

The impact of structured activities among Palestinian children in a time of conflict

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Background: There is growing evidence of the impact on children's well-being of exposure to political conflict in such settings as the Palestinian territories. This study examined the impact of child-focused interventions involving structured activities, supported by provision of equipment and training of facilitators. The focus of interventions was participation in recreational, cultural and other non-formal activities supporting the development of resilience. Impacts were hypothesised on children's social and emotional well-being, relationships with parents and degree of future orientation. **Methods:** Two hundred and fifty children from the West Bank and 150 children from Gaza took part in the study. Of these 400 children, 300 comprised the intervention group. Fifty children from Gaza and 50 children from the West Bank comprised the comparison group. There were equal numbers of girls and boys in all groups, with similar proportions of children aged between 6 and 11 years, and between 12 and 17 years. Measures used were the Child Behavior Checklist (CBCL), the Parental Support Scale and the Hopefulness Scale: Youth Version. Assessment was made as children enrolled on the structured activity programmes (T1) and again twelve months later (T2). **Results:** There was no difference in the CBCL Total, Internalising or Externalising problem scores at baseline (Time 1) between the children who subsequently took the intervention and those who did not. Compared to children in the comparison group, children in the intervention group had lower CBCL total problem scores, externalising problem scores, and internalising problem scores at Time 2 compared to Time 1. Exposure to the intervention was not associated with changes in children's hopefulness, but those receiving the intervention in the West Bank did report improved parental support at Time 2. **Conclusions:** The intervention appeared successful in improving children's emotional and behavioural well-being but not hopefulness. It was also linked with increased parental support in some areas (those located in the West Bank). **Keywords:** Conflict, intervention, Palestinian children, parent-child relationships, psychosocial activities, refugees, resilience, structured activities. **Abbreviations:** CBCL: Child Behavior Checklist.

In the past decade many studies have documented the emotional burden on Palestinians and their children (Miller, El-Masri, Allodi, & Qouta, 1999; Thabet, Abed, & Vostanis, 2004; Zakrison, Shahen, Mortaja, & Hamel, 2003) as a result of the ongoing conflict in the Occupied Territories. Along with other studies of children caught up in war and conflict (Loughry & Eyber, 2003), this has established the special needs of Palestinian children (Ressler, Tortorici, & Marcelino, 1993) and their increased risk of developing anxiety, depression and other emotional and behavioural problems, including symptoms of post-traumatic stress disorder (Qouta, Punamaki, & El-Sarraj, 2003; Macksoud, Aber, & Cohn, 1996). Although direct exposure to conflict is a key element of risk, evidence indicates that the impact of ongoing political conflict on the civilian Palestinian population also impacts children through reduced parental capacity to sustain emotional support of their chil-

dren (Punamaki & Suleiman, 1990; Qouta et al., 2003).

September 2000 marked a significant breakdown in relations between the Palestinian people and the people of Israel, resulting in what has come to be called a second *Intafada*. This is a political event that has resulted in an escalation of political conflict between Palestinians and Israelis and, most significantly for the present study, increased direct exposure and participation of Palestinian children in political violence.

Eighteen per cent of the Palestinians who have been killed during this *Intafada* have been children under the age of 18 years. The levels of exposure and engagement suggested by this figure led to the commissioning of a study in 2002 'to learn more about Palestinian children's psychosocial functioning in the current crisis situation' (Arafat & Boothby, 2003). The study found that 93% of children reported not feeling safe. Forty-eight percent had personally experienced violence owing to the ongoing Israeli-Palestinian conflict and there was a

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widespread reported sense among the children that their parents could no longer meet their needs for care and protection.

In this context, in 2003, two international non-government organisations developed child-focused interventions to address the pressing needs of Palestinian children. At this time there was considerable tension in the Palestinian Territories and the settings for the interventions were frequently subject to military incursions, curfews and restricted movement of populations. The interventions sought to support the resilience of children living in this situation, and principally addressed this by enabling (through provision of equipment and training) the delivery of structured activities. Structured activities have been proposed as a key means of supporting the resilience of children in situations of conflict (Aguilar & Retamal, 1998; UNHCR, 1998). Such activities are seen to: provide schedule and routine in a manner that serves to re-establish a sense of 'normalcy'; reduce the risk of children being exposed to unsafe and risky activities and environments; provide children opportunities for expression and 'working through' problems; and provide a context for the development of attachment and trust with adults and other children (Apfel & Simon, 1996; Loughry & Eyber, 2003).

While the two non-government organisations implementing the interventions did so with differing emphases, the programmes of activities developed explicitly reflected the above features. The focus was to provide children and their parents with greater opportunities to participate in recreational, cultural and other non-formal activities in a safe setting. The children's activities included after-school recreation activities in a community setting, 'connectivity' activities (e.g., summer camps, using the internet to put children in touch with other children in different settings etc.), and for one of the non-government organisations, the establishment of 'safe play' areas (Loughry & Ager, 2004). The activities for the children's parents included information classes as well as opportunities to join with their children in structured recreational activities. (Full details of the interventions are given in the Methods section.)

The current study was built upon an evaluation of these intervention programmes (Loughry & Ager, 2004). While the broader evaluation was focused on a range of process and organisational issues, its longitudinal nature provided the opportunity to establish a focused pre-/post-intervention outcome design, utilising a form of 'control' condition through comparison with children who were not enrolled in a structured programme of activities.

Informed by the literature on resilience (Loughry & Eyber, 2003; Strang & Ager, 2003), the impact of the interventions was hypothesised in three main areas. Firstly, exposure to structured activities (involving the establishment of routine, constructive engagement, opportunity for expression and the development of attachment and trust) was expected to

positively impact the social, behavioural and emotional well-being of children. Given the hostility of the environments in which the children were living it was unclear whether interventions would enhance well-being, or rather moderate decline in well-being, over the period of the study. Nonetheless, the features of the intervention should plausibly support processes of adjustment that would see a benefit of engagement in structured activities compared to those in the comparison group.

Secondly, it was hypothesised that the introduction of structured activities would positively impact the relationships of children with their parents, an area of concern that had been highlighted by the report by Arafat and Boothby (2003) and earlier work by Khamis (2000). There were two principal bases for this hypothesis. Providing children with safe, engaging activities would potentially reduce the widely reported conflict between parents and children regarding safety and security outside the home. Additionally, structured activities provided many opportunities for parents to share in positive activities with their children (such as watching their children perform a cultural dance) or directly engage in activities targeted at adults (such as parenting classes). It was thus hypothesised that the intervention would have a positive impact on children's perceptions of their relationship with their parents (Qouta et al., 2003).

Thirdly, it was hypothesised that engagement in structured activities in a secure environment would increase children's sense of future orientation (Nuttin et al., 1984). A major concern identified in the development of the intervention programmes – which was supported by the analysis of Arafat and Boothby (2003) – was that the *Intifada* made it very hard for children to have any confidence or hope for the future. Without this, children's commitment to schooling, developing skills and even personal safety was potentially compromised. As noted earlier, the provision of structured activities aims to establish normalcy, confidence, engagement and trust. On the basis that lack of future orientation is linked with a sense of insecurity and uncertainty (Apfel & Simon, 1996), it is plausible that such gains would also positively impact a child's sense of hopefulness for the future (Aguilar & Retamal, 1998).

Given the distinct gender roles within Palestinian society and the strong associations between conflict-related experience and both age and gender (Punamaki, 2000), it was further hypothesised that the impact of the interventions would be moderated by the gender and age of children (Fonagy, Steele, Higgett, & Target, 1994).

Method

Measures

Scales were selected to measure the effects of the structured activities intervention on the children in

each of the three outcome areas listed above. The Child Behaviour Checklist (CBCL)/4–18 years was selected to measure the children's emotional and behavioural problems because of its extensive use in cross-cultural settings. The Parental Support Scale had been developed for use in an earlier study in the Palestinian Territories (Khamis, 2000) and was consequently selected as a measure of children's perceptions of their relationship with their parents because of its strong psychometric properties in this setting and because the intervention placed an emphasis on strengthening Palestinian parents' support for their children. The Hopefulness Scale: Youth Version (Doucette & Bickman, 2000), although not previously used outside of North America, provided a measure of future orientation derived from the theoretical work of Nuttin (Nuttin, Loria, & Dumas, 1984) of direct relevance to children's sense of confidence in future-oriented actions in an unstable environment.

The Child Behavior Checklist (CBCL). The CBCL/4–18 years (Achenbach, 2001) has 118 items that describe specific behavioural and emotional problems of children. Parents are asked to rate their child for how true each item is presently or has been within the past six months using the following scale: 0 = not true; 1 = somewhat or sometimes true; 2 = very true or often true. In addition, the CBCL/4–18 has a 20-item competency scale that asks parents for information on their child's social activities, school performance and relationships. The CBCL/4–18 scoring profile provides raw scores, T-scores and percentiles for the three competency scales (activities, school and social relating) as well as eight syndromes (Withdrawn, Somatic complaints, Anxious/depressed, Social problems, Thought problems, Attention problems, Delinquent behaviour and Aggressive behaviour) and three summative scales: Total Problem Scale, Externalising Problems Scale and Internalising Problems Scale. The Externalising Problems Scale consists of the summing of the Delinquent and Aggressive behaviour scales. The Internalising Problems Scale is composed of the first three Problem scales (Withdrawn, Somatic complaints and Anxious/depressed).

Parental Support Scale (PSS). The Parental Support Scale (Khamis, 2000) is a 10-item scale that was designed to assess Palestinian children's degree of satisfaction with parental support. The evaluation items were rated on a 7-point scale ranging from 10 (very dissatisfied) to 70 (highest possible satisfaction). Items dealt with tangible support (e.g., presents, rewards, money, food and clothing), emotional support (e.g., affection, love and warmth), and social support (e.g., help and caring). In the Khamis study, factor analysis results generated one factor, namely parental support, that explained 51.6% of the variance. Internal reliability was good, with a reported Cronbach's alpha of .89.

Hopefulness Scale: Youth Version. The Hopefulness Scale: Youth Version (Doucette & Bickman, 2000) was developed as a component of the Child/Adolescent Measurement System (CAMS), a comprehensive measurement system of high reliability for children and adolescents aged between the ages of 6 and 18 years

(SOCE, 2004). The Hopefulness Scale was developed out of the insight from research on resilience and youth that a sense of hope is a primary factor in identifying youth who may be resistant to 'long-term unfavourable outcomes' (Doucette & Bickman, 2000). The scale has 10 items designed to assess children's levels of hopefulness. Each item is rated on a 3-point rating scale ranging from 1 (never) to 3 (often). It has a reported Cronbach alpha of .82.

Translation of the instruments

The Arabic version of the CBCL was obtained from the University of Vermont where it had been translated and back-translated. The Parent Support Scale was designed to be administered in Arabic (Khamis, 2000). Khamis, the designer of the Arabic version, subsequently translated this scale into English for the purposes of this study. The Hopefulness Scale was translated and back-translated by the Arabic-speaking members of the research team.

Participants

In all, 250 children from West Bank and 150 children from Gaza took part in the study.

Intervention group. Of the 400 children, 300 comprised the intervention group. A total of 50 children – 25 aged between 6 and 11 years and 25 aged between 12 and 17 years – were recruited from each of six intervention sites: four across the West Bank (Ramallah, Al Khader (near Bethlehem), Hebron and Jericho) and two in Gaza (Rafah & Beit Hanoun). There was an equal number of boys and girls.

Comparison group. Fifty children from a non-intervention site in the West Bank (Al Doha) and 50 children from a non-intervention site in Gaza (Khan Younis) comprised the comparison group. These sites were centres for Palestinian children and youth, but were not the focus of programmes of structured activities.

The intervention group were recruited on enrolment in the intervention and before commencing activities. At each intervention site researchers identified at enrolment 25 boys, 12 aged between 6 and 11 years and 13 aged between 12 and 17 years, as well as a similar group of 25 girls. Potential participants were consecutive enrollers on the programmes, subject to the above quotas by age and gender. The parents of these children identified in this manner were asked if they and the children would participate in the study. Permission was given by all of the parents who were approached. At the comparison group sites children and their parents were identified from groups of families in an analogous manner within communities receiving non-psychosocial services (such as water and sanitation assistance) from the two non-government organisations participating in the study. The West Bank comparison site, Al Doha, was located in a neighbouring district to the Al Khader intervention site in Bethlehem. The Gaza comparison site, Khan Younis, was located midway between the Rafa and Beit Hanoun intervention sites. The proximal location of the comparison and intervention

Table 1 Demographic characteristics of the children from the West Bank and the children from Gaza at baseline (Time 1)

Characteristics	Gaza children		West Bank children		ANOVA (df1,df2) and chi-square (df) tests
	M/%	SD	M/%	SD	
Child's age (in years)	10.79	2.21	11.31	2.94	F(1,398) = 3.43
Child's gender (% male)	48		50.4		Chi-square(1) = .22
CBCL Total (Cronbach's alpha = .92)	46.50	21.19	35.34	19.95	F(1,398) = 23.21***
CBCL Internalising (Cronbach's alpha = .72)	12.40	5.73	10.46	5.39	F(1,398) = 11.54***
CBCL Externalising (Cronbach's alpha = .86)	15.39	8.60	11.93	8.22	F(1,398) = 15.99***
Hopefulness (Cronbach's alpha = .77)	19.64	3.82	23.82	3.51	F(1,396) = 123.61***
Parental support (Cronbach's alpha = .94)	44.47	9.54	63.859	8.26	F(1,397) = 459.05***

*** $p < .007$.

sites in the West Bank and Gaza ensured that each had similar levels of exposure to conflict over the period of the study. The comparison groups served as an important basis for identification of potential impacts of the structured activities delivered at intervention sites. However, given the wide range of activities targeting children in the Occupied Palestinian Territories (Giacaman, 2004), it is not possible to claim that the experience of children and parents interviewed at comparison and intervention sites differed only in their exposure to the interventions which are the focus of this study.

Procedure

At intervention sites, children were recruited to the study at the time of registering for programme activities when they commenced in 2003. Interviewers subsequently visited the children's parents, who were invited to consent formally to involvement in the study. The consenting parents of children completed the CBCL with the interviewers. The interviewers administered the PSS and the Hopefulness Scale to the children. The majority of these interviews were held in the children's homes. All of the questionnaires were administered manually and the interviewers had purposefully not been informed of the goals of the intervention.

Interviewers re-interviewed children and parents 12 months after the initial interviews, during which period children in the intervention group had attended structured activities associated with the intervention. All children were re-interviewed in 2004 in this manner, with the exception of six children in Gaza who could not be traced (it was reported that they had left their former addresses because their houses had been demolished in recent military incursions).

Interventions

The two non-government organisations implementing the interventions established similar structured activities for children but with differing emphases and differing timeframes. Both non-government organisations trained local young adult volunteers in how to conduct structured activities for children. Emphasis was given to cultural and recreational activities, such as traditional dancing, art work, sports, drama and puppetry, though after-school educational activities were also covered. Once trained, these volunteers facilitated these

activities in local recreation centres on week nights and weekends. In school holidays, these activities formed the basis of week-long holiday camps. The training and material for these activities were facilitated by funding from the two non-government organisations. In addition, one of the non-government organisations focused on activities that were designed to increase the children's sense of 'connectivity' with Palestinian children in other geographical areas as well as with children living abroad. This was done through the provision of computers with internet access and training in the use of the internet, as well as organised outings to other community centres. The other non-government organisation emphasised the development of 'safe' outdoor settings. These settings were playgrounds equipped with recreation equipment and supervised by adults.

Additionally, both non-government organisations provided activities for the parents of the children participating in the structured activities. These activities generally took the form of classes in first aid and parenting skills and were taught by local experts. Where appropriate, the children's parents also joined in many of structured activities with their children either as active participants or observers.

Results

Total problems (ranging from 2–106), Internalising¹ problems (ranging from 1–29), externalising problems (ranging from 0–48), hopefulness (ranging from 12–30), and parental support scores (ranging from 10–70), as well as children's ages (ranging from 6–17), are shown in Table 1 which compares West Bank and Gaza children at baseline (Time 1). To reflect a standardised difference in CBCL total scores (primary outcome) of .3 between the two treatment groups, the total sample size would have to be 351 ($\alpha - 1 = .05$; $\beta - 1 = 80\%$).

As can be seen in Table 1, there were no significant gender or age differences between the samples recruited from Gaza and from the West Bank. However, at T1 the former had both higher externalising and total problems scores – and reported both lower parental support and lower

¹ Minus item cbcl56a-h which in Time 2 (2004) was filled in for the Gaza but not the West Bank children.

hopefulness – than the latter. Given this difference, analysis for the two groups is reported separately throughout. Using the Bonferonni correction, alpha was set at $.05/7 = .007$.

Intervention and comparison groups were broadly well matched in terms of the five outcomes measures. Adjusting for alpha at $.05/5 = .01$, it was found that there was no difference in the CBCL Total, Internalising or Externalising problem scores at baseline between the children who subsequently took the intervention and those who did not ($F(1,398) = .00, p > .01, F(1, 398) = .25, p > .01$, and $F(1,398) = 1.08, p > .01$, respectively). However, the children in the intervention group did begin with higher hopefulness and parental support scores than those in the comparison group ($F(1,396) = 19.55, p < .01$, and $F(1,397) = 13.39, p < .01$, respectively).

Table 2 shows the T1 and T2 scores for the West Bank children who received the intervention, the Gaza children who received the intervention, as well as the West Bank and Gaza children who did not receive the intervention. Using the Bonferonni correction, alpha was set at $.05/20 = .0025$.

Figure 1 shows the T1 and T2 CBCL total problems scores for the four groups of children.

These trends were clarified through five multivariate analyses, as shown below.

CBCL Total problem scores. A 2 (treatment group: intervention, comparison) × 2 (time: T1, T2) × 2 (Palestine location: West Bank, Gaza) × 2 (gender: male, female) repeated measures ANCOVA (adjusting for child's age) revealed a main effect of time ($F(1,386) = 6.29, p < .05$), qualified by a time × treatment group interaction ($F(1,386) = 5.13,$

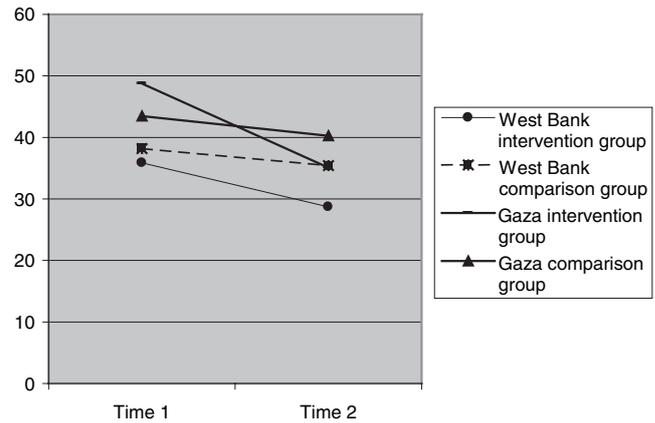


Figure 1 CBCL Total problem scores in T1 and T2 for the 4 children's groups

$p < .05$), suggesting that the intervention was effective in decreasing children's total problems scores. There was also a significant 3-way interaction with time × treatment group and gender ($F(1,386) = 4.36, p < .05$), suggesting that although both comparison and treatment group boys' CBCL total scores decreased over time, only girls in the intervention group showed improvement. In terms of effect sizes, partial η^2 values were .02, .01, and .01, respectively.

CBCL Internalising problem scores. A 2 (treatment group: intervention, comparison) × 2 (time: T1, T2) × 2 (Palestine location: West Bank, Gaza) × 2 (gender: male, female) repeated measures ANCOVA (adjusting for child's age) revealed no main effect of time, but a significant time × treatment group interaction ($F(1,386) = 5.73, p < .05$), suggesting that the intervention decreased children's internalising problems scores. There was also a significant 4-way

Table 2 Children's scales scores (by intervention and location group) at Time 1 and Time 2

	Group	n	Time 1		Time 2		Paired samples t (df) test
			M	SD	M	SD	
CBCL TOTAL	West Bank intervention group	200	35.88	20.71	28.69	22.29	3.76*** (199)
	West Bank comparison group	50	38.18	16.64	35.42	21.90	.75 (49)
	Gaza intervention group	99	48.74	22.23	35.08	16.15	4.82*** (98)
	Gaza comparison group	46	43.46	18.88	40.26	19.44	.76 (45)
CBCL INTERNALISING	West Bank intervention group	200	10.30	5.40	8.64	5.92	3.25*** (1999)
	West Bank comparison group	50	11.14	5.37	10.62	5.86	.49 (49)
	Gaza intervention group	99	13.27	5.99	10.08	3.99	4.35*** (98)
	Gaza comparison group	46	11.22	4.74	10.54	4.71	.60 (45)
CBCL EXTERNALISING	West Bank intervention group	200	12.09	8.63	9.49	8.87	3.33*** (199)
	West Bank comparison group	50	11.30	6.38	11.72	9.38	.27 (49)
	Gaza intervention group	99	16.37	9.11	10.98	6.70	4.70*** (98)
	Gaza comparison group	46	13.78	7.42	14.65	8.44	.53 (45)
HOPEFULNESS	West Bank intervention group	200	23.93	3.43	23.71	2.88	.71 (199)
	West Bank comparison group	50	23.36	3.80	23.00	2.56	.50 (49)
	Gaza intervention group	97	20.48	3.89	20.81	3.61	.58 (96)
	Gaza comparison group	46	17.98	3.16	22.46	3.47	6.91*** (45)
PARENTAL SUPPORT	West Bank intervention group	200	64.02	8.58	65.27	6.58	1.55 (199)
	West Bank comparison group	50	63.36	6.87	60.64	9.56	1.62 (49)
	Gaza intervention group	98	45.90	9.33	49.96	13.95	2.43 (97)
	Gaza comparison group	46	41.65	9.69	53.33	12.98	4.93*** (45)

*** $p < .0025$.

interaction with time \times treatment group \times location and gender ($F(1,386) = 13.75, p < .001$). This suggests that although both West Bank and Gaza girls who engaged with the intervention showed improvements over time, among the boys who engaged with the intervention only those from Gaza showed significant gains. Partial η^2 values were .02 and .03, respectively.

CBCL Externalising problem scores. A 2 (treatment group: intervention, comparison) \times 2 (time: T1, T2) \times 2 (Palestine location: West Bank, Gaza) \times 2 (gender: male, female) repeated measures ANCOVA (adjusting for child's age) revealed a main effect of time ($F(1,386) = 8.77, p < .01$), qualified by a significant time \times age interaction ($F(1,386) = 5.24, p < .05$), and a significant time \times treatment group interaction ($F(1,386) = 10.52, p < .001$), suggesting that the intervention was successful in decreasing children's externalising problems scores. There was also a significant 3-way interaction with time \times treatment group and gender ($F(1,386) = 7.39, p < .01$). This suggests that although in boys both those who received the intervention and those who did not showed improvement over time, in girls only those who received the intervention showed improvement. In contrast, those girls who did not receive the intervention showed higher externalising problems scores in T2 compared to T1. Partial η^2 values were .02, .01, .03, and .02, respectively.

Hopefulness scores. A 2 (treatment group: intervention, comparison) \times 2 (time: T1, T2) \times 2 (Palestine location: West Bank, Gaza) \times 2 (gender: male, female) repeated measures ANCOVA (adjusting for child's age) revealed no main effect of time, but a significant time \times treatment group interaction ($F(1,384) = 11.81, p < .001$), a significant time \times location interaction ($F(1,384) = 21.45, p < .001$), a significant 3-way interaction with time \times location and treatment group ($F(1,384) = 13.55, p < .001$), and a significant 4-way interaction with time \times location \times treatment group and gender ($F(1,384) = 16.65, p < .001$). Partial η^2 values were .03, .05, .03, and .04, respectively. The first 2-way interaction showed that children's hopefulness increased over time in the comparison rather than in the intervention group. The second 2-way interaction showed that the improvement over time occurred mainly in the Gaza children. The 3-way interaction suggested that there was an improvement over time in the Gaza children who had not taken part in the intervention. The 4-way interaction showed that this improvement was driven by the Gaza boys who had not taken part in the intervention.

Parental support scores. A 2 (treatment group: intervention, comparison) \times 2 (time: T1, T2) \times 2 (Palestine location: West Bank, Gaza) \times 2 (gender: male, female) repeated measures ANCOVA (adjusting for child's age) revealed a main effect of time

($F(1,385) = 5.79, p < .05$), a significant time \times gender interaction ($F(1,385) = 9.15, p < .01$), a significant time \times location interaction ($F(1,385) = 27.95, p < .001$), a significant 3-way interaction with time \times gender and treatment group ($F(1,385) = 5.85, p < .05$), a significant 3-way interaction with time \times location and treatment group ($F(1,385) = 14.61, p < .001$), and a significant 4-way interaction with time \times location \times treatment group and gender ($F(1,385) = 21.31, p < .001$). Partial η^2 values were .02, .02, .07, .02, .04, and .05, respectively. The first interaction suggests that the improvement in parental support over time was principally driven by improvement in boys' scores, and the second that the improvement was attributable to changes in the Gaza children. The first 3-way interaction showed that although in boys both the intervention and the comparison group showed improvement over time, in girls only the comparison group showed improvement, with the intervention groups actually showing lower parental support scores in T2 compared to T1. The second 3-way interaction suggests that although the West Bank children who had engaged in the intervention showed some improvement over time, the West Bank children in the comparison group experienced a reduction in parental support over time. In Gaza, on the other hand, all children (irrespective of treatment group) showed improved parental support scores in T2 compared to T1. The 4-way interaction showed that in general the intervention worked in the expected direction in the West Bank girls and in the opposite direction in the Gaza girls. Although the West Bank girls who had taken part in the intervention showed increased scores in parental support over time and the West Bank girls who had not taken part in the intervention showed decreased scores in parental support over time, in Gaza it was the girls who had taken part in the intervention that showed decreased parental support in T2 compared to T1. In contrast, those girls in Gaza who had not taken part in the intervention showed improved parental support scores in T2 compared to T1.

Discussion

Two major methodological constraints influence interpretation of the above findings. Firstly, although comparison sites provide a basis for interpreting intervention impacts, given the similar level of exposure to conflict in these settings, comparison sites were not devoid of humanitarian action of potential influence on children's well-being. For example, a classroom-based intervention (CBI) was implemented across Palestinian schools during the period of the study (Giacaman, 2004). There was no known specific targeted intervention in the comparison communities (that was not, such as CBI, potentially available also in the intervention com-

munities), but it cannot be asserted that there was no initiative during the study period that may have influenced study measures in these settings. This urges some caution in the interpretation of intervention vs. comparison site differences.

Secondly, the intervention was operationalised with respect to enrolment in structured activity programmes. No data was collected on the intensity and quality of activities in which children engaged once enrolled. Clearly there is both potential for (a) children to attend only a proportion of available activities and (b) the quality of such activities to periodically fall below targeted programme standards. In both cases the impact of such effects is to reduce exposure to the intervention, and thus the sensitivity of the study to identify intervention impacts.

Acknowledging these constraints in interpretation, in general these findings suggest that the intervention was effective in improving children's psychological adjustment. Compared to children in the comparison group, children in the intervention group showed decreased CBCL total problems scores, externalising problem scores and internalising problems scores at Time 2 compared to Time 1. Such findings are in line with previous research showing that structured activities are associated with fewer behaviour problems and more prosocial behaviour in high-risk children (Gilman, Meyers, & Perez, 2004; Maloney, 2000), such as economically disadvantaged (Huston et al., 2001) or physically abused (Perkins & Jones, 2004) children.

There were also some notable gender and location differences. In particular, although both comparison and treatment group boys' CBCL total problems scores improved over time, among girls only those in the intervention group showed improvement. Similarly, with regard to externalising problem scores, the study showed that although in boys both those who received the intervention and those who did not showed improvement over time, in girls only those who received the intervention showed improvement. Indeed, girls who did not receive the intervention showed higher externalising problem scores at Time 2 compared to Time 1. Finally, with regard to internalising problems scores, the study showed that although girls from intervention groups in both the West Bank and Gaza showed improvement over time, among boys from intervention groups only those from Gaza showed improvement.

There is no evidence from the current study that the intervention increased future orientation in children. Indeed 'hopefulness' was improved over time in the comparison group, particularly in Gaza. It is not clear whether this trend is related to characteristics of the comparison communities, activities that may have occurred there during the period of the study, or negative impacts on an otherwise upward-trend future orientation prompted by the intervention. This third explanation, although logically possible, seems implausible given qualitative

feedback from intervention sites regarding the perceived value of activities on children's outlook (Loughry & Ager, 2004). However, there were no specific community circumstances or initiatives in Khan Younis and Al Khader that would obviously fostered future orientation. This topic clearly requires further investigation in light of recent evidence showing positive associations between violent behaviour and hopelessness in high-risk (inner-city) adolescents (Bolland, 2003).

Finally, with regard to parental support, the findings showed that Gaza children (irrespective of treatment group allocation) showed higher parental support scores at Time 2 compared to Time 1. The intervention did have some effect in improving parental support but only in the West Bank children.

Despite the complex interactions of setting and gender, taken overall, the findings broadly reinforce the qualitative findings of the process evaluation (Loughry & Ager, 2004) of the reported interventions: the structured activities had a positive impact on the lives of children. Given the high levels of conflict and instability in Palestine during the course of the study, the interventions played a potentially important protective function. The interventions did not plausibly provide a solution to the challenges faced by those living amidst complex political conflict and violence, but they did appear to enhance the resilience of children in this situation. The intervention provided resources to children in a context of significant stress. The availability and deployment of resources in this manner may be key in understanding processes of protection and resilience in unstable environments (Ager, Strang, & Abebe, 2005).

Such findings are not only of major relevance to the developing strategy to support children and youth in Palestine (Giacaman, 2004). They also strengthen the wider evidence-base for providing structured activities in the context of conflict. With protection of children a recurrent and demanding priority in such contexts (Ahearn, Loughry, & Ager, 1999; PWG, 2004), evidence of the impact of relatively low-cost and potentially sustainable interventions is of major policy significance.

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