

PREVALENCE OF PTSD AMONG PALESTINIAN CHILDREN IN GAZA STRIP

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This research study aimed to get acquainted with the prevalence of PTSD, and other psychological suffering among Palestinian children living under severe conditions during the last two and half years of the Al-Aqsa Intifada. The sample consists of 944 children whom age ranged between 10-19 years. The group excluded those with previous mental health problems. In this research, trauma scale, PTSD scale, the Child Posttraumatic Stress Index, the Children's PTSD-symptoms, The CPTS-RI and open questions had been used as tools. The results indicated that 32.7% of the children started to develop acute PTSD symptoms that need psychological intervention, while 49.2% of them suffered from moderate level of PTSD symptoms. Also the results showed that the most prevalent types of trauma exposure for children are for those who had witnessed funerals (94.6%), witnessed shooting (83.2%), saw injured or dead who were not relatives (66.9%), and saw family members injured or killed (61.6%).

Key words: PTSD

In September, 2000, a new Palestinian uprising began against the now 36-year old Israeli military occupation. The immediate cause was the visit of then Israeli Knesset Member Ariel Sharon accompanied by over 1000 fully armed Israeli riot police to what Jews call the Temple Mount and Muslims, the Noble Sanctuary ("El-Haram A-Sharif") on which sits Al-Aqsa Mosque. Palestinians' protest of the violation of their holy place resulted in Israeli police shooting several unarmed protesters. This event provided the immediate spark for Palestinian protests throughout the West Bank and Gaza Strip, as well as the name for an uprising that continues at this writing, "The Al-Aqsa Intifada." The more distant cause for this second and more violent Intifada was the evident failure of the Oslo peace process. Instead of a lasting peace between Israelis and Palestinians, Oslo agreement has followed by a 50% increase in Israeli settlement building and land confiscation (KUKA), a decrease in Palestinian freedom of movement and lack of civil liberties (KUKA), and economic de-development including high unemployment.

As the "Al-Aqsa Intifada" continues into its fourth year, the Israeli army frequently shells and destroys the Palestinian homes. Since October 2000 until 31 of January 2004, 3062 homes have been completely and partially demolished and 2524 homes need to be repair in Gaza Strip (UNRWA, 2004). The army uses a variety of methods to destroy homes, including tank shells, bulldozing, helicopter gunship, and fighter aircraft. As homes have been bombarded and made uninhabitable, many Palestinian families have found themselves living in tents.

When families witness the destruction of their own homes by enemy soldiers, the psychological effects can be serious. Loss of home can be a traumatic experience for not only material loss but for psychological meaning. The home means a shelter and heart of family life. It contains memories of joy and pain as well as attachment to the families' objects. Home is associated with feelings of security and consolation.

As in all modern wars, the victims of the latest Middle Eastern war are mainly civilians. We have an accumulated knowledge about the children's responses to air raids, bombardment, shelling, loss of family members and being target and witnessing killing and destruction. It involves research on acute responses during the II World war (Brander, 1941; Dunsdon, 1941; Freud & Burlingham, 1943), mental

health Middle Eastern children during military attacks (Bryce & Walker, 1986; Baker, 1990; Macksoud & Aber, 1996; Milgram & Milgram, 1976; Ziv & Israeli, 1973; Saigh, 1991), as well as military violence and persecution in Africa (Dawes, 1992; Cliff, 1993) and Europe (Smith, Perrin, Yule, & Rabe-Hasketh, 2001). Children's responses to danger and life-threat include anxiety, somatization and withdrawal symptoms, and especially younger children may regress into the earlier stages of development (Yule, 2002). While almost all children respond with excessive fear, sleeping difficulties and clinging to parents in acute trauma, only a smaller minority develop posttraumatic disorders.

A substantial amount of research is available on the severity of PTSD symptoms and predictive factors among Middle Eastern children, especially of Kuwaiti children during the nine-months of Iraqi occupation (Hadi, & Llabre, 1998; Llabre & Hadi, 1994; Macksoud & Aber, 1996; Nader, & Pynoos, 1993; Pynoos, 1994; Nader & Fairbanks, 1984) and Israeli children during the Iraqi scud missile bombardment (Klingman, 1992; Lavee & Ben-David, 1993; Laor, Wolmer, & Cohen, 2001; Laor, Wolmer, Mayers, Gershon, Weitzman, & Cohen, 1997; Weisenberg, Schwarzwald, Waysman, Solomon, & Klingman, 1993; Rahav & Ronen, 1994; Rosenthal & Levy-Shiff, 1993). The percentages of PTSD diagnosis vary from 22% among Israeli (Laor et al., 1997, 27% among Lebanese (Saigh, 1991) 41% among Palestinian children from Gaza exposed to shelling, (Thabet & Vostanis, 1999) 48% among Cambodian refugee children (Kinzie, Sack, Angell, Manson, & Rath, 1996; Sack, Clarke, & Seeley, 1995), 52% among children from Bosnia-Herzegovina (Smith, Perrin, Yule, Hacam, & Stuvland, 2002), and 78-88% among Iraqi children exposed to bombardment (Dyregrov, Gjestad, & Raundalen, 1993). Longitudinal studies on the PTSD are rare, and they reveal that once the fighting and danger are over, the posttraumatic symptoms decrease considerable (Laor et al., 2001; Punamäki, Qouta, & El Sarraj, 2001). Among Kuwaiti children, the share of severe level of PTSD was 4% after one year of traumatic events, among Iraqi children and among Israeli children 0% after five years (Laor, et al. 2001). Dyregrov et al (2002) followed shelled children at six months, one year and two years, and showed first increase from 84% to 88%, and then decrease to 78% of PTSD.

The physical and emotional proximity, severity and nature of the traumatic event prescribe the nature and severity of psychological problems (Macksoud & Aber, 1996; Qouta,

Punamäki, & El-Sarraj, 1996; Punamaki, 1998; Pynoos, 1987; Klingman, 1992). For example, Bryce et al. (1989) found that especially displacement from home increased depression among Lebanese children and women during the 1982 Israeli invasion. Laor et al., (1997; 2001) found among Israeli children that while posttraumatic stress symptoms decreased generally after the Iraqi shelling, the symptoms increased among displaced children.

The present study examines the levels of PTSD among Palestinian children during the current Intifada. We further study how the nature of trauma (personal exposure to and witnessing military violence) correlates with the children vision to their future, and we guess that these traumatic experiences will affect the way, in which the child see his perspectives and solving problems.

Method

- The Sample

The sample consisted of 944 children ranging between 10-19 years, randomly selected from all part of Gaza Strip with Arithmetic mean (15.1±1.5). 49.7% of the sample were boys while 50.3% were girls. Refugee children represented 76.8% of the sample and the rest were citizen's residents. Seven field workers had participated in the field work, which done at schools, with co-operation of the teacher and headmasters,

- Measurements

1. Trauma questionnaire scale: This was developed for this study by the Gaza Community Mental Health Programme. It consists of 12 traumatic events frequently experienced by Palestinian children during the "Al-Aqsa Intifada" (Box 1). Seven events refer to direct exposure to the traumatic events (e.g., tear gas, shooting, or deprivation of medical help), while five events refer to witnessing military violence, (e.g. witnessing killing and injuring). Reliability by Alpha Cronbach was .82

Box 1. Trauma questionnaire scale

The following are a number of questions related to difficult events that you were exposed to. It has nothing to do with a disorder or a normal event.

N°	Item	Yes	No
1	Was your house exposed to shelling		
2	Were you exposed to inhaling tear gas		
3	Were you exposed to burns		
4	Were you shot by live ammunitions		
5	Were you exposed to shot by rubber bullets		
6	Were you shot in the hear to the degree that you lost conscious		
7	Were you derivate of medical care where you need it		

Witnessing traumatic events:

The following questions are related to events that you may have witnessed or heard about. Now I would like you to answer them.

N°	Item	Yes	No
1	Witnessing shooting fighting or explosion		
2	Witnessing strangers being injured or killed		
3	Witnessing family members, neighbours, relatives being injured or killed		
4	Witnessing family members being injured or killed		
5	Witnessing shelling and funerals		

Note: the trauma scale is answered by the child not the mother

2. PTSD Scale (Posttraumatic Stress Disorder Scale) (DSMIV, American Psychiatric Association, 1994). For the purposes of this study, PTSD refers to chronic and not acute PTSD since the events described by the youths were associated with lifetime trauma exposures. The scale was based the Clinician Administered PTSD published in the Journal of Traumatic Stress. **The Child Posttraumatic Stress Reaction Index (CPTS-RI):** this follows DSMIV criteria, developed by Nader and used to measure PTSD in youths aged 12 and over⁽¹⁾ Children's PTSD-*symptoms* were assed by the Child Posttraumatic Stress Disorder Reaction Index (CPTS_RI)⁽²⁾ The 20-symptom scale is used to assess the degree of a child's reactions to a selected traumatic event, and covers the intrusive re-experiencing of the event, avoiding related memories and numbing feelings and increased hyper-arousal. The older children (13-16) reported themselves and the interviewer estimated together with younger children the occurrence of the symptoms on a five-point scale: (0) none of the time, (1) little of the time, (2) some of the time, (3) much of the time, and (4) most of the time.

The maximum sum score is 80 and minimum 12, and in our sample the range was 11-68. Averaged sum variables were constructed for intrusive (9 items, $\alpha = .80$), avoidance (7 items, $\alpha = .77$) and hyperarousal (4 items, $\alpha = .66$) symptoms. The CPTS_RI has been fond reliable and valid in predicting trauma impacts among Arab children in Palestine (Punamäki et al., 2001; Qouta, et al., 2001) and Kuwait (Nader et. al., 1993; Nader, & Pynoos, 1993; Hadi, & Llabre, 1998).

3. Open questions. We presented a picture of "Fatima", a 15 year old sitting by herself and looking out into empty space. We asked children to imagine what kinds of problems Fatima might be thinking of and how they, the children, could help solve them. In an effort to avoid suggestibility, the researcher provided the children with no additional information regarding "Fatima."

RESULTS:

Research on the "Prevalence of PTSD among Palestinian Child during in Gaza Strip" showed the results of the psychological suffering among Palestinian children living under severe conditions during of Al-Aqsa Intifada in hot and community areas of the Gaza Strip. The most prevalent types of trauma exposure for children in the community areas is for those who had witnessed funerals 94.6%, witnessed shooting 83.2%, witnessed shooting, 66.9 %; saw a friend or a neighbor being injured or killed 61.6% and were tear gassed 36.1%. (see table 1).

TABLE 1 Prevalence rate of the traumatic experiences among children in the community areas

Direct Personal experience	Frequency	Percentage (%)
Shelling of the home	179	19
Tear-gassed	341	36.1
Severe burns	89	9.4
Shot by live bullets	26	2.8
Shot by plastic bullets	31	3.3
Head injury with loss of consciousness	23	2.4
Deprivation of medical help	73	7.7
Witnessing traumatic events		
Saw shooting, fighting or explosion	785	83.2
Saw stranger being injured or killed	632	66.9
Saw friend or neighbor being injured or killed	584	61.6
Saw family member being injured	239	25.3
Saw funerals	893	94.6

It was found that 32.7% of the children in the community areas suffered from acute level of PTSD while 49.2.1% children suffered from moderate level of PTSD at the same time 15.6% children suffered low level of PTSD and we can say that 2.5% children had no symptoms while in hot areas 54.6% of the children suffered from acute level of PTSD (see table 2). While 34.5% children suffered from moderate level of PTSD at the same time 9.2% children suffered low level of PTSD and we can say that 1.7% children had no symptoms.

TABLE 2 The severity of PTSD according to the child's gender PTSD score

PTSD score	All (boys and girls)	
	%	N
None or Doubtful (<12)	2.5	24
Mild (12-24)	15.6	147
Moderate(25-39)	49.2	464
Severe (>40)	32.7	309

The study found significant differences between boys and girls. In the acute level of PTSD, 57.9% girls developed such symptoms while the percentage among the boys was 42.1% (see table 3).

TABLE 3 The severity of PTSD according to the child's gender PTSD score

PTSD score	Girls		Boys	
	%	N	%	N
None or Doubtful (<12)	25	6	75	18
Mild (12-24)	38.8	57	61.2	90
Moderate(25-39)	50.2	233	49.8	231
Severe (>40)	57.9	179	42.1	130

In this research we were eager to explore how children are being coped with their problems, so the researcher presented a picture of "Fatma", 15 years old student, who engage in

thinking, and we asked children how "Fatma" can solve her problems. We found out that 66% of the children would like to concentrate their effort on the school issue, 24.7% would like to be martyrs, 8.7% would like to encourage the peace process, 0.1% would like to involved in national struggle, 0.5% would like to be concentrating on the religion issue. In addition to the "Fatma" picture it was discovered that some differences between boys and girls. 67.8% of boys would like to be martyrs, while 32.2% of girls go at the same direction.

DISSCUSION

This article reports the level of PTSD among Palestinian children currently exposed to war and bombardment, and the role of children trauma perspective to the future outlook. The results revealed a high level of PTSD: more than a half (32.7%) of the children suffered from severe level of PTSD symptoms. The percentage corresponds with the levels of PTSD among the Cambodian (Kinzie, et al., 1996; Sack et al., 1995), and South American (Cervantes, et al., 1989) and Bosnia-Herzegovian (Smith et al., 2002) refugee children fleeing atrocities in their home countries. The level of PTSD was considerably higher than was reported among Lebanese and Israeli children, 22% (Laor et al., 1997), but lower than was reported among Iraqi children, 84% (Dyregrov et al., 1993). There are some context-specific characteristic of the current trauma that may explain the children's high level of PTSD. First, the long duration for the conflict means more than an acute disaster for Palestinians as the children exposed to on going traumatic experiences, and that means the continuation of the stress for long periods, which damage the child psyche, and increased the rate of PTSD.

With regard to the source of trauma for the Palestinian people, many researches indicated that Israeli authorities were held responsible for the majority of direct trauma exposure, an attribution that has face validity since tear gassing, home demolitions and injuries due to bullet wounds have been widely reported by news agencies, Israeli and Palestinian human right organizations and an UNRWA field investigator (PCHR 2001, Palestinian National Authority, State Information Services, 2001). Not surprising under the circumstances, researches found a high level of behavioral problems and neurotic symptoms among the children, who had an average level of 6 PTSD symptoms. Again, this confirms the fact that a safe home fulfills a basic need and makes it possible to establish secure and adaptive human relationships. Tragically, the protective shield that is essential for children's mental health is dramatically destroyed when their families are faced with the shelling and demolition of their homes.

Our knowledge about the effect of violent trauma on children's mental health derives from the experience of both human-made and natural disasters. Studies on the effect of war on civilians come from the experience of the Second World War, contemporary conflicts in the Middle East, South Africa, Ireland and Bosnia, as well as the effect of urban violence targeted at American children. Traumatic experiences and conflicts are the reality of many people throughout the world. All of us have imagines of the civilians victims of contemporary conflicts and what happened for the Palestinian since 1948 uprooting, is a serious of disaster.

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attach to suppress are mainly children. We have an accumulated knowledge about the human being's responses to air raids, bombardment shelling, loss of family member and being target and witnessing killing and destruction. Children's and adult's responses to danger and life-threat include anxiety, somatization and withdrawal symptoms, and especially among younger children regression to the earlier stages of development and clinging to parents. Family's ties are considered one of the most important protectors of the child mental health in war conditions.

Children living in conditions of political violence and war have been described as "growing up too soon", "losing their childhood", and taking political responsibilities ample maturation (Boothby, Upton, & Sultan, 1992). This development is predicting to result in negative psychological consequences (Garbarino, Kostelny, & Dubrow, 1991).

It is tragic fact that Israeli and Palestinian children have become laboratories for the study of the relationship between trauma and violence, conflict, and children's well being during war. Wars and battles have been fought without interruption in the region for fifty years. None of these wars, however, have brought a solution to the conflict between Jews and Arabs.

Palestinian children have not known a day of real peace. Since the war area is small it is difficult to protect children from sights of destruction, the dangers of war and insecurity. Many of these children have taken part in their national struggle. Even if they were not actively fighting on the streets, as so may were they still could not help but experience the national struggle on an emotional level. The atmosphere of insecurity, danger, violence, and hostility that prevailed during the Intifada inevitably left scars on the mental health of the Palestinians children.

Mental health professionals show increasing concern about developmental risks for children who fall victims to political violence and war. Family and parent-child attachment are considered important in providing a protective shield for children's psychological well-being in dangerous conditions (Freud & Burlingham, 1943; Garbarino, Kostelny & Dubrow, 1991).

Researchers assume that experiences related to political violence and war indeed constitute a serious risk for the well-functioning family (Garbarino, Kostelny, 1993). War and political conflict therefore disrupt some of the basic parental functions, such as protecting children and enhancing trust in security and human virtues.

Palestinian families in the Gaza Strip are large, and people show strong affiliation to them. "El Hamula" (the extended family) continues to play an important protective role in modern life too. Traditionally, children submit to the authority of their parents, and older members of the family enjoy special respect. The constant on their security threat and the collective trauma of losing their homeland in 1948 have further increased social cohesion in Palestinian society.

However, the Intifada created a situation that apparently shook traditional parent-child relations and family hierarchy. First, the increased influence of political parties decreased the social role of the extended family. Second, children and youths played a very active role in the national struggle. They were an essential element in the initiation, planning, and organizing of demonstrations against and confrontations with Israeli soldiers (Kuttab, 1988).

Palestinians have expressed serious concern about the future consequences of these shattered parental bonds. Some believe that children who threw stones ("children of the stones") and fought against the occupation army also challenge their parents' authority. Parents face difficulties to protect their children from sights of destruction, violence, and abuse. Many Palestinian children have taken active part in their national struggle. Even if they were not actively fighting on the streets, as so may were, they still could not help but experience of the national struggle on an emotional level interact dynamically inside the child psyche as we see that (24.7%) expressed that "Fatma" can be a martyr in order to solve her concerns .

Researchers studied Palestinian children's and adult's vulnerability to trauma and resiliency from the first Intifada through seven years of practicing peace and building national institutes and currently during the three years of Al-Aqsa Intifada (Quota, Punamaki, & El Sarraj, 1995; Punamaki, Quota, & El Sarraj, 1997; Qouta, Punamaki, & El Sarraj, 2003). We found that family could function as a protective shield and secure base despite of the violence predicted children's resiliency. Loving and wise parenting associated with children's creativity and active participation, which then, once peace was there predicted good mental health.

We as a professionals had some questions about future of the Palestinian children and we asked ourselves at that time what kind of teachers, mothers and fathers they will be. We are very afraid to have next lost generation but unfortunately the Palestinian children started their wounds when the Al-Aqsa Intifada broke up the peace treaty and those children inter to the new stage and their psyche goes on. This time the Israeli violence is even more aggressive than during the first Intifada so that why the psychological consequences of traumatic experiences are negative influence of good children development, as those children did not know a day of real peace as their grandparents had been uprooted in 1948 and from that time their suffering had been started. The memory of Palestine is still alive in their mind and they try to keep it alive by telling stories to their sons, daughters and grandchildren about Palestine, about their own country and about their own land. In each home map of Palestine is on the wall to remind about their own country. So because the Palestine is all the time in the concise of the Palestinian children their grow up in high political environment and they grow too soon. Those children lost their right to have normal childhood they gradually stared to be involved in Palestinian-Israeli conflict. It is strange that such young children can carry such responsibility but this is the real characteristics for all area of conflict around the world. The biggest tragedy is that the children whom grow up in such environment can perceive their parents as unable to protect them. Some questions came to their mind; "*if my father is unable to protect me who can protect me?*". So when the chills had witnessed parent's humiliation his trust and his psychology development had been complete destroyed.

Our study has many faults and can be generalized only to the children living in acute danger to life and military destruction. First, our study focused on the epidemiological conclusions, but we need to gain a genuine view of how families survive extreme life endangering situations, also the responses of the parents are essential. Also a more comprehensive setting including family resiliency and vulnerable factors could have been more informative.

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References

1. Baker, A., (1990). Psychological Responses of Palestinian Children to the Environmental Stress Associated with Military Occupation, *Journal of Refugee Studies*, 4, 237-247.
2. Brander, T. (1941). *Kinderpsychiatrische Beobachtungen während des Krieges in Finland 1939-1940*. Zeitschrift für Kinder Psychiatrie, 7,177-187.
3. Boothby, N., Upton, P., & Sultan, A. (1992). *Children of Mozambique: The cost of survival (Special issue paper)*. Washington, DC: U.S. Committee for Refugees.
4. Bryce, J., & Walker, N. (1986) Family functioning and child health: A study of families in West Beirut (Final report submitted to UNICEF, December 31, 1986). New York: UNICEF.
5. Bryce, J., & Walker, N., Ghorayed, F., and Kanj, M. (1989). "Life Experiences, Response Styles and Mental Health Among Mothers and Children in Beirut, Lebanon". *Social Science and Medicine*, 28 (7), 685-695.
6. Cervantes (1989)
7. Cliff, J. (1993). The Impact of War on Children: Health in Mozambique. *Social Science Medicine*, 36, 7,843,848.
8. Dawes, A. (1992). *Mental Health in South Africa*. South African Journal of Psychology, 22, 28-33.
9. Dunsdon, M.I. (1941). A Psychologist's Contribution to Air Raid Problems. *Mental Health*, 2, 37-41.
10. Dyregrove, A., & Raundalen, M. (1993). A longitudinal Study of War-Exposed Children in Iraq, Presented at the International GCMHP Conference Mental Health and the Challenge of Peace, 13-15 September 1993.KS.
11. Dyregrove, A., Gjestad, R., & Raundalen, M. (2002). Children exposed to warfare: A longitudinal study. *Journal of Traumatic Stress*, 15, 59-68.
12. Freud, A. & Burlingham, D.T. (1943). *War and Children*. New York: Medica War Books, Ernest Willard.
13. Garbarino, J., Kostelny, K. and Dubrow, N. (1991). *No Place to Be a Child: Growing Up in a War Zone*. Lexington, Mass.: Lexington Books.
14. Garbarino, J., Kostelny, K. (1993). Children's response to war: what do we know? In L.A. Leaved & N.A. Fox (Eds.). *The Psychological Effects of War and Violence on Children* (pp. 23-39). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
15. Hadi, F.A., & Llabre, M.M. (1998). The Gulf crisis experience of Kuwaiti children: Psychological and cognitive factors. *Journal of Traumatic Stress*, 11, 45-56.
16. Kinzie, J. D., Sack,W.H., Angel, R.H., Manson, S, & Rath, B. (1996). The psychiatric effect of massive trauma on Cambodian children: I the children. *Journal of the American Academy of Child Psychiatry*, 25, 370-376.
17. Klingman, A.(1992). Stress Reaction of Israeli Youth during the Gulf War: A Quantitative Study. *Professional Psychology, Research Practice*, 23(6), 521-527.
18. Kuttab, D. (1988). A profile of the stonethrowers. *Journal of Palestinian Studies*, 17, 14-23.
19. 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.
20. 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.
21. Lavee, Y., & Ben-David, A. (1993). Families under war: stress and strains of Israeli families during the Gulf war. *J. Traumtic Stress* 6: 239-254
22. Llabre, M.M., & Hadi, F.A. (1994). Health related aspects of the Ggulf crisis experience of Kuwaiti boys and girls. *Anxiety, Stress and Copying* 7:217-228.
23. Macksoud, M., & Aber, J. (1996). The War Experience and Psychological Development of Children in Lebanon. *Child Development*, 67, 72-88.
24. Milgram, R., Milgram, N.(1976). The Effect of the Yom- Kippur War on Anxiety Level in Israeli Children, *Journal of Psychology*, 94, 107-113.
25. Nader, K.O., & Fairbanks, Punamäki, R.L., (1984) Reactions of Palestinian and Israeli Children to War and Violence. *Arab Studies Institute*.
26. Nader, K.O., & Pynoos, R.S. (1993). Preliminary Study on Grief Among the Children of Kuwait Following the Gulf Crisis, *British Journal of Clinical Psychology*, 32, 407-416.
27. Punamäki, R.L., Qouta, S., & El Sarraj, E. (1997) Models of Traumatic Experiences and Children's Psychological Adjustment: The Role of Perceived Parenting and the Children's own Resources and Activity. *Child Development*, 64 (4), 718-728.
28. Punamaki, R., Qouta, S., & El Sarraj, E. (1997). Models of experiences and children's psychological adjustment: the roles of perceived parenting and the children's own resources and activity. *Child Development*, 64 (4), 718-728.
29. Punamaki, R., Qouta, S., & El Sarraj, E. (1997). Relationships between traumatic events, children's gender, and political activity, and perceptions of parenting styles. *International Journal of Behavioral Development*, 21, 91-109.
30. Punamäki, R.L. (1998). The role of dreams in protecting psychological well-being in traumatic conditions. *International Journal of Developmental Behaviour*, 22, 559-588.
31. 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.
32. Pynoos, R.S., Frederick, C. and Nader, K. (1987). Life Threat and Post-Traumatic Stress in School-Age Children. *Archives of General Psychiatry*, 44, 1057-1063.
33. Pynoos, R. S. (1994). Traumatic stress and developmental psychopathology in children and adolescents. In R.S. Pynoos et al. (Eds.) *Posttraumatic stress disorder. A clinical review* (pp. 65-98). Lutherwille: Sidran press.
34. Palestinian Central Bureau of Statistics (PCBS) 2001
35. Qouta, S., Punamaki, R., & El Sarraj, E. (1995). The relation between traumatic experiences, activity, and cognitive and emotional responses among Palestinian children. *International Journal of Psychology*, 30, (3), 289-304.
36. Qouta, S., Punamaki, R., & El Sarraj, E. (1995). The impact of the peace treaty on psychological well-being: a follow-up study of Palestinian children. *Hild Abuse and Neglect*, 19 (10), 1197-1208.
37. Qouta, S., Punamaki, R., & El Sarraj, E. (1996) Relationships between Traumatic Experiences, Activity, and Cognitive and Emotional responses among Palestinians. *International Journal of Psychology*, 30, 289-304.
38. Qouta, Q., Punamäki, R.L., El-Sarraj, E. (2001). Mental flexibility as resiliency factor in traumatic stress. *International Journal of Psychology*, 36, 1-7.
39. Qouta S., El Sarraj E., and Punamaki R., (2003). Prevalence and determinants of PTSD among Palestinian children exposed to bombardment and loss of home. Accepted to *European Journal of Child and Adolescent Psychiatry*.
40. Qouta S., El Sarraj E., and Punamaki R., (2003). Prevalence of PTSD among Palestinian mothers and children exposed to shelling and loss of home.
41. Rahav, G., & Ronen, T. (1994). Children's perceptions of their behavior problems during the Gulf war. *Anxiety, Stress and Coping* 7:241-252.
42. Rosenthal, M.K., & Levy-Shiff, R. (1993). Threat of missile attacks in the Gulf war: mothers' perceptions of young children's reactions. *American Journal of Orthopsychiatry*, 63, 241-249.
43. Sack, W.H., Clarke, G.N., & Seeley, J. (1995). Posttraumatic stress disorder across two generations of Cambodian refugees. *Journal of American Academy of Child and Adolescence Psychiatry*, 34, 1160-1166
44. Saigh, P.A. (1991). The development of post-traumatic stress disorder. *Behavioral Research and Therapy*, 29, 213-216.
45. Smith, P., Perrin, S., Yule, W., & Rabe-Hasketh, S. (2001). War exposure and maternal reactions in the psychological adjustment of children from Bosnia-Herzegovina. *Child Psychol Psychiatry & Allied Disciplines* 42:395-404.
46. Smith, P., Perrin, S., Yule, W., Hacam, B., & Stuvland, R. (2002). War exposure among children from Bosnia-Herzegovina: psychological adjustment in a community sample. *J. Trauma Stress* 15: 147-156
47. Thabet, A.A.M., & Vostanis, Y. (1999) Posttraumatic stress reactions in children of war. *Journal of Child Psychology and Psychiatry* 40, 385-391.
48. 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.
49. Ziv, A. & Israeli, R.(1973). Effects of Bombardment on the Manifest Anxiety Levels of Children Living in the Kibbutz. *Journal of Consulting and Clinical Psychology*, 40, 287-291.
50. Yule, W. (2002). Alleviating the Effects of War and Displacement on Children. *Traumatology*, 10, 1-71.

(1) Nader K, Pynoos R, Fairbanks L, Al-Ajeel M, Al-Asfour A. A preliminary study of PTSD and grief among the children of Kuwait following the Gulf crisis. *British Journal of Clinical Psychology* 1993; 32: 407-416.

(2) Pynoos R, Frederick S, Nader K, Arroyo W. Life threat and posttraumatic stress in school age children. *Archives of General Psychiatry* 1987: 44: 1057-1063.