ELSEVIER

Child Abuse & Neglect 31 (2007) 699–717

Child Abuse & Neglect

Predictors of psychological distress and positive resources among Palestinian adolescents: Trauma, child, and mothering characteristics

Samir Qouta [a], Raija-Leena Punamäki [b,*], Edith Montgomery [c], Eyad El Sarraj [a]

[a] *Gaza Community Mental Health Programme, Gaza, Palestine*
[b] *Department of Psychology, 33014 University of Tampere, Finland*
[c] *Rehabilitation and Research Centre for Torture Victims, Copenhagen, Denmark*

Received 8 July 2004; received in revised form 5 July 2005; accepted 15 July 2005
Available online 12 July 2007

Abstract

Objective: The aim was to examine how traumatic and stressful events, responses to violence, child characteristics, and mothering quality, as measured in middle childhood predict psychological distress and positive resources in adolescence.

Method: The participants were 65 Palestinian adolescents ($17 \pm .85$ years; 52% girls), who had been studied during the First Intifada (T1), during the Palestinian Authority rule (T2) and before the Second Al Aqsa Intifada (T3) in Gaza. Psychological distress was indicated by PTSD, and depressive symptoms and positive resources by resilient attitudes and satisfaction with quality of life, all measured at T3. The predictors that were measured at T1 were exposure to military violence, active coping with violence and children's intelligence, cognitive capacity, and neuroticism. Mothering quality and stressful life-events were measured at T2, the former reported by both the mother and the child, and the latter by the mother.

Results: Adolescents' PTSD symptoms were most likely if they had been exposed to high levels of traumatic and stressful experiences and had poor cognitive capacity and high neuroticism in middle childhood. Only high levels of childhood military violence and stressful life-events predicted high depressive symptoms and low satisfaction with quality of life in adolescence.

* Corresponding author.

0145-2134/$ – see front matter
doi:10.1016/j.chiabu.2005.07.007

Conclusions: Military violence in childhood forms risks for both increased psychological distress and decreased positive resources. However, child characteristics such as cognitive capacity and personality are important determinants of psychological vulnerability in military trauma.

Keywords: Military trauma; Adolescence; Mental health; Parenting; Cognitive capacity

Introduction

War is not healthy for human beings, and children are especially vulnerable. Despite the international pledge to protect children from war violence, a great number still live in life-endangering conditions. Characteristic to modern wars is that children are forced to witness atrocities or even to take part in military activity. According to UN statistics, an estimated 2 million children have been killed in armed conflicts in the past decade. Three times as many have been seriously injured or permanently disabled, many of them in armed confrontations and landmine accidents (Bellamy, 2003; Machel, 2003). The negative consequences of military trauma on child development and mental health are of great concern (Carlson, 2001; UN & UNICEF, 1998). In this study, we examine how military trauma in middle childhood predicts psychological distress and positive resources in adolescence. The participants are Palestinians, who spent their childhood in conditions of foreign military occupation, characterized by fighting, detentions, and destruction (Abu Hein, Qouta, Thabet, & El-Sarraj, 1993; B'Tselem, 1994, 1998). The Palestinian Authority rule, following the Oslo Agreement in 1993, provided 7 relatively nonviolent years. The historical lull provided us the opportunity to study influences of childhood trauma and personal characteristics on peacetime adjustment in adolescence.

Research shows increased mental health problems among children living in conditions of war and military violence. These include PTSD that is intrusion, avoidance, and hyperarousal symptoms (Laor et al., 1997; Rosner, Powell, & Butollo, 2003; Smith, Perrin, Yule, Hacam, & Stuvland, 2002), depression (Saigh, 1991), anxiety and sleeping difficulties (Montgomery, 1998; Punamäki, 1998), and extended grief (Smith et al., 2002). War and military violence may also seriously interfere with children's and adolescents' healthy identity formation (Punamäki, 1999, 2002), moral development (Baker & Shalhoub-Kevorkian, 1999), and social relationships (Elbedour, Van Slyck, & Stern, 1998).

Despite the great burden of war trauma, not all children are similarly vulnerable. There is evidence of "war children" showing impressive signs of endurance and resilience. Resilient children are those who, despite severe adversities and trauma, do not suffer from psychological and social problems or are able even to blossom (Apfel & Simon, 2000; Rutter, 2000). Research among Palestinian children shows that resiliency could be attributed to strong ideological and social commitment (Punamäki, 1996), high self-esteem, successful and active coping (Baker, 1990), and creative problem solving (Punamäki, Qouta, & El Sarraj, 2001). It has been noted that living in chronic life-endangering conditions forces children to balance between distress and resilience and to solve conflicts between fear and courage (Punamäki & Suleiman, 1989). In this study, the conceptualization of mental health involves both psychological distress, indicated by PTSD and depressive symptoms, and positive resources, indicated by resilient attitudes and satisfaction with quality of life.

Researchers have identified several issues that explain the differences in mental health and adjustment of children living in war conditions: the trauma itself, responses to it, characteristics of the child, relationships

within the family, and community values and support. First, mental health consequences vary according to the severity, nature and meaning of trauma. There is evidence that multiple and cumulative traumatic stress and chronic trauma exposure increase the risk of childhood PTSD (Garbarino & Kostelny, 1996). Because family signifies a protective shield for children, witnessing humiliation, and violence toward family members is especially harmful for children's well-being (Macksoud & Aber, 1996; Punamäki, 1998). Traumatic scenes involving strong sensory impressions, for example, smell of dead bodies and voice of suffering people, constitute a serious risk for intrusive PTSD symptoms (Dyregrov, Gjestad, & Raundalen, 2002). Also one's own physical injury (Khamis, 1993; Miller, El-Masri, & Qouta, 2000) and threat to life (Smith, Perrin, Yule, & Rabe-Hesketh, 2001) are associated with high levels of PTSD, depression and anxiety among children in war zones.

Girls are found to be more vulnerable to psychological distress when facing war-related trauma than boys (Macksoud & Aber, 1996; Durakovic-Belko, Kulenovic, & Dapic, 2003; Dyregrov, Gupta, Gjestad, & Mukanoheli, 2000). However, Garbarino and Kostelny (1996) reported that Palestinian boys suffered more than girls from psychological problems when exposed to chronic military stress. Other findings among Palestinian children suggested that girls are more vulnerable to depression and anxiety, whereas boys show aggressive and other externalizing symptoms, especially when exposed to severe military trauma (Qouta, Punamäki, & El Sarraj, 2005) which is consistent with findings in general child populations (Kaslow, Gray-Deering, & Racusin, 1994). Girls' greater vulnerability to depression in adolescence is explained by biological, psychological, and social factors. There is an increase of female hormones and changes in the mood-regulating brain functions in adolescence (Pickles et al., 2001). Further, girls are more often exposed to high stress and abuse, and their social status is conflicting (Petersen, Sarigiani, & Kennedy, 1991).

Both younger (Weisenberg, Schwarzwald, Waysman, Solomon, & Klingman, 1993) and older (Elbedour et al., 1998) children have been found to show psychological distress in exposure to war trauma. The vulnerability of younger children has been attributed to their less mature cognitive capacity and biased explanations of the reasons for traumatic events (Finkelhor, 1995). Adolescents in turn are at greater risk because they have a broader understanding of the dangerous consequences of war trauma (Berman, 2001). The child's age may not, however, be a risk factor in and of itself; rather, in each developmental stage children have both age-specific protective assets and vulnerabilities, and those shape their cognitive-emotional responses (Punamäki, 2002).

Although child characteristics such as beneficial personality, high intelligence and high self-efficacy are often mentioned as possible explanations for resiliency (Apfel & Simon, 2000), empirical research is scarce. A study among Palestinian children found that flexible cognitive style and high cognitive capacity were associated with good psychological adjustment and could even protect children from negative impacts of military violence (Qouta, Punamäki, & El Sarraj, 1995, 2001). A balance between intelligence and creativity predicted good adjustment after military trauma (Punamäki et al., 2001). High self-efficacy has been found to protect children and adolescents from negative impacts of trauma in both peaceful (Cheever & Hardin, 1999) and war-ridden (Saigh, Mroueh, Zimmerman, & Fairbank, 1995) societies. Saigh et al. (1995) demonstrated that Lebanese children with low emotional regulation, poor problem solving skills, and feelings of helplessness were at high risk of PTSD.

Family factors play a crucial role in children's well-being in war and military violence. Findings show that good maternal mental health (Laor, Wolmer, & Cohen, 2001; Qouta et al., 2005; Smith et al., 2001) and adequate responses to trauma, such as image control (Laor et al., 2001) are associated with good psychological adjustment of the child. Barber (1999, 2001) showed that a nurturing parenting

style protected children's development and emotional well-being from the negative impact of military violence in Palestine and Balkan. Children who perceived their parents as harsh and punitive were more likely to develop antisocial behavior, whereas parental acceptance provided a buffer between military violence and adolescents' depression (Barber, 1999). Garbarino and Kostelny (1996) provided evidence that Palestinian children from dysfunctional families were more vulnerable to the negative consequences of chronic military violence, when compared to children whose parents used positive styles. An additional study on Palestinians revealed that children who had loving and nonrejecting parents were more creative and efficient in problem solving than those from problematic families. The creativity and efficiency in turn could protect children's mental health despite exposure to military violence (Punamäki et al., 2001). Exposure to war trauma and violence, however, places great burdens for parents and may compromise their parenting quality. Qouta et al. (1995) showed, for instance, that children in families exposed to severe military trauma perceived both of their parents as strict, rejecting, and hostile, and their mothers as generally negative.

Coping theory is useful in conceptualizing children's responses to war trauma. According to Lazarus' (1991) transactional theory, no stressful event of any magnitude can independently cause a deterioration of mental health. Trauma exposure should thus be conceptualized as a process in which the victim first appraises the meaning and severity of trauma, and then employs coping strategies to deal with it. Middle Eastern research suggests that children use both active and passive coping strategies in their attempts to process overwhelming experiences and regulate inner feelings (Punamäki & Puhakka, 1997; Weisenberg et al., 1993). There is some consensus in general coping research that active and problem-solving responses protect children's mental health, and passive withdrawal harms it (Compas, Malcarne, & Fondacoro, 1988; Finnegan, Hodges, & Perry, 1996). In the same vein, Baker (1990) found that, in conditions of military violence, Palestinian boys who participated in the national struggle were better adjusted than passive boys. A follow-up study among Palestinian children, however, showed that the positive impact of political activity was possible only once the military violence and life-threat were over (Punamäki et al., 2001). There is also evidence that active problem-solving coping is not always effective in war situations. Weisenberg et al. (1993) found that distractive and passive coping strategies were effective among Israeli children during the missile attacks. The perception of the controllability of the traumatic stress may be critical here. Coping researchers specify that problem-focused coping is mainly effective when the victims perceive the situation as being under control, but ineffective when they perceive it as out of control (Compas, 1998), as is objectively true in war and life-threat.

The research on child mental health in war and military violence is mainly cross-sectional and narrowly focuses on traumatic events and demographic factors as the only determinants of psychological adjustment. Exceptions are prospective studies on Israeli (Laor et al., 2001), Iraqi (Dyregrov et al., 2002), and Croatian (Kuterovac-Jagodic, 2003) children suggesting that although PTSD symptoms generally decrease with time, negative trauma, family and child characteristics make some children highly vulnerable. Our contribution to the literature is *a long-term follow-up* study that covers middle childhood and adolescence and provides a wide and developmentally adequate set of determinants of both psychological distress and positive resources. This is important because traumatic experiences interact with personal and family issues and confound with developmental tasks and conflicts.

The present study aims at understanding *how traumatic stress*, responses to violence, and child and family characteristics impact mental health in adolescence. Specially, we analyze how the nature of traumatic stress (military trauma, stressful life-events), child characteristics (gender, cognitive capacity,

and neuroticism), child's responses to trauma (active coping), and mothering quality predict adolescents' mental health. The mental health is conceptualized as psychological distress (indicated by PTSD and depressive symptoms) and positive resources (indicated by resilient attitudes and satisfaction with quality of life).

Method

Participants and procedure

The participants are 65 Palestinian adolescents (17.6 ± .85 years; 52% girls) living in Gaza. The initial sample was 108 Palestinian children who were first studied during the Intifada I, when they were 10–11 years old (T1, 1993). These children were studied a second time during the period of the Palestinian Authority rule (T2, 1996; $N = 86$), and third time just before the beginning of the Al Aqsa Intifada (T3, 2000; $N = 65$). The initial sample was recruited from a community-based random sample of 1,082 Gaza children, which was representative of schools in refugee camps, and urban and resettled areas (Abu Hein et al., 1993). The exposure to military trauma was used as a criterion for the selection of the initial sample from the community sample by including cases from the upper and lower quartiles of the variable indicating experiences of military violence (Qouta et al., 1995). The equal representation of girls and boys was guaranteed by correcting biases by choosing next alternative.

The response rates were 84% at T2 and 60% at T3. The reasons for attrition at T3 were change of address, leaving the country, and refusal to participate. The attrition analyses show no differences between participants and drop-outs in demographic factors (except age) or predicting variables: gender, place of residency, level of military violence as reported at T1, neuroticism, intelligence, cognitive capacity or active coping measured and T1, and punitive mothering at T2. However, the participants and drop-outs differed in age so that relatively older children were among nonparticipants, $F(1, 106) = 7.49$, $p < .005$.

Table 1 presents the distribution of demographic characteristics of the sample at T3: 75% were still at secondary school, and 18% had entered university. Of the participants, 14% were engaged or married. The social status indicated by fathers' profession correspond to the distribution in Gaza refugee population (Qouta & El Masri, 1999), for instance, 23% were workers and 8% white-collar professionals. The families were large averaging 8.62 ± 2.69 children. Of the families 62% lived in refugee camps and the rest in urban and resettled areas. Majority (95%) had a refugee status that is their grandparents were refugees from Palestine and from the 1948 war.

The gender differences in predictor variables are presented in Table 2. Boys had been more exposed to military trauma and applied more active responses to violence than girls during the Intifada I. Mothering was more negative among boys than girls, including more punitive disciplinary actions. Girls IQ-scores were higher than boys.

The same female psychologist visited the families in their homes at T2 and T3 and explained the purpose of the follow-up study using a standard introduction. The adolescents completed the questionnaires themselves, and mother was interviewed. The T3 fieldwork was conducted in 4 months before the Al Aqsa Intifada started in September 2000. The visits to families lasted about 2–3 hours, and the field worker interviewed parents and grandparents of the follow-up child. The adolescents received a modest present (a calendar) for their participation. The Gaza Community Mental Health Program (GCMHP) Research Committee approved the study at T1 and T2, and the Research Board of the Rehabilitation and Research

Table 1
Percentages and frequencies of demographic characteristics at T3 ($N = 65$)

Demographic characteristics	%
Gender	
Female	52.3
Education	
Primary school	6.6
Secondary school	73.8
Vocational school	1.6
University student	18.0
Marital status	
Single	85.9
Engaged	9.3
Married	4.7
Father's profession	
Worker	23.1
Entrepreneur	20.5
Police and security	7.7
Blue-collar professional	15.4
White-collar professional	8.3
Out of workforce	20.5
Number of rooms	
1–3	37.7
4–5	50.5
6–7	11.8
Number of siblings	
3–5	16.3
6–8	36.4
9–11	34.5
12–15	12.8
Place of residence	
Refugee camp	62.5
Urban area	23.2
Resettled area	14.3

Centre for Torture Victims and CMHP Research committee at T3. Only verbal consents were obtained from the participants' parents, because they felt written consent inappropriate.

Measures

The following predictors of adolescents' mental health were measured during the First Intifada at T1: military trauma, children's intelligence, cognitive capacity, neuroticism, and active coping. Stressful life-events and mother's disciplining style were measured during the Palestinian Authority at T2. All the outcome variables indicating adolescents' psychological distress (PTSD and depressive symptoms) and positive resources (resilient attitudes and satisfaction with quality of life) were measured at T3. The

Table 2
Means and standard deviations for traumatic stress, child characteristics and mothering among girls and boys

	Girls ($N = 34$)		Boys ($N = 31$)		t values
	M	*SD*	*M*	*SD*	
Age					
Number of siblings	8.24	.53	8.63	.51	.28
Traumatic stress					
Military trauma at T1	4.66	.33	5.93	.36	6.77**
Stressful life-events at T2	9.83	.17	9.90	.18	.08
Child characteristics					
Intelligence at T1	110.11	2.29	116.73	2.70	4.34*
Cognitive capacity at T1	8.64	.41	9.16	.36	1.06
Neuroticism at T1	8.19	.61	6.73	.59	2.87
Responses to trauma					
Active coping at T1	10.47	.49	12.50	.52	8.10**
Family issues					
Mothering quality at T2 (negative)	27.61	.48	29.47	.46	7.90**

*$p < .05$; **$p < .01$.

demographic factors were collected at T3, but they were not included in the interviews at T1 due to difficult field work conditions during the First Intifada.

Military trauma T1 refers to eight traumatic events that families experienced during the first Intifada, including human losses (e.g., death and imprisonment of a family member), military violence, and destruction (night raids at home, beatings, and injuries). The child reported at T1 whether their family had experienced the event or not (not = 0, yes = 1). The sum variable ranged between 0 and 8 and was normally distributed. Numerous studies have shown associations between the military trauma scale and children's mental health and behavior, which can indicate the validity of the scale (Punamäki et al., 2001; Qouta et al., 1995).

Intelligence at T1 was measured on The Saleh Picture IQ Test. It consists of 60 tasks, each including 5 pictures of objects, actions or symbols. One of the five pictures is conceptually unrelated to the rest, and the child is asked to mark this picture. For instance, animals and plants are distinguishable from a lamp because the latter is not a living creature. The conceptual difficulty of the tasks increases gradually. The performance time is limited to 20 minutes. The raw scores are the number of correct answers (0–60), and they are translated into IQ scores according to Saleh's tables (Hefni, 1980). The test was developed in Egypt, and the inter-rater reliability has been found to range between .75 and .85 (Hefni, 1980).

Cognitive capacity at T1 was indicated by the WISC digit span subtest that assessed concentration, attention, and ability to organize memory. Children were individually tested, and their responses were scored according to Arabic standards based on Egyptian samples.

Neuroticism at T1 was measured by the Eysenck's Neuroticism Scale (E.P.I., 1964). It consists of 23 items, such as anxiety, negative emotionality, and guilt feelings. The Arabic version has proved to be reliable and valid in predicting mental health in numerous studies (Punamäki, Qouta, & El Sarraj, 1997; Qouta et al., 1995). The reliability of the scale has been ranged in other Arab populations between .78 and .83 (internal consistency, Hefni, 1980), and in this sample the Chronbach α was .82, calculated at T1.

Responses to violence (*active coping*) at T1 was assessed by a picture test developed for the purpose of the study. It presented a typical scene of military violence during the First Intifada: a demonstration against the occupation forces culminating in soldiers shooting at groups of children and youths. The picture shows some children escaping, some confronting the soldiers, and some observing the scene. The groups of the children in the picture are circled and named as (A) escape, (B) confront, and (C) observe groups, respectively. A sheet of six questions follows the picture. Child subjects were asked: (1) What do you think about the behavior and motives of the children *in group A*? (2) What do you think about the behavior and motives of the children *in group B*? (3) What do you think about the behavior and motives of the children *in group C*? (4) Imagine yourself being in a situation like that, what would you do if facing the army? (5) To which group do you usually belong? (6) What do you feel and think when seeing this kind of situation? Each of their responses was given a 1–3 score on the passive-active dimension. The minimum score of 6 indicated passivity (approval, willingness, and actual escaping) in all six questions, and the maximum score of 18 indicated activity. The mean was 11.5, with 3.51 standard deviation. Inter-rater reliability of scoring of children's responses was assessed in 23 randomly selected cases, and the kappa value was .80. Nine of the children inter-rated at T1 happened to be in the sample at T3.

Stressful life-events at T2 are based on mothers' reports about 10 events that their family had experienced within the past 1 year (not = 0, yes = 1). The scale is based on Holmes and Rahe (1967) and applied to Palestinian society by Miller et al. (2000). The original questionnaire of 43 items had to be shortened because of the limited time and irrelevancy of some items for this study population. The chosen items include health problems, financial worries and debts, and criminal charges. A sum variable was constructed, which ranged between 0 and 10. In the study by Miller et al. (2000), the scale was meaningfully associated with children's emotional and behavioral problems and social status of the family, which indicate prediction validity of the scale in the Palestinian population.

Mothering quality at T2 was measured by a 9-item scale (Barber, 1999) that indicated punitive, controlling, and negotiation parenting. Each statement relates to a situation in which the child has broken a rule. The choice of disciplinary approach includes: ignore the child's behavior, threaten with punishment, or calmly discuss the issue. Mothers themselves and their children estimated how well the descriptions fit the mothers' behavior and attitudes on a 3-point scale (1 = not at all, 2 = to some extent, and 3 = much). A mean sum variable indicating disciplining style was constructed that had reliability value of $\alpha = .71$ (Chronbach α). The high score indicates negative (punitive) disciplining style and low score positive style.

Post-traumatic symptoms (PTSD) at T3 were assessed by the adolescent version of the Reaction Index (PTSD_RI; Pynoos et al., 1987). The 20-symptom scale covers intrusive re-experiencing of the event, avoiding related memories and numbing feelings, and increased hyperarousal. The participants evaluated whether they had suffered from symptoms during the recent month: 0 = none of the time, 1 = little of the time, 2 = some of the time, 3 = much of the time, or 4 = most of the time. The theoretical maximum sum score is 80 and minimum 0. There is evidence of both reliability of the scale (Punamäki et al., 2001; Qouta et al., 2005; Thabet & Vostanis, 1999) and discriminatory validity based on testing among Palestinians children (Qouta et al., 2005). In this study, we used the total score, and its reliability was $\alpha = .74$.

Depressive symptoms at T3 were measured by the Beck Depressive Index (BDI), the 13-item version (Beck, Ward, Mendelsohn, Mosck, & Erlaugh, 1961). The scale includes symptoms such as sad mood, difficulties in making decisions, and exhaustion. The shortened Beck Depression Index has been frequently used in clinical setting in Palestine, and it has been found to be reliable (Qouta et al., 2005). In this study, the reliability was $\alpha = .82$.

Resilient attitudes at T3 were measured by the Adolescent Resiliency Attitudes Scale (A.R.A.S.; Biscoe & Harris, 1999). The 56-item scale covers eight constructs: insight, relationships, initiative, creativity, humor, morality, persistence, and belief in ability to improve things. Each construct was measured by seven items. Participants were asked to evaluate how the descriptions fit their attitudes, feelings, and behavior on a scale of: (1) not at all, (2) somewhat, (3) well, and (4) very well. In this study, an averaged sum score was formed and reliability was $\alpha = .81$.

Quality of life at T3 was measured by Health-Related Quality of Life (HRQoL), which is a 36-item tool of perceived satisfaction in the areas of general health, vitality, social relationships, and emotional fulfilment (Ware & Gandek, 1998). The participants rated each item on a 5-point scale ranging from (1) not at all satisfied to (5) very satisfied. The HRQoL has been found to be valid (discrimination validity) and reliable in a Palestinian epidemiological study (Qouta & El Masri, 1999). In this study, the reliability was $\alpha = .86$.

Translation of the measures: the stressful life-events and mothering quality were translated by an international research group in University of Hamilton, Canada, Centre for Studies of Children at Risk (Miller et al., 2000). The TPO, the Transpsychiatric Organizaton, translated the quality of life-scale from Dutch to Arabic as a part of a larger international epidemiological study. The measurements of intelligence, cognitive capacity, and children's post-traumatic symptoms were available in Arabic. The researchers of this study translated the questionnaires of depressive symptoms and resilient attitudes from English into Arabic. A bilingual psychologist made the first translation and a bilingual social worker independently then back-translated the questionnaires. Both English and Arabic measures were then checked by researchers in Gaza Community Mental Health Program. A pilot study with ten freely chosen adolescents was conducted to learn about the appropriateness and clarity of the translated measurements.

The missing single values were replaced by the item means of the scale, and the items were then summed to create sum variables. The item-mean substitution was chosen because the missing values were random and very few (Hair, Anderson, Tatham, & Lack, 1995).

Statistical analyses: multiple hierarchical linear regression analyses were conducted to examine the predictors of adolescents' psychological distress and positive resources at T3. The dependent variables indicating psychological distress were PTSD and depression symptoms, and positive resources were indicated by resilient attitudes and satisfaction with quality of life. In the first step, military trauma at T1 and stressful life-events at T2 were entered. In the second step, child characteristics measured at T1 that is gender, intelligence, cognitive capacity, and neuroticism were entered, and in the third step, child's responses to violence indicated by active coping at T1 was entered. Finally, the mothering disciplining style, measured at T2, was entered.

Results

Correlation analyses

Table 3 shows the Spearman bivariate correlations between predictors and dependent variables. The results show that the dependent variables of psychological distress and positive resources significantly correlated. For instance, PTSD symptoms were positively correlated with depressive symptoms ($r = .66$, $p < .001$), and negatively with satisfaction with life ($r = -.46$, $p < .001$). Significant correlations were found also between predictor variables: military trauma positively correlated with neuroticism ($r = .46$, $p < .001$),

Table 3
Spearman bivariate correlations between predictors in middle childhood and psychological distress and positive resources in adolescence

		1	2	3	4	5	6	7	8	9	10	11
Predictor variables												
1	Military trauma at T1											
2	Intelligence at T1	−.18										
3	Cognitive capacity at T1	−.12	.24*									
4	Neuroticism at T1	.46***	−.11	−.09								
5	Active coping at T1	.48***	−.12	.04	.37**							
6	Mothering quality T2 (negative)	.24*	−.06	−.22+	.13	.02						
7	Life-events at T2	.39**	−.18	−.09	.15	.20	.17					
Dependent variables												
8	PTSD symptoms at T3	.18	−.11	−.20	.28*	−.16	.11	.14				
9	Depressive symptoms at T3	.23+	−.10	−.28*	.20	−.19	.07	.14	.66***			
10	Resilient attitudes at T3	.12	.19	.33**	−.01	.19	−.36**	.06	−.25*	−.43***		
11	Satisfaction with quality of life at T3	−.12	.10	.18	−.04	.04	−.19	−.24*	−.46***	−.65***	.37**	

Note: $^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$; $N = 65$.

Table 4
Hierarchical linear regression models of middle childhood factors predicting psychological distress in adolescence

Predictors	Psychological distress											
	PTSD symptoms						Depressive symptoms					
	R^2	Increase in R^2	β (1)	β (2)	β (3)	β (4)	R^2	Increase in R^2	β (1)	β (2)	β (3)	β (4)
STEP 1: Traumatic stress	.14	.14*					.16	.16*				
Military trauma at T1			.38**	.29*	.32*	.28*			47***.	.36*	.37*	.37*
Life-events at T2			.34*	.31*	.30*	.29*			.36**	.29*	.28*	.28*
STEP 2: Child characteristics	.29	.15*					.29	.13				
Gender			−.17	−.16	−.15	−.23			−.20	−.15	−.14	−.15
Intelligence at T1				−.10	−.10	−.11				−.12	−.12	-.13
Cognitive capacity at T1				−.17	−.18	−.27*				−.25	−.25	−.26
Neuroticism at T1				.34**	.35**	.35**				.21	.21	.21
STEP 3: Responses to violence	.30	.01					.29	0				
Active coping at T1					−.06	−.05					−.03	−.02
STEP 4: Family characteristics	.35	.05+					.29	0				
Mother's discipline style at T2 (punitive)						.27						.03
Total model	$F(8, 54) = 3.04$, $p < .008$; 35% of variance explained						$F(8, 54) = 2.36$, $p < .03$; 29% of variance explained					

Note: $^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$; $N = 65$.

Table 5
Hierarchical linear regression models of middle childhood factors predicting resources in adolescence

Predictors	Positive resources											
	Resilient attitudes						Satisfaction with quality of life					
	R^2	Increase in R^2	β (1)	β (2)	β (3)	β (4)	R^2	Increase in R^2	β (1)	β (2)	β (3)	β (4)
STEP 1: Traumatic stress	.05	.05					.20	.20**				
Military trauma at T1			.07	.18	.08	.05			−.42**	−.40**	−.47**	−.49**
Life-events at T2			−.01	−.10	−.13	−.12			−.47***	−.44**	−.42**	−.42**
STEP 2: Child characteristics	.20	.15*					.25	.05				
Gender			.23	.17	.11	.04			.21	.19	.14	.10
Intelligence at T1				.14	.15	.14				.08	.09	.08
Cognitive capacity at T1				.30*	.33*	.26				.08	.10	.05
Neuroticism at T1				−.20	−.21	−.21				−.07	−08	−.08
STEP 3: Responses to violence	.22	.02					.27	.02				
Active coping at T1					.21	.22					.17	.18
STEP 4: Family characteristics	.25	.03					.28	.01				
Mother's disciplining style at T2 (punitive)						−.23						−.15
Total model	$F(8, 54) = 1.94$, $p < .07$; 25% of variance explained						$F(8, 54) = 2.67$, $p < .04$; 28% of variance explained					

Note: *$p < .05$; **$p < .01$; ***$p < .001$; $N = 65$.

active coping ($r = .48$, $p < .001$), and mother's punitive disciplining style ($r = .24$, $p < .05$). Furthermore, high cognitive capacity negatively correlated with depressive symptoms ($r = -.28$, $p < .05$) and positively with resilient attitudes ($r = .33$, $p < .01$), whereas negative mothering style correlated negatively with adolescent's resilient attitudes ($r = -.36$, $p < .01$).

Factors predicting adolescents' mental health

The multiple linear hierarchical regression models for adolescents' psychological distress at T3 are presented in Table 4. The model for PTSD symptoms explained 35% and for depressive symptoms 29% of the variances. The results indicate that different issues predicted PTSD and depression symptoms: basing on the significant β-values on the final step (4), adolescents were more likely to report PTSD symptoms, if they had experienced military violence and stressful life-events, and shown low cognitive capacity and high level of neuroticism in the middle childhood that is the First Intifada. Concerning the depressive symptoms in adolescence, only high exposure to military trauma during the First Intifada and stressful life-events were significant predictors. Maternal disciplining style, child's intelligence and active coping were not significant predictors of psychological distress in adolescence.

The multiple linear hierarchical regression models for adolescents' positive resources at T3 are presented in Table 5. Only the model for satisfaction with quality of life was significant, explaining 28% of the variance. Basing on the significant β-values on the final step (4), adolescents were more likely to report high level of satisfaction with life, if they had had experienced low levels of military violence and stressful life-events. Mothering style, child characteristics and responses to trauma in middle childhood did not contribute to satisfaction with quality of life in adolescence.

Discussion

Our aim was to understand how variables related to the trauma, child, and family would predict adolescents' mental health, indicated by psychological distress and positive resources. The participants were Palestinian adolescents who had spent their childhood in conditions of military violence and national resistance. Our results in a longitudinal study showed that childhood traumatic stress increased psychological distress and decreased positive resources in adolescence even in relative calm times of the assessment. In more detail, high exposure to military trauma in middle childhood and stressful life-events in early adolescence formed a risk for increased PTSD and depressive symptoms, and decreased satisfaction with quality in adolescence.

The predictor models were different for the two indicators of psychological distress. Exposure to military trauma and stressful life-events were the sole predictors of elevated level of depressive symptoms, whereas PTSD symptoms were also a function of the child characteristics, such as cognitive capacity and neuroticism. Adolescents with high exposure to military trauma and stressful life-events who had low cognitive capacity and high neuroticism were at a high risk of PTSD symptoms. The result is consistent with contemporary models conceptualizing PTSD as a result of multidimensional risk factors and processes (Brewin & Holmes, 2003), and emphasizing the combination of biology-, personality-, family-, and society-related determinants of PTSD (Brewin, Andrews, & Valentine, 2003; Shalev & Yehuda, 1998). Characteristic of PTSD are discrepant, narrowed and dysfunctional ways of processing overwhelming and painful emotions (Litz, Orsillo, Kaloupek, & Weathers, 2000). We believe that neuroticism, involving

negative emotionality, ambivalent feelings, and guilt, can have functioned as an underlying mechanism for dysfunctional emotional processing of trauma. Furthermore, characteristic of PTSD are fragmented and inadequate cognitive processes of appraisal, memory, attention, and interpretation of trauma-related and neutral events (Dunmore, Clark, & Ehlers, 1999; Foa, Steketee, & Rothbaum, 1989; van der Kolk, van der Hart, & Marmar, 1996). Thus, low cognitive capacity may have functioned as an early, underlying risk mechanism among children living in conditions of military violence. The models of PTSD as an unsuccessful emotional-cognitive processing may thus explain why high neuroticism and low cognitive capacity were salient predictors of PTSD in transition from childhood to adolescence.

It would be important to learn about symptom-specific, cognitive-emotional risk processes among traumatized children and adolescents. General research shows that the underlying emotional-cognitive processes forming a risk for depression involve negative and self-blaming attributions of experiences (Beck, 1991; Nolen-Hoeksema & Girgus, 1994), and ruminating and exacerbating emotional processing of traumatic memories (Näätänen, Kanninen, Qouta, & Punamäki, 2002; Nolen-Hoeksema, 2002). This knowledge is essential in tailoring effective and theory-based intervention and prevention programs, focusing on underlying risk processes rather than symptoms. Our results suggest urgency to model unique risk processes for PTSD and depressive symptoms among war-traumatized children.

The trauma-related vulnerability to both PTSD and depressive symptoms and dissatisfaction with quality of life supports the argument that PTSD is not a unique consequence of trauma (Shalev, 1996). The research among adult trauma victims shows high comorbidities between PTSD and depressive symptoms, ranging between 28% (Kulka et al., 1990) and 48% (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Epidemiological and clinical studies are scarce about comorbidity between PTSD and other psychiatric diagnoses among adolescent trauma victims. In our sample, PTSD and depressive symptoms were positively correlated, which are consistent with the suggestion by McFarlane (2000).

It is noteworthy that children's cognitive capacity and neuroticism predicted an increased risk of PTSD symptoms, but did not decrease resilient attitudes and satisfaction with quality of life. The result is consistent with suggestions that different personality and social issues determine adaptive and dysfunctional developmental trajectories (Sameroff & Fiese, 2000). To be aware of possible different paths to symptomatic and resilient development is crucial when working with war-traumatized children. This knowledge is explicit in contemporary interventions and preventions that aim at both reducing acute PTSD symptoms and enhancing psychological resiliency and social resources (Yule, 2002).

The predictor model for PTSD concurs with transactional theory arguing that mental health outcomes are a product of the combination of an individual and his/her experience (Lazarus, 1991; Sameroff & Fiese, 2000). In stress research it is generally accepted that no stress, whatever magnitude, can alone predict mental health problems (Lazarus, 1991), and contemporary trauma research has accepted that view and focuses on psychosocial and biological vulnerabilities as possible explanations for PTSD (Brewin & Holmes, 2003; Shalev, 1996). One has to remember that the childhood trauma of our participants included loss of family members as prisoners and dead, physical violence targeted toward themselves and destruction of home. Detentions were often accompanied by humiliation of family members, such as threats toward female members and spitting on the family head (B'Tselem, 1994, 1998). These kinds of traumatic events signify insecurity and a loss of the protective shield, which is especially harmful for developing children. Therefore, the result speaking for multifactor risk model for PTSD is noteworthy.

Personality as an explanation for psychological distress is promising among traumatized adolescents, because it illustrates the delicate task of identity formation at that age. Research among adult trauma

victims has shown that introversion (Shalev & Yehuda, 1998), neuroticism (McFarlane, 2000), and insecure attachment style (Kanninen, Punamäki, & Qouta, 2003) are associated with high level of PTSD. Personality as an explanation model for mental health consequences of trauma reveals how exposure activates dormant response patterns and working models (Bretherton, 1996), which can either exacerbate or soothe the impact. Research is scarce on the role of personality and temperament in functioning as protective or risk factors among trauma victims, except the work by Strelau and Zawadzki (2005). In future studies, temperament would be especially salient predictor of vulnerability and resiliency because it defines, for instance, individual thresholds for excitement and threat, and the need for novel experiences, regularity, and safety (Punamäki, 2002; Rothbart & Bates, 1998; Strelau & Zawadzki, 2004).

While good cognitive capacity involving concentration and accurate attention predicted low levels of PTSD, general intelligence involving timely and accurate problem solving and conceptualization was not a salient predictor of any mental health indicator. It contradicts results showing positive correlations between high IQ and good mental health among adult trauma victims (Shalev & Yehuda, 1998) and in general population (Cederblad, 1996), which are attributed to a third factor such as socioeconomic status or genetic vulnerability. However, in developmental studies it would be more informative to learn about IQ-related antecedents of mental health, involving problem solving ability, accuracy, speed of information processing and adaptation capacity. Larger follow-up samples of children living in life-endangering conditions would be needed to tackle these questions.

Earlier research has emphasized the importance of good parenting in both enhancing resilience and self-efficiency and attenuating mental health problems among children exposed to military trauma (Barber, 1999; Punamäki et al., 2001). Our results failed to give evidence for mothers' disciplining practices predicting adolescents' mental health when trauma and child characteristics were included in the model. However, negative correlation was found between negative or punitive mothering and adolescents' resilient attitudes, which supports the earlier results about the role of parenting in enhancing children's resources (Punamäki et al., 2001). The importance of monitoring and disciplining parenting diminishes in transition to adolescence (Bulcroft, Carmody, & Bulcroft, 1996), which may explain the result that maternal disciplining failed to predict adolescents' mental health.

Our research is limited by the small sample size and the attrition of 40% at the third assessment. The attrition analysis suggests that the results might be biased by including more older children. The small sample size prevented us from testing moderating effects of resilient attitudes that could have contributed more adequately to understanding protective factors among children living in war conditions. We also did not collect baseline assessments of psychological distress, which prevents us from making any conclusions of the changes of PTSD and depressive symptoms during the 7 years of relative calmness. Subsequently, our results focus only on predictors of adolescent mental health, and should be considered preliminary. Replication is warranted in a more comprehensive sample. Finally, our research is limited by the lack of validity assessments of culturally dependent concepts such as resiliency and active coping in facing threat. Our results, therefore, may not be applied for children living in less demanding military-political conditions.

In summary, war trauma and military violence constitute serious long-term risks for children's well-being. Although victim's resilience may be impressive, the balancing between resources and distress is often too burdening to developing children. A thorough understanding of developmental aspects of war-traumatization forces responsible adults to work actively for both abolishing the source of trauma and alleviating children's suffering.

References

Abu Hein, F., Qouta, S., Thabet, A., & El-Sarraj, E. (1993). Traumatic and mental health of children in Gaza. *British Medical Journal*, *306*, 1129.

Apfel, R. J., & Simon, B. (2000). Mitigating discontents with children in war: An ongoing psychoanalytic inquiry. In C. G. M. Robben & M. M. Suarez-Orozco (Eds.), *Children under siege: Collective violence and trauma*. Cambridge: Cambridge University Press.

Baker, A. M. (1990). The psychological impact of the Intifada on Palestinian children in the occupied West Bank and Gaza. *American Journal of Orthopsychiatry*, *60*, 496–505.

Baker, A. M., & Shalhoub-Kevorkian, N. (1999). Effects of political and military traumas on children: The Palestinian case. *Clinical Psychology Review*, *19*, 935–950.

Barber, B. K. (1999). Political violence, family relations, and Palestinian child functioning. *Journal of Adolescent Research*, *14*, 206–230.

Barber, B. K. (2001). Political violence, social integration, and youth functioning: Palestinian youth from the Intifada. *Journal of Community Psychology*, *29*, 259–280.

Beck, A. T. (1991). Cognitive therapy: A 30-year retrospective. *American Psychologist*, *46*, 368–375.

Beck, A. T., Ward, C. H., Mendelsohn, M., Mosck, L., & Erlaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, *18*, 561–571.

Bellamy, C. (2003). *A safer world for children in 2004*. http://www.worldrevolution.org/article/1078.

Berman, H. (2001). Children and war: Current understandings and future directions. *Public Health Nursing*, *18*, 243–252.

Biscoe, B., & Harris, B. (1999). *Resiliency Attitudes Scale R.A.S*. http://www.dataguruorg/ras/.

Bretherton, I. (1996). Internal working models of attachment relationships as related to resilient coping. In G. G. Noam & K. W. Fisher (Eds.), *Development and vulnerability in close relationships* (pp. 3–27). Mahwah, NJ: Lawrence Erlbaum.

Brewin, C. R., Andrews, B., & Valentine, J. D. (2003). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, *68*, 746–766.

Brewin, C. R., & Holmes, E. A. (2003). Psychological theories of posttraumatic stress disorder. *Clinical Psychology Review*, *23*, 339–376.

B'Tselem (1994). *Human rights violations in the occupied territories 1992/1993 Information sheet: April 1994*. Jerusalem: B'Tselem—The Israeli Information Centre for Human Rights in the Occupied Territories.

B'Tselem (1998). *1987–1997 A decade of human right violations; Information sheet: January 1998*. Jerusalem: B'Tselem—The Israeli Information Centre for Human Rights in the Occupied Territories.

Bulcroft, R. A., Carmody, D. C., & Bulcroft, K. A. (1996). Patterns of parental independence giving to adolescents: Variations by race, age, and gender of child. *Journal of Marriage and Family*, *58*, 866–883.

Carlson, M. (2001). Child rights and mental health. *Cultural Societal Influences in Child and Adolescent Psychiatry*, *10*, 825–839.

Cederblad, M. (1996). Fifty years of epidemiological studies in child and adolescence psychiatry in Sweden. *Nordic Journal of Psychiatry*, *50*(Suppl. 36), 55–66.

Cheever, K. H., & Hardin, S. B. (1999). Effects of traumatic events, social support, and self-efficacy on adolescents' self-health assessments. *Western Journal of Nursing Research*, *21*, 673–684.

Compas, B. E. (1998). Agenda for coping research and theory. *International Journal of Behavioral Development*, *22*, 231–237.

Compas, B. E., Malcarne, V. L., & Fondacoro, K. M. (1988). Coping with stress in older children and young adolescents. *Journal of Consulting and Clinical Psychology*, *56*, 405–411.

Dunmore, E., Clark, D. M., & Ehlers, A. (1999). A prospective investigation of the role of cognitive factors in persistent posttraumatic stress disorder (PTSD) after physical or sexual assault. *Behaviour Research and Therapy*, *39*, 1063–1084.

Durakovic-Belko, E., Kulenovic, A., & Dapic, R. (2003). Determinants of posttraumatic adjustment in adolescents from Sarajevo who experienced war. *Journal of Clinical Psychology*, *59*, 27–40.

Dyregrov, A., Gjestad, R., & Raundalen, M. (2002). Children exposed to warfare: A longitudinal study. *Journal of Traumatic Stress*, *15*, 59–68.

Dyregrov, A., Gupta, L., Gjestad, R., & Mukanoheli, E. (2000). Trauma exposure and psychological reactions to genocide among Rwandan children. *Journal of Traumatic Stress*, *13*, 3–21.

Elbedour, S., Van Slyck, M. R., & Stern, M. (1998). Psychosocial adjustment in Middle Eastern adolescents: The relative impact of violent vs. non-violent social disorganization. *Community Mental Health Journal*, *34*, 191–205.

Finkelhor, D. (1995). The victimization of children: A developmental perspective. *American Journal of Orthopsychiatry*, *65*, 177–193.

Finnegan, R. A., Hodges, E. V. A., & Perry, D. G. (1996). Preoccupied and avoidant coping during middle childhood. *Child Development*, *67*, 1318–1328.

Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/cognitive conceptualization of posttaumatic stress disorder. *Behavioral Therapy*, *20*, 155–176.

Garbarino, J., & Kostelny, K. (1996). The effects of political violence on Palestinian children's behavior problems: A risk accumulation model. *Child Development*, *67*, 33–45.

Hair, J., Anderson, R., Tatham, R., & Lack, W. (1995). *Multivariate data analysis with readings*. Prentice Hall, Inc.: New Jersey.

Hefni, Q. (1980). *Psychological testing (in Arabic)*. Cairo: El Nahada.

Holmes, T., & Rahe, R. (1967). Introduction to life-stress scale. *Journal of Psychosomatic Research*, *37*, 1239–1243.

Kanninen, K., Punamäki, R. L., & Qouta, S. (2003). Personality and trauma: Adult attachment and posttraumatic distress among former political prisoners. *Peace and Conflict: Journal of Peace Psychology*, *9*, 97–126.

Kaslow, N. J., Gray-Deering, C., & Racusin, G. R. (1994). Depressed children and their families. *Clinical Psychology Review*, *14*, 39–59.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorders in the National Comorbidity Survey. *Archives of General Psychiatry*, *52*, 1048–1060.

Khamis, V. (1993). Post-traumatic stress disorder among the injured of the Intifada. *Journal of Traumatic Stress*, *6*, 555–559.

Kulka, R. A., Schlenger, W. E., Fairbank, J. A., Hough, R. L., Jordan, B. K., & Marmar, C. R. (1990). *Trauma and the Vietnam War generation*. New York: Brunner/Mazel.

Kuterovac-Jagodic, G. (2003). Posttraumatic stress symptoms in Croatian children exposed to war: A prospective study. *Journal of Clinical Psychology*, *59*, 9–17.

Laor, N., Wolmer, L., & Cohen, D. J. (2001). Mother's functioning and children's symptoms 5 years after Scud missile attack. *American Journal of Psychiatry*, *158*, 1020–1026.

Laor, N., Wolmer, L., Mayes, L. C., Gershon, A., Weizman, R., & Cohen, D. J. (1997). Israeli preschools under Scuds: A 30-month follow-up. *Journal of American Academy of Child and Adolescence Psychiatry*, *36*, 349–356.

Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, *46*, 819–834.

Litz, B. T., Orsillo, S. M., Kaloupek, D., & Weathers, F. (2000). Emotional processing in posttraumatic stress disorder. *Journal of Abnormal Psychology*, *109*, 26–39.

Machel, G. (2003). *Impact of Armed Conflict on Children: A review of progress since the 1996 United Nations report on the impact of armed conflict on children's*. New York: UNICEF.

Macksoud, M., & Aber, J. (1996). The war experiences and psychosocial development of children in Lebanon. *Child Development*, *67*, 70–88.

McFarlane, A. C. (2000). Posttraumatic stress disorder: A model of the longitudinal course and the role of the risk factors. *Journal of Clinical Psychiatry*, *61*(Suppl. 5), 15–23.

Miller, T., El-Masri, M., & Qouta, S. (2000). *Health of children in war zones: Gaza child health study*. Hamilton: Centre for Studies of Children at Risk.

Montgomery, E. (1998). Refugee children from the Middle East. Supplement no 54. *Scandinavian Journal of Social Medicine*. Oslo: Scandinavian University Press.

Näätänen, P., Kanninen, K., Qouta, S., & Punamäki, R. L. (2002). Emotional patterns related to trauma and their association with PTS and somatic symptoms. *Anxiety, Stress and Coping*, *15*, 75–92.

Nolen-Hoeksema, S. M. (2002). The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. *Journal of Abnormal Psychology*, *109*, 504–511.

Nolen-Hoeksema, S. M., & Girgus, J. S. (1994). The emergence of gender differences in depression during adolescence. *Psychological Bulletin*, *115*, 424–443.

Petersen, A. C., Sarigiani, P. A., & Kennedy, R. E. (1991). Adolescent depression: Why more girls? *Journal of Youth and Adolescence*, *20*, 247–271.

Pickles, A., Rowe, R., Simonoff, E., Foley, D., Rutter, M., & Silberg, J. (2001). Child psychiatric symptoms and psychological impairment: Relationship and prognostic significance. *British Journal of Psychiatry*, *179*, 230–235.

Punamäki, R. L. (1996). Can ideological commitment protect children's psycho-social well-being in political violence? *Child Development*, *67*, 55–69.

Punamäki, R. L. (1998). The role of dreams in protecting psychological well-being in traumatic conditions. *International Journal of Developmental Behaviour*, *22*, 559–588.

Punamäki, R. L. (1999). Concept formation of war and peace: A meeting point between child development and politically violent society. In A. Raviv, L. Oppenheimer, & D. Bar Tal (Eds.), *Children and adolescents' understanding of war, conflict and peace: International perspective* (pp. 127–144). San Francisco: Jossey-Bass Inc.

Punamäki, R. L. (2002). The uninvited guest of war enters childhood: Developmental and personality aspects of war and military violence. *Traumatology*, *8*, 30–54.

Punamäki, R. L., & Puhakka, T. (1997). Determinants and effectiveness of children's coping with political violence. *International Journal of Behavioral Development*, *21*, 349–370.

Punamäki, R. L., Qouta, S., & El Sarraj, E. (1997). Models of traumatic experiences and children's psychological adjustment: The role of perceived parenting, children's resources and activity. *Child Development*, *68*, 718–728.

Punamäki, R. L., Qouta, S., & El Sarraj, E. (2001). Resiliency factors predicting psychological adjustment after political violence among Palestinian children. *International Journal of Developmental Behaviour*, *25*, 256–267.

Punamäki, R. L., & Suleiman, R. (1989). Predictors and effectiveness of coping with political violence among Palestinian children. *British Journal of Social Psychology*, *29*, 67–77.

Pynoos, R. S., Frederick, C., Nader, K., Arroy, W., Steinberg, A., Eth, S., Nunez, F., & Fairbanks, L. (1987). Life threat and post-traumatic stress in school-age children. *Archives of General Psychiatry*, *44*, 1057–1063.

Qouta, S., & El Masri, M. (1999). *Mental health conditions of Palestinian population in Gaza Strip. A survey*. Gaza: Gaza Community Mental Health Programme.

Qouta, S., Punamäki, R. L., & El Sarraj, E. (1995). The relation between traumatic experiences, activity, and cognitive and emotional responses among Palestinian children. *International Journal of Psychology*, *30*, 289–304.

Qouta, S., Punamäki, R. L., & El Sarraj, E. (2001). Mental flexibility as resiliency factor in traumatic stress. *International Journal of Psychology*, *36*, 1–7.

Qouta, S., Punamäki, R. L., & El Sarraj, E. (2005). Mother-child expression of symptoms in life-endangering situation. *Journal of Clinical Child Psychology*, *10*, 151–165.

Rosner, R., Powell, S., & Butollo, W. (2003). Posttraumatic stress disorder three years after the siege of Sarajevo. *Journal of Clinical Psychology*, *59*, 42–57.

Rothbart, M. K., & Bates, J. E. (1998). Temperament. In W. Damon, I. E. Sigel, & K. A. Renninger (Eds.), *Handbook of child psychology* (pp. 105–175). New York: John Wiley & Sons.

Rutter, M. (2000). Resiliency reconsidered: Conceptual consideration, empirical findings and policy implications. In J. P. Shondoff & S. J. Meisels (Eds.), *Handbook of childhood intervention* (pp. 651–683). Cambridge, UK: Cambridge University Press.

Saigh, P. A. (1991). The development of posttraumatic stress disorder following four different types of traumatization. *Behavior Research and Therapy*, *29*, 213–216.

Saigh, P. A., Mroueh, M., Zimmerman, B., & Fairbank, J. A. (1995). Self-efficacy expectations among traumatized adolescents. *Behavioral Research Therapy*, *33*, 701–704.

Sameroff, A. J., & Fiese, B. H. (2000). Transactional regulation: The developmental ecology of early intervention. In J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (pp. 135–159). Cambridge, UK: Cambridge University Press.

Shalev, A. Y. (1996). Stress versus traumatic stress. From acute homeostatic reactions to chronic psychopathology. In B. A. van der Kolk, A. C. McFarlane, & L. Weisaeth (Eds.), *Traumatic stress, The effects of overwhelming experience on mind, body, and society* (pp. 77–101). New York: The Guilford Press.

Shalev, A. Y., & Yehuda, R. (1998). Longitudinal development of traumatic stress disorders. In R. Yehuda (Ed.), *Psychological trauma. Review of Psychiatry* (pp. 31–66). Washington, DC: American Psychiatric Press.

Smith, P., Perrin, S., Yule, W., Hacam, B., & Stuvland, R. (2002). War exposure among children from Bosnia-Hercegovina: Psychological adjustment in a community sample. *Journal of Traumatic Stress*, *15*, 147–156.

Smith, P., Perrin, S., Yule, W., & Rabe-Hesketh, S. (2001). War exposure and maternal reactions in the psychological adjustment of children from Bosnia-Hercegovina. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, *42*, 395–404.

Strelau, J., & Zawadzki, B. (2004). Trauma and temperament as predictors of posttraumatic stress disorder and its dimensions 3 and 15 months and two years after experiencing flood. *Polish Psychological Bulletin*, *35*, 25–34.

Strelau, J., & Zawadzki, B. (2005). Trauma and temperament as predictors on intensity of posttraumatic stress disorder symptoms after disaster. *European Psychologist*, *10*, 124–135.

Thabet, A. A. M., & Vostanis, Y. (1999). Posttraumatic stress reactions in children of war. *Journal of Child Psychology and Psychiatry*, *40*, 385–391.

UN & UNICEF. (1998). *Impact of armed conflict on children*. Report of Graca Machel. Expert of the Security Council of the United Nation. New York: UN.

van der Kolk, B., van der Hart, O., & Marmar, C. R. (1996). Dissociation and information processing in posttraumatic stress disorder. In B. A. van der Kolk, A. C. McFarlane, & L. Weisaeth (Eds.), *Traumatic stress, The effects of overwhelming experience on mind, body, and society* (pp. 303–327). New York: The Guilford Press.

Ware, J. E., & Gandek, B. (1998). Overview of the SF-36 health survey and the international quality of life assessment (IQOLA) project. *Journal of Clinical Epidemiology*, *51*, 903–912.

Weisenberg, M., Schwarzwald, J., Waysman, M., Solomon, Z., & Klingman, A. (1993). Coping of school-age children in the sealed room during scud missile bombardment and postwar stress reactions. *Journal of Consulting and Clinical Psychology*, *61*, 462–467.

Yule, W. (2002). Alleviating the effects of war and displacement on children. *Traumatology*, *8*, 25–43.