

Children Exposed to Political Conflict: Implications for Health Policy

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Children living in zones of war and political conflict are exposed to a variety of traumas. This has been found to affect their mental health and well-being, and can have long-lasting consequences, even after the termination of the conflict. This paper presents the findings of a study with 409 children and young

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people aged 9-18 years in the Gaza Strip during a period of continuing exposure to political trauma. Children reported high rates of post-traumatic and anxiety reactions. Trauma exposure was significantly associated with post-traumatic symptoms. This paper discusses the implications of children's trauma for health policy, and calls upon existing structures and culturally appropriate programs to intervene in war zones to provide aid, to reconstitute communities, and to provide health and therapeutic interventions.

Research evidence on the impact of political conflict on children's mental health

Children exposed to political violence are at high risk of developing a range of mental health problems and disorders, predominantly post-traumatic stress disorders (PTSD) and depression.^{1,2} Aside from the direct effects of war, children in zones of conflict are also negatively impacted by lack of basic health care infrastructure, loss of family members, disruption of social networks, internal displacement, and parental response to war.

Political violence is positively correlated with such mental health presentations (usually post-traumatic stress disorders (PTSD) and depression), often in a 'dose-effect' relationship.^{3,4} The underlying mechanisms for this phenomenon have proved more difficult to explore because of the high potential for confounding variables such as loss of loved ones, disruption of social networks, lack of basic health needs, or displacement.

Some studies have taken into consideration these factors, as well as adolescents' coping strategies, in exploring the complex relationship between mental health and traumatic conflict. Following the war in former Yugoslavia, Durakovic-Belko et al.⁵ investigated the risk factors for post-traumatic and depressive disorders in children and young people and found different patterns for the two types of psychopathology. Variance in post-traumatic stress symptoms was mainly explained by traumatic war experiences and individual and socioeconomic factors, and less by cognitive appraisals and coping mechanisms. In contrast, depression was predicted more by individual and socioeconomic factors and less by war experiences, while cognitive appraisal and coping mechanisms did not contribute significantly.

Family response also makes a significant difference in the mental health of children living in war zones. Children's adaptation to the Lebanese war was associated with family resources, social support and increased use of cognitive coping strategies.⁶ Also, perceived stress was a stronger predictor than the actual events experienced by families. Parental responses to missile attacks in Israel affected children's emotional reactions and prognosis.^{7,8} Similar mechanisms were found to be operative in the development and continuation of child mental health problems following the September 11th terrorist attacks in the US.⁹

Descriptive or qualitative studies established themes of coping strategies among refugees and displaced young people following war situations. Kline and Mone¹⁰ identified three coping strategies employed by young refugees in Sierra Leone: maintaining an intact sense of purpose, effective control of traumatic memories, and

successful protection against destructive social isolation. Halcon et al.¹¹ established coping strategies such as sleeping, reading, praying and talking to friends among Somali and Ethiopian refugee youths living in the US. The adolescents' search for meaning to the conflict and sensitivity to the political environment have been found to be related to insecurity about the prospect of future war in Bosnia Herzegovina, thus adversely affecting their adjustment.¹² Similar findings were established by Punamaki et al.¹³, whose studies suggested that Palestinian boys were more likely to engage in political activity in order to cope with trauma. It is important to note that not all coping responses are specific to the conflict, as these can be interlinked with universal adolescent developmental issues. For example, some concerns expressed by high school students in Jerusalem were specific to the conflict in the region, i.e. coping with aggression, war, and enlistment into the army, while other concerns were universal (self-image, peer relationships, and school).¹⁴

Earlier studies in the Gaza Strip following exposure to war trauma

Since the late 1990s, we have completed a number of studies in the Gaza Strip. Our initial study of children's health after the end of the first period of conflict established high prevalence rates of PTSD among children, with 41% of youth aged 6-11 years experiencing post-traumatic stress reactions (such as thoughts and feelings related to the traumatic events, physical expression of distress, and avoidance of situations that reminded the child of the

trauma), and significant association with traumatic events and with other behavioural and emotional problems.¹⁵ Examples of the trauma experienced by children include injuries, day and night raids, and death or imprisonment of family, relatives or friends. When we re-interviewed these children (N=234) one year later, well into the Oslo agreement and peace process in the region, the prevalence rate of post-traumatic stress reactions had decreased to 10%.¹⁶ The findings suggested that most reactions were acute and resolved in the absence of further conflict, but there were also a substantial number of children who suffered chronic and resistant post-traumatic reactions. Palestinian children's mental health was compounded by their adverse socioeconomic circumstances, which is a common finding in research with children who are victims of political conflict.

The second period of conflict in the region started in September 2000. Although we could not access all areas of the Gaza Strip to follow-up the previous sample, we repeated the epidemiological study with a new cohort, and found that the prevalence rates of post-traumatic stress reactions had again risen dramatically with widespread exposure to new traumatic events. Children's emotional presentations were strongly correlated with maternal psychopathology, e.g. mothers' response to trauma.¹⁷ Traumatic events had changed since the previous conflict, with most children reporting watching pictures of mutilated bodies on television, and witnessing bombing of people and houses. In order to understand the underlying mechanisms between trauma and mental health problems, we conducted a subsequent study

comparing children whose houses had been demolished, with children (matched for age and gender) from areas indirectly exposed to other types of traumatic events, mainly through the media and adults.¹⁸ Children directly exposed to war trauma reported significantly higher post-traumatic stress and fears. By contrast, children indirectly exposed to traumatic events (i.e. through their parents or other adults, and through the media) reported significantly more anticipatory anxiety and cognitive expressions of distress. However, another study also established symptom overlap between different emotional responses, namely those of post-traumatic and depressive nature.¹⁹

Since almost all of the previous research has investigated the impact of political trauma after the termination of conflict, the study presented in this paper addresses the types and severity of child mental health problems during continuing exposure to traumatic events. The findings are being discussed in the context of policy and service development in war-affected zones.

The Study

Methods

Goal

The aim of the study was to determine the association between ongoing trauma and child mental health problems.

Setting and sample

The Gaza Strip is a narrow area of land bordering the Mediterranean Sea between

Israel and Egypt, covering an area of approximately 360 square kilometres in the Middle East. It has high population density, unemployment, 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. The data collection was carried out by three trained professionals with the supervision of the first author, during a period of repeated incursions.

A total number of 420 children aged 9-18 years were selected from two cities, two camps and three villages in the Gaza Strip. From each city, camp or village we selected one street at random, and every other home was subsequently selected from each street. Of those 420 children and their families, 409 agreed to take part in the study, or which makes for a participation rate of 96.4%. Children and their parents were interviewed in their family home. One of the difficulties during this study was that interviews often had to be discontinued and repeated because of concurrent hostilities in the area.

Measures

Children and parents completed the questionnaires described below. Questionnaires were completed independently by the participants, although items were discussed and clarified by the researchers if necessary. Completed questionnaires were not received from the following groups: CRIES-13 by 18 children; RCMAS by 18 children; and SDQ by 23 parents.

- The *Gaza Traumatic Event Checklist* (GTEC) was used as a measure of children's exposure to traumatic events. This test was initially developed by

- the research department of the Gaza Community Mental Health Program and has been used in previous studies of Palestinian children.^{18,19} 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 has remained relatively stable and has been regularly exposed to shelling and incursions. Children were asked about the events they had experienced in the preceding 24 months, i.e. since the onset of this particular phase of the conflict, and completed a checklist with dichotomous answers of “yes” or “no.” The checklist was analyzed to find a total score of trauma exposure.
- The *Children’s Revised Impact of Events Scale (CRIES-13)*²⁰ measured symptoms of post-traumatic stress disorder (PTSD). This included all 8 items of the original Impact of Events Scale, as well as 5 items derived from the arousal criteria in the DSM-IV classification. Individual items were rated according to the frequency of their occurrence during the past week (none = 0, rarely = 1, sometimes = 3, a lot = 5) and in relation to specific traumatic events written at the top of the scale. In this study the revised IES was translated from English to Arabic and back translated. A cut-off score of 30 and above has been found to indicate the likely presence of PTSD.²¹ A total score was provided, as well as subscales scores for intrusion, arousal and avoidance of PTSD symptoms.
 - The *Revised Children’s Manifest Anxiety Scale (RCMAS)*²² is a standardized 37-item self-report questionnaire for children and young people. It measures the presence or absence of anxiety-related symptoms by asking respondents to answer with “yes” or “no” in response to 28 anxiety items and 9 lie items. A cut-off total score of 19 has been found to predict the likely presence of anxiety disorder.²³
 - The *Strengths and Difficulties Questionnaire (SDQ)*²⁴ was completed by parents on their children’s behavioral and emotional functioning. This standardized questionnaire includes 25 items on a 0-2 scale (0 = problem never experienced by the child; 1 = sometimes; 2 = frequently experienced). The 25 SDQ items are grouped in the scales of hyperactivity, emotional, conduct, and peer relationship problems, as well as a prosocial scale. A score is estimated for each scale and a total difficulties score for the four problem scales. A high score indicates a high likelihood that the child experiencing mental health problems will require clinical assessment and treatment. The SDQ has previously been used in the Gaza child population by the research group.²⁵

A sociodemographic data checklist.

The SDQ and sociodemographic data checklist were completed by parents, while the remaining three questionnaires (GTEC, IES and RACMAS) were completed by the children, who had access to the researchers for clarification of items, but were not interviewed by the researchers.

Statistical analysis

Descriptive data is presented, expressed as frequencies (%), mean scores and standard deviations. The association between continuous scores was investigated by the Spearman non-parametric correlation test, as the data was not normally distributed. Differences among groups were analysed by the Mann-Whitney or Kruskal Wallis non-parametric tests, depending on the number of groups. The association between trauma exposure and mental health problems was examined by a series of linear regression models, with the total number of traumatic events entered as the independent variable and each of the child psychopathology measures (IES, RCMAS or SDQ) total score as the dependent variable in each model.

Results

Sociodemographic data

The 409 participating children were evenly distributed among boys (50.1%) and girls (49.9%). Their mean age was 12.9 years (SD = 2.5). Palestinian families consisted of a large number of children, as 15.3% had 4 or less children, 48.1% of families had 5-7 children, and 36.6% had 8 or more children. Of the children, 28.1% lived in the cities, 40.8% in villages, and 31.1% lived in refugee camps. Due to the high levels of unemployment, 73.3% of families had an average monthly income of less than \$270 US, 15.8% had a monthly income \$271-560, and only

Table 1. Type of traumatic experiences by children (N = 409)

<i>Traumatic event</i>	<i>N</i>	<i>%</i>
Watching mutilated bodies and wounded people TV	399	97.3
Hearing shelling of the area by artillery	382	90.9
Hearing sonic sounds of jetfighters	375	89.2
Witnessing signs of shelling on the ground	373	88.8
Hearing about killing of a friend	267	65.3
Witnessing bombardment of other people's homes by airplanes and helicopters	341	83.4
Witnessing attacks by rockets	316	77.3
Witnessing firing by tanks and heavy artillery of neighbour's home	277	67.7
Hearing about killing of a close relative	246	60.1
Witnessing firing by tanks and heavy artillery on their home	210	51.3

Table 2. Frequencies of post traumatic stress symptoms reported by children (N = 395)

	<i>Never</i> %	<i>Rarely</i> %	<i>Sometimes</i> %	<i>Always</i> %
Intrusive thoughts	12.9	14.4	44.1	28.7
Tried to remove it from memory	20.9	9.8	30.0	39.3
Difficulties paying attention or concentrating	19.9	15.5	39.8	24.8
Psychological reactions	8.4	18.2	34.2	39.3
Startled more easily or feel more nervous	15.8	12.6	31.5	40.1
Avoid reminders	22.9	17.2	34.5	25.4
Try not talk about it	29.2	15.7	31.2	23.8
Intrusive images	12.1	17.5	37.13	37.8
Other things keep making me think about it	14.1	14.1	42.9	28.8
Try not to think about it	21.4	15.3	36.2	27.1
Get easily irritable	22.5	19.8	34.11	34.6
Alert and watchful even when there is no obvious need to be	19.3	17.2	37.7	25.8
Insomnia	18.7	10.6	30.7	40.0

10.9% had more than \$561 monthly (income was classified according to shekels, with 1 shekel = \$0.27). The fathers' mean age was 42.5 years (SD = 7.1), and the mothers' mean age was 38.7 years (SD = 6.7). Of the fathers' employment statuses, 49% were unemployed and 23.8% were civil employees, while the remaining 27.2% were manual workers. 97.6% of mothers were housewives. According to their level of education, 77% of the fathers surveyed had completed secondary education, while 83% of mothers had completed a secondary level of education.

Exposure to traumatic events

Children reported that they had experienced an average of 7 types of traumatic events during the previous year (range 0-10,

SD = 2.3). The most frequently reported traumatic event (Table 1) was watching mutilated bodies and wounded people on TV (97.3%), followed by witnessing the signs of shelling on the ground (90.9%), and hearing sonic booms from jetfighters (89.2%). The least frequently reported traumatic experiences were hearing about the killing of a close relative (60.1%) and witnessing firing by tanks and heavy artillery at their home (51.3%). Only one factor was reported different between the genders. Boys reported significantly more about hearing about the killing of a friend as compared to girls (Mann-Whitney test, $z = -1.91, p = 0.05$).

There were no gender differences in trauma exposure ($z = 0.80, p = 0.42$). Children coming from families with monthly income of less than \$271 reported a signif-

icantly higher number of traumatic events (Kruskal-Wallis test: $X^2 = 5.8$, $df = 2$, $p = 0.05$).

Post-traumatic stress reactions

Children reported a variety of different reactions to traumatic events (Table 2). The most common reactions were exaggerated startle (40.1% of respondents), insomnia (40.0%) and trying to remove memories from their mind (39.3%). The least commonly reported PTSD symptoms were staying away from reminders (25.4%), concentration problems (24.8%) and not talking about the trauma (23.8%). Using an established cut-off score of 30 and more on the IES-13 to determine the likelihood of PTSD disorders²¹, 268 children (65.5%) were rated within the clinical PTSD range. 125 boys (61.9% of boys surveyed) and 143 girls (70.1% of girls surveyed) scored above the IES cut-off score. However, there were no significant gender differences on total IES scores (Mann-Whitney test, $z = -1.29$, $p = 0.19$). Exposure to trauma was significantly associated with PTSD symptoms (total IES scores): linear regression, $B = 0.87$, 95% CI = 0.33 to 1.42, $p = 0.002$).

Anxiety symptoms

According to the RCMAS, the most frequently reported anxiety symptoms were: "I get nervous when things do not go the right way for me" (90.1%), "I often worry about something bad happening to me" (80.1%), and "I worry about what is going to happen" (77.1%). The least common anxiety symptoms were: "I often feel sick in my stomach" (28.3%), "I am tired a lot" (27.6%), and "I feel alone even when there

are people with me" (21.6%). Using the previously established cut-off score of 19 on the RCMAS23, 104 children (25.4%) reported anxiety scores within the clinical range. There were no gender differences on RCMAS scores ($z = 0.42$, $p = 0.88$). There was some association between trauma exposure and total RCMAS scores, but this did not reach statistically significant levels ($B = 0.24$, 95% CI = -0.014 to 0.49, $p = 0.064$).

General mental health problems

Using the Strengths and Difficulties Questionnaire on general morbidity (behavioral and emotional problems), 203 children (49.6%) were rated within the range for likely clinical morbidity according to the previous SDQ cut-off score of 17 or more. 25 There were no gender differences on total SDQ scores ($z = -0.80$, $p = 0.42$). Exposure to trauma was not significantly associated with total SDQ scores ($B = 0.07$, 95% CI = -.28 to 0.44, $p = 0.68$).

Discussion

Children living in regions of war and political conflict experience severe trauma, in addition to the psychological and physical impacts of malnutrition, physical illness, displacement and loss of family and support networks.² To date, most research has been epidemiological in nature, studying the high prevalence of post traumatic stress reactions and related emotional disorders. However, on the rare occasions in which child mental services were established in war-affected areas, the pattern of referrals

was much broader, with about 20% consisting of stress-related disorders.¹²

The findings of this study are consistent with literature on the impact of war trauma. This research established an association between continuing exposure and post-traumatic stress reactions, which corresponds to previous research that measured emotional responses following the termination of conflict. This association was weaker for children's anxiety symptoms, and did not apply to general mental health and especially to behavioral problems, which have been shown to have a different etiological pathway. The findings apply to a substantial proportion of children exposed to trauma in countries and areas with limited mental health resources or services. Therefore, the implications of the findings for policy need to be interpreted in a wider context. In doing so, we have also considered relevant evidence from the literature; we acknowledge that some policy recommendations may not directly arise from these findings, but rather from the contextualization of these findings in the literature on emergency, preventive, and intervention programs in war zones.

The increasing media and policy attention on children living in war zones provides a good opportunity to consider the implications of these research findings for international initiatives to improve the well-being of children and families. Different levels of programs and interventions have been described in recent years, most of which are universal to child populations and their communities, i.e. provided to all children exposed to trauma, rather than targeted to those at higher risk or presenting with mental health problems.³² Universal interventions include educating children, parents and teachers to recognize

distress and other mental health presentations and to recognize how these could be related to experienced trauma; developing strategies to deal with these presentations; and normalizing their life activities. A combination of similar interventions is both appropriate according to previous evidence, and cost-effective, as they can be provided by non-specialist welfare and support agencies. Of course, interventions under extremely adverse circumstances can only be put in place after children's basic needs have been met.^{27, 28}

There is already some research evidence on strategies to prevent or minimize children's response to trauma through ongoing political conflict. Implementation of aid efforts are more likely to be successful through agencies operating in the area and in collaboration with schools, which are the main source of stability and safety for the children. International organizations such as the United Nations (under whose hospices, for example, all schools in the Gaza refugee camps operate) and UNICEF have a major role to play in providing as much socioeconomic stability, education, alternative coping strategies, and awareness of the impact of trauma, as is humanly possible in these sad and untoward circumstances.

The school and primary health clinics run by bodies like the World Health Organization are also good agents for identifying children who require interventions. The nature of intervention can be informed by clinical and research evidence from previous work with victims of community violence, abuse, natural disasters, and political persecution. Group interventions are more cost-effective, although there is supporting evidence for cognitive-behavioral²⁹ and family-based interventions.³⁰


Following the epidemiological research, we completed a controlled intervention trial of group debriefing (supportive psychotherapy) and school-based psycho-education for traumatized children in refugee camps across the Gaza Strip.³¹ The findings suggested that, in the presence of ongoing conflict, neither intervention had a positive impact on children's symptoms, despite their satisfaction with the individual treatment. In other words, the children found that talking about their experiences was helpful, but their symptomatic presentations were not found to change. This by no means negates the importance of mental health services in alleviating children's distress, but does indicate the limitations of making an impact on a larger scale, in the absence of other measures to safeguard children's safety and basic needs. More promising outcomes – an improvement in children's symptoms – were found in the same area by Loughry et al.³², who evaluated a program based on structured activities, rather than direct therapeutic interventions. This included cultural and recreational activities such as traditional dancing, artwork, sports, drama and puppetry. The activities were provided by local young volunteers, who had been trained by non-governmental organizations.

The involvement of parents is essential in such programs for a number of reasons. Parents may perpetuate children's emotional distress if their own fears of loss or grief for lost loved ones are not addressed. Their parenting capacity can be impaired when they feel more vulnerable. In times of war and major conflict, adults also face disrupted support networks that need strengthening.^{33, 34}

Interventions should take into consideration children's developmental needs and

expression of psychopathology in that they should not merely replicate treatment programs originally designed for adults. The treatment of resulting psychiatric disorders, particularly post-traumatic stress and depression, needs to be viewed in the same framework, also taking into account cultural issues and limited specialist resources.¹² The diversity and comorbidity of child psychiatric disorders should also be kept in mind, instead of only targeting PTSD. In addition to assessment and treatment, specialist practitioners (psychologists and psychiatrists) have an important role to play in setting up training for non-specialist staff. This is critical in regions where few specialists practice, because non-specialist staff members are needed to manage simple cases and accurately refer complex cases to a specialist.

In conclusion, the findings of this study add to the body of knowledge on the impact of political conflict and violence on child mental health. This impact is primarily expressed by emotional presentations such as post-traumatic and anxiety reactions. These reactions were found to occur in a substantial proportion of the exposed child population, which suggests that efforts to help children should be much broader than developing specialist services and interventions. The consensus of the literature on a range of impacts of trauma on child mental health indicate that health and welfare policies, international organizations and governments can all make a substantial contribution to children's mental health and well-being, even under the most adverse circumstances. Previous research evidence and service experience now need to be applied and integrated with more strategic and co-ordinated international efforts and aid programs,

rather than operate in isolation through time-limited projects or specialist provisions. 

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