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Connectedness, social support and internalising emotional and behavioural problems in adolescents displaced by the Chechen conflict

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Abstract

The study investigated factors associated with internalising emotional and behavioural problems among adolescents displaced during the most recent Chechen conflict. A cross-sectional survey (N=183) examined relationships between social support and connectedness with family, peers and community in relation to internalising problems. Levels of internalising were higher in displaced Chechen youth compared to published norms among non-referred youth in the United States and among Russian children not affected by conflict. Girls demonstrated higher problem scores compared to boys. Significant inverse correlations were observed between family, peer and community connectedness and internalising problems. In multivariate analyses, family connectedness was indicated as a significant predictor of internalising problems, independent of age, gender, housing status and other forms of support evaluated. Sub-analyses by gender indicated stronger protective relationships between family connectedness and internalising problems in boys. Results indicate that family connectedness is an important protective factor requiring further exploration by gender in war-affected adolescents.

Keywords

adolescents; Chechnya; internalising; mental health; observational study; war

Introduction

Chechnya has suffered two bloody conflicts in the past two decades, resulting in more than 10,000 civilian deaths (Jackson, 2005). Between 1994 and 1996, extensive fighting forced hundreds of thousands of people to flee to the neighbouring Republic of Dagestan. The fighting subsided in 1996, but left in its wake a severely damaged infrastructure and rampant political instability, which led to a fresh outbreak of fighting just three years later. In 1999, another conflict erupted, producing more than 160,000 internally displaced persons (IDPs), mainly in the neighbouring Republic of Ingushetia. The most recent Chechen conflict subsided following the death of several Chechen rebel leaders and the appointment of the Moscow-backed presidency of Ramzan Kadyrov, a former Chechen rebel. On 16 April 2009, Russia's National Anti-Terrorism Committee said it had 'cancelled the decree imposing an anti-terror operation on the territory of Chechnya' (BBC News, 2009). However, the region is still rebuilding after a period characterised by widespread violence, family separation and loss, and massive population displacement. For children, this period was characterised by large interruptions in schooling and insecure living conditions in formal and spontaneous settlements (Betancourt, 2005). Outbreaks of violence related to conflicts between the Government of Russia and Chechen rebels remain a continued source of insecurity in the region.

Recent research on Chechen adults affected by the war has pointed to a number of deleterious mental health consequences for the general civilian population (Rubenstein et al., 2001; de Jong et al., 2007). No published research, though, examines the mental health of children and adolescents affected by these wars. Given that most Chechen teenagers lived through at least two periods of conflict and instability, the well-being and adjustment of war-affected adolescents is of particular concern. Moreover, little is known about what factors might contribute to more resilient outcomes among this young generation. The present study is intended to inform a strengths-based perspective by identifying social resources that may play a protective role in the mental health of youth in the face of war-related stressors. It evaluates the relationship between different forms of connectedness and social support in relation to war-related stressors and the outcome of internalising emotional and behavioural problems among a sample of young people displaced by the most recent Chechen conflict.

Study of the impact of war on children's mental health

Research on the mental health of children affected by armed conflict has grown out of studies focused primarily on adults (Eitinger, 1961; Garmezy, 1988; McManners, 1993; Stichick, 2001). High levels of exposure to war-related traumas have been documented in a number of populations of war-affected youth (Kinzie et al., 1989; Locke et al., 1996; Mollica et al., 1997). The consequences of such experiences can have profoundly adverse effects on children's mental health, including depression and behavioural problems (Mollica et al., 1997), anxiety disorders such as post-traumatic stress disorder (PTSD) (Kinzie et al., 1989), and a range of other adjustment difficulties (Barenbaum, Ruchkin and Schwab-Stone, 2004; Lustig et al., 2004) which have been well summarised in several articles (Jensen and Shaw, 1993; Stichick, 2001; Barenbaum, Ruchkin and Schwab-Stone, 2004; Lustig et al., 2004; Eintholt and Yule, 2006; Jordans et al., 2009).

While many studies document associations between war-related events and subsequent psychopathology, huge gaps remain in our knowledge of what leads to resilient

developmental outcomes in these populations (Stichick, 2001; Betancourt and Khan, 2008). Overall, far less research attention has been directed at understanding protective processes that may lead to better mental health outcomes despite difficult war exposures. The research that does exist, though, indicates that several different types of protective processes may contribute to more resilient mental health outcomes in war-affected youth despite the high levels of exposure to violence (Macksoud and Aber, 1996; Llabre and Hadi, 1997; Kliwer et al., 2001; Paardekoooper, 2002). Such information is critical for informing the development of interventions in complex humanitarian emergencies and mental health services that build on local strengths and capacities (Stichick, 2001).

Examining protective processes in war-affected youth

Attention to resilience as a framework for the study of children's mental health is gaining increasing attention in contrast to more traditional, deficit-based models for understanding children's mental health in the face of adversity (Betancourt and Khan, 2008). Three sets of protective factors are thought to relate to the 'development of resilience' in children across many contexts:

- attributes of the individual child;
- a child's family; and
- the larger social environment (Luthar, Cicchetti and Becker, 2000).

Of particular interest are potentially modifiable processes, in that they may be targeted as the 'active ingredients' (Jensen et al., 2005; Jordans et al., 2009; Betancourt et al., 2011) of mental health services or interventions to assist war-affected youth.

Indeed, the literature on the mental health of children affected by war has identified a number of protective factors associated with reduced risk of mental health problems in the face of war experiences. These protective processes can be examined ecologically. For instance, in some of the earliest published research on the mental health of war-affected children, Freud and Burlingham (1943) observed that attachment relationships to caregivers served to moderate the reaction of British children exposed to war-related stressors during the Second World War. Several other studies have pointed to the significant influence that caregivers have on child development and well-being. In war-torn Bosnia-Herzegovina, Dybdahl (2001) assessed the relationship between maternal mental health and child health outcomes in a group (N=87) of internally displaced mother-child dyads. Dyads were randomly assigned to receive free medical care and weekly psychosocial support (treatment) or free medical care only (control) for five consecutive months. The intervention drew from therapeutic discussion groups with mothers and also used a curriculum informed by the International Child Development Programme (2007) for improving mother-child interactions. Post-test results suggested that the intervention-related enhancements in maternal mental health were also associated with improved weight gain in the children, and several measures of children's psychosocial functioning and mental health.

In terms of interpersonal relationships, social support has been identified as a protective factor in several studies of the mental health of war-affected children (Farhood, 1999; Kliwer et al., 2001). In a study of Sudanese refugee children living in camps in Uganda, for example, Paardekoooper (2002) observed that youth who reported higher social support tended to have lower levels of depression and PTSD. Both parental and peer social support have been closely associated with psychosocial adjustment among adolescent adolescents affected by war (Kovacev and Shute, 2004; Montgomery and Foldspang, 2007; Ellis et al., 2008; Stoll and Johnson, 2008). Moscardino et al. (2010) examined the role of social support, collectivist values and depressive symptoms among adolescent survivors of the 2004 Beslan terrorist attack in Russia and found that family support predicted fewer

depressive symptoms for both boys and girls. It has been observed as well that the role of social support in children exposed to war-related trauma also may differ according to gender. In a study of African refugee youth who experienced traumatic events, Halcon et al. (2004) suggested that females were more likely to seek the support of their friends than young men. Research on youth affected by the 1989–90 Gulf War and political violence in Columbia found that the effect of social support on mental health was stronger in girls as compared to boys (Llabre and Hadi, 1997; Kliwer et al., 2001).

Connectedness is a construct related to social support; however, it is more often used to refer to group-level phenomena, such as a sense of caring or cohesion manifest in school or community settings (Resnick et al., 1997; Jordans et al., 2009). Connectedness has been associated with positive mental health, behavioural and social outcomes in a number of studies on children and adolescents (Wolchik, Sandler and Braver, 1987; Resnick et al., 1997; Molnar, 2004). The mechanisms by which connectedness improves social and emotional outcomes may pertain to the availability of other supportive people in a young person's life when immediate attachment relationships are inadequate. For example, landmark longitudinal studies of child development have demonstrated that the existence of a supportive relationship with at least one caring adult outside of a troubled home is associated with better social and emotional outcomes in even the most disadvantaged children (Werner and Smith, 1982). In longitudinal studies of war-affected youth, family cohesion before and after war experiences has been identified as an important predictor of good mental health in war-affected children (Thabet and Vostanis, 2000; Betancourt and Khan, 2008; Betancourt et al., in press). The present study examines two main forms of protective factors: general social support and connectedness operating at the family, peer and community level.

Hypotheses of the current study

The purpose of this study was to extend previous work on the role of social support and connectedness in the mental health of children facing adversity. It did so by examining whether general social support and connectedness at the family, peer and community level demonstrated an inverse relationship with internalising mental health problems (anxiety/depression, emotional withdrawal, and somatic complaints) in this sample of Chechen adolescents (11–18 years) living in IDP camps. We chose to focus on internalising emotional and behavioural problems to the exclusion of externalising problems such as aggression given the extensive literature indicating a relationship between internalising problems and protective factors such as social support and connectedness (Roberts and Bengtson, 1993; Allen et al., 1994). In addition, we predicted that these relationships would be independent of war-related stressors due to fear and insecurity.

Gender is another potentially relevant variable in the relationship between social support, connectedness and war-related stressors on internalising emotional problems in IDP youth. It was hypothesised that, consistent with the literature, girls would report overall higher internalising emotional problems than boys. We predicted also that girls and boys would face different stressors in the IDP camp environment and have different means of accessing social resources. Given the available literature, it was expected that the effects of social support and connectedness would be stronger among girls as compared to boys. In this particular study, all participants had been forced to move to IDP settlements due to the war conditions. These data originally were gathered for programme planning purposes to assist children served by our collaborating non-governmental organisation, the International Rescue Committee (IRC), in order to implement emergency education and mental health interventions from a strengths-based perspective.

Methods

Participants

The sample consisted of N=183 Chechen IDP youth (10–17 years) residing across 11 ‘spontaneous settlements’ where the IRC had opened or was soon to open an emergency education programme (as of September 2000). The sample comprised N=92 males and N=91 females with an average age of 13.6 years.

Procedure

Upon receiving review and approval from the Human Subjects Committee of the Harvard School of Public Health and the senior management at the IRC, participants were selected randomly from the IRC registries of youth to be served by an emergency education programme. The ‘spontaneous settlements’ from which the sample were drawn were independent of the official camps for IDPs run by the Russian Ministry of the Interior. Many were living on abandoned property or empty buildings where groups of IDPs had created makeshift living quarters or settlements. The sample included registered children and youth at the 11 sites where the IRC was working and was considered generally representative of the spontaneous settlements in the region. A one-third probability sampling scheme was employed to select randomly a sample of 198 Chechen adolescents. Study inclusion criteria comprised living in one of the 11 spontaneous settlements identified and being 11–17 years old. Exclusion criteria included having a severe cognitive or physical disability leading to an inability to answer the survey questions (although no such cases were identified).

Six adolescents were unable to participate due to illness or failure to gain caregiver consent, resulting in a total of 192 surveys completed. Upon initial analysis of the data, young people identified as being out of the appropriate age range or who had incomplete information on internalising symptoms, age or gender were excluded, yielding a final analytic sample of 183. A team of six trained Chechen IDP research assistants conducted the field-based data collection, under the supervision of the first author. All study measures were forward and back translated into Russian, and administered verbally due to low literacy in the study population. Study measures were either informed by prior qualitative data collection in the camps (Betancourt, 2005), including the measures of connectedness, or were already available in a Russian language version (such as the Youth Self Report and the Multidimensional Scale of Perceived Social Support, or MSPSS).

Measures

Emotional and behavioural problems—The YSR is a multi-axial, empirically-based assessment tool for adolescent self-reporting of emotional and behavioural problems (Achenbach, 1991). It was designed to describe continuous dimensions of adolescent emotional and behavioural problems in eight main domains: withdrawal; somatic complaints; anxiety/depression; social problems; thought problems; attention problems; delinquent behaviour; and aggressive behaviour. The YSR has been applied in multiple cross-cultural settings and has been used in research with refugee youth (Mollica et al., 1997). A Russian version of the YSR had been developed and utilised in prior research with Russian youth, demonstrating good psychometric properties (Slobodskaya, 1999). On discussing the measure with Chechen staff and comparing it to qualitative data, also collected in phases over this applied research, the YSR was determined to have good face validity for use with Chechen youth.

The internalising problem subscale of the YSR is composed of the subscales for depression and anxiety, emotional withdrawal, and somatic complaints (Achenbach, 1991), and was used as the outcome of interest for this study. Following consultation with Chechen staff and

community representatives, two items inquiring about suicidal ideation and self-harm were removed due to their sensitive nature in this population. As a result, the total internalising subscale included 29 items. Measures of internal consistency indicated that this scale functioned well within this sample (Cronbach's $\alpha=0.79$, mean=16.2, standard deviation (SD)=7.4).

Connectedness—The measures of connectedness employed in this study assessed the perceptions of adolescents of social connection, caring, respect, understanding and communication in relationships with their family, peers and the larger community. These scales were adapted for this study based on the school connectedness scale developed by Resnick et al. (1997). Connectedness measures were developed to look at three ecological levels (Bronfenbrenner, 1979) of connectedness: relationships with family, peers and the community. As in the measures developed by Resnick et al. (1997), each item was rated on a three-point Likert scale ranging from 'not true to 'somewhat or sometimes true' and 'very true or often true'. Qualitative data collected in the same study site (Betancourt, 2005) and consultation with local staff led to scales that contained locally appropriate items to capture family, peer and community connectedness. To account for the different lengths of these connectedness scales in analyses, each scale was averaged for a total score, which was then standardised with a mean of zero and a standard deviation of one to ease comparison across scales.

The measure of family-level connectedness consisted of 12 items that assess the degree to which the adolescent participant felt close to family members, felt understood and cared for in the family context, and was respected as a participant in family decisions. It included items such as 'People in my family understand me', 'We are a close or tight-knit family', and 'People in my family pay attention to me'. Confirmatory factor analysis indicated that the family connectedness questions held together well in evaluating family relations. The internal consistency of this scale was good (Cronbach's $\alpha=0.75$, mean= 21.3, SD=2.8).

Questions evaluating peer connectedness were developed specifically for this study. This measure consisted of seven items such as 'My friends care about me', 'My friends understand me', 'My friends listen to my opinions', and 'My friends ask for my opinion when making decisions'. Analyses of internal consistency indicated that this scale also functioned well within this population (Cronbach's $\alpha=0.88$, mean=12.4, SD=2.8).

A series of 11 questions were developed for this study to investigate adolescents' perceptions of connectedness to others in the IDP settlement. The measure of settlement-level connectedness comprised questions such as 'In general, adults in this camp care about kids', 'Adults in the camp pay attention to kids', and 'Adults around here care about what kids have to say'. Confirmatory factor analysis indicated that, apart from one item that was dropped in the analyses from the community scale, the connectedness questions functioned well in the Chechen displaced population. This scale was administered only in the 139 cases where adolescents lived within or near an identifiable IDP 'settlement'. The internal consistency of this scale was good (Cronbach's $\alpha=0.78$, mean=13.4, SD=3.7).

War-related stressors—Two questions were asked to assess perceived insecurity and fear while living in Chechnya and while living in the spontaneous settlements: 'My last year in Chechnya, I was often worried or afraid for my safety' and 'Now that I am in Ingushetia, I am often worried or afraid for my safety'.

Demographic inventory—A demographic inventory collected information on sex, age, level of schooling, family composition, current living arrangement, city of origin, and prior displacement. A dichotomous variable was created to indicate the length of time of stay in

Ingushetia, dividing between those who had been in the camp for less than one year at the time of the survey and those who were there for more than one year. A dichotomous variable was also created to indicate an individual's housing status to distinguish those living in relatively higher-quality housing (houses or apartments) from those living in tents, abandoned buildings, or hand-made shelters. Living in a rented room or apartment was treated as indicating a higher level of family economic resources.

Data analysis

The goals of the data analysis were three-fold:

1. to describe the distribution of internalising mental health problems and fears of insecurity in this population of war-affected adolescents;
2. to examine the relationship between connectedness and social supports with regard to internalising emotional and behavioural problems; and
3. to test for interactions between the influence of gender and connectedness/social support on internalising emotional symptoms.

Correlation coefficients were employed to examine relationships between all continuous predictors; Pearson correlations were used for continuous variables and Spearman correlations for categorical or dichotomous variables. T tests were used to test differences in means on outcomes and predictor variables between males and females in the sample. All variables related to social resources and mental health were standardised with a mean of zero and a standard deviation of one to ease comparisons across scales. Multiple linear regression was used to evaluate the relative contribution of different forms of connectedness/social support on internalising emotional and behavioural problems in models adjusted for gender, housing status and age. In addition, multiple linear regression by gender was used to appraise the differential effects of social support, connectedness and war-related stressors on internalising symptoms. All statistical tests and confidence intervals were two-sided and constructed with 95 per cent confidence. Statistical analyses were performed using the Statistical Analysis Software (SAS), Version 9.1 (SAS Institute Inc., 2004).

Results

Participant characteristics

Table 1 provides a summary of the demographic characteristics of the sample whereas Table 2 lists descriptive information and correlations between study variables. The mean age of study participants was 13.6 years. Resource loss is a reality of life in displacement camps. The sample also reflected the vestiges of longstanding insecurity in Chechnya with 64.2 per cent of youth reporting prior dislocation (probably due to the previous Chechen conflict). Three per cent of youth had lived in the settlement in Ingushetia for up to six months, 12 per cent for up to 12 months, and 87 per cent for between one and two years. Living conditions at the time of the survey were poor with 11.7 per cent of the sample living in tents, another 11.7 per cent in hand-made or temporary shelters, and 52.2 per cent in abandoned buildings such as factories and farms. Nearly one-half of the sample (48.1 per cent) was from Grozny, Chechnya's capital, which experienced heavy fighting and insecurity since the inception of the conflict. The rest of the sample was from smaller villages or towns. Thirty per cent of youth reported feeling fear for their safety during their last year in Chechnya and 31 per cent reported feeling fear for their safety during their stay in the IDP settlements. Seventy-four per cent of teenagers reported attending an education programme of some sort. Family loss was less than that seen in many refugee situations, with 69.6 per cent of teenagers in the sample reporting living with both parents at the time of the survey and most adolescents reporting also living with siblings (97.8 per cent). Participants who reported living with only

one parent showed no difference with respect to internalising emotional and behavioural problems, family connectedness, peer connectedness or global social support when compared to youth living with both parents.

Social support, connectedness and adolescent mental health

As indicated in Table 2, correlations revealed that reporting fear for one's safety while in Chechnya was correlated with higher average internalising problems ($r=0.25$, $p=0.002$), while reporting fear for one's safety while in Ingushetia was not ($r=0.05$, $p=0.51$). Furthermore, time spent in Ingushetia, divided among adolescents who spent more than one year versus those who spent less than one year in the camp, was also not significantly correlated with internalising behaviour ($r=0.17$, $p=0.82$). Significant and inverse relationships were found between internalising emotional and behavioural problems and family connectedness ($r=-0.23$, $p=0.002$), peer connectedness ($r=-0.19$, $p=0.01$), and community connectedness ($r=-0.24$, $p=0.004$). The MSPSS social support measure was also inversely correlated with internalising problems, but its correlation was minimal and did not reach statistical significance ($r=-0.04$, $p=0.57$, NS (not significant)). Age, prior displacement and housing status were not significantly correlated with internalising mental health problems. However, as expected, there was a strong correlation between gender and internalising problems ($r=-0.35$, $p<0.0001$), indicating a tendency for girls to report higher average internalising scores. Living in a rented home or apartment within a settlement area was also correlated with higher reports of community connectedness ($r=0.23$, $p<0.007$). Levels of internalising emotional and behavioural problems in these Chechen IDP youth were higher than United States non-referred youth norms (Achenbach, 1991) and in comparison to norms on the Achenbach Youth Self Report documented among Russian children of the similar ages living in Novosibirsk, Russia (Slobodskaya, 1999). While Slobodskaya (1999) reported an average internalising score of 12.6 for boys and 17.5 for girls, the results for this study showed an average score of 13.7 for boys and 18.7 for girls.

Comparisons between girls and boys on all study variables were conducted using T tests (see Table 3). On average, girls reported higher levels of internalising symptoms as compared to boys ($t=4.74$, $p<0.0001$). No differences were found between girls and boys on the MSPSS social support measure or on family connectedness; however, on average, males reported higher peer connectedness ($t=-2.50$, $p=0.01$) and community connectedness ($t=-3.95$, $p=0.0002$) as compared to females.

To examine the unique contribution of different forms of connectedness and social support on internalising symptoms while controlling for covariates, we conducted a series of ordinary least squares regression models. In the initial model, only the covariates of housing status, gender and age were included to assess variation in internalising emotional and behavioural problems accounted for by these variables (adjusted $R^2=0.1067$). Of the covariates, only gender was significantly associated with internalising symptoms (boys=1, $\beta=-0.66$, $p<0.0001$). In a model containing the main covariates of gender, age and housing status (retained for theoretical reasons), we then added experiencing fear due to insecurity in Chechnya, which had demonstrated significant bivariate associations with internalising problems. We found that, as expected, it was positively correlated with internalising symptoms ($\beta=0.396$, $p=0.01$). This model accounted for 13.5 per cent of the variability in internalising emotional and behavioural problems. A final model was constructed that added all potential protective processes to the baseline covariate model and the indicator of war exposure (experiencing fear due to insecurity in Chechnya). This model accounted for 17 per cent of internalising problems in the full sample (see Table 4). In the final adjusted model containing variables indicative of protective factors, only family connectedness was inversely related with internalising problems at the $p<0.05$ level of significance ($\beta=-0.241$, $p=0.006$). No other protective factors approached significance, although gender and fear of

insecurity in Chechnya remained significant predictors of higher average levels of internalising problems. In the full model, there were no significant interactions between baseline covariates, indicators of war exposure, or protective processes. As the earlier correlation matrix indicated, although the global social support measure demonstrated face validity in this sample, it was not significantly associated with internalising emotional and behavioural problems in this sample when other forms of support were included.

Analyses stratified by gender were performed to investigate whether protective factors and war-related stressors operated in the same manner among girls and boys. In these sub-analyses, the same model-building steps were taken as mentioned above for the full model. A linear multiple regression model predicting internalising symptoms adjusted for age and housing status demonstrated that fear of insecurity during a young person's last year in Chechnya was a significant predictor of internalising problems in boys ($\beta=0.503$, $p=0.045$) but did not reach significance for girls ($\beta=0.265$, $p=0.171$) at the $p<0.05$ level of significance. For boys in the full model that included protective factors, we observed a significant association between family connectedness and internalising such that each unit increase in family connectedness was associated with a -0.37 average unit decrease in internalising symptoms. For girls, the direction of the relationship between family support and internalising problems also was inverse (protective) but did not maintain statistical significance in stratified analyses. In fact, for girls, there were no significant predictors of variability in internalising emotional and behavioural problems in this sample.

Discussion

The intent of this study was to investigate whether connectedness and social supports at the peer, family and community level demonstrated a protective relationship with internalising problems (anxiety/depression, withdrawal and somatic complaints) in this sample of Chechen IDP adolescents. The results reinforce theory and prior research that points to family connectedness as a factor that has a protective influence on the mental health and adjustment of war-affected youth, even when adjusting for the role of other forms of connection and social support as well as age, gender, socioeconomic status, and indicators of trauma. These findings resonate with the important role of immediate caregivers in creating a protective shield for children facing violence and disruption (Pynoos et al., 1998; Betancourt et al., 2008a).

Although the size of the study sample posed limitations for drawing inferences from analyses stratified by gender, the protective relationship between family connectedness and internalising emotional and behavioural problems was stronger and maintained significance in boys but not in girls when analysed separately. In this manner, our findings corroborate other research indicating gender differences in the protective role of social resources among war-affected youth. However, for social support, stronger protective effects have been observed more commonly in girls (Llabre and Hadi, 1997; Kliewer et al., 2001). One possible explanation for our findings could be that in addition to items typically related to emotional support (a sense that others care about you), the connectedness scale also asked about respect, being listened to, and participating in decisions. It may be the case that, in environments where more adult-like responsibilities are shifted to teenagers given the many demands facing their caregivers, a construct such as connectedness that captures dimensions of respect and shared decision-making is more relevant for young men. How pressures facing Chechen IDP parents pose barriers to spending time with their children is illustrated by additional qualitative data that were collected in the sites examining family relationships in the IDP camps:

Everybody's busy with something. Almost everybody's at the market, tries to earn one's living to provide one's family and children with food. Besides, there're the sick, who also need to be looked after. Girl, 12 years old

My parents, for example, cannot [spend time with their children] because they go to collect the humanitarian aid... but it's rare that they succeed in it. My parents go there, they come back tired and ... they have no time. Girl, 16 years old

The inverse association observed between family connectedness and internalising symptoms, even when all other covariates and forms of support were controlled, has implications for the concept of resilience in war-affected children. Resilience as a construct has been criticised for promoting a view of certain children as 'invulnerables' (Dawes, Tredoux and Feinstein, 1989). Certainly researchers should not be blinded by the seduction of resilience and miss the undeniable, often long-term mental health consequences of war-related stressors on children (Sack, Him and Dickason, 1999). The findings of this study reinforce the need to shift the focus of resilience beyond qualities inherent solely in the individual child and consider the wider context of child development, particularly the role of the family.

The challenge of responding to the mental health needs of large populations of children affected by wars merits rethinking of resilience in order to move from an individual focus to one that is population-based and supports children in the broader aspects of social ecology, including families and communities (Betancourt et al., 2008a; Betancourt, 2011). In such settings, a more useful interpretation of resilience might be one that seeks to qualify the characteristics of the larger environment or social ecology that can promote better social and emotional outcomes for children despite formidable exposure to risk factors (Betancourt et al., 2008a). Future research on processes of vulnerability and protection affecting the mental health of war-affected children must explore contextual factors at the family, community and societal level (Macksoud and Aber, 1996; Betancourt, 2005; Betancourt et al., 2008a; Earls and Carlson, 2001). Our data suggest that improving opportunities for children to deepen connections with family members, peers and the larger community might bolster coping resources to counterbalance the distress associated with war, chronic instability and displacement. Examples of possible interventions include organising collective activities such as sporting or cultural events where friends, family, and community members are all encouraged to be involved.

Future studies of family support and children's mental health in war-affected populations could also be strengthened by collecting further qualitative data on family functioning to help clarify the mechanisms by which family connectedness operates in these settings. For instance, the function of family connectedness would be better understood if it could be disentangled from other aspects of family functioning including parental mental health, loss or separation from close family members, parenting styles, and family conflict. In addition, findings regarding differences in both the expression of mental health symptoms and mechanisms contributing to protection by gender indicate the need to investigate a broader spectrum of mental health outcomes and protective processes in future research. In particular, it remains compelling to consider what risk and protective factors may also contribute to externalising behavioural problems such as aggression and social difficulties in boys and girls.

Gender differences within the context of war-affected families may shape the nature of connectedness so that relationships may be either protective or burdensome (Spitze and Logan, 1990). As has been reported in other settings, identifying familial relationships as solely a source of protection may be an over-simplification. In many studies of children at risk, particularly those affected by violence, there is an indication that taking on care-giving

roles and other family responsibilities has been associated with increased stress in children, particularly girls (Weist et al., 1995). This care-giving role of adolescent girls were emphasised by our qualitative data, in contrast to the different responsibilities and minimal supervision afforded to boys:

I get up, make my bed, sweep, wash dishes. Then I cook, because sometimes they don't bring us food. And when they do I go to collect soup. Then I pray again. When mum returns I serve her dinner and wash dishes again. Girl, 12 years old

There was nobody in the house if I went somewhere. Younger children went to school, parents went to work, and I stayed at home alone. I had to clean the courtyard, prepare a meal before they return, then to wash dishes, shortly, I had to do everything. That's why they didn't let me carry on with the studies. Girl, 18 years old

Boys, like girls in our sample, did have family responsibilities, but they also had much more freedom to move about the camps and to develop friendships and engage in work or social activities:

In the morning I get up, if there is something to eat I have a meal, I pray. Two or three days ago I found a job in the gas-filling station, I go there. Sometimes they [pay me], sometimes they don't. Boy, 13 years old

I get up in the morning, I clean, then, at 12 o'clock, I go to school.... Then I return from school ... do my homework, have a rest, well, go out on the street for half an hour, well, to chat with my friends. Boy, 13 years old

The complexity of the effect of gender on the protective nature of connectedness and social support may extend beyond the family and explain the lack of significance of factors that are expected to be protective in these Chechen girls (Large, 1997). More detailed exploration of protective factors by gender may be needed to capture the gendered effects of social support on internalising emotional and behavioural problems in Chechen IDP females. The interplay of the different roles and responsibilities of adolescents with their social support highlights the need for a more integrated view of gender:

I don't have [friends]. There is no time for them. Girl, 12 years old

An ordinary day? I get up, have breakfast, clean, bring water. Then I stay home all day long. Girl, 16 years old

While the story of girls in these IDP camps was one of isolation, the boys demonstrated many more opportunities to develop diversified social networks:

... usually we all gather. Everybody tell about his problems [and] ideas.... There are different opinions sometimes and we can [have] the same ideas. And when, for example, my friend tells about his problems, I try to help him in every way possible. He, in his turn, helps me. That's how we communicate. Boy, 18 years old

Several limitations must be discussed in interpreting the findings of this research. Carrying out this study was particularly challenging because of limited access due to insecurity in a region where aid workers have been directly targeted with violence. Furthermore, given our community collaborations, we had to be very sensitive to relations between the beneficiaries and the IRC. Although consultation with local staff and beneficiaries allowed us to examine the face validity and cultural appropriateness of measures, a number of questions were raised about items deemed too sensitive for the culture and the context (including full batteries of violence exposure as well as questions about suicidal ideation) and it was requested that we drop these from the study protocol. Given the extreme time pressures facing caregivers, we were unable to collect parent assessments or caregiver reports of child

functioning, so as not to burden caregivers further. Parent reports, as well as information about parent stressors and mental health, would have deepened our understanding of the processes of risk and protection at the family level and their influence on adolescent emotional and behavioural problems. Since the data presented here were derived solely from self-reports by adolescents and are cross-sectional in nature, we are not able to speak to the directionality of relationships between variables. Furthermore, because no comparison group was available, there was not enough evidence to determine whether the effects of connectedness/social support on internalising mental health problems differed between displaced and non-displaced children.

Furthermore, the cultural and contextual dimensions of the Chechen displacement must be taken into account. Prior research has indicated the importance of cultural connections and traditions among resettled and war-affected populations (Eisenbruch, 1991). In this particular setting, the degree to which connectedness mattered for boys and girls may have been shaped by the Chechen culture, which is traditionally protective of young girls. There may be other unmeasured aspects of the experience of being an adolescent Chechen girl that were not well captured by the variables collected. Given the cross-sectional nature of the data, it is also difficult to determine the directionality of relationships. Thus, it may also be the case that youth with lower levels of internalising problems were more effective at eliciting social support and family connectedness in this setting. A related issue is the small sample size of this study, which reduced the statistical power of sub-group analyses by gender. Larger samples of girls and boys are needed to make the necessary subgroup comparisons. Future research in this population, particularly if conducted under more secure and predictable conditions, could go a long way towards addressing many of these limitations.

Nonetheless, this study is very rare in its view of the emotional and behavioural problems facing Chechen IDP youth during a situation of active displacement. In particular, the examination of protective processes that may be leveraged by intervention efforts provided an important foundation for shaping interventions developed by the IRC in this setting. The IRC was able to use this information to create greater opportunities for adolescents and their caregivers to interact via participatory programmes and programmes aimed at assisting entire communities as opposed to targeting children and adolescents in isolation. In addition, a mental health programme serving IDP youth and families was begun after these initial research investigations.²

In summary, this study offers an assessment of internalising emotional and behavioural problems and potential protective factors in a sample of adolescents displaced by the Chechen conflict. Common themes reverberate between this research and other evaluations of war-affected children. Most notably, there is a compelling need to explore and comprehend the factors contributing to vulnerability and protection in these populations to inform better policy and intervention. The finding that family connectedness had an enduring protective function in relationship to internalising mental health problems, particularly in young men, is compelling. However, further research is needed to deepen our understanding of how protective processes operate in relation to other war-related exposures, gender, mental health outcomes, and in other settings. It is only through such systematic exploration of protective processes that responses can be improved to address the mental health needs of children and families affected by armed conflict.

²See <http://www.theirc.org>

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Table 1

Demographic summary (N=183)

Demographic characteristics	N (%)
Gender	
Males	92 (50.3)
Females	91 (49.7)
Family composition	
Both parents	126 (69.6)
One parent	55 (30.4)
Siblings	
Household includes siblings	177 (97.8)
Without siblings	4 (2.2)
School attendance	
Every day	136 (74.3)
Most or some days	31 (16.9)
Rarely or never	16 (8.7)
City of origin	
Grozny	88 (48.1)
Other	94 (51.4)
Displacement history	
Displaced prior	106 (64.2)
Never displaced	59 (35.8)
Shelter	
Tent	21 (11.7)
Empty building, factory or farm	94 (53.2)
Handmade or temporary shelter	21 (11.7)
Apartment or house	40 (21.8)
Time spent in Ingushetia	
0–6 months	5 (2.8)
6–12 months	16 (8.9)
> 1 year	158 (87.8)
Fear in Chechnya	
No self-reported fear	126 (70)
Any self-reported fear	54 (30)
Fear in Ingushetia	
No self-reported fear	125 (69.4)
Any self-reported fear	55 (30.6)

Notes: correlations for these variables calculated with Spearman correlation coefficient.

Table 2

Descriptive information and correlations among study variables (N=183)

	2	3	4	5	6	7	8	9	10	11	M	SD	RANGE
1. YSR internalising score	-0.23**	-0.19*	-0.24**	-0.04	-0.35***	0.01	0.10	0.25**	0.05	0.02	16.21	7.42	1-36
2. Family connectedness		0.53***	0.45***	0.42***	0.11	0.07	0.05	0.06	-0.05	0.001	21.28	2.80	10-24
3. Peer connectedness			0.42***	0.42***	0.13~	0.07	-0.04	0.04	-0.19*	-0.05	12.37	2.83	0-14
4. Community connectedness [†]				0.26**	0.29**	0.01	0.23**	0.02	-0.04	-0.07	13.41	3.87	1-20
5. MSPSS social support					0.05	-0.10	0.10	0.27***	-0.005	0.07	51.77	6.95	21-60
6. Sex (1 male, 0 female)						-0.04	-0.02	-0.11	0.07	0.01	0.50	0.50	0-1
7. Age							-0.16*	-0.03	-0.17	0.01	13.67	1.95	11-18
8. Housing status								0.01	-0.02	0.09	0.24	0.43	0-1
9. Fear in Chechnya									0.05	0.05	0.30	0.46	0-1
10. Fear in Ingushetia										0.02	0.31	0.46	0-1
11. Time in Ingushetia											0.88	0.32	0-1

[~]Notes: p<=.10

* p<=.05

** p<=.01

*** p<=.001; two-tailed significance test

[†] community connectedness N=138.

Table 3

Means and standard deviations of child psychosocial variables by gender (N=183)

	<u>Total (N=183)</u>		<u>Girls (n=91)</u>		<u>Boys (n=92)</u>		<u>Gender difference</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
YSR internalising score	16.21	7.41	18.66	6.40	13.74	7.57	t = 4.74***
Family connectedness	17.92	2.16	17.95	1.99	17.90	2.34	t = -1.06
Peer connectedness	16.38	3.13	16.22	3.31	16.54	2.95	t = -2.50*
Community connectedness ⁺	13.41	3.86	12.12	4.14	14.59	3.18	t = -3.95**
MSPSS social support	51.76	6.95	51.75	6.34	51.78	7.55	t = -0.03

~ **Notes:** p<=.10;

* p<=.05;

** p<=.01;

*** p<=.001; two-tailed significance test

⁺ community connectedness N =139.

Table 4

Association between internalising problem score, all connectedness and global social support scales (standardised) adjusted for covariates (N=179)

	b	CI
Intercept	-0.96	-2.58, 0.67
Family connectedness	-0.24**	-0.41, -0.07
Peer connectedness	0.01	-0.17, 0.18
Community connectedness	-0.03	-0.22, 0.17
MSPSS global support	0.005	-0.02, 0.03
Fear in Chechnya	0.44**	0.14, 0.74
Sex	-0.56***	0.28, 0.85
Age	0.02	-0.05, 0.09
Housing status	0.20	-0.23, 0.64
R ² (adjusted)	0.170	-

~Notes: p<=. 10;

* p<=.05;

** p<=.01;

*** p<=.001.