Risk and Protective Factors in Relation to Trauma and Post Traumatic Stress Disorders: A Meta-Analytic Review

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Abstract

This meta-analysis examined studies of the Risk and Protective factors in relation to trauma and post-traumatic stress disorders of children exposed to political and community violence. Review of 109 articles was done using Psych info and other documents published by the author. Similar effects were found across a range of outcomes, with evidence for greater risk factors included proximity to the traumatic event, personal predisposition/temperament Co-morbid psychopathology with other disorders, older age, living in inner-city areas, being, and presence chronic family adversities. While, protective factors were found to be presence of coping strategies, presence of family and of social support.

Keywords: Risk; Trauma; Post-Traumatic Stress

Introduction

In the past several decades, researchers, clinicians, and policymakers have expressed increasing concern that children who witness political and community violence may suffer negative consequences even when they are not themselves the target of violence. The concept of 'risk' is often used to indicate vulnerability to mental health problems and psychiatric disorders, if an individual is exposed to certain life events or circumstances. Masten and Garmezy [1], and Rutter [2] identified such factors, based on research with children and adults in the 1970s and early 1980s. Originally, risk was conceived in static terms as a marker, a stressor, or a factor predicting undesirable outcomes. For example, poverty, marital conflict, and child abuse were independently considered to place children at risk for negative developmental outcomes because a number of studies had found that more children in these risk groups presented with behavioural and emotional difficulties than children not exposed to adverse life events or circumstances. However, it is now known that these three factors often co-exist, and thus exert an additive impact on children.

Rutter [2] argued that researchers should move beyond the identification of risk groups or markers. Risk should be thought of as process. The active ingredients of a risk factor do not lie in the variable itself, but in the set of processes that flow from the variable, linking risk conditions with specific dysfunctional outcomes. Risks lie in the individual as much as in their environment. For example, researchers have shown that socially withdrawn or shy children are at greater risk for developing depression than their more outgoing peers [3]. The risk should not be attributed to traits of social withdrawal or shyness, as it resides in the processes associated with social withdrawal, such as lack of positive feedback from others. These increase the probability of the child developing internalising disorders such as depression.

Risk is defined with reference to a specific negative outcome. That is, risk is not simply an accumulation of life stressors in which negative life events are associated with any manner of diseases or disorders. 'Children at risk' or 'families at risk' should not be talked about without specifying what they are at risk for. Although it is known that the previously stated factors of poverty or marital conflict

are not positive for children's emotional well-being, whether they constitute risk factors depends on the outcomes in mind, and on the mechanisms by which risk processes exert their negative effects on the child. This article seeks to review the available literature concerning the risk and protective factors among children and adolescents victims of political, community, and domestic violence and the most commonly studied negative mental health outcomes among survivors of such violence (PTSD symptoms).

Method

Literature Search

Multiple sources were used to identify studies for the current meta-analysis including (a) studies identified in more than 103 qualitative reviews on the effects of witnessing political, family, and community violence; (b) reference lists from the studies cited in these reviews; (c) reference lists of other published articles and books on the more general topic of violence; and (d) nearly 500 abstracts identified in computer searches of the PsycINFO database (http://www.apa.org/psycinfo/), The final set of 109 studies that met our selection criteria (described later) consisted of 109 journal articles. Several terms need to be defined for purposes of this review. First, the term violence has been used to refer to a wide range of behaviors including political, domestic, community violence shown by children. In the current article, we use the term political and community violence more specifically to refer to incidents of traumatic events and PTSD due to such violence. Second, PTSD and children's risk, and protective factors. Studies included in the current meta-analysis met the following selection criteria: (a) The study reported empirical data; thus, case studies and qualitative studies were excluded. (b) The study examined the effects of witnessing political, community and domestic violence. (c) The study reported on psychosocial outcomes, including emotional and behavioral (e.g., PTSD). (d) The study sample was restricted to children. Adolescent samples that included 19-year-olds were included if most of the sample was 18 or younger, but college samples of 19-year-olds were excluded. (e) The study was published in 2016 or earlier. (f) The study was reported in English.

Results

A number of risk factors have been found to make children vulnerable to the development of child psychiatric disorders [4]. These factors are often interactional and have a cumulative effect. In this chapter, risk factors will be specifically discussed in relation to trauma and post traumatic stress disorders.

Proximity to the traumatic event

In investigating the relationship between trauma and post traumatic stress symptoms, we need to consider previous research on the association between trauma and symptom severity. This association arises from studies on natural disasters, community and family violence, and political conflict.

There are evidences that exposure to traumatic events, whether human -induced or natural catastrophe, can lead to post traumatic stress disorder. In addition, proximity to the trauma and symptomatology are often associated in the form of a linear-dose response relationship between the trauma and the post traumatic stress disorder symptoms in children [5].

This relationship between the severity of trauma and post traumatic symptomatology has been criticised by other researchers. Yule., *et al.* [6,7], in the study of children involved in the sinking of the ferry 'Jupiter', concluded that the proximity to a traumatic event does not necessarily mean that all affected children will exhibit anxiety and depressive symptoms. Also, that it does not necessarily support the relationship between the severity of traumatic events and psychological symptoms.

This hypothesis has been tested in children of different cultures. McClosky., *et al.* [8] assessed school-age children exposed to a range of traumatic events, such as family violence, violent crime, death or illness of someone close to child, and accidents. Among children reporting a traumatic event, the leading precipitating event for post traumatic stress disorder was death or illness of someone close to the child. Family violence, violent crime, but not accidents, also resulted in post traumatic stress disorder.

In a study of Palestinian children in the West Bank and the Gaza Strip, children whose families faced a high number of traumatic events were more likely to present with severe aggression, nervousness, and withdrawal symptoms [9]. However, a more recent study of 209 Palestinian and Israeli sixth-grade children of 12 - 13 years, found a different impact of trauma on the two groups. For the Israeli children, high level of exposure was positively correlated with psychological distress, but the reverse relationship was established for Palestinian children, with those at the very high levels of exposure experiencing relatively low psychological distress [10]. The authors interpreted the findings as a reflection of the self-selection of the two groups because of the socio-political circumstances, i.e. Palestinian children may have been actively involved in the conflict.

The linear-dose relationship between the severity of trauma post traumatic symptomatology had been tested in many studies in the Gaza Strip; in comparative study of children witnessed bombardment of their homes, the most frequently reported items of the post traumatic stress symptoms were associated with traumatic events [11]. There is evidence that exposure to traumatic events, can lead to post traumatic stress disorder. In addition, proximity to the trauma and symptomatology are often associated in the form of a linear-dose response relationship between the trauma and the post traumatic stress disorder symptoms in adults and children [12-29].

Personal predisposition/temperament

In children, researchers are dealing with the concept of temperament rather than fully developed personality characteristics. The themes of current interest in temperament [30] include: a) individual differences in development rather than normative trends; b) the child as an active agent who shapes his own environment, as well as being influenced by his circumstances; c) possible neurobiological bases for behaviour, including genetic influences; and d) socio-emotional, rather than cognitive, aspects of development. Different classifications of temperament have been put forward and applied in longitudinal studies. Highly stressed children with later resilient outcomes had been more outgoing, adaptable to change, and positive in mood as infants, than children with later stress affected outcomes [31]. Wyman., *et al*. [32] also found that, resilient children, compared with stress affected ones, reported more nurturing relationships with primary caregivers, more stable family environments, more inductive, age appropriate and consistent family discipline practices, and perceived their mothers as more nurturing and interactive. In contrast, Maziade., *et al.* [33] found that children with difficult temperament were at increased psychiatric risk: they were worried, unhappy, tearful or distressed, fearful of new things, and solitary.

Gender and temperament may also have an interactional effect. For example the development of externalising and internalising symptoms was examined longitudinally in more than 800 children over a 12-year period [34]. Boys who were characterised as confident and as eager to explore novel situations at five years of age, were significantly less likely to manifest anxiety in childhood and adolescence. Girls who were passive, shy, fearful, and avoided new situations at the age of three and five years, were significantly more likely to exhibit anxiety at later ages.

In summary, temperament characteristics, in the presence of traumatic events, constitute protective or risk factors in developing post traumatic stress disorders. Children with temperament characterised by outgoing nature, resistance to change and negative mood, are at risk of developing psychiatric and stress related disorders [32,33-35].

Co-morbid psychopathology

High prevalence of comorbid PTSD and depression has been established among children who had experienced war conflict, predominantly from studies with resettled refugees or internally displaced children after the conflict. This factor makes traumatised individuals even more vulnerable to new traumatic events. In understanding this relationship between comorbid PTSD and depressive disorders, we need to consider other factors such as 1) contaminated symptoms between both disorders, 2) common precipitants, but different pathways, and 3) trauma lead to PTSD, while life events lead to depression.

In studies with children exposed to trauma. For example, in a study of community violence, Pynoos., *et al.* [36] found that the main comorbid diagnoses were depression, attention deficit–hyperactivity disorder, and phobic disorder. Over-anxious and separation anxiety

disorder were found to be associated with other factors, including worrying about a significant other, and past history or threats to important attachments (e.g. parental illness, separation, divorce, and loss).

In a study of 117 children aged 6 - 12 years, who were before a juvenile/family court secondary to experiencing significant child abuse and/or trauma in Boston, children diagnosed with PTSD demonstrated concurrent attention deficit-hyperactivity disorder, anxiety disorder, and a tendency toward mood disorder [37].

In a case study of four co-morbid cases of attention deficit-hyperactivity disorder and post traumatic stress disorder in children aged 5 12 years, two hypotheses were put forward to explain this co-morbid relationship. Firstly, children with attention deficit-hyperactivity disorder are at higher risk for trauma because of their impulsivity and dangerous behaviours, or because of parents who may have a genetic predisposition for impairment. Secondly, hyperarousal induced by severe trauma, and manifested by hypervigilance and poor concentration, may impair attention (Steven., *et al.* 1994).

Symptoms of PTSD also occur in conjunction with other symptoms of emotional and behavioural disturbance. Depression and somatic complaints are often associated with PTSD in people of all ages. In a study of immigrant Central American children in the USA, 10 of the 22 children were considered 'possibly depressed' [38]. Children with the highest number of PTSD symptoms reported more symptoms of depression and more somatic complaints.

In a longitudinal study of children after a bus-train collision in Petah Tikva, Israel, the directly exposed subjects exhibited more maladjustment, reflected additional PTSD symptoms and more depression, phobic anxiety, and somatisation, than control subjects [39]. A similar pattern of comorbid depressive and anxiety disorders was found at the long-term follow-up of survivors of a shipping disaster [40].

The depression and PTSD disorders appear to follow different courses over time, PTSD was predicted by earlier war trauma experiences, while depression was associated with recent stressful events related to their current life circumstances [41]. However, a more recent study with refugee Cambodian adolescents in Thailand, established a dose-effect relationship between trauma and both PTSD and depressive scores [42]. In study of the prevalence and nature of comorbid post-traumatic stress reactions and depressive symptoms, and the impact of exposure to traumatic events on both types of psychopathology, among Palestinian children during war conflict in the Gaza Strip, 403 children aged 9 - 15 years, who lived in four refugee camps, were assessed. The study showed that exposure to trauma ceased to have significant impact on depressive symptoms, in the presence of PTSD symptoms [13]. In another study of Palestinian children in West Bank and Gaza Strip, the study showed that there was relationship between total IES and inattention, hyperactivity scores by parents. IES subscale: intrusion was significantly associated with total inattention scores by parents and teachers, and hyperactivity scores by parents. Also, avoidance was significantly associated with total scores of inattention by teachers and hyperactivity scores by teachers [18].

Developmental differences

In arguing that individual characteristics can play a role in the response to traumatic events, it is necessary to consider whether there are age or sex differences.

The developmental effects on child psychiatric disorders are well documented. In a study of children in World War II, children's fears were related to their stage of development. Some toddlers exhibited an enjoyment of aggression, whilst other preschool children reacted 'hysterically' with much anxiety [43].

In another study, preschool children were more likely to exhibit regressive symptoms such as decreased verbalisation and cognitive confusion, as well as an increase in attachment behaviour [44]. School age children were more apt to react to violence with aggressive or inhibited behaviour, and with psychosomatic complaints. Their behaviour was more likely to be both more inconsistent and more reckless.

Others found that school-age children displayed fears related to their understanding of the evacuation from the dangerous area, and the realistic dangers facing them and their families. At the younger end of the age continuum, children's concerns were vague, for example

that the Three Mile Island nuclear accident might be dangerous. Adolescents expressed more sophistication in their cognitive appraisal of various stressors than younger children [45].

These findings have been replicated in other cultural groups. In a comparative study of Palestinian children in the West Bank and the Gaza Strip compared to Israeli-Arab children, El Bedour., *et al.* [46] found that differences in symptom scores of younger and older children were lower in Gaza children, followed by West Bank children, and Israeli Arab children. Overall, there was higher PTSD disturbance in older children than younger ones. Among orphans of Eritrea, younger children showed relatively more behavioural symptoms rather than emotional ones [47]. Similar findings have arisen from the war in Croatia and Bosnia, where displacement appeared to increase the risk of developing PTSD. Among 364 internally displaced 6-12-year-old children living in central Bosnia during the war, almost 94% fulfilled DSM-IV criteria for post traumatic stress disorder, with older children and those living in inner-city areas being at higher risk [48].

Not all studies have, however, replicated this trend. For example, Green., *et al.* [49], in a long-term follow-up study of children survivors of a devastating human made disaster (collapse of Buffalo Creek Dam), found no difference among three age groups. In another study of pre-school children in the Gaza Strip supports the statement that younger children may express their distress in different ways [50]. In another study of children in the Gaza Strip exposed to shooting at their school showed that children aged 6 - 12 years showed more total IES, intrusions, and avoidance symptoms than the old age group [19]. One interpretation was that younger children may have expressed their distress in different ways. A more plausible explanation of these findings is the absence of comparable and developmentally sensitive measures in some of previous studies.

In summary, the above-mentioned research findings suggest that very young children can not conceptualise traumatic events. Their cognitive abilities to appraise the meaning of the traumatic events are not as developed as those of older children. Instead, they may present with non-specific behavioural or emotional disorders, rather than PTSD reactions. Older (school age) children are possibly more vulnerable to develop the full presentation of PTSD after exposure to a severe traumatic event [44,46,49].

Gender differences

In epidemiological child psychiatry studies, boys are more likely to present with behavioural problems than girls, while girls are more likely to present with emotional problems, particularly in adolescence [51]. In relation to PTSD, most studies have found girls to report higher levels of symptoms than boys [49,52-62].

Similar study in the Gaza Strip, Thabet., *et al.* [22,23] of PTSD and anxiety and coping strategies as mediating factor in Palestinian adolescents showed that girls reported more PTSD than boys.

Chronic family adversities

The association between parental psychiatric disorder and mental health problems in children has been consistently established in previous research [63-65]. Maternal criticism and rejection, paternal criminality, and marital conflict increased the risk of persistent emotional and behavioural difficulties in children of parents with psychiatric disorders [66,67].

In a study of children in El Salvador, Allodi [68] found that family trauma, as indicated by the mother being absent, dead, imprisoned or disappeared, and children's emotional and behavioural problems, were significantly correlated. Children whose mothers were victims of the current conflict had a much higher chance of being highly disturbed in their emotions and behaviour. In another epidemiological survey of adults and children in Puerto Rico, parental psychopathology increased the risk of maladjustment in the offspring [69].

In the Newcastle Social and Family Deprivation study, the impact of life events was examined in a sample of children attending a child psychiatry clinic and a sample of community control children matched for age and sex, who were free of psychiatric disorder at the time of the interview. Mothers of cases reported a mean number of five events per child during the 12 months prior to the onset of symptoms, compared with four events per child in the controls during the 12 months prior to the day of interview. Nineteen percent of all events were

not independent of illness or illness-determined behaviour. However, the results indicated more dependent events in conduct disorders (26% of events), than in emotional disorders (18% of events – Kolvin., *et al.* 1990).

This association between family adversities and child psychopathology has been replicated by studies with different samples and designs, such as early onset of conduct disorders in boys [70], or adolescent psychiatric disorders [71]. Also, in research in traumatic events and disasters. The effect of the parent's loss of employment was greater for symptoms of re-experiencing and increased arousal, rather than emotional numbing and avoidance, in children survivors of hurricane disaster, which suggests that the effect of this factor may reflect the influence of a parent's own post traumatic reactions to the hurricane [72].

Chronic family adversities, including psychopathology of parents or offspring, and family discord, are risk factors for the development of child psychiatric disorders. This is an important mediating factor in the case of children exposed to stressful situations during war and other catastrophes [5,72].

In a study of Palestinian children in the Gaza Strip, we found that low socio-economic status (father unemployed or unskilled worker) was the strongest predictor of general mental health problems. Living in inner-city areas or camps, both common among refugees, was strongly associated with anxiety problems (Thabet & Vostanis, 1998). In another study of the relationship between children's and mothers' mental health problems in an urban and a rural area in the Gaza Strip, mothers' mental problems scores significantly predicted children's post traumatic stress disorder [73]. In other recent study of children and parents exposed to war trauma in the Gaza Strip to establish the relationship between ongoing war traumatic experiences, PTSD and anxiety symptoms in children, accounting for their parents equivalent mental health responses. The study showed that both war trauma and parents' emotional responses were significantly associated with children's PTSD and anxiety symptoms [20].

Protective factors

Rutter [35] stated that "protective factors may be considered as influences that modify or alter a person's response to an environmental hazard that predisposes to a maladaptive outcome". These do not equate to pleasurable experiences, but are better defined in terms of their effects on the individual in producing a more favourable response to stressors. They may not have any detectable effect in the absence of a subsequent stressor, and act to modify response to later adversity rather than directly influence development. Protective factors may thus be viewed as qualities of the individual as a person rather than an experience of the person perse.

In his review of childhood stressors, Garmezy [74] considered protective factors as being derived from three main sources:

1. constitutional child factors such as central nervous system health, positive temperament, evident selfesteem, ability, and social responsiveness;
2. a supportive family milieu, including a sound relationship with at least one parent.
3. social support in the wider community environment, such as school, church, and the community.

Protective factors will be discussed in relation to general child psychopathology and post traumatic stress disorders.

Presence of coping strategies

Previous research indicates that individual coping styles mitigate or exacerbate the effect of a stressor on psychosocial functioning. There are a number of definitions of coping behaviours. Early research on coping behaviour [75] looked at patients with life threatening diseases. Visotsky's research studied the impact of severe poliomyelitis on patients. He defined coping as the behaviour aimed at keeping distress within manageable limits; maintaining a sense of personal worth; restoring relations with other people; enhancing prospects for recovery of vital functions; and working out a personally valued and sociably acceptable situation after maximum physical recovery has been attained. Although this was ground breaking early work, it was not always relevant to situations where the stress was caused by external social and political events, rather than disease.

Horowitz [76] postulated that, avoidance as a coping mechanism could assist people to face intense anxiety caused by traumatic memories in the case of Vietnam veterans. Four basic modes of coping strategies were described by Lazarus and Launier (1987):

1. Instrumental strategies, or direct action, are directed towards managing the threat or stressor itself;
2. Intrapsychic strategies are aimed primarily at regulating or minimizing the accompanying emotional distress;
3. Inhibition of action refers to the ability to resist taking action when such action would increase the likelihood of harm, danger, or conflict; and
4. Information-seeking involves the instrumental activity of mobilising support or investigating alternatives that can relieve emotional distress.

Coping encompasses cognitive and behavioural strategies used to manage stressful situations (emotion-focused coping) and attendant negative emotions (behaviour-focused coping) [77]. Miller & Green [78] suggested that people differ in the extent to which they tend to approach or avoid information relevant to a stressful event.

Research on children's conception of emotions suggests that they are more likely to consider the possibility for changes as resulting from the situation itself, rather than from more internal, especially mental sources [79]. Weissman., *et al.* (1986) found developmental increases in the ability to simultaneously keep in mind two incongruous emotional reactions. Thus, the duality involved in trying to avoid the situation, while still monitoring it, may be too confusing or difficult for younger children.

Parents' and children's coping styles are often related, through genetic and/or learned mechanisms. In a study of the children of Latin American victims of political persecution and torture, Allodi [80] found that parental coping style, as reflected in low dogmatism and authoritarianism scores of refugees can be important in protecting against or modifying stress.

Development is another factor to consider in the interpretation of coping strategies. Young children have considerably greater difficulty than older ones in employing distraction and other forms of coping designed to alter one's cognitive state. Younger children tend to rely more on complete avoidance techniques, whereas older children would use these in addition to the less extreme forms (Band., *et al.* 1988).

As in the case of risk factors, child temperament mediates coping strategies, hence psychosocial functioning. Wyman., *et al.* [32] found that stress resilient children had higher hopes and expectations for the future than did stress adaptive children. Such views may reflect both healthy adaptation and a self image that facilitates coping with stress. The expectation of a good future may counter the sense of helplessness and frustration experienced after major life stresses.

Cultural characteristics can affect coping styles. For example, a sample of Thai and American children aged 6-14 years used twice as many covert methods of coping such as withdrawal and suppression of emotion, particularly for stressors involving authority figures [81].

Thabet., *et al.* [13] in study of 97 male adolescents attending a vocational training centre based in the Gaza Strip. Findings revealed high rates of emotional and physical maltreatment. Most adolescents relied on emotion-focussed or avoidant coping strategies and this was associated with exposure to maltreatment. Use of maladaptive coping also predicted emotional difficulties in the respondents.

In a study aimed to measure strategies for coping with prolonged conflict by Palestinian young people in Gaza using A-Cope questionnaire showed that boys and girls share the most common coping strategies (50% and over) that relate to self-reliance and optimism. Boys and girls choose to engage in activities that are demanding of themselves and within their control, such as getting their bodies in shape and getting better marks at school. Both girls and boys explore ways to figure out how to deal with problems or tensions on their own [82].

Similar study in the Gaza Strip, Thabet., *et al.* [22] of PTSD and anxiety and coping strategies as mediating factor in Palestinian adolescents showed that Palestinian adolescents mainly cope commonly by developing social support, investing in close friends, and/or

engaging in demanding activities. The study showed that adolescents experienced traumatic experiences developed less social support and positively asked more professional support as coping strategies.

In a study aimed to investigate whether the association between trauma exposure and posttraumatic stress symptoms in Palestinian children and adolescents living in a region of war conflict, was mediated or moderated by certain coping strategies. Participants consisted of 424 children and adolescents aged between 8 - 16 years, who were randomly selected from 32 schools in Gaza and the West Bank. The study showed that exposure to trauma was moderated by seeking social and spiritual support in predicting PTSD symptoms [23].

Thabet and Thabet [26] in study of children in the Gaza Strip showed that Palestinians children used different ways of coping with the stress and trauma, and common resilience items were 94.6% said they were proud of their citizenship, 92.4% said they feel safe when they were with their caregivers, 91.4% said that their spiritual (religious) beliefs were a source of strength for them, and 91% said they were proud of their family background.

However, children coping strategies may depend on contextual factors such as the degree to which the situation is controllable or not. The controllable situation may most effectively be handled by monitoring the situation coping strategies, whereas an uncontrollable stressor may best be handled by avoidance (blunting) strategies.

Presence of family support

Family members can help a victim of trauma to confront the problem. They can also help him/her to recapitulate the catastrophe and thus perceive the events with greater clarity, as well as correct views that have been associated with feelings of guilt or self-hatred. Also, they can help to resolve the trauma-inducing conflicts by serving as facilitators. In contrast, parents' reactions to trauma may adversely affect children and maintain their PTSD symptoms.

During the London air raids of World War II, children who had remained with their parents, forgoing the greater safety and material comfort away from the bombing, suffered less distress than those who had been separated from their parents [43]. In a study of survivors of the Buffalo Creek Flood, children in traumatised families within shattered communities formed their own theories on disaster, based on their reactions and perception of the reactions of their parents and other adults [83]. In another disaster study, children whose parents disagreed in their reactions to the Three Mile Island Nuclear reactor accident were significantly more upset over the event than were children of parents who were consistent with each other in mood, distress level, and intensity of response [45].

Family support could serve as an antidote to PTSD in four different ways: detecting symptoms, confronting the problem, recapitulating the traumatic inducing conflicts associated with events, and resolving the trauma-induced conflict [84]. Others, such as Smith [31], suggested that families act as stress buffers and support for family members who have been traumatised. Children are thus susceptible and sensitive to other family members' reactions to traumatic events. In traumatised families, children tend to be more vulnerable to being traumatised themselves. Presence of family support is a predictor of positive outcome.

In another study aimed to assess the impact of parenting support on post-traumatic stress disorder among Palestinian children in the Gaza Strip. A sample of 434 Palestinian children aged from 12 - 16 years living in Gaza Strip was assessed during the second scholar trimester. The results showed that Palestinian children were exposed to different types of war traumatic events. Children with more parental support reported less PTSD than the non supported one. There was strong relationship between level of exposure to trauma and PTSD [85]. Also, Thabet., *et al.* [24] in study of acute traumatic stress disorder symptoms in a sample of displaced and non-displaced children and adolescents in the Gaza Strip after 2012 war showed that displaced children reported more traumatic event such as forced to leave home with family members due to shelling and 10.0% of non-displaced children and 18.4% of displaced children had acute traumatic stress disorder.

Presence of social support

Social support is considered as one of the most important coping strategies in overcoming problems. Eastern societies used social support as a coping strategy in difficult situations.

Social support is defined as:

1. Emotional support, implying care and love between family members;
2. Esteem support, implying esteem and value by family members for family members; and
3. Network support, implying that family members enjoy belonging to a network where there is mutual understanding and obligation [86].

Relatives are, therefore, an important resource of social support, who can provide a shelter for evacuees from disaster impact zones (Instituu voor Sociaal Onderzoek, 1955; Bates., *et al* 1963). Social support interacts with the direct impact of trauma. For example, Israeli children from Kibbutzim undergoing moderate shelling had higher anxiety scores than children from non bombarded Kibbutzim [87].

A high level of social support helps an individual against the negative consequences of stressors. This so called 'buffering effect' implies that, among individuals who have access to a strong social support system, stressful life events are less likely to lead to strain and deterioration of physical and mental health. It is believed that social networks and social support systems moderate the effect of stressful life events by providing a sense of security, sharing of concerns and feelings of belonging [88].

In a Middle East study, Lebanese family members were confident that they could rely on social support to deal with problems of various natures. Social support had the largest influence. For fathers, social support had a significant mediating effect on most psychosocial outcome measures. For mothers, social support showed significant mediating effect only in term of marital relationships. For adolescents, social support had mediated effect for depression and interpersonal relationships [89]. Pine and Cohen [90], emphasized that social support is an important factor to assess when working with children exposed to trauma. And explain that the role of less than optimal familial and social support cannot be overestimated as a potential vulnerability factor for developing PTSD, highlighting that disruption of social and familial support plays an important role in the development of psychiatric disturbance.

Social support has likewise been identified as a protective factor in the development of PTSD in a general bereavement sample [91]. Other studies found significant buffering effects of social support on PTSD among survivors of violent death [92-94].

Protective cultural influences in relation to PTSD

Culture has been defined by sociologists and anthropologists in different ways. Most would agree that it refers to a number of collective factors. These include patterns of behaviour and customs, values, beliefs and attitudes, implicit rules of conduct, patterns of family and social organisation, and taboos and sanctions. These are shared by a group of people that have a common identity, based on ethnic and sometimes territorial unity. One grows up, in a very general sense, thinking, believing and behaving in ways which are found in one's culture, adhering to its rules and conforming with its practices. Cultures vary in the degree to which rules and customs are followed rigidly, and in how pervasive its influence is on the individual's life [95].

Cultural factors can modulate the type of mental health symptoms, with higher rates of somatoform and somatising symptoms in certain cultural groups. Individuals in Eastern countries are more likely to express psychological problems through somatic symptoms like headaches, abdominal pains, and conversion fits [96-98].

Family and social support is often difficult to distinguish from underlying cultural factors. Cultural differences are evident in the responses of children to traumatic events and the presentation of child psychopathology. In a study of South Asian refugee children who settled in Australia, South Asian children showed higher rates of somatoform symptoms than in the native Australian child population [99].

In another study of parental perception of child mental health issues and services in the Gaza Strip, 249 Palestinian mothers living in refugee camps in the Gaza Strip . Mothers perceived multiple causes of child mental health problems, including family problems, parental psychiatric illness and social adversity. A substantial proportion (42.6%) had knowledge of local child mental health care services. Overall, mothers preferred Western over traditional types of treatment, and were keen to increase mental health awareness within their society. Despite a different cultural tradition, Palestinian parents appear open to a range of services and interventions for child mental health problems [15].

The role of culture in the development and outcome of post traumatic stress disorder has been discussed. As the diagnostic category for PSTD is relatively new, there is only a limited literature addressing cultural aspects of this disorder, unlike disorders such as schizophrenia and depression. However, it is clear that cultural factors have an important role to play in the genesis and presentation of PTSD, and in how it is perceived, responded to and treated.

Discussion

Research in risk factors for child psychiatric disorders has indicated the marked individual variation in people's responses to stress and adversity; some succumb, and some escape damage. The phenomenon of maintaining adaptive functioning in spite of serious risk hazards has been termed 'resilience'. The factors promoting resilience remain poorly understood, but it is clear that part of the explanation lies in the overall level of risk. Frequently, individuals who develop disorders have suffered accumulation of greater risks experienced over longer periods of time. In addition, there are vulnerability and protective processes by which there is catalytic modification of a person's response to the risk situation. This interactive mechanism applies to both vulnerability and protective mechanisms [24-26,100].

Being near the traumatic event, being a girl, older in age, understanding the meaning of trauma, having difficult temperament such as unhappy, tearful or distressed, being fearful of new things or solitary, having another psychiatric disorder such as depression and anxiety, and living in families with adversities such as history of abuse, are all inter-related risk factors for children to develop post traumatic stress disorders. Much of the research on protective influences has concentrated on a search for protective variables, often with the aim of distilling the findings down to provide identification of the few key global attributes or experiences that are crucial in this connection. It is argued that the focus needs to be on protective process or mechanisms, rather than single variables. By definition, these involve interactions of one sort or another. Three broad categories of protective variables have been found to promote resilience in childhood [74]. The first refers to individual dispositional attributes, including temperamental factors, social orientation and responsiveness to change, cognitive abilities, and coping skills. The second general category of protective factors is the family milieu. A positive relationship with at least one parent or a parental figure serves an important protective function. Other important family variables include cohesion, warmth, harmony, supervision, and absence of neglect. The third category of protective influences in childhood encompasses attributes of the extrafamilial social environment. These include the availability of external resources and extended social supports as well as the individual's use of those resources. The two most prominent predictors of resilience throughout childhood and adolescence are having a strong prosocial relationship with at least one caring adult and having good intellectual capabilities [100-104].

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