

PARENTING SUPPORT AND PTSD IN CHILDREN OF A WAR ZONE

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ABSTRACT

Background: The protective role of parenting factors on the mental well-being of children exposed to war trauma remains an under-researched area.

Aim: To establish the relationship between perceived positive parenting support and PTSD symptoms in children exposed to war trauma.

Methods: A random sample of 412 children aged 12–16 years was selected from the Gaza Strip and was assessed using the Gaza Traumatic Events Checklist (GTEC), the SCID (DSM-IV) and the Perceived Parenting Support Scale (PPSS).

Results: Palestinian children were exposed to different types of war-traumatic events. The number of exposed traumatic events was independently associated with the severity of post-traumatic symptoms scores or the diagnosis of PTSD, while perceived parenting support was found to act as a protective factor in this association.

Conclusions: Interventions in war zones need to ensure the minimal possible disruption to communities and family units, and to involve parents in preventive or treatment programmes for children exposed to trauma.

Key words: trauma, war, post-traumatic stress disorder (PTSD), parental support, parenting

BACKGROUND

It is well established that children living in war zones are at high risk of developing different types of psychopathology, predominantly post-traumatic stress disorders (PTSD) (Pfefferbaum, 1997; Thabet *et al.*, 2004). A number of studies, mainly from the Middle East and the former Yugoslavia, have established high rates of PTSD and co-morbid disorders. For example, after the Gulf war, high rates of PTSD were recorded in Kuwaiti and Kurdish children (Nader, *et al.*, 1993; Ahmad *et al.*, 2000). A longitudinal study of post-traumatic stress reactions in Palestinian children found the prevalence of moderate to severe PTSD to be 40.6% (Thabet & Vostanis, 2000). The PTSD rates were especially high in the case of children displaced from their community, such as the conflicts in Croatia and Bosnia (Kuterovac *et al.*, 1994; Ajdukovic *et al.*, 1998).

Several studies have found a significant relationship between exposure to war trauma and development of PTSD, with both the type and the amount of exposure being important (Nader *et al.*, 1993; Kuterovac *et al.*, 1994; Thabet *et al.*, 1999). A number of risk factors have been

associated with post-traumatic stress symptomatology, including proximity to the zone of impact (Pynoos *et al.*, 1987; Lonigan *et al.*, 1994; Qouta *et al.*, 1997), degree of life threat (Pynoos *et al.*, 1987; Nader *et al.*, 1993), forced evacuation and displacement (Ajdukovic *et al.*, 1998), parental response and psychopathology (Smith *et al.*, 2001; Thabet, 2001; Quota *et al.*, 2005), family ambivalence (Green *et al.*, 1991) and economic hardship (Khamis, 2005).

However, not all children who experience war trauma develop PTSD. Few studies have attempted to identify the 'protective matrix' – a combination of the social, cultural, physical, familial and personal adaptive mechanisms that regulate stressful environmental stimuli. The role of children's gender and age has been inconclusive, while high socio-economic status has been linked with better adjustment (Khamis, 2005). Personal attributes like cognitive appraisal and coping strategies have been studied (Durakovic *et al.*, 2003). The social support received has been found to enhance children's resilience (Cairns & Dawes, 1996). In contrast, research on the potentially protective role of the family environment in war zones remains scarce.

Among Palestinian children exposed to political conflict, the risk was moderated if it was faced in the context of a fully functioning family system (Garbarino *et al.*, 1996). Although war and political conflict by their nature can disturb and break up family life, it has also been found that parents can exert beneficial effects (Virginia *et al.*, 2004). Previous studies have focused more on parental mental health and their response to trauma as mediators of children's symptoms (Zahr, 1996; Smith *et al.*, 2001; Qouta *et al.*, 2005), with limited research on the potential role of parental support to children exposed to war trauma (Punamaki *et al.*, 1997; Khamis, 2005). This was the rationale for this study.

METHODS

The aim of this study was to investigate the association between perceived parental support and PTSD in children exposed to war trauma. It was hypothesized that parental support moderates the association between exposure to war-traumatic events and post-traumatic stress symptoms (PTSS).

Participants and procedure

The Gaza Strip is a narrow area of land bordering the Mediterranean Sea between Israel and Egypt, covering an area of approximately 360 km² in the Middle East. It has high population density, un-employment, socio-economic deprivation, family overcrowding and short life expectancy. Nearly two thirds of the population are refugees, with approximately 55% of them living in eight crowded refugee camps. The remainder live in villages and towns.

In the first stage of sampling, 12 schools were selected from all the schools in Jabalia refugee camps, the El-Remal city area and the Bet-Hannon village of the Gaza Strip. Six of the schools were from the Jabalia refugee camp area, four from El-Remal city and two from Bet-Hanon village. The second stage of sampling included random selection of one class from 7th, 8th and 9th grades of each of these schools. The researchers further selected children from each of these classes systematically, based on their seating order. The final sample consisted of 412 children selected from the age group of 12–16 years. Permission was obtained from the Education Department to approach the schools. Information on the study was read out to the parents, and written consent

was obtained prior to the study. Data was collected during the period of the Al Aqsa Intifada by a team of professionals with previous research training and experience.

Measures

The *Gaza Traumatic Event Checklist* (GTEC) was used as a measure of children's exposure to traumatic events. This checklist consists of 19 items covering different types of traumatic events that a child may have been exposed to in the particular circumstances of this regional conflict. This differs from traditional war conflicts, as the population remains relatively stable and is regularly exposed to shelling and incursions. The initial version was developed by the research department of Gaza Community Mental Health Programme and has been used in previous studies of Palestinian children (Thabet & Vostanis, 1999; Thabet *et al.*, 2002; 2004). Children of 12–16 years were asked about the events they had experienced in the preceding 24 months (that is, since the onset of the particular phase of conflict). They completed the checklist with dichotomous answers of 'no' or 'yes', which were marked as '0' or '1' respectively. The range of total trauma score was 0–19. The checklist was analyzed as a total score of trauma exposure.

Presence of PTSD in the children was established by the *Structured Clinical Interview for DSM-IV – PTSD module*. This structured clinical interview (SCID) uses DSM-IV criteria for the diagnosis of PTSD. Each of the 17 items had three possible responses, namely 0 for 'not at all', 1 for 'sometimes' and 2 for 'often'. This can yield a maximum total PTSD score of 34. The DSM-IV criteria of one symptom of re-experience, three symptoms of avoidance and two symptoms of hyperarousal were employed to make a categorical diagnosis of PTSD. The research interviewer determined presence of clinically significant impairment. This was adapted to Arabic by professional bilingual translators, with the precaution of retaining its validity. The split-half reliability of this measure was 0.68 and the Cronbach α was 0.73.

The *Perceived Parenting Support Scale* (PPSS) as a measure was developed in three stages. The first stage comprised the parent-rated Parenting Support Scale that was developed in Egypt, and included 73 items on supportive parenting behaviour to their children (Mohammed, 1996). The second stage was the review of this scale by a panel of experts who reduced the number of items in the scale to 50 and agreed that it truly reflected the parental support to children for their local cultural context. The third and final stage was the reconstruction of the stems of the scale by the researchers of this study to express children's judgement on the parental support they received. The PPSS was child oriented and preserved the thematic content plus validity of previous scale. The PPSS includes 50 items rated by children. The perceived presence of parental behaviour was rated as 0 for 'no', 1 for 'sometimes' and 2 for 'yes'. The possible total PPSS range of scores is thus 0–100. The total PPSS scores established the level of support children felt they received from their parents within the cultural context of the Palestinian society. Progressively higher PPSS scores reflect better parental support perceived by the child. In this study, the split-half reliability was 0.73 and the internal consistency reliability revealed a Cronbach α of 0.77.

Statistical analysis

Analyses were computed using the statistical software SPSS version 13.0. Descriptive statistics were used to present the characteristics of the sample. The non-parametric Mann-Whitney U test and Kruskal-Wallis tests were used to establish between-group differences on variables that were not normally distributed. Correlation between the independent variables of data that was not normally distributed was tested by Spearman's correlation test. Linear regression was used in predicting

the outcome defined by continuous PTSS scores, while logistic regression was used in predicting the outcome of presence or absence of PTSD. Exposure to trauma was entered as the independent variable. Socio-demographic variables that were independently associated with exposure to trauma, presence of PTSS or PTSD were entered as covariates in the regression model.

RESULTS

Socio-demographic characteristics

The sample of 412 children consisted of 200 (48.5%) boys and 212 (51.5%) girls. They were aged between 12 and 16 years, with a mean age of 13.7 ($SD = 1.05$). They had an average number of 6.6 siblings, with range of 0–17. With regards to paternal occupation, 109 fathers (26.5%) were unemployed, 62 (15.0%) unskilled workers, 30 (7.3%) skilled workers, 129 (31.3%) civil employees, three (0.7%) farmers, 36 (8.7%) merchants, and 43 (10.4%) included other occupations. The majority of mothers (362, 87.9%) were housewives, 9 (2.2%) were unskilled workers, and 41 (10.0%) were civil employees.

The type of social support received was: no support for 116 families (28.2%), government support for 45 families (10.9%), United Nations Relief and Work Agency (UNRWA) support for 130 families (31.6%), and other support such as from extended family or friends for 121 families (29.4%). The average monthly family income was 500 NIS (monetary unit of Israel) (\$110) or less for 72 families (17.5%), 500–1,300 NIS (\$110–\$290) for 191 families (46.4%), 1,300–3,000 NIS (\$290–\$670) for 86 (20.9%), and more than 3,000 NIS (\$670) for 63 families (15.3%). The number of rooms in each home varied from 0 to 11, with a mean of 3.7 rooms ($SD = 1.5$).

Exposure to traumatic events

The mean number of traumatic events of war any particular child experienced was 8.2 ($SD = 3.0$). The most common traumatic event exposed to was watching pictures of injured persons on TV ($n = 397$, 96.4%). The next common exposure was hearing of the invasion ($n = 388$, 94.2%), followed by watching homes being demolished on TV ($n = 386$, 93.7%) and witnessing bombardment by aircrafts ($n = 377$, 91.5%). Being shot themselves was the least common event ($n = 26$, 6.3%) (Table 1). A Mann-Whitney test showed that male children were significantly more commonly exposed to traumatic events than girls ($z(412) = -4.40$, $p < 0.001$). War-trauma exposure was also significantly related to older age (Spearman's correlation: $r(412) = 0.10$, $p < 0.05$), confirming the wider exposure and political activity of male adolescents. A Kruskal-Wallis test showed that children living in camps were ($\chi^2(n = 2) = 15.68$, $p < 0.001$) exposed to significantly more traumatic events ($mean = 9.54$, $SD = 3.05$, $n = 61$) than those living in a village ($mean = 7.74$, $SD = 2.42$, $n = 144$) or city ($mean = 8.15$, $SD = 3.29$, $n = 207$).

Post-traumatic stress symptoms

The most common PTSS reported by children were: intrusive recollections (81.6%), distressing dreams (80.8%), being upset by reminders of event (79.6%), and flashbacks (74.0%) (Table 2). There was a positive correlation (Spearman's correlation: $r(412) = 0.29$, $p < 0.001$) between the number of traumatic events that had been experienced and the level of PTSS.

Table 1
Children's exposure to traumatic Events (*n* = 412)

Traumatic events	Number	Percentage
Watching pictures of injured people on TV	397	96.4
Hearing of invasion	388	94.2
Watching home demolition on TV	386	93.7
Witnessing bombardment by aircraft	377	91.5
Witnessing targeted assassination by aircraft	287	69.7
Watching the invasion	283	68.7
Witnessing the bombardment of people's homes	187	45.4
Hearing of the killing of a friend	186	45.1
Witnessing the shooting of a friend	129	31.3
Witnessing the invasion of neighbour's home	113	27.4
Witnessing the demolition of friend's home	107	26.0
Witnessing the killing of a close relative	103	25.0
Own land destroyed	100	24.3
Witnessing killing of a close family member	76	18.4
Witnessing the bombardment of own home	66	16.0
Witnessing the killing of a friend	66	16.0
Hearing of the killing of a close relative	65	15.8
Witnessing the demolition of own home	42	10.2
Being shot by bullets	26	6.3

A Mann-Whitney test showed no significant difference between boys and girls in reported PTSS ($z(412) = -1.27, p > 0.05$). PTSS was not significantly related to age (Spearman's correlation: $r(412) = 0.00, p > 0.05$). A Kruskal-Wallis test showed children who were city-resident reported significantly ($\chi^2(n = 2) = 8.50, p < 0.05$) fewer PTSS (*mean* = 13.30, *SD* = 5.67, *n* = 207) than village-resident children (*mean* = 15.14, *SD* = 5.02, *n* = 144). There was no significant difference for children who were camp-resident (*mean* = 14.16, *SD* = 5.06, *n* = 61) with respect to the other two groups.

Post-traumatic stress disorder

DSM-IV diagnostic criteria of PTSD were fulfilled by 60 (30.0%) boys and 67 (31.6%) girls. The total prevalence of PTSD was 30.8%. There was no significant gender difference in PTSD rates (Mann-Whitney: $z(412) = -0.35, p > 0.05$). Similarly, there was no significant difference based on address (Kruskal-Wallis: ($\chi^2(n = 2) = 5.75, p > 0.05$)), despite a trend of children living in villages reporting higher PTSD rates (37.5%) than those living in either a camp (32.8%) or city (25.6%) environment. Families that received governmental social assistance had a significantly higher prevalence of PTSD (48.9%) than the social support groups (Kruskal-Wallis: ($\chi^2(n = 3) = 9.34, p < 0.05$) – respective PTSD rates were, families with no social assistance: 31.9%; UNRWA support: 24.6%, and families on other type of assistance: 29.8%. Family income, parental occupation, number of rooms in the residence and number of siblings were not significantly associated with occurrence of PTSD.

Table 2
Presence of post-traumatic stress symptoms ($n = 412$)

Symptoms	Number	Percentage
Intrusive recollection	336	81.6
Distressing dreams	333	80.8
Upset by reminders of the event	328	79.6
Flashbacks	305	74.0
Physical reaction to reminders	299	72.6
Irritability/anger	288	69.9
Concentration impairment	283	68.7
Avoidance of thoughts	268	65.1
Foreshortened future	268	65.1
Psychogenic amnesia	267	64.8
Exaggerated startle	267	64.8
Sleep difficulty	262	63.6
Estrangement from others	252	61.2
Anhedonia	229	55.6
Hypervigilance	214	51.9
Psychic numbing	192	46.6
Avoidance of reminders	94	22.8

Parental support

Children reported commonly on the following items, which were rated as 'sometimes' or 'yes': my parents explain right and wrong to me (88.1%), my parents encourage me to be honest (87.1%), my parents are concerned about my health (82.3%), my parents accustom me to religion (82.5%), I miss my parents when they are away (81.6%), my parents explain the right things when I make mistakes (81.3%), my parents teach me to give and take (81.1%), and my relationship with my parents is unique (81.1%). Children reported a minimum of 17 and a maximum score of 90 on the PPSS, with a mean score of 46.9 ($SD = 9.3$). A higher PPSS score reflects better parental support felt by the children.

Total PPSS scores were significantly higher for girls than boys (Mann-Whitney test: $z(412) = -3.32$, $p = 0.001$). Parental support scores differed significantly in terms of address (Kruskal-Wallis test: $(\chi^2(n = 2) = 13.29, p = 0.001)$, with children living in cities having the highest parenting scores ($mean = 48.46, SD = 9.44, n = 207$), and children in villages having the lowest scores ($mean = 44.82, SD = 8.61, n = 144$). Children in camps recorded intermediate values ($mean = 46.48, SD = 9.79, n = 61$).

A weak negative correlation between PPSS scores and exposure to traumatic events was found (Spearman's correlation: $r(412) = -0.11, p = 0.05$). There was a statistically significant difference (Mann-Whitney: $z(412) = -3.77, p < 0.001$) in the level of perceived parenting support between those with a diagnosis of PTSD (parenting support scores: $mean = 44.16, SD = 9.30, n = 127$) and those without ($mean = 48.11, SD = 9.10, n = 285$). Lower PPSS scores were found in children with diagnosis of PTSD. A significant negative correlation between PPSS scores and number of reported PTSS was also found (Spearman's correlation: $r(412) = -0.34, p < 0.001$).

Presence of PTSD in relation to exposure to trauma, parental support and demographic variables

Exposure to trauma, perceived parental support and all demographic variables were used as predictor variables in a logistic regression model for diagnosis of PTSD. Exposure to trauma ($OR = 1.14$, $95\% CI = 1.05-1.23$, $p = 0.002$), receiving social assistance from government ($OR = 2.68$, $95\% CI = 1.17-6.14$, $p = 0.020$) and father's elementary education ($OR = 6.65$, $95\% CI = 1.71-25.84$, $p = 0.006$) were found to be significant predictors of presence of PTSD, whereas perceived parenting support score ($OR = 0.96$, $95\% CI = 0.93-0.98$, $p = 0.003$) mitigated against the prevalence of PTSD. The age of children, gender, area of residence, number of rooms in the house, number of siblings, family income, mother's education and parental occupation did not have a significant association with the diagnosis of PTSD.

PTSS in relation to exposure to trauma, parental support and demographic variables

A standard multiple regression analysis was conducted to examine the demographic factors, war trauma experienced and perceived parental support as predictors on the severity of reported PTSS (continuous PTSS scores). The model used was significant ($F = 11.89$, $p < 0.001$), with the regression on PTSS of gender as female ($\beta = 0.17$, $t = 3.76$, $p < 0.001$), father's education as primary or less ($\beta = -0.10$, $t = -2.15$, $p < 0.05$) and lower number of rooms in the participant's residence ($\beta = -0.09$, $t = -2.02$, $p < 0.05$) being the only significant demographic variables that increased PTSS. Receipt of government social assistance ($\beta = 0.09$, $t = 1.96$, $p = 0.051$) against no assistance or any other type of social support had a near-significant effect on increasing PTSS. The number of traumatic experiences reported ($\beta = 0.26$, $t = 5.63$, $p < 0.001$) and perceived parental support ($\beta = -0.33$, $t = -7.26$, $p < 0.001$) made highly significant contributions towards the model, with trauma acting to increase PTSS, whereas perceived parental support was found to reduce PTSS.

DISCUSSION

Various reactions of children to war trauma such as PTSD, grief reaction, somatization, depressive and anxiety symptoms have been studied. The post-traumatic stress framework has proved to be useful in conceptualizing children's psychological reactions to war. Children exposed to war and political conflict experience severe trauma, in addition to problems of malnutrition, physical ill health, displacement, and loss of family and support networks (Shaw, 2003). The development of PTSD may be a result of directly witnessing violence and being exposed physically to trauma (Pynoos *et al.*, 1987; 1993; Laor *et al.*, 2001). Rates of PTSD vary depending upon status of assessor, assessment measures used, type and degree of traumatic event, gender and subjective appraisal of children (Udwin, 1993). There is little known on what makes some children more susceptible than others to post-traumatic stress reactions. The prevalence of PTSD in this study was 30.8%, i.e. broadly similar to rates from studies with child populations in similar circumstances (Thabet *et al.*, 1999; Khamis 2005). The discrepancy in PTSD prevalence rates may be attributed to the magnitude and severity of the stressors (Pynoos, 1990; Khamis, 1993).

We also replicated the association between the number of traumatic events the children were exposed to with their PTSS scores and the presence of diagnosis of PTSD (Shaw *et al.*, 1996;

Thabet *et al.*, 1999; Smith *et al.*, 2001). Indirect exposure through the media was widely reported by the children. We found a significantly higher exposure to traumatic events in children from camp areas than from village or city areas, as refugee camps are more likely to form the centre of political activity and consequently suffer more incursions and shelling (Desjarlais *et al.*, 1995; Qouta *et al.*, 1997).

Parents are the most important support for children providing a sense of physical safety, comfort and nurturing. Parent-child relationships characterized by supportive, warm and caring parental attitudes influence their children's emotional well-being, and can protect children in the face of adversity (Masten *et al.*, 1999). Other protective mechanisms include the development of social support networks and the establishment of strategies in coping with stressful events (Compas *et al.*, 1992; Pynoos *et al.*, 1995). Although parental support is the vital aspect of the home atmosphere that children cherish, this largely remains an under-researched area, particularly on its potential effects on post-traumatic or other mental health problems among children living in war zones.

Earlier studies have noted that detrimental consequences of war on behaviour of children can be reduced by the availability of parents, secure attachment, and support of the community (Zahr, 1996). Families may thus act as stress buffers for traumatized children. Similar mechanisms were indicated by studies in families exposed to natural or human-induced disasters (Green *et al.*, 1991).

A number of parenting factors can play a significant role such as parents' own coping styles and mental health (Punamaki & Suleiman, 1990; Thabet *et al.*, 2001). The latter can compromise parenting capacity in promoting children's adjustment (Leinonen *et al.*, 2003). Mothers' and fathers' differential responses have been even less researched, particularly as these vary in different cultures. These differences may lead to divergent child perceptions of the quality and satisfaction of their interactions. It has been pointed out that 'family' is often a code word for 'mother' in the real world of political violence (Cairns & Dawes, 1996). Fathers continue to be under-represented in research (Phares & Compas, 1992) and the opinion expressed is that the effect of the death of the father on the family circumstances might be more important than the direct effect of his death on the children (Wolff, 1982).

The main finding of this study was the significant inverse association between parental support and children's post-traumatic stress reactions. Although different concepts and measures of parental support have been used in previous studies, this confirms earlier findings on children exposed to natural disasters (La Greca *et al.*, 1996), the 9/11 terrorist attacks in the US (Virginia *et al.*, 2004), and war conflict in Lebanon (Zahr, 1996). One exception was a recent study on Palestinian children, which reported no significant difference in parental support between children with and without PTSD (Khamis, 2005). Instead, that study identified family ambience as an important predictor of childhood PTSD.

In the attempt to understand the mediating or moderating role of family factors on the impact of political violence on children, it has been reported that political violence tends to be a manageable threat when children face that danger in the context of healthy family functioning and parental well-being (Garbarino *et al.*, 1996). In contrast, children who simultaneously experience community and family violence are at high risk of developing mental health problems (Richters *et al.*, 1993).

A high level of social support, family cohesiveness and family communication has been found to protect children from the mediating effects of war (Figley, 1983; Cairns & Dawes, 1996). During the war, Lebanese family members were confident that they could rely on social support to deal with problems of various natures (Farhood *et al.*, 1993). The family is critical in a victim's recovery, and interventions should aim to strengthen social supports for family members (Figley, 1987).

Overall, it is widely established that supportive and nurturing parenting enhances children's mental health and developmental growth (Radziszewska *et al.*, 1996; Davies & Windle, 1997), and this also applies among traumatized families (Punamaki *et al.*, 1997; Barber, 2001). The role of parenting at wartime may be a key factor accounting for children's resilience or symptom increase (Cairns, 1996; Gabarino *et al.*, 1996). Good perceived parenting protects children's psychological adjustment at times of war by making them less vulnerable (Punamaki *et al.*, 1997). Parenting has been reported to change during wartime due to the various stressors. Some studies have indicated that parenting can be enhanced under such circumstances, while others reported increase in authoritarian parenting, and less supervision or emotional interaction with the children (Cairns, 1996). Our study indicates that perceived parenting support could have a moderating effect on the impact of exposure to traumatic events of war on children's mental health. Also, a negative correlation between perceived parental support and exposure to traumatic events was found. Consequently, efforts should be made to strengthen parental support in helping vulnerable children who live amid various adversities.

This study has a number of limitations. We acknowledge that we were constrained by reliance only on children for information, the cross-sectional design, and non-inclusion of other potential mediating and moderating factors such as co-morbid mental or physical problems in children and parental mental health. We used self-report questionnaires on children's exposure to traumatic events and their perceived parental support, while we used a structured interview to access their feelings and symptoms. The reasons for this were that it has been previously frequently reported that parents can be poor observers of their children's traumatic reactions in the early acute phase (Burke *et al.*, 1982), and that many children after experiencing life-threatening disasters do not wish to talk about their feelings with their parents, in the fear of upsetting them (Yule, 1990).

Attitudes to child rearing and expectations of children's behaviour have been found to differ between cultural groups (Dogra *et al.*, 2003). This may reflect on the parental support, so it is important to use culture-specific instruments to assess perceived parental support. However, in doing so the interpretation of such measures will be constrained until validated against existing self-report or observational parenting measures. Also, it is important to be aware that children's perceived parental support may differ from parents' perceptions, which were not taken into consideration in this study.

A number of implications emerge from these findings. Children living in war zones are exposed to ongoing and traumatic experiences commonly expressed in the form of post-traumatic or other mental health reactions. All agencies coming into contact with these children, predominantly consisting of non-governmental organizations (NGOs) and volunteers, should be trained in sensitively detecting and managing the majority of such presentations, taking into account the extent of the impact, the adverse socio-economic circumstances, and the absence of specialist services.

Indirect exposure to traumatic events further increases the risk of developing PTSS in children living in war zones. Sensitive media coverage would be a useful preventive step. Intervention programmes should target whole communities and families in strengthening their wider social supports and normalizing community life as much as possible, with the aim of integrally enhancing parenting capacity, while only targeting a small number of families with multiple needs, usually after a period of stability. There is a need for parental education by NGOs towards effective parenting, even amid sub-optimal situations of life in war-sensitive areas.

Future research could investigate the underlying mechanisms in more depth by addressing the constraints identified in this study with longitudinal designs, so that all the putative mediating

and protective factors that may influence the mental health of children living in war zones can be better understood, and used by preventive interventions.

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