *et al*., 1993).

In addition, children are often exposed to other risks associated with a war-like situation, often more so than adults. For example, 75% of the injuries incurred from landmines in the rural areas of Somalia were to children between the ages of five and 15 years old (ICRC, 1994). Extreme trauma can lead to illness at any age, but its potential to set the stage badly for life when severe trauma occurs during early childhood is increasingly recognized (Eth, 2001; Dickson-Gomez, 2002). Children present many of the same types of symptoms as adults (e.g., sleep disorders, avoidance of activities that resemble the trauma, avoidance of talking or thinking about the trauma), but differ in important manners (e.g. hyperactivity instead of numbing, seeing ghosts, alterations of time sense (Peterson *et al.,* 1991). Small children can often not use words to express their feelings and so they may express their distress through becoming ill or by behaving in an uncharacteristic way (Turner, 2005). Adolescents are more comfortable talking about trauma of death with peers than with adults (Goldman, 2000).

2.2.2 Gender

Several studies have suggested that there are different rates of PTSD in men and women and that more symptoms of PTSD appear in females (e.g., Brosky & Lally, 2004; Soysa, 2002). Moreover, gender differences have been seen in the reactions to childhood trauma. Some studies find girls more symptomatic than boys (e.g. Ajdukovic, 1998; Abdel-Khalek, 1997; Fitzpatrick & Boldizar, 1993), while others find boys more symptomatic (e.g. Scott, 1998). Qualitative sex differences in symptoms and recovery have also been presented. The sex differences are suggested to be due to defensive style, coping mechanisms, the availability and use of social support, and expectation for response and recovery. These qualitative differences explain why some studies found a higher rate of symptom development in girls, others reported an elevated rate in boys, and a third group of studies concluded that boys and girls develop PTSD with equal frequency (Pfefferbaum, 1997).

Ajdukovic (1998) and Abdel-Khalek (1997) found that female adolescents have higher rates of post-traumatic stress symptoms and greater war-related fears than males. There also appear to

be gender differences in adaptive response to the acute event (females dissociate more than males) that may be related to this observed difference in development and expression of trauma-related symptoms (Perry *et al*., 1995). Also, Tousignant *et al.* (1999) found that the girls had a higher rate of psychopathology than boys in a sample of adolescents from refugee families which included 203 adolescents, aged 13 to 19 years, coming from 35 countries. Some studies report that rates of post-traumatic stress disorder are six times higher in girls (Kaminer *et al*., 2000). A few studies have found girls to be equally as vulnerable as boys to nonsexual trauma such as physical assault and witnessing violence (Giaconia *et al*., 1995; Lipschitz *et al*., 1999), while others have found no gender differences (Servan-Schreiber *et al*., 1998). However, other studies found that the symptoms of PTSD are not related to gender (e.g., Goldstein *et al.*, 1997; Seedat *et al.*, 2004; Marshall, 1999).

Several issues regarding differences among male and female children merit consideration. The first issue pertains to the differential socialization, child-rearing processes, and expectations on the basis of gender. Typically, girls are socialized to openly express their fears, anxiety, and other emotions, whereas boys are generally discouraged from such open display of emotions and are more likely to conceal, deny, or repress difficult feelings and emotions (Gilligan, 1982). The second issue relates to some contrasting studies. Scott (1998) found that boys suffered from PTSD and witnessed more violence than girls. In addition, Fitzpatrick and Boldizar (1993) found girls to be less vulnerable to trauma.

2.3 Social factors

2.3.1 Family

Several studies have found that early family environment may play a role in how people respond to traumas. Risk of depression or PTSD may also be related to factors such as a family history of psychiatric disorder and a history of previous losses (e.g. Scheeringa & Zeanak, 2001; Norris, 2001; Soysa, 2002). Davidson *et al*. (1991) studied a community sample of 2985 people and found that those with PTSD were three times more likely to have experienced parental poverty, familial psychiatric illness, early parental separation, and/or abuse as a child. Life stressors and family/environmental influences also may affect the risk of PTSD. Mothers' and fathers' widely disparate reactions, increased parental conflict, and

increased family chaos have been associated with children's adverse reactions or difficulty in recovering (Pelcovitz *et al*., 1998; Scheeringa & Zeanak, 2001).

There is evidence that other stressors within the family adversely affect outcomes. Hjern, Angel, and Jeppson (1998) conducted research on the mental health of Chilean and Middle Eastern refugee children in exile and observed that important family life-events, including the birth of a sibling, divorce among parents, or parental psychiatric disorders, play a significant role in the mental health of the child refugee. Also, parents with psychological problems may be unable to protect their children from victimization, or support them appropriately should traumatic events occur. Such early childhood experiences, as well as generally poor modelling by the parents, may also affect one's coping abilities with stressors later in life (Resick, 2001). In general, parental history of previous trauma might affects badly on developing a child's trauma (e.g., Soysa, 2002; Schumm, Vranceanu, & Hobfoll, 2004).

Sack *et al*., (1995a) examined the post-traumatic stress disorder across two generations of Cambodian refugees. Data were collected on 209 Khmer young people, aged between 13-25 years, and one of their parents, through interviews. Results indicated that PTSD was significantly related across parent-child generations. Also, Dan (1996) investigated the effects of a father's combat-related PTSD on his offspring. The researcher examined 70 sons and daughters of Vietnam veterans between 12-18 years of age diagnosed with PTSD for the presence of PTSD. The target group (Group One) was compared to a control group of 20 sons and daughters between 12-18 years whose veteran fathers had a diagnosis of substance abuse or dependence but did not have PTSD (Group Two). The results showed that Group One had significantly more somatic complaints, social problems, attention problems, and more aggression than Group Two.

Bachar *et al*., (1994) examined 97 Israeli Kibbutzim children (mean age 10.1 yrs) of East European heritage who immigrated to Israel after World War II. 54 were grandchildren of Holocaust survivors (HLSs), and 43 served as controls. Results provide evidence of cessation of transgenerational trauma transmission in 3rd-generation (HLSs). However, Sagi-Schwartz *et al*. (2003) indicated that the trauma effects did not appear to transmit across generations. Holocaust survivors may have been able to protect their kids from their war experiences,

although they themselves still suffer from the effects of the Holocaust.

Otherwise, the family is the important source of emotional and instrumental support for most people when they are experiencing stress or trauma (Figley, 1983). A number of studies document an association between child and parent symptomatology (Breton *et al*., 1993; Laor *et al*., 1996; Sack *et al*., 1995b). Positive family factors appeared to have a general protective effect and proved more influential than other risk or protective factors (Madison, 2003). Many studies found that family support, particularly from the parent, tends to be protective for children in traumatic and post-traumatic situations (Lie et *al.*, 2004; Gil-Rivas *et al.,* 2004).

When parents were overwhelmed by their own support for their children, their traumatized children experienced more negative effects, including greater stress and increased length of recovery (Willard, 1998). Family support is given mainly by parents, but support provided by siblings has been documented throughout development. Studies have indicated that siblings provide a key source of support in childhood (Dunn & Munn, 1986). A sibling's role can be as a mentor, as parent-child relationship, or as a peer. Adolescent siblings more often assume reciprocal roles with regard to familial issues and complementary roles as peers in the areas of social life, schoolwork, and risky behaviour (Tucker, McHale, & Crouter, 2001).

Weine *et al*. (2004) indicated that the political violence leads to changes in multiple dimensions of family life and also to strategies for managing those changes. Hence, while a family's reaction can buffer the negative effects of a trauma and provide a source of healing, it can also accentuate potential problems in a child's adjustment and coping after trauma and disaster (Gurwitch *et al*., 1998). Also, the youngster who lacks family support is more at risk for a poor recovery (Morrison, 2000). A child's reaction to trauma is often closely related to the reactions of the child's parents or other important adults, especially the mother (Fletcher, 1996). In addition, the ability of families/networks to provide support was also dependent upon their own socio-economic circumstances (Sibai & Sen, 2000). Rutter (1990) noted that for bereaved children, the quality of care that the child receives after the loss of a parent is more predictive of vulnerability to depression and general adjustment than the loss itself.

2.3.2 School

School children may be exposed to trauma in their personal lives or, increasingly, at school. Classroom teachers can help prepare children to cope with trauma by understanding the nature of trauma, teaching children skills for responding to an emergency, and learning how to mitigate the after-effects of trauma. When violence or disaster affects a whole school or community, teachers and school administrators can play a major role in the healing process. School is a large part of a child's life. The school provides the main support and social network. School is the normal place for a child to be and offers security at a time of insecurity. Teachers have many skills and techniques which, with a little training and awareness, can be adapted to help children cope with trauma (Capewell, 1999). Lack of support from parents or schools has been linked to elevated and long lasting trauma symptoms (Ruchkin, Eiesemann, & Hagglof, 1998; Rossman, Bingham, & Emade, 1997; Udwin, Boyle, Yule, Bolton, & O'Ryan, 2000). Several studies have shown that school support by teachers, peers, administrators and counsellors plays an important role in moderating the relationship between trauma exposure and PTSD and helps to alleviate psychological distress and PTSD (Soysa, 2002; Webb, 2004; Yule, 2002).

School-based prevention and treatment efforts are effective for traumatized children or children at risk from trauma. They provide access to children in a developmentally appropriate environment that encourages normalcy and minimizes stigma. School is also a setting in which PTSD and associated symptoms are likely to emerge. For example, symptoms such as intrusive thoughts and difficulty concentrating are likely to interfere with the child's academic performance and social adaptation. Therefore, consultation about the effects of trauma and the recovery process may be both necessary and useful (Pfefferbaum, 1997). All school staff, both teaching and support staff, will need an opportunity to share their emotional reactions to the crisis and support should be organised, as far as possible, from the school itself. The job of the psychologists, psychiatrists, social workers or volunteers should be to support the staff, not to replace them (Yule & Gold, 1997). Furthermore, they have opportunities to reinforce their coping skills, correct rumours, identify suffering children, and prepare students for future experiences (Laor & Wolmer, 2002). Because bereaved children and adolescents are in school for most of the day, teachers and school counsellors should be informed of the trauma and

loss. This is important not just for emotional assistance but also because bereaved children have difficulty concentrating on their work, lose motivation to learn, and lack energy, and as a result their school performance suffers. In addition, they may become disruptive and act out aggressive feelings in class. When teachers are unaware of the underlying cause of this school behaviour, they may discipline and punish children when what they need is understanding, patience, and support (Wass, 1991).

In addition, parents and teachers often underestimate the extent of children's suffering. Disaster mental health efforts must systematically identify young people in need of attention (Handford *et al*., 1986; Yule & Williams, 1990). For both boys and girls, changes in perceptions of teachers' support reliably predicted changes in both self-esteem and depression. In particular, those students perceiving increased teacher support showed corresponding decreases in depressive symptoms and increases in self-esteem (Reddy, Rhodes, & Mulhall, 2003).

Regular classroom teachers have a major role in the identification and referral process. Children often express themselves through play. Because the teacher sees the child for many hours of the day including play time, the teacher may be the first to suspect all is not well. Where the traumatic event is known, caregivers (like teachers) can watch for PTSD symptoms. However, traumatic events can involve secrets. Sensitive teachers can monitor all children for changes in behaviour that may signal a traumatic experience or a flashback to a prior traumatic experience. The possible protective role of families and institutions such as schools has received some attention; less is known about the potentially protective or adverse effects of community-based efforts such as relocation.

2.3.3 Culture

Culture can affect the stress and coping process in four ways (Aldwin, 1994). First, the cultural context shapes the types of stressors that an individual is likely to experience. Secondly, culture may also affect the appraisal of the stressfulness of a given event. Thirdly, cultures affect the choice of coping strategies that an individual has utilized in any given situation. Finally, the culture provides different institutional mechanisms by which an individual can cope with stress. Coming to terms with death and loss is the most difficult

challenge a family must confront. From a family systems perspective, loss can be viewed in terms of transactional processes involving the deceased member with all survivors in a shared life cycle that acknowledges both the finality of death and the continuity of life. Throughout history, mourning beliefs and practices have facilitated both the integration of death and the transformation of survivors in moving forward with life. Different cultures and religious traditions, in varied ways, mark the passage and offer assistance to the community of survivors (Parkes, Laungani, & Young, 1997; Walsh, 1999; 2004).

A series of studies has documented the long-term effects of severe trauma on Cambodian refugee youths in which traditional Cambodian beliefs and value systems may have influenced symptom formation and coping (Pfefferbaum, 1997). Racial and cultural factors are potentially significant in evaluation and treatment of PTSD but have not been adequately studied (Eth, 2001). Other studies maintain that signs of emotional distress are expressed similarly by children of different cultures and that PTSD resulting from war trauma surmounts the barriers of culture and language (Sack, Seeley, & Clarke, 1997). However, Kleinman and Kleinman (1991) noted that cultural factors influence the expression of PTSD symptoms. Beliefs about death and the meanings surrounding a particular loss are rooted in multigenerational family legacies, in ethnic and religious beliefs, and in the dominant societal values and practices (Walsh, 2004). Clinicians need to appreciate the power of belief systems in healing the pain of loss as well as the destructive impact of blame, shame, and guilt surrounding a death (Rolland, 1994).

Cultures have developed coping strategies to deal with traumatic stress or mental illness. Once indigenous coping strategies and resources are identified and understood, they can foster and encouraged as a form of prevention or intervention (De Jong, 2002).

Cultural beliefs are shaped by specific religious practices and are expressed within a family context. For example, Webb (2004) gave an account of a Chinese adolescent who attended a high school close to the World Trade Centre and began to have nightmares and difficulty concentrating in school during the months that followed the 9/11 attacks, but did not say anything to his parents because they were preoccupied with their own concern. Several months later, the school counsellor notified the parents about their son's poor grades, and they

informed the boy that his failure was “shaming” the family. The boy knew that something was wrong with him, and told his parents that he thought he should talk to the counsellor about his nightmares and poor concentration (Webb, 2004).

Among Arabs, a diagnosis of PTSD has come to be associated with a “noble” and “patriotic” cause, such as the struggle for independence. Strong ties among Arab families appear to shield family members from incidents that otherwise might be experienced as disastrous (Abudabbeh, 1994). The Palestinian community is composed of Muslims, Christians, and Jews. Muslims believe that one should endure life’s burdens without complaint, and that only God, not humans, can help people. Christians in the Palestinian community also believe in the will of God, and in fate. Pictures of Jesus Christ, the Virgin Mary, and saints are placed in homes for their protective value and can help maintain a peaceful state of mind. Samarians in the Palestinian community use a holy artifact called “Joseph’s Hijab” when a person is suffering from a loss or mental disturbance. Jews also believe that it serves as a remedy and resolves one’s difficulties (Awwad, 1999). For many traditional African people, traumatic incidents, such as drought, wars, floods, don’t occur by accident or chance. They are usually attributed to God’s activity or to a spiritual being (Mbiti, 1990). In India, trauma is often viewed as a visitation from malevolent gods. Ideas about astrology and the malevolent influences of the planets on an individual’s life are firmly inherent in the Indian psyche. Trauma may take place due to the malevolent influence of the planets, especially Shani (Laungani, 2001).

In research with children living in the West Bank and Gaza Strip, Punamaki (1996) concluded that ideological support for the conflict may buffer some of the stresses of war. Despite the constant threat of danger, the children derived strength from their ideological and political commitment to their country's struggle. Individuals who held strong political and ideological beliefs were more able to endure the horrors that surrounded them. Though these contexts are different in many respects, in both situations, it was clear who the enemy was and why the war was necessary.

Ideology is an important as well as a paradoxical source that must be taken into account when attempting to understand the dynamics between political violence and psychological

processes. On the one hand, ideology can provide purpose and meaning to a political struggle, thereby bolstering, supporting, or even enhancing children's (and their parents') capacities to cope effectively in the midst of difficult circumstances. On the other hand, allegiance to an ideology may prolong and intensify the political struggle and in the long run increase the challenges and dangers to which children and their parents must respond. What leads to effective coping, in other words, also may lead children into danger. The use of active coping modes that are regarded as effective and healthy by traditional psychology can result in mental health problems for children due the nature of the political situation (Punamaki, 1983, 1987).

2.3.4 Friends

While family support is crucial, peers can also play an important role in the recovery of children and youth. When children and youth have access to the support of their peers after a traumatic event, they are less likely to suffer long-term emotional harm. If they lose this source of support, due to relocation, school absence, or school closures after an attack, they may be at greater risk of having long-term psychological problems (Coffman, 1998; Flynn & Nelson, 1998). Several studies indicated that peer support significantly reduced the levels of psychological distress and post-traumatic disorder symptoms (Madison, 2003; Holt, 2002; Colarossi & Eccles, 2003). Colarossi and Eccles (2003) indicated that female adolescents perceived significantly more support from friends than male adolescents did, whereas male adolescents perceived significantly more support from fathers than female adolescents did. Colarossi and Eccles (2003) suggested that self-esteem was significantly, positively affected by friend and teacher support. In childhood, friends, rather than family, are more likely to emphasise the need for reciprocity in the distribution of rewards and obligation (Newcomb *et al*., 1979).

Skolnick (1986) found that the quality of childhood peer relationships predicted adult psychological health in the total sample. Also the quality of childhood peer relationships strongly predicted adolescent peer relationships for both males and females, which in turn predicted psychological health and the quality of social relationships in adulthood, including marital satisfaction. In situations of mass trauma other children are similarly bereaved, and the shared experience can provide the opportunity for mutual support (Webb, 2004).

2.4 Temperament and style of coping

2.4.1 Temperament/personality traits

People are very different in how they perceive and experience events. Research on the influence of personality on the development of PTSD can potentially advance our understanding of one of the field's most perplexing questions: why some individuals exposed to trauma develop disorders, while others do not (Miller, 2003). The impact of personal resources on PTSD symptomatology may be important for survivors of trauma and long-term strategies for victims of PTSD (Dempsey, 2002). There are numerous studies indicating that personality traits play important roles in moderating the relationship between trauma exposure and PTSD and help to alleviate psychological distress and PTSD (e.g., Miller, 2003; Golier *et al*., 2003; Hyer, Rafalson, & O'hea, 2004).

Both personality traits and stressor characteristics were important predictors for the development of PTSD. Hardiness of personality is considered to keep a person healthy despite the experience of stressful life events. And stress resistance is expressed as commitment versus alienation, control versus powerlessness and challenge versus alienation (Sutherland & Cooper, 1990). Also, Radan (2000) found that social support affects tolerance and self-esteem, assisting individuals to alleviate PTSD.

In general, higher ability is seen as a protective factor against developing psychopathology (Yule, Perrin & Smith, 1999). Also, a sense of control is an important factor in successful aging and emotional well-being. This applies to both negative outcomes and positive outcomes (Kunzmann, Little, & Smith, 2002). Otherwise, Roberts, Dunkle, and Hang (1994) showed that a greater sense of control significantly altered the negative impact of stress and protected emotional well-being. Personal control interacts with coping strategies to influence adjustment to life stress (Hyer, Rafalson, & O'Shea, 2004). Affective or emotional resilience involves the ability of children to manage their emotional reactions, to experience and express a broad range of emotions, and to maintain a sense of humour (Apfel & Simon, 1996; Waller, 2001).

2.4.2 Style of coping

Several studies have indicated that coping plays an important role in moderating the relationship between trauma exposure and PTSD and helps to alleviate psychological distress and PTSD (Soysa, 2002; Widows *et al*., 2000; Miller, 2003). Persons who do not develop positive coping skills and are not given training and support from an organization through peer support, debriefings, counselling, or therapy may develop or continue unhealthy, destructive coping patterns that lead to PTSD (Nurmi & Williams, 1997). However, a few authors indicated that there is no correlation between coping style and symptoms development (e.g., Madison, 2003; Stevens & Higgins, 2002).

The resilience can positively affect through three relatively stable coping styles, as follows (Payne *et al*. 1999).

(a) Perceived control: Rotter (1966) proposed that individuals vary in how they explain things that happen to them. Some make internal (self) attributions and others external (other people, chance) control attributions. The concept was extended to health care and much research has focused on personal control beliefs. These ideas were further developed by Wallaton *et al*. (1978) in the context of attributions made about health and health care services.

(b) Self-efficacy: This refers to the belief that one can successfully undertake the behaviours which are required for a desired outcome. The concept was originally derived from the work of Bandura (1977) on social learning theory.

(c) Hardiness: Kobasa (1979) introduced the concept of hardiness which has three components: commitment, control, and challenge. A positive belief in one's ability to influence life events, a belief that change is normal and life enhancing, and an active involvement in life are all thought to be protective features.

There are certain similarities between coping with trauma and every day coping. People undergoing trauma utilize analysis and problem-focused action, social support, negotiation skill, humour, and prayer. However, there are also marked differences. First of all, people in traumatic situation may have much less conscious control over their coping strategies. Second, confiding in someone may be a more central role in coping with trauma. Third, the process of coping with trauma may last for a much longer time than coping with everyday problems.

(d) Finally, trauma researchers highlight the development of meaning and transformation of the self to a much greater extent than is common in the general coping literature (Aldwin, 1994). Jensen and Shaw (1993) noted that older children and adolescents have developed a more sophisticated array of coping abilities than younger children. In fact, it could be speculated that younger children may be at greatest risk, not only because they have not yet mastered the cognitive skills of their older counterparts, but also because they commonly attribute egocentric explanations to events and are typically less able to talk about distressful experiences. Allen and Rosse (2004) indicated that there was a high correlation between child and parent stress and that parental avoidance type coping was correlated with higher stress levels.

2.5 Determination of trauma

2.5.1 Amount of trauma

Research is continuing to reveal factors that may lead to PTSD. People who have been abused as children or who have had other previous traumatic experiences are more likely to develop mental health difficulties (Widom, 1999). Ispanovic-Radojkovic (1993) showed that the cumulative effect of multiple traumas is especially present in the situation of war. Research indicated that there is a correlation between the number of previous traumatic experiences and PTSD, with more exposure leading to an increase of symptoms of trauma (e.g., Smith *et al*., 2001; Yule, 2001; Wayment, 2004). In particular, research found a strong association between children and adolescents living with war who were exposed to war stressors and high levels of PTSD symptoms and grief reactions (Smith *et al*., 2001; Thabet & Vostanis, 2000; Papageorgiou *et al*., 2000).

Furthermore, Mollica *et al*., (1997) examined the effect of war trauma on the functional health and mental health status of Cambodian adolescents living in a refugee camp on the Thai-Cambodian border. One adult (aged 18+ yrs) each from 1,000 households, and 182 adolescents (aged 12-13 yrs) participated in the study. Results show that parents and adolescents reported the latter as having experienced high levels of cumulative trauma, especially lack of food, water, and shelter. The most commonly reported symptoms were somatic complaints, social withdrawal, attention problems, anxiety, and depression. Breslau *et*

al., (1999) found that experiencing more than one traumatic event yielded a higher risk for developing PTSD. While other studies indicated that the meaning of the violence is more important than the amount of violence directly experienced. There is direct evidence from South Africa, the Philippines and Palestine that shows that active engagement in or ideological commitment to political struggle can increase resilience (Dawes & De Villiers, 1987; Kostelny & Garbarino, 1994; Punamaki, 1996). For example, Kostelny and Garbarino (1994) interviewed mothers and children in Palestine and concluded that it was the adolescents' ability to perceive themselves as "freedom fighters" that made the experiences of invasion and detention less traumatic. In other studies of adolescents living through and participating in the Intifada in the Gaza Strip, the findings showed a complex interaction between exposure to traumatic events, active participation, and beliefs (Punamaki & Suleiman, 1990; Qouta, Punamaki, & El-Sarraj, 1995). However, Son (1995) indicated a non-significant relationship between a number of traumatic experiences and PTSD.

2.5.2 Type and degree of trauma

Grover (1999) found that the victims of violent events demonstrated greater PTSD levels than witnesses of violent events. Several studies found children who had great exposure to traumatic events has been associated with greater level of PTSD (e.g., Ishii, 2003; Resick, 2001; Ward et *al.*, 2001; Nelson-Goff & Schwerdtfeger, 2004). For example, after the Gulf War, Dyregrov and Raudalen (1992) found that the exposure to dead bodies and body parts were the best predictor of PTSD intrusion symptoms. These authors indicated that exposure to very strong sensory impressions (e.g. smelling burning bodies, hearing screams for help) may result in more severe re-experiencing of symptoms. Also, Ishii (2003) indicated that Cambodian survivors were suffering from the chronic effects of severe trauma. Qouta *et al.,* (1997) showed that adults who were exposed to house demolition in Palestine showed a higher level of anxiety, depression, and paranoiac symptoms than the witness and control groups regarding to the type of trauma. In a cross-sectional survey, Goldstein *et al*. (1997) found that 364 internally displaced six to 12 year old Bosnian children with greater symptoms had witnessed death, injury, or torture. Also, Geltman & Stover (1997) found that children who were internally displaced or living in refugee camps in Zaire as a result of the genocide, suffered trauma which led to severe physical and psychological damage.

If a child has witnessed destruction, mutilation, or death, if the child's life has been in serious danger, or if the child has suffered injuries, that child is at a greater risk of long-term psychological harm. Elementary school-aged children who had lost a family member or had a family member injured experienced more post-traumatic stress symptoms than those who merely knew someone injured or killed in the blast (Gurwitch *et al*., 1998).

The proximity of the child to the event is an additional risk factor. There is a greater likelihood of PTSD if the child directly experiences the trauma rather than witnessing the event (Macksoud & Aber 1996). However, Vila *et al*., (1999) tested 26 young hostages who had been taken hostage in their school 18 months earlier. Standardized clinical interviews and self-administered questionnaires were used. They were compared with 21 children from the same school who had not been taken hostage (indirect exposure).They found that symptoms of acute stress were observed in 25 (96%) of the children who were directly involved in the traumatic event more than children who were indirectly exposed to the trauma. However, Nader *et al*., (1990) found that guilt and grief reactions were higher among children that were further removed from a school sniper shooting (e.g., not on the playground but who knew the victims) than for those children directly exposed to the event.

Two years after the bombing, 16% of children and adolescents who lived approximately 100 miles from Oklahoma City reported significant PTSD symptoms related to the event. This is an important finding because these youths were not directly exposed to the trauma and were not related to victims who had been killed or injured. PTSD symptomatology was greater in those with more media exposure and in those with indirect interpersonal exposure, such as having a friend who knew someone who was killed or injured (Pfefferbaum *et al*, 2000). There was no evidence of significant gender differences in the rates of DSM-IV disorders when boys and girls who had been directly exposed to traumatic events were tested (Hubbard, 1995; March *et al*., 1997; Fitzpatrick & Boldizar, 1993).

2.6 Support Factors

2.6.1 Introduction

Psychosocial support consists of factors such as culture, school, family, work place, friend/peers, religion, and community (Webb, 2004). It is important to function as a "protective matrix"-a combination of the cultural, social, physical, familial, and personal adaptive mechanisms that regulate stressful environmental stimuli (Winnicott, 1965). Few authors have examined the factors that protect children from persistent symptomatology or that facilitate adaptation after a traumatic event. Also helping young people avoid or overcome emotional problems in the wake of violence or disaster is one of the most important challenges a parent, teacher, or mental health professional can face. Some of these risk factors may be used to identify those in most need of help and early intervention, while other factors can assist in determining the type of services most needed. Risk factors, however, may be balanced by protective factors. Protective factors should be identified to assess people's resiliency. Examples of protective factors are: The presence of a social network, including a nuclear or extended family, social support, self-help groups for empowerment and sharing, recreation & leisure activities, the possibility to perform culturally prescribed rituals and ceremonies, political and religious inspiration as a source of comfort, meaning and a perspective for the future, camps of a limited size, coping skills, intelligence and humour (De Jong, 2002; Garmezy, 1983).

To meet the needs of the majority of the bereaved or traumatized individuals, support is sought and found from the community, from immediate family and close friends, school, relatives and neighbours. Longer-term support will be needed although usually this will come from family, friends, and the local community. Therefore, many studies have shown that an individual without support is both more vulnerable to the effects of a trauma and more at risk that the distress will be maintained (Mohlen *et al*., 2005; Soysa, 2002; McNally, 2003). One of the key factors in determining a child's recovery after exposure to traumatic events is the availability of social support. The impacts of trauma are lessened when children and teens have a strong relationship with a parent or another competent caring adult and have at least one place to go where they can feel safe. When children and teens do not have caring, supportive adults in their lives, they are less likely to recover quickly from traumatic events and may have

lingering problems (Osofsky, 1999).

Also, Farhood *et al*. (1993) found that Lebanese family members were confident that they could rely on social support to deal with problems of various natures during the war. A high level of social support, family cohesiveness, and family communication has been found to protect children by mediating the effect of war trauma (Cohen and Dotan, 1976; Figley, 1983). For example, Mohlen *et al*. (2005) found that psychosocial support programs for war traumatized child and adolescent refugees reduced symptoms of post-traumatic stress disorder, anxiety, and depression from 60% to 30%. Similarly, it appears that coping, perceived social support, and mother trauma may have a greater impact on levels of child PTSD in the context of lower war exposure (Soysa, 2002). Moreover, Combat veterans with PTSD report lower levels of social support than do those without the disorder (McNally, 2003).

2.6.2 Social and community support

There is growing evidence that social support is important for physical and psychological health as well as for survival (House *et al*., 1988).The value of supportive relationships in one's social network is a protection against adverse environmental forces or negative life events (Sutherland & Cooper, 1990). Studying this aspect is of significance because social support has been shown to be positively related to good health. It is associated with better health outcomes, better coping and less negative effects of stress (Cohen & Syme, 1985). Indeed, a meta-analysis of 77 studies of PTSD revealed that a lack of social support is a risk factor of developing PTSD during or after a trauma (Brewin, Andrews, & Valentine, 2000). Many studies indicated that there is negative relationship between social support and PTSD. In other words, social support assists to alleviate the effects of traumatic experiences or psychological problems (Taylor, 2004; Reinhard & Maercker, 2004; Ganzel, 2004).

Paardekooper *et al*., (1999) examined 316 South Sudanese children (aged 7-12 yrs) who were compared to a group of 80 Ugandan children who did not have these experiences of war and flight. Results show that Sudanese refugee children had experienced significantly more traumatic events and suffered more daily difficulties than the Ugandese comparison group because they were less satisfied with the social support they received. Also, Barrett & Mizes (1988) studied 52 Vietnam veterans with regard to both social support and combat exposure.

Veterans who received high social support reported fewer symptoms of PTSD and depression than those with lower social support. In another example, a global measure of social support revealed that a low level of support 6 months prior to the September 11 terrorist attacks was a predictor of depression (Galea *et al*., 2002).

Additionally, community support is an important to help traumatized and bereaved families (Worden, 1996). All crisis-intervention activities and trauma-recovery initiatives require the involvement and support of community parents and leaders to be truly helpful for children and young adults. A psycho-educational approach is recommended as central to any community-based work (Rummens & Seat, 2004). The community support includes governmental and non-governmental organizations. Community individuals can help the children by first helping themselves. The role of voluntary organisations in the support of those affected by both personal and major disasters has been significant over the years (Goldman, 2000).

When there have been many deaths in a mass trauma situation, often the community mourns together, and this global response can be very supportive and provide a sense of validation to the survivors. These collective demonstrations of grief may actually contribute to group recovery (Zinner & Willians, 1999). There is an important role for caregivers from community individuals such as educators, counsellors, health care professional, etc. It is a role that involves teaching children to exercise their full potential; counselling children to believe that they even have potential to begin with; healing their pains, both emotional and physical; and protecting them from the very harsh elements that afflict them (Hutchison, 2005). Several NGOs have implemented the practice of “training of trainers”, which involves a short-term (usually weeks to a few months) training of community members and teachers in basic skills of psychosocial intervention and alleviation of distress. These community members subsequently provide additional outreach capacity not covered by other interventions (Laor & Wolmer, 2002). Finally, support from the larger community can play an important role. Children often experience community support indirectly through their parents after a traumatic event. Direct support from teachers, disaster relief workers, community groups, and health professionals is also influential and can affect a child's adjustment (Coffman, 1998).

2.6.3 Spiritual/religious support

Trauma and bereavement have traditionally been associated with spiritual aspects of humanity. Drawing on the work of King *et al*. (1994), it is proposed that it may be helpful to separate out three elements: religious, spiritual, and philosophical beliefs. These aspects may not be present in all people. Religious beliefs permeate cultural and family practices related to death and to the search for meaning about the mysteries of life and death. Religious practices have a major role in prescribing how people mourn their dead and the specific rituals for this purpose (Webb, 2004; Payne *et al*. 1999). Every religion and every culture deals with the theme of death, with the question of life after death. Religions try to explain why good and bad things happen in people's lives, and offer answers to questions about the meaning of life (Granot, 2005).

In recent years, research in medicine, epidemiology, gerontology, and other social sciences has shed new light on effects of religious involvement and spirituality on the health or mental health of elderly adults, particularly in the form of organizational religiosity (e.g., Kimble, McFadden, Ellor, & Seeber, 1995; Levin & Taylor, 1997). Several studies found that religious support was significant in alleviating the levels post-traumatic disorder and increasing capacities to cope with psychological distress (e.g., Cunningham, 2004; Grady, 2004; Lo, 2003). Spirituality may be a way to restore a sense of meaning to life which helps us access our inner resources and connect to others. Spiritual practice requires that we accept these painful feelings and explore them, using them as a springboard for our own work (Cunningham, 2004). Spiritual beliefs and practices can be wellsprings for resilience with life-threatening illness and loss (Wright, 1999). Research has found evidence of the positive physiological effects of deep faith, prayer, and congregational support (e.g. Dossey, 1993; Walsh, 1999; 2004). It has been argued that most people have spiritual beliefs even if they do not conform to specific religious doctrine (Stanworth, 1997). In secular societies people may be more comfortable referring to their spiritual beliefs rather than to their religion. Individual understanding of spirituality may include existential issues that may be challenged by life crises such as bereavement (Payne *et al*. 1999).

Furthermore, persons with higher levels of perceived spiritual support than these individuals coped better with uncontrollable life events (high stressors) compared to those with no support (Maton, 1989). Prayer allows people to express themselves during crisis and emotional turmoil. It can serve as an important source of personal strength and as a foundation for self-resilience during times of adversity. Holistic nurses may use prayer with patients to positively influence how patients cope with anxiety relative to illness (Lo, 2003). Spirituality or religion may provide coping resources, enhance pain management, improve surgical outcomes, protect against depression, and reduce risk of substance abuse and suicide (e.g., Larson & Larson, 2003; Grady, 2004). Also, families who are more religious, report greater levels of adjustment (Mawn, 1999; Yachtmenoff *et al*. 1998). Similarly, the effects of religiosity/spirituality and culture help to cope with traumatic experiences (Grady, 2004). There is increasing evidence that spiritual beliefs can have a positive role in clients' lives (Lindgren & Coursey, 1995). However, in some cases, religious beliefs can be sources of distress and aggression (Domino & Miller, 1992; Zainuddin, 1993; Ellison, 1983).

2.7 Summary and comment

It seems that there are several factors that can positively or negatively influence children and adolescents' reaction to traumatic events, including social-cultural influences, characteristics of the traumatic experience, history of depression, personal history, family support, stage of development and age, personality, the coping style, the ideological commitment, social support, duration of traumatic stressor, gender, previous exposure to trauma, poverty, intelligence and education, chronic traumatic experiences, family history of psychiatric disorder, levels of exposure to trauma, type of traumatic event, attitudes and values, media exposure, the support of friends and the number of traumatic experiences (e.g., Pfefferbaum,1997; Sutton, 2002; Smith *et al.,* 2001).

Therefore, traumatic events might cause the development of PTSD or not. This seems to depend on the kind of moderating/mediator factors involved. Some people respond with the development of PTSD symptoms at the beginning of the exposure to traumatic events or later, while other people could respond without developing symptoms of PTSD (Punamaki, 1987; Williams, 1990).

The current study focuses on the moderating factors in the development of PTSD symptoms as follows:

a) Age and developmental level

Age is the strongest risk factor for predicting the symptoms of PTSD. The symptoms can vary widely depending on the age of the child (e.g., Resick, 2001, Ahmad *et al*., 2000; Johnson, 1998). In addition, some youngsters are more vulnerable to trauma than others, for reasons scientists do not yet fully understand. In particular, children before the age of eleven are three times more likely to develop symptoms of PTSD than those who experienced traumatic events later in their life (Goodman *et al*., 2002, Garmezy, 1987). Several studies found that young children show higher levels of PTSD symptoms than adolescents (e.g., Dinan *et al*., 2004; Qouta & El-Sarraj, 2004; Rummens & Seat, 2004). On the other hand, a few studies have found that the age is not related to the symptoms of PTSD (e.g., Goldstein *et al.*, 1997; Melhem *et al.*, 2004). However, school children showed greater symptoms of PTSD than junior high pupils; and junior high pupils demonstrated more symptoms of PTSD than high school students as a response to war (Schwarzwald *et al*., 1993; Klingman, 1992; Mintz, 1992). In addition, small children can often not express their feelings with words so they may express their distress through becoming ill or by behaving in a different way, while adolescents are more comfortable talking about traumatic events with peers than with adults (Turner, 2005; Goldman, 2000).

b) Gender:

Several studies showed that females have higher rates of PTSD symptoms than males, particularly when they are exposed to war trauma (e.g., Brosky & Lally, 2004; Soysa, 2002). However, other studies found that gender cannot be attributed to the differences in the development of PTSD symptoms (e.g., Seedat *et al.,* 2004; Marshall, 1999).

With regard to the vulnerability to traumatic experiences, some studies found that boys are more vulnerable and more easily victimised than girls (Fitzpatrick and Boldizar, 1993; Scott, 1998). However, Kaminer *et al*., (2000) indicated that girls appear to be more vulnerable to post-traumatic stress reactions than boys. A few studies have found girls to be as equally vulnerable as boys to nonsexual trauma such as physical assault and witnessing violence (Giaconia *et al*., 1995; Lipschitz *et al*., 1999), while others have found no gender differences

in vulnerability to traumatic events (Servan-Schreiber *et al*., 1998). Thus, there appears to be no consistently reported differences in gender responses to trauma or developing PTSD symptoms.

c) Social Factors

Some social factors potentially help to protect the individual from the development of PTSD, such as family support, school, culture and ideology, friend/peers. Other factors, however, can increase the risk of PTSD development, such as family history of psychiatric illness, weak school support, negative usage of culture/faith or religion.

Many studies found that family support, particularly from parents can protect children from the development of PTSD. Also, children and adolescents who lack family support are more likely to have a poor recovery from trauma (Webb, 2004; Gil-Rivas *et al.,* 2004). However, family history of psychiatric disorders or parental history of previous trauma negatively affects the development of trauma in a child or grandchild (Soysa, 2002; Schumm, Vranceanu, & Hobfoll, 2004). In addition, some studies found that the effects of PTSD can survive for two generations as seen in Cambodian refugees, Vietnam veterans and Israeli Kibbutzim children (Sack *et al*., 1995; Dan, 1996). However, Sagi-Schwartz *et al*. (2003) indicated that the trauma effects did not appear to transmit across generations.

Several studies showed that school offers security at a time of insecurity to a child. Furthermore, school support by teachers, peers, administration and counsellors helps to alleviate symptoms of PTSD and psychological problems. This support is especially important in the time between the exposure to a traumatic event and the first appearance of PTSD symptoms (Capewell, 1999; Webb, 2004; Yule, 2002). However, the school might have a negative impact when the administration and teachers are unaware of the underlying cause of academic or behaviour problems in a child which are a result of the exposure to a traumatic event (e.g., difficulties in concentration, loss in motivation to learn, lack of energy). While these traumatised children need help and support, they may be disciplined and punished (Wass, 1991).

Culture can affect the process of coping positively or negatively with traumatic events in four ways:

1. The cultural context shapes the types of stressors that an individual is likely to experience;
2. Culture may also affect the appraisal of the stressfulness of a given event;
3. Cultures affect the choice of coping strategies that an individual has utilized in any given situation;
4. Culture provides different institutional mechanisms by which an individual can cope with stress (Aldwin, 1994).

Therefore, the clinician and people working in psychology or other social fields need to appreciate the power of the belief system and culture in the grieving process for relatives and the associated destructive impact of blame, shame, and guilt surrounding the death as well as in healing some of the other symptoms of PTSD (Walsh, 1999; 2004; De Jong, 2002).

Punamaki (1996) concluded that ideological support for children living in the West Bank and Gaza Strip may buffer some of the stress of war. Despite the constant threat of danger, the children derived strength from their ideological and political commitment to their country's struggle. Similar patterns were observed among those imprisoned and tortured in German concentration camps during World War II. Individuals who held strong political and ideological beliefs were more able to endure the horrors that surrounded them. Though these contexts are different in many respects, in both situations, it was clear who the enemy was and why the war was happening. Therefore, ideology is an important as well as a paradoxical source that must be taken into account when attempting to understand the dynamics between political violence and psychological processes. On the one hand, ideology can provide purpose and meaning to a political struggle (Punamaki, 1983, 1987).

Finally, friend and peer support can also play an important role in the recovery from traumatic events. Several studies found that friend/peer support significantly reduced the levels of psychological distress and symptoms of PTSD (e.g., Coffman, 1998; Madison, 2003; Colarossi & Eccles, 2003). Additionally, the quality of childhood peer relationships strongly predicted adolescent peer relationships for both males and females, which in turn predicted psychological health and the quality of social relationships in adulthood, including marital satisfaction. In situations of mass trauma other children are similarly bereaved, and the shared

experience can provide the opportunity for mutual support (Webb, 2004; Skolnick, 1986).

d) Temperament and style of coping

Firstly, several studies revealed that temperament/personality traits play important roles in alleviating the symptoms of PTSD and other psychosocial problems (e.g., Dempsey, 2002; Miller, 2003; Hyer, Rafalson, & O'hea, 2004). Personality traits include hardiness, tolerance, self-esteem, sense of control, personal control and emotional resilience, all of which help an individual to reduce the risk of PTSD (e.g., Yule, Perrin & Smith, 1999; Kunzmann, Little, & Smith, 2002; Waller, 2001).

Secondly, many studies found that a positive style of coping helps to alleviate symptoms of PTSD and psychosocial problems (e.g., Widows *et al*., 2000; Miller, 2003). In addition, the resilience affect positively through three relatively stable coping styles (Payne *et al.* 1999):

1. perceived control (Rotter, 1966);
2. self-efficacy (Bandura, 1977);
3. hardiness, which has three components: commitment, control, and challenge (Kobasa, 1979).

It is also worth noting that a few research studies indicated that there is no correlation between coping style and symptoms development (e.g., Madison, 2003; Stevens & Higgins, 2002).

e) Determination of trauma

1. AMOUNT OF TRAUMA: Several studies found that children or adolescents who have had previous traumatic experiences are more likely to develop mental health difficulties and symptoms of PTSD (e.g., Widom, 1999; Yule, 2001; Wayment, 2004). However, Son (1995) failed to show a significant relationship between the number of previous traumatic experiences and PTSD.

2. TYPE AND DEGREE OF TRAUMA: Several studies found that intense exposure to traumatic events has been associated with a greater level of PTSD (e.g., Resick, 2001; Ward *et al*., 2001; Nelson-Goff & Schwerdtfeger, 2004). For example~~s~~, after the Gulf war, exposure to very strong sensory impressions (e.g. smelling burning bodies, hearing screams for help) resulted in more severe symptoms of PTSD (Dyregrov & Raudalen, 1992). These findings are in accordance with reports about Palestinian children (Qouta *et al.,* 1997), Bosnian children

(Goldstein *et al.*, 1997), refugee camps in Zaire (Geltman & Stover, 1997) and the attacks of September 11th 2001 in the USA (Lee *et al.*, 2002). Therefore, there is a greater likelihood of PTSD if the child directly experiences the trauma rather than just witnessing the event (Vila *et al.*, 1999; Macksoud & Aber 1996). However, in some cases children who were exposed to indirect trauma (e.g., media reports or hearing about trauma) showed significantly more symptoms of PTSD than children who were exposed to direct trauma (Nader *et al.*, 1990; Pfefferbaum *et al*, 2000).

e) Support factors:

Protective factors should be identified to assess people's resiliency to the development of PTSD, such as the presence of a social network, including the close or extended family, social support, self-help groups for empowerment and sharing, recreation and leisure activities, the possibility to perform culturally prescribed rituals and ceremonies, political and religious inspiration as a source of comfort, meaning and a perspective for the future, coping skills and intelligence and humour (De Jong, 2002; Garmezy, 1983; Webb, 2004). Many studies found that an individual with support is less vulnerable to the effects of traumatic events (Mohlen *et al*., 2005; Soysa, 2002; McNally, 2003).

1. *Community support:*

There is growing evidence that social and community support which includes governmental and non-governmental organizations are important for physical and psychological health as well as for survival (House *et al*., 1988). Furthermore, several studies found that social support assists to alleviate the effects of traumatic experiences or psychological problems (Taylor, 2004; Ganzel, 2004; Maercker & Muller, 2004). This was observed in Ugandan children and Sudanese refugees (Paardekooper *et al*., 1999), Vietnam veterans (Barrett & Mizes, 1988), and American civilians after the attacks of September 11th 2001 (Galea *et al*., 2002). Therefore, when there have been many deaths in a mass war trauma situation, often the community mourns together, and this global response can be very supportive and provide a sense of support to the survivors.

2. *Spiritual support*:

Several studies found evidence of the positive psychological effects of deep faith, prayer and spiritual support, which were significant in alleviating the levels of post-traumatic disorder to cope better with uncontrollable life events, to enhance pain management, to improve surgical outcomes, to protect against depression and to reduce the risk of content suicide (e.g., Cunningham, 2004; Grady, 2004; Walsh, 2004). In this thesis spiritual support is used rather than religion because in secular societies people may be more comfortable referring to their spiritual beliefs rather than to their religion. However, it has to be pointed out that in some cases, religious beliefs can be sources of distress and aggression (Domino & Miller, 1992; Zainuddin, 1993; Ellison, 1983).