# Building an evidence base on mental health interventions for children affected by armed conflict

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## Abstract

This paper reviews what is currently known from research about the effectiveness of interventions to address mental health problems in children and adolescents affected by armed conflict. The focus will be on interventions delivered in conflict affected countries either during active humanitarian emergencies or during the post conflict period. The paper will discuss two main paradigms of intervention dominating the field: psychosocial approaches and clinical/psychiatric approaches. The paper reviews some of the basic literature, theories and issues involved in assessment, programme planning, monitoring and evaluation of both approaches. In order to explore these issues in depth, the paper will draw from the author's field experiences with research in the Russian Federation and in northern Uganda. The paper also presents a brief review of a handful of other published evaluations of mental health interventions for war affected children. We will close with a discussion of what future research is needed to build an evidence base regarding mental health interventions for children affected by armed conflict as well as the ethical and feasibility issues associated with carrying out this work.

**Keywords:** children, mental health, armed conflict, mental health interventions

## Psychosocial and psychiatric approaches to mental health in war affected populations

Two main paradigms, the psychosocial and psychiatric, dominate the mental health response for populations affected by war. Most mental health interventions for children can be categorized according to these distinctions.

### Psychosocial approaches to the mental health of war affected youth

Psychosocial approaches focus on most or all the affected population regardless of individual differences in war related exposures or traumatic stress reactions. Psychosocial interventions are rooted in the principle that restoring as much of the prior environment as possible or providing routines, predictability and engagement is important for promoting mental health during complex humanitarian

emergencies (CHEs). Psychosocial interventions avoid using disease labels on the principle that many Western disease labels may be inappropriate across diverse cultural settings (Kalksma van Lith, 2005). Similarly, Western interventions associated with these labels are not assumed to always be a good fit across diverse cultural settings and great emphasis is placed on local participation and restoring indigenous protective processes. In general, psychosocial approaches focus on restoring losses or putting things back together after traumatic events. Because psychosocial interventions emphasise restoring the physical and social environment, they are more easily integrated with other health, social and economic programmes with similar purposes. In this manner, many psychosocial interventions are commonly designed and implemented by non-mental health professionals. Psychosocial approaches to mental health promotion are reflected in efforts to build/rebuild infrastructure, restore shelter and physical health services and improve security. Efforts to increase economic opportunities, provide skills training, justice and accountability, and spiritual support by religious leaders or elders can reinvigorate indigenous protective mechanisms intended to assist people in adjusting to altered circumstances due to war. Similarly, many common psychosocial programmes for war affected childrenaim to restore connections to families and communities or recreate social networks. Such services may include child tracing and family reunification, community reintegration of former child soldiers and interventions such as community based emergency education and recreation programmes. In the Sphere standards of humanitarian practice, the section on mental health (2004) would refer to most psychosocial interventions as '*social interventions*'.

## Psychiatric approaches to the mental health of war affected youth

In contrast, to the psychosocial paradigm, psychiatric approaches require identifying those with mental disorders and focusing interventions on them. A main challenge to the psychiatric/clinical approach in different cultural contexts is how to assess mental health disorders across diverse cultures and settings. Just as psychosocial approaches may avoid the use of Western diagnostic labels, psychiatric approaches face the same challenges of local validity vs. comparability with other settings and diagnostic criteria. Nonetheless, some categorisation strategy is needed in order to establish the incidence and prevalence of disorders and identify mental health problems of greatest public health priority. Another important feature of the psychiatric approach is the need to identify functional limitations associated with distress. As has been demonstrated in several reviews, distress and functioning do not always travel hand in hand, but both are needed in order to understand mental health disorders (Hirschfield, Montgomery, Keller, Kasper, Schatzberg, Moller, Healy, Baldwin, Humble, Versiani, Montenegro & Bourgeois, 2000; Lin, VonKorff, Russo, Katon, Simon, Unutzer, Bush, Walker & Ludman, 2000). Without question, we know that trauma related mental disorders are common consequences of war and terrorism (Mollica, Cardozo, Osofsky, Raphael, Ager & Salama, 2004; Hoven, Duarte, Lucas, Wu, Mandell, Goodwin, Cohen, Balaban, Woodruff, Bin, Musa, Mei, Cantor, Aber, Cohen & Susser, 2005). These disorders cause intense suffering and dysfunction resulting in effects far beyond the individual, which underscores their public health significance. Furthermore, the literature suggests that many mental health disorders appear to occur across cultures. In this manner, lessons learned in one population may be applicable to others. According to the Sphere standards for mental health (2004), many such psychiatric or clinical interventions would be termed '*psychological interventions*'. Rather than restore the environment, these interventions aim to identify those with mental health disorders and provide them with specific treatments to reduce symptoms and impairment in a targeted fashion.

## An integrated approach to mental health in complex humanitarian emergencies

Although psychosocial and psychiatric approaches are driven by different philosophies and field practices, the greatest strength lies in using these two approaches in a complementary fashion (Bolton & Betancourt, 2004). Immediately following a crisis, psychosocial approaches aimed at restoring a stabilised environment for war affected children and adolescents can be an important first step in promoting mental health in complex humanitarian emergencies. As a population level approach to

mental health promotion, stabilising community interventions should first aim to restore security, routines and some semblance of day to day life as it was, prior to disruption. Such activities would certainly entail providing for basic daily needs such as food, water, shelter and safety, but also the opportunity to maintain or reinvigorate social connections and engagement in activities like education and economic activities (harvesting, job skills building). Such meaningful engagement may also provide a source of hope for the future for many war affected youth (Betancourt, 2005). Meaningful engagement might also entail being able to pursue religious practices, or opportunities for creative expression through the arts. All of these activities have important implications for promoting mental health among large populations affected by war (such as people living in refugee or internally displaced people (IDP) camps).

Another reason why psychosocial approaches may be preferable immediately post disaster is that their provision may lead to improvements in general symptoms among persons both with and without specific disorders. This first line of response may be enough to reduce symptoms below a threshold of clinical significance for large proportions of the population. This is in contrast to clinical interventions that usually require additional resources and training, and have to identify those with the highest degree of clinical need (i.e. symptoms and impairment). Once front line psychosocial interventions are in place, those individuals whose needs are not met by these restorative community level interventions can be identified. Those who continue to manifest psychopathology after a period of stabilising interventions will likely require a higher level of mental health care.

The distinction between psychosocial and psychiatric approaches should not be absolute. Prior to ensuring that stabilising psychosocial interventions have been implemented, persons with evident mental illness, or those with severe profiles of risk (i.e. survivors of sexual violence or torture) should still be treated according to available resources. In this same manner, robust psychosocial interventions should continue after screening and treatment of mental disorders hasbegun. Decision making about how to combine these approaches should be directed by local circumstances and local participation.

The debate as to the appropriate role of psychosocial and psychiatric/clinical interventions post disaster is irrelevant without the tools to detect clinical need (Bolton & Betancourt, 2004; Ager, 2002). Applied research is needed to determine beneficiary needs per locally relevant standards and terms. Such applied research can be used to develop locally valid and appropriate measures of constructs under study. These measures may then be employed in evaluations and intervention trials to evaluate the efficacy of interventions directed at target issues.

## Evaluating psychosocial and psychiatric programs

Certainly a number of standard evaluation approaches may be employed to assess the effectiveness of both psychosocial and psychiatric/clinical interventions in conflict affected settings. However, as in any evaluation, it is critical that the goals of the intervention and appropriate target outcomes be specified. In psychosocial programmes, this goal can be a challenge in that normalising activities are seen as laying the groundwork for improved well being, but they usually operate at a collective ecological level and are often directed as outcomes that may be difficult to assess with great specificity. They may also target outcomes that are complex to assess, particularly across different cultures and settings, such as 'hope', 'problem solving' or 'social skills'. In contrast, a distinguishing feature of clinical/psychiatric approaches is the specificity of interventions. Such interventions are designed to target a particular mental health problem, or set of problems. Increasingly, clinical and psychiatric approaches are looking to 'evidence based treatments' for the particular mental health problem identified (Weisz, Sandler, Durlak & Anton, 2005). Evidence based treatments have been established for a number of common disorders first diagnosed in childhood and adolescence (Weisz et al., 2005).[1]

Two examples below(from Ingushetia, Russia and Gulu District, northern Uganda) provide recent examples of applied research on both psychosocial and psychiatric approaches to addressing the mental health of war affected children and adolescents.

## Case A: Evaluation of the psychosocial effects of an emergency program in the Russian Federation

### Context

Chechnya has suffered two bloody conflicts in recent years. In 1994–96, massive fighting forced hundreds of thousands of displaced people to the neighbouring Republic of Dagestan. The fighting subsided in 1996, but left behind a severely damaged infrastructure and rampant political instability. Just years later, in 1999, another conflict broke out leading to the displacement of more than 160 000 IDP mainly to the neighbouring Republic of Ingushetia. Although the most recent Chechen conflict has again subsided following the death of several Chechen rebel leaders and the strong-arm rule of Moscow backed Chechen president Ramzan Kadyrov, there has been little published research examining mental health in children and adolescents displaced by years of conflict in Chechnya.

### Intervention

The intervention evaluated was the International Rescue Committee's (IRC) North Caucasus Emergency Education Programme, which was launched in 1999. The data collected here were gathered in 2000 and provided preliminary guidance to help shape the start of this programme. Emergency education refers to the provision of educational activities early on in a crisis and has been argued as an important means of restoring predictability and social supports to children (Aguilar & Retamal, 1998). A number of psychosocial features of emergency education have been theorized. These include fostering enriched social networks and social support between children, staff and other adults in the community, providing children with skills critical to their future success and reintegration, and serving a '*normalising*' psychosocial function by providing structure and routine. Having an organised place for children in a refugee or displacement camp can also help provide a '*focal point*' for organising on behalf of children. In this manner, schools can be used to provide health information and to screen for children needing a higher level of mental or physical health care (Betancourt, 2005).

### Evaluation

As noted, often the outcomes of psychosocial programmes are less specific than the symptoms or impairment targeted by psychiatric/clinical programmes. Additionally, many mental health constructs addressed in either approach may prove challenging to assess cross culturally by merely employing and translating standard instruments. For instance, the interest in implementing emergency education programmes for Chechen IDP youth in Ingushetia was motivated by both educational and psychosocial goals. From an evaluation perspective, assessing educational goals was more straightforward (grade completion, literacy levels, test scores and grades). However, our ability to understand psychosocial issues required exploratory quantitative and qualitative data collection. The research reported here was conducted in 2000 and was designed to investigate the psychosocial aspects of the IRC emergency education program for Chechen IDPs in Ingushetia. Full details are available in other publications (Betancourt, 2002, 2004, 2005). Qualitative and quantitative data were collected in sites where our collaborating non governmental organisation (NGO) (the International Rescue Committee/IRC) had recently begun or was about to establish emergency education programmes.

### Findings/lessons learned

The qualitative and quantitative data revealed that the Chechen IDP youth interviewed faced many daily emotional and environmental stressors. Surveys were collected among a random sample of N = 183 girls and boys registered for the IRC emergency education programmes. The main survory

measures included the Russian version of the Achenbach Youth Self Report (1991) and locally adapted measures of social support and connectedness. Findings indicated that rates of internalising and externalising emotional and behavioural problems in these Chechen IDP youth were higher compared to US non-referred youth norms (Achenbach, 1991) and to norms on the Achenbach Youth Self Report reported on Russian children of the similar ages living in Novisibirsk, Russia (Slobodskaya, 1999). In multivariate analyses, family connectedness persisted as a significant predictor of internalising emotional and behavioural problem scores, independent of age, gender, housing status and other forms of support investigated.

Semi-structured key informant interview protocols (N = 57) explored risk and protective processes facing adolescents during displacement, the role of education in their lives and their current experiences with the emergency education programmes (Betancourt, 2005). In these interviews, Chechen youth spoke of the difficulty of living in extremely overcrowded tents or abandoned buildings, the infrequency of food, medicines and educational materials and concern for their loved ones back home. They also worried about the burdens their parents faced in trying to care for them and their siblings. They described frequent idleness in the camps that was associated with more negative behaviours such as smoking or getting into trouble when they should be '*busy with something*' or working to support their families. The also spoke of the humiliation of having to '*live like animals*', being unable to fulfil their simple desire to '*live like other kids*' and participate in simple play, school or community activities. They struggled with a sense of gratitude to the Ingush people for taking in the Chechen IDPs, along with frustration that they frequently face from teasing or harassment by local youth and authorities. Overall, Chechen youth were aware of the way in which the war had forced them to '*grow up fast*'.

The research indicated that for many young people finding a means to enjoy the company of fellow teenagers had been challenging in the emotionally charged context of some of the settlements. Before the emergency education programme had started, young people had tried to organise their own activities but encountered resistance from adults, offended by the sight of young people having '*fun*' amidst the hardship of displacement.

Many Chechen youth interviewed reported that the education programme had '*helped*' by returning young people to their studies, as well as giving children a safe and predictable place to go. It was also described as giving them an emotional space to turn their thoughts towards more age appropriate concerns. Not only did teens feel that young people needed a place to '*forget about the war*', they also needed a place to be '*understood*'. Relationships between teachers, youth leaders and peers in the education programme were discussed as a potential source of assistance and informational support when parental time for children was unavailable. Indeed, the education programme was seen as providing a place for children to connect to others, gain social support and offer hope for a better future. Many adolescents spoke about the opportunity to study in any form as a means of improving the potential for peace and success within their generation and for the region as a whole. The teens spoke generally about their desire to overcome the ravages of war and have future opportunities to be productive and successful.

While the emergency education programme had undoubtedly been a source of social support, it has also created concern in adolescents due to its non-formal nature. Initially the IRC supported emergency education schools placed little emphasis on grades because so many children were behind in their schooling, texts and teaching materials were few, teachers needed training and the programme needed to coordinate with the Ingush Ministry of Education to ensure future formalisation and accreditation. Due to a shortage of teachers trained in multiple subjects, not all subjects could be taught and many classrooms were of mixed ages and grade levels making immediate formalisation difficult. Although the non-formal nature of the programme was greatly determined in its early stages by a well intended desire to make children feel safe and comfortable, youth experienced the programme as '*not normal*'.

This unnatural learning environment clashed with the desire of many adolescents for legitimacy and normality. Adolescents eagerly wanted formal schooling situations and testing opportunities legitimised by local education officials. The non-formal education programme was emblematic of displaced Chechens as they felt they were living a parallel but '*abnormal*', or unnatural, existence by not attending what they perceived as '*regular' schooling*'.

The findings of this research and dedicated leadership from the IRC country programme staff and Headquarters led to a number of important changes in the emergency education programme. IRC's early efforts to move rapidly to formal education resulted in certification of the IRC schools by the Ingush Ministry of Education. Children and adolescents were transitioned quickly to follow the national Russian education curriculum and were eventually able to sit for national grade completion exams. The programme also evolved to include a wide range of cultural activities, vocational education, accelerated learning and reconstruction of schools inside Chechnya. The translated mental health measures used in this research were also used as assessment tools by a subsequent counselling programme set up by the IRC to support Chechen IDP youth and families.

## Case B: Northern Uganda

### Context

In 2004, the first author served as Co-Principal Investigator in a three-part study of mental health problems among children displaced by more than 20 years of war in northern Uganda (Betancourt, in press; Bolton, Bass, Betancourt, Speelman, Onyango, Clougherty, Neugebauer, Verdeli & Murray,2007).The purpose of this research was to investigate local perceptions of mental health problems affecting children living in IDP camps and to plan and evaluate feasible mental health service models. Two international NGOs,World Vision and War Child Holland (WCH), who were developing mental health services for children living in the IDP camps of Gulu District, northern Uganda, funded this research.

### Evaluation

This first qualitative phase of the research used a rapid assessment approach employed in previous cross cultural mental health research in sub-Saharan Africa (Bolton, Bass, Neugebauer, Clougherty, Verdeli, Ndogoni, Wickramaratne & Weissman, 2003). Children ages 10–17 years and their caretakers were interviewed using free listing and key informant methods. What emerged from these interviews were several categories of locally defined syndromes indicative of the mental health needs of children in this setting: *two tam/par/kumu* (depression and dysthymia-like syndromes), *ma lwor* (an anxiety-like syndrome), and a category of conduct problems referred to as *kwo maraco*. The symptoms of these local syndromes are similar to many DSM-IV-TR (American Psychiatric Association, 2000) criteria for mood, anxiety and conduct disorders, but some culturally specific symptoms also emerged. For example, '*sitting kumu*' (sitting while holding one's cheek with their hand) was described as hallmark symptom of the local mood disorder *kumu* (Betancourt et al., in press).

Symptoms of these local syndromes were used to create the Acholi Psychosocial Assessment Instrument (APAI). The APAI assesses symptoms along a continuum, relying on a mean score for each subscale rather than sorting children into a specific diagnostic category, although subscale scores are possible. Functional limitation scales were also created from additional items derived from free listing exercises related to a young person's difficulty with being able to do chores, go to school and engage in family and community roles.

In the summer of 2005, we conducted a brief validity study among a sample of N = 667 14–17 year olds interviewed as part of an effort to screen adolescents into the final phase of the research: a randomised controlled trial for the treatment of depression-like problems (Bolton et al., 2007). Again,

the screening process and study design were derived from a process previously used among adults (Bolton et al., 2003) with the present research intended to adapt this process for use among children. A survey containing the locally derived measure, the APAI, a standard Western measure (the SDQ: Strengths and Difficulties questionnaire) (Goodman, 1997) and questions on functional limitations and demographics was administered to these adolescents (representing over 40% of the estimated 1600 14–17 year olds in the two camps), and one primary caregiver each.[2]

## Intervention

In the third phase of this project, the validated APAI measure was used to screen and randomise adolescents (13–17 years old) to a 3-arm Randomized Controlled Trial of Adapted Group Interpersonal Psychotherapy (IPT-G) and an arts and recreation intervention (Creative Play, CP) for the treatment of locally described, depression-like symptoms compared to a waiting list control group.

## Lesson learned

The findings indicated that adapted Group Interpersonal therapy for war affected adolescents in northern Uganda was more effective compared to controls, particularly for treating symptoms of depression-like problems in young women. Overall, this trial provided evidence that IPT-G is a feasible and effective intervention for addressing the symptoms of locally relevant mood disorders as well as co-morbid anxiety problems among adolescents in this setting. In this trial, the CP intervention could be classified as psychosocial rather than psychiatric, given that it was originally designed to improve social skills, self esteem and problem solving, rather than address psychiatric symptoms. However, it must be noted that our research design focused on depression-like symptoms rather than broad psychosocial outcomes such as interpersonal skills, self-esteem and problem solving. In future evaluation efforts, it would be important to explore outcomes more aligned with the stated goals of WCH interventions including '*strengthening children's psychosocial development*' (Kalksma van Lith, 2005). Although CP was not demonstrated to be effective for reducing symptoms of depression compared to the controls, CP may certainly have had an influence on broader psychosocial outcomes that were not assessed. Certainly qualitative '*exit*' interviews conducted with participants of both interventions, and their caregivers, indicated very positive experiences with both interventions. In this light, future trials involving psychiatric and psychosocial interventions should consider measurement of a larger range of outcomes relating to both psychiatric treatment goals and psychosocial objectives. In efforts to investigate CP in the future, instruments could be developed that are more suitable for evaluating psychosocial wellbeing and broad based psychosocial outcomes.

This experience in northern Uganda must be considered in lightof other studies which have contributed to the emerging evidence base on targeted mental health (psychiatric) interventions for war affected children during active Complex Humanitarian Emergencies (CHEs) or in an immediate post conflict period. A handful of studies have been conducted to evaluate the effectiveness of interventions to address mental health problems among war affected children in such settings. A summary of these studies is presented in Table 1 and further details are described below.

Table 1

Published literature of interventions to address mental health problems among war affected children and adolescents

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## Literature Review

A review of the published literature on the effectiveness of interventions to address mental health problems among war affected children and adolescents during active CHEs or in the immediate post conflict period was conducted. We used the search terms 'war, children, mental health, evaluation and intervention' in searching both the PubMed and PsychLit databases. We also contacted experts in the field including colleagues at WHO Geneva who had reviewed similar literature for a recently published analysis of the Sphere standards on mental health (Morris, Van Ommeren, Belfer, Saxena & Saraceno, 2007). Apart from the two studies described above, this search revealed the following studies that represent the first steps towards building an evidence base on effective interventions for children in active CHEs and post conflict settings.

### Intervention studies conducted during active CHEs

Onyut, Neuner, Schauer, Ertl, Odenwald, Schauer & Elbert (2005) conducted a small pilot study of a treatment for symptoms of post traumatic stress disorder (PTSD) among Somali children living in refugee camps in Uganda. This study involved N = 6 Somali children (aged 12 to 17 years) who were screened based on PTSD-like symptoms. Experienced mental health clinicians delivered an adapted version of narrative exposure therapy (NET), and each participant received four to six sessions of individual treatment. At baseline, all children presented with multiple and severe war events, and all showed significant reductions in PTSD symptoms post test. At a nine month follow up, one third of the children still fulfilled PTSD criteria, but were now at borderline levels. The authors also noted that those children presenting clinically significant depression at baseline reported decreased levels post intervention. Despite the small sample size, the authors describe these results as promising and suggested that NET may be an effective 'short term treatment with child patients even in the unsafe conditions of a refugee camp in an African country'. One drawback to this intervention is cost, as this study required interpreters as well as highly trained mental health professionals to deliver the intervention. The authors suggested that future studies should explore the feasibility of training para-professionals to deliver the therapy via rigorous short term training and supervision.

Thabet, Karim & Vostanis (2005) evaluated the efficacy of a short term group crisis intervention for children during the ongoing conflict in the Gaza Strip. Children (aged 9 to 15 years) presenting with PTSD symptoms were non-randomly assigned to one of three groups: seven session group intervention (n = 47), four session education intervention (n = 22), or no intervention (n = 42). Group interventions focused on drawing, free play, storytelling and expression of feelings. Children were assessed before treatment and three months later. The researchers reported no significant impact of the group intervention on children's post traumatic stress or depressive symptoms, with the exception of a decrease in intrusion scores (p = 0.06). Limitations of the study included an absence of parental involvement during interventions, small sample size, and absence of a measure for exposure to violence during the intervention period to account for potential confounding due to exposure to violence in the study interval. The authors concluded that the lack of significant differences between the intervention group and the other two groups could partially be explained by what was termed '*non-active*' intervention techniques. While the authors observed that such non-active techniques appeared to successfully engage and capture children's attention, this strategy did not necessarily help them process difficult experiences or emotions.

Dybdahl (2001) examined the relationship between maternal mental health and child health outcomes in a group of N = 87 internally displaced mother/child dyads in war torn Bosnia. 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 alsouseda curriculum informedby the International Child Development Programme (2007) for improving mother—child interactions. Post test results suggested that the intervention had modest effects on maternal mental health, children's weight gain, and several measures of children's

psychosocial functioning and mental health. Lack of paternal intervention, small sample size, and environmental conditions related to conductingan interventionwithin a complex humanitarian emergency were noted as limitations. The author described the intervention strategy as a '*simple and inexpensive*' theory based intervention using accepted guidelines to provide short term psychosocial treatment to mothers and children exposed to trauma. This study is unique in its focus on improving outcomes in young children by providing care and parenting support to mothers.

Using a centre based intervention, Paardekooper (2002) examined the effectiveness of low cost, short term, theory driven interventions designed to improve the psychosocial wellbeing of a group of Sudanese refugee children. Children meeting inclusion criteria were assigned to one of three groups: psychodynamic treatment (n = 68) (addressing stressors and traumatic events in the past); contextual intervention (n = 69) (addressing current daily stressors); or a control condition (n = 70). Intervention groups lasted eight sessions, and while curriculum content between the two groups differed in only four of these sessions, the contextual program showed greater improvement in outcomes relatedto symptoms of obsessive/compulsiveness as well as somatisation, behavioural problems, fears, concentration problems and post traumatic memories. The contextual group also demonstrated significant improvements in coping. Participants in the psychodynamic intervention did not demonstrate significant improvements in mental health symptoms compared to controls, but did show significant improvements in social support and the ability to handle daily stressors. The author suggested that these findings should inform interventions that focus on addressing the everyday stressors of refugee life rather than focusing on the psychodynamic consequences of past traumatic stressors, particularly in a setting of active displacement.

## Post war/school based interventions

Layne, Pynoos, Saltzman, Arslanagic, Black, Savjak, Popovic, Durakovic, Campara, Djapo, Ryan & Music (2001) assessed the effects of a manual, school based psychotherapeutic intervention on war traumatised Bosnian adolescents who survived the most recent Balkan conflict. The study intervention intended to reduce post traumatic and depressive symptoms in a group of 55 adolescents (Median age, M = 16.8 years) attending Bosnian schools. High levels of PTSD and depression symptoms identified study participants. Children participated in a four module, 20 session trauma/grief focused group psychotherapy intervention. Reported results included reduced levels of post traumatic stress, depression and grief symptoms, as well as positive associations between distress reduction and psychosocial adaptation. The authors noted a number of logistical problems that delayed implementation of the full curriculum to the entire study sample. Significant differences were not found for intensity of group participation (full vs. partial) for any of the distress measures. Further, study methods did not utilise a randomised controlled trial (RCT) and it is unclear to what extent participant maturation influence reported outcomes.

Using a pilot school based intervention, Gordon, Staples, Blyta & Bytyqi (2004) examined the efficacy of mind—body techniques to reduce post traumatic stress in a group of high school students in post war Kosovo. Students participated in a 6 week (3 hrs weekly) session based didactic course focusing on: mediation; biofeedback; drawings; autogenic training; guided imagery; genograms (a pictorial display of a person's family relationships and medical history); movement; and breathing techniques as a means of reducing post traumatic stress symptoms. While the intervention was stagger started across the three groups, all reported similar PTSD symptoms at baseline, suggesting to the authors that the passage of time did not lessen PTSD symptoms. Of the N = 139 students who completed pre/post tests, the researchers found significant decreases in PTSD symptoms after participation in the program (p<0.001). Follow up data collected from one of the three stagger started groups found significantly lower (p<0.001) levels of PTSD symptoms than in pre test or post test. The intervention was administered by trained, non-specialist teachers, suggesting that this type of treatment could be

replicable and cost effective in other settings where mental health professionals are few. Limitations included the absence of a control group as well as a lack of triangulating the data, as this study relied solely on the Post traumatic Stress Index to generate conclusions.

Woodside, Barbara & Benner (1999) reported the effects of a randomised controlled intervention consisting of a manual school based curriculum developed to reduce psychosocial trauma and promote social healing in a group of 250 children (M = 11.9 years) in Croatia. Teachers received a three day training to administer trauma/grief focused psychotherapy weekly group sessions over a four month period.The experimental design included two controls and one intervention group. Pre test, post test, and a one year follow up assessment examined levels of post traumatic stress, self-worth, conflict resolution, social skills, psychosocial wellbeing, ethnic bias, and academic achievement. Results suggested a small but significant reduction in ethnic bias and a reduction of stress symptoms in the intervention group. In the treatment group, more positive effects on self-esteem were observed among girls than boys. An increased perception of Serbs was demonstrated among Croatian children participating in the treatment group. No significant correlations were found between trauma exposure, trauma symptoms, and social distance. The authors suggested that future studies should include measures of parental attitudes. Further, they suggested that ethnic reconciliation might begin in school but is likely tempered by the degree of community buy in. Potential confounding variables such as participant maturation, exposure to media, parental attitudes toward reconciliation, and the lack of gender variation of trainers (all of whom were women) were all presented by the authors as study limitations.

## Discussion

The studies summarised here provide an overview of recent evaluations of clinical/psychiatric approaches to mental health interventions for children affected by armed conflict. The published literature contains less information on formal evaluations of interventions that would be considered more broadly psychosocial by the definition presented earlier. This author's work on exploring the psychosocial aspects of emergency education program for children displaced by the Chechen war is one example of an initial effort at evaluating a more classically psychosocial programme, however, many more in depth evaluations of these sorts of programmes are needed in the future. Ultimately a mix of qualitative and quantitative methods could lead to a much more complex understanding of the effectiveness of such programmes in field settings.

Certainly a number of important next steps remain in the process of building an evidence base on psychiatric and psychosocial interventions for children affected by war. Without question, we need more rigorously designed evaluations of both psychosocial and psychiatric/clinical interventions across a number of diverse contexts and cultural groups. In order to do this, we require more concentrated efforts to ensure the reliability and validity of cross cultural mental health measurement. Achieving valid and rigorous cross cultural mental health measurement will always be a challenge, but can be greatly improved by combining qualitative and quantitative methodologies. By learning about local priorities and local idioms of distress for the mental health issues facing children and youth, interventions may be directedat problemareas andaspects of functioning that are relevant and prioritised by affected communities.

In order tobuild an evidence base, we require specificity in the identification of problem areas targeted by both psychosocial and psychiatric approaches. Such precision will ensure that treatment protocols are designed with clear targets in mind and that appropriate outcomes are assessed given the nature of the intervention being evaluated. We need to consider building programmes of research in a phased approach, beginning first with developing sound, locally valid measures, then piloting locally appropriate interventions, then testing them using rigorous designs, with the best of these being the randomised controlled trial (RCT) (Morris etal.,2007). In order to ensure fidelity to treatment models and encourage the dissemination of evidence based treatments, applied research can help to ensure that

interventions are manual and well defined so that they can again be adapted and tested in new settings. As demonstrated by this summary, there are only a handful of studies that assess intervention effectiveness using rigorous designs. The highest standard of evidence, the RCT, is still very uncommon in this work. However, using waiting list control designs can be highly ethical and often matched with the natural roll out of interventions while contributing to the knowledge base (Bolton & Betancourt,2004). Going forward, applied research must aim to ensure unbiased/randomised assignments of study participants to treatment protocols and the use of control groups.

Research to date indicates that high quality mental health services are possible in low resource and war affected settings, as are formal trials of these interventions. In advancing our research on mental health interventions for war affected youth, more advanced stages of a phased approach to this research can begin to catalogue treatment moderators such as subgroups for whom interventions are more or less effective, as well as identifying the mediators, '*active ingredients*', or therapeutic change (Jensen, Weersing, Hoagwood & Goldman, 2005).

In summary, the greatest strength lies not in forcing an artificial divide between psychosocial and psychological approaches but in combining them to effect better outcomes for assessing and improving the mental health of war affected children. To do this, services must be integrated across sectors. Mental health cannotbe separated from overall health. As our research in Ingushetia demonstrated, education systems present one example of a critical partner for working with children in that setting. Psychosocial interventions of this sort must be designed ecologically to leverage other aspects of the social ecology (i.e. community and family level protective processes). We are now in an era of sophistication such that '*child mental health programmes*' must still consider the place of families and caregivers in the treatment outcomes being sought. It is often the case that interventions for child mental health need to also involve families. Beyond the innovative study by Dybdahl (2001) formal evaluations of such interventions are scarce.

In terms of future research that is needed, there is a great deal of opportunity to combine both qualitative and quantitative approaches to advance this field. Ultimately, research proceeding along the phased approach described earlier, beginning first with valid and reliable measures, then conducting feasibility and pilot studies of locally feasible and relevant interventions, could inform both psychiatric and psychosocial approaches. Both of these can be combined and tested using increasingly sophisticated designs (eventually RCTs where possible). In this effort, collaborations between implementation organisations (NGOs) and academic institutions are compelling in order to ensure scientific neutrality. The examples of research presented here provide several models for how such collaborations can be conducted. These and other efforts to improve the evidence base on interventions are essential for advancing high quality and ethical care for children affected by war.

## Footnotes

[1]These include treatments such as varieties of cognitive behavioral therapy for the treatment of anxiety disorders and depression and the use of parent training and multi-systemic therapy for the treatment of oppositional defiant and conduct disorders. In research terms, basic criteria have been established for assessing the degree of '*evidence*' for a treatment's efficacy (how effective an intervention is proven to be in experimenter controlled conditions) and effectiveness (how effective an intervention is in real-world settings under less controlled conditions). The optimal criterion is the existence of at least one, and hopefully numerous, confirmatory RCTs demonstrating that a treatment significantly improves outcomes (from improvement in symptoms to meeting criteria for '*recovery*') from the targeted mental health disorders. Other lesser, but important levels of evidence include the existence of at least one study using a quasi-experimental design, at least one observational study and in the least, anecdotal evidence and support of the practice by expert clinical opinion (Cooper, 2003; Morris, J., Van Ommeren, M., Belfer, M., Saxena, S. & Saraceno, B., 2007).

[2] In order to address the reality of the central challenge of criterion validity in a context in which few mental health professionals are available, we had to look beyond traditional approaches to testing validity. Because our qualitative research in this setting had identified local terms for common mental health syndromes in children and their associated symptoms, we used local reports of the presence of syndromes as an '*alternate gold standard*' for validating our measure. This overall process of using the reports of local people in local terms as an alternate gold standard (Bolton, 2001) for identifying likely instances of mental health syndromes was intended to develop an approach for testing validity that may be used in other field settings when few mental health professionals are available. Our analyses to validate the APAI using this approach indicated that in instances where both the adolescent and caregiver agreed that a locally defined disorder was present, the average subscale score for that disorder was significantly higher compared to those instances where both the caregiver and adolescent agreed that a local syndrome was absent. This finding was upheld across all subscales as well as when all cases of depression-like problems were combined and the total depression score was evaluated. These findings provided local criterion validity for the APAI and its subscales for the local syndromes of *two tam, kumu* and *par* which were combined to create the total depression score for the subsequent RCT. Further analysis indicated that the APAI had good psychometric properties including internal consistency, inter-rater and test—retest reliability and correlated significantly and in expected ways with the Western measure, the SDQ. The strengths of the APAI included the fact that it contained locally relevant idioms of distress and contextually and culturally relevant symptoms for detecting depression-like problems among Acholi Luo youth.

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