# Chapter 3
# Mixed-Methods Approaches to Contextually Grounded Research in Settings of Armed Conflict and Natural Disaster

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**Abstract** This chapter examines the integration of qualitative and quantitative research methods in the development of culturally grounded mental health, and psychosocial assessment tools for use with populations displaced by armed conflict or natural disaster. After first arguing for the importance of grounding our assessment tools in local cultural contexts, the author then describes the unique and complementary contributions that qualitative and quantitative methods can make to the creation of contextually and empirically sound instruments. Of particular importance is the capacity of blended or mixed-methods approaches to identify and assess locally salient expressions of wellbeing and distress, as well as factors that influence mental health in specific contexts. Drawing on examples from research on the mental health of adults in Afghanistan and on the psychosocial wellbeing of youth in Sri Lanka, the author illustrates an easily replicable, sequenced approach to culturally anchored development of measures. First, qualitative methods such as free-listing and key informant interviews are used to identify relevant constructs and key indicators of those constructs; those indicators are then used as items in newly-developed measures of the target constructs. The measures are then pilot tested in community surveys and assessed for reliability and validity using traditional quantitative scale development procedures. The chapter includes a detailed discussion of the development and validation of the Afghan Symptom Checklist and the Sri Lankan Index of Psychosocial Status – Child Version.

**Keywords** Mixed-methods · War · Disaster · Assessment

**Abbreviations**

| | |
|---|---|
| ADSS | Afghan Daily Stressor Scale |
| ASCL | Afghan Symptom Checklist |
| AWES | Afghan War Experiences Scales |

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| | |
|---|---|
| PTSD | Post-traumatic Stress Disorder |
| SLIPSS-A | Sri Lankan Index of Psychosocial Status for Adults |
| SLIPSS-C | Sri Lankan Index of Psychosocial Status for Children |
| UNHCR | United Nations High Commissioner for Refugees |
| UNDP | United Nations Development Programme |

This chapter describes an approach to integrating qualitative and quantitative methods when conducting research with populations affected by armed conflict or natural disaster. The approach, which combines elements of "quick ethnography" (Handwerker, 2001) and traditional questionnaire development techniques, is designed to facilitate the construction of contextually grounded tools for needs assessment and program evaluation. Although the focus of the chapter is on mental health and psychosocial research, the methods discussed and the underlying rationale for their use are readily applicable to other areas of research as well.

## Armed Conflict, Natural Disaster, and Forced New Settlement

At first glance, the relevance of research on armed conflict and natural disaster to a volume on mobility may not be apparent. However, both war and disaster often cause large-scale displacement of civilian populations – a sort of forced mobility that is profoundly disruptive and highly distressing. For example, the Afghan-Soviet war from 1979 to 1989, and the ensuing civil war within Afghanistan (1992–1996), led to roughly six million people, nearly a third of the pre-war Afghan population, fleeing into exile, primarily to neighboring Pakistan and Iran (Goodson, 2001; Rashid, 2000). Similarly, approximately two million Bosnians were displaced from their homes and communities during the intense warfare and ethnic cleansing that took place in Bosnia from 1992 to 1996 (US Committee for Refugees and Immigrants, 1997). The tsunami that hit South and Southeast Asia in 2004 likewise caused a massive displacement of coastal villages in several countries (ABC News Online, 2004), as did the earthquake that devastated regions of Pakistan in 2005 (UNHCR, 2006). Depending on the persistence of the particular conflict, or the severity of the disaster and the pace of post-disaster reconstruction, the period of displacement may range from a matter of weeks to indefinite periods of time extending over several years. And depending on the resources made available both locally and internationally, settings of displacement may range from the outskirts of large cities to refugee camps and informal settlements, either within or outside of the country of origin. In a minority of cases, displacement may become permanent when refugees or asylum seekers are granted permanent resettlement in receptive host countries.

Thus, forced mobility is a common element in the experience of many survivors of war and disaster. Although this chapter does not focus specifically on the experience of displacement, the experience itself unquestionably shapes the context of everyday life for many individuals and families in populations affected by armed conflict or catastrophic natural events. Consequently, in exploring ways of assessing contextually relevant variables affecting mental health in such populations, it

is important to recognize that a subset of such variables will likely reflect the experience of displacement and the host of stressors to which it commonly gives rise (for discussions of displacement-related stressors and their relation to mental health, see Birman et al., 2005, and Miller & Rasco, 2004; Ager & Ager this volume).

## Contextually Grounded Mental Health Research with War and Disaster-Affected Populations

Research with war- and disaster-affected populations has traditionally been focused on the psychological effects of direct exposure either to pre-new settlement, war-related violence (e.g., being beaten, witnessing violence, or experiencing the destruction of one's home) or the actual disaster event (e.g., witnessing an earthquake or tsunami and its immediate destruction). In fact, a primary focus in much of the literature has been on assessing the relationship between direct exposure to such events and corresponding levels of psychiatric symptomatology – the so-called "dose-effect" phenomenon (Fox & Tang, 2000; Mollica et al., 1998). Increasingly, however, researchers have come to recognize that a narrow focus on direct exposure to catastrophic events overlooks the adverse impact of the myriad stressful conditions caused or worsened by such events – stressors such as widespread unemployment, extreme poverty, unsafe and overcrowded housing, the loss of social networks, distrust and divisions within communities, and the social marginalization of various affected sub-groups such as widows, former child soldiers, people with disabilities, and survivors of sexual assault (Ager & Ager, this volume; Berry, this volume; Boothby, Strang, & Wessells,, 2006; Carr, Chapter 7 this volume; Davidson, this volume; Hernández-Plaza et al., this volume; Maynard et al., this volume; Miller & Rasmussen, 2010; Podsiadlowski & Ward, this volume). In the handful of studies that have examined *daily stressors* such as these and their relationship to mental health, the findings have been remarkably consistent: daily stressors have consistently been as strongly related to psychological wellbeing as direct exposure to the actual violence and destruction of war and disaster (Al Krenawi, Lev-Wiesel, & Sehwail, 2007; Farhood et al., 1993; Fernando et al., in press; Miller et al., 2008; Rasmussen et al., 2010). In fact, several studies have actually found that daily stressors are *more* strongly predictive of mental health status than level of direct exposure to war or disaster-related incidents of violence and loss.

The neglect of daily stressors and their relation to mental health in settings of conflict and disaster has been paralleled by a lack of attention to cultural variations in the experience and expression of psychological distress in such settings. Although the majority of armed conflicts and catastrophic disasters in the past 50 years have occurred in the developing world, researchers have typically adopted a western psychiatric framework to assess the impact of such events. Among the disorders studied, post-traumatic stress disorder (PTSD) has received particular attention, reflecting the widespread triad of assumptions that (1) PTSD is *the* universal expression of psychological traumatization; (2) the symptoms of PTSD have the same meaning and clinical significance regardless of the cultural context; and (3) PTSD is the

most critical mental health problem caused by political violence and natural disaster (Bracken, Giller, & Summerfield, 1995; Miller, Kulkarni, & Kushner, 2006). A small but growing number of researchers have begun to call these assumptions into question, based on findings that other expressions of trauma-related distress do exist and may in fact be more salient than PTSD in specific cultural contexts (Jenkins, 1996; Miller, Kulkarni, et al., 2006), and that even where PTSD symptoms (and indeed, the full syndrome) are present, other mental health issues are often of greater concern to community members (de Jong, 2002; Miller, Kulkarni, et al., 2006).

As interest grows in transcending the traditionally narrow emphasis on PTSD and its relationship to direct exposure to catastrophic events, there is a need for innovative methodologies that can help foster a deeper and more comprehensive understanding of the factors that affect mental health in the wake of armed conflict and disaster, the particular ways in which psychological wellbeing and distress are expressed in specific sociocultural contexts, and the mental health priorities of particular war- or disaster-affected communities (priorities that may or may not include PTSD at the top of their lists). Drawing on recent experiences in Afghanistan and Sri Lanka, the remainder of this chapter describes an increasingly popular approach to understanding local contexts and developing contextually grounded research tools.

## Blending Qualitative and Quantitative Methods

Paul Bolton and his colleagues have pioneered the use of mixed methods approaches to developing culturally grounded mental health assessment tools in conflict and post-conflict settings. Generally, freelisting (asking participants to generate items such as indicators of psychosocial functioning or emotional distress), story-telling tasks, and key informant interviews are used to identify relevant items for the construction of questionnaires. These qualitative data also provide a rich source of information about whatever is being explored – for example, locally salient indicators and idioms of distress, help-seeking behavior, daily stressors, coping strategies and resources, or manifestations of healthy versus impaired psychosocial functioning. Newly constructed questionnaires using items gathered from the qualitative methods are then pilot-tested in community surveys, and their psychometric properties (reliability, validity, factor structure) evaluated using conventional data analytic techniques. Bolton and Tang (2002) illustrated this approach in their development of measures of functioning in rural areas of Uganda and Rwanda. Items reflecting positive functioning among women and men were gathered through a freelisting procedure; the most common items were then used to create functioning scales whose reliability and validity were established through their use in community surveys. Variations on this methodology have been implemented in a diversity of conflict and post-conflict settings (e.g., Fernando et al. in press; Miller et al., 2008; Miller, Kulkarni, et al., 2006; Rasmussen et al., 2010; Hubbard & Pearson, 2004), and an informative discussion of it can be found in de Jong and van Ommeren (2002).

## Research in Afghanistan: Development of the Afghan Symptom Checklist

The overthrow of the Taliban in November of 2001 created an opportunity to address the mental health needs of Afghans affected by more than two decades of interstate and civil war, severe oppression under the Taliban, and prolonged drought that devastated crop production and worsened the already dire conditions of daily life for many Afghans (Goodson, 2001; UNDP, 2005). Eight years after being driven from Kabul, however, the Taliban remain a major threat to the US-supported government and a serious impediment to reconstruction and development. Moreover, much of Afghanistan is still controlled by warlords, many of whom are heavily involved in the opium trade, while the government is increasingly regarded as ineffective and corrupt, both locally and nationally (Afghanistan Conflict Monitor, 28 May, 2009; International Crisis Group, 2007).

Nonetheless, numerous efforts have been made to begin documenting and addressing mental health and psychosocial needs in Afghan society (CARE, 2004: CARITAS, 2004: Lopes Cardozo et al., 2004; Omidian & Miller, 2006). The research described here was part of a collaborative effort between Dr. Patricia Omidian and her staff at the American Friends Services Committee in Kabul, and American psychologist Ken Miller, to better understand and address mental health needs of Afghans in the post-Taliban era. Interested readers are referred to Miller, Omidian et al. (2006, 2008, 2009) and Omidian and Miller (2006) for papers that have been published based on that collaboration.

Our initial goal was to develop a culturally appropriate mental health questionnaire that could be easily used for needs assessment and program evaluation by organizations working with Afghans. Previous research had used measures not specifically adapted to or standardized for Afghanistan (e.g., Lopes Cardozo et al., 2004), relying instead on constructs and specific items derived from research in other cultural contexts. Our first task, therefore, was to identify locally meaningful indicators of wellbeing and distress. Towards that end, we began by using a convenience sample of ten women and ten men, drawn from two districts of Kabul. Women were approached in their homes by the two Afghan female interviewers, while men, who are rarely at home during the day, were approached and interviewed in various locations (mosques, shops, and on the street) by the two male interviewers. The interviewers were community members themselves, with extensive training in community research methods.

Participants in this phase of the project were asked to think of two people they knew who had suffered emotionally because of difficult life experiences. One person should be someone who had recovered and was now functioning well despite the difficulties they had experienced, while the other person should be someone who continued to suffer despite the passing of time. Participants were then asked to relate the details of each person's story (i.e., what hardships they had experienced and the ways in which they had been affected). They were also asked to describe specific indicators that reflected each person's suffering ("How could you tell that they were suffering?"), and, if appropriate, their recovery and wellbeing ("How could you tell

that they were doing better?"). Lastly, participants were asked to explain why they believed the healthier person had recovered (i.e., was no longer suffering) and why the distressed person was still experiencing difficulties.

This story-telling/freelisting method elicited richly detailed narratives containing indicators of distress that included both culturally specific items (e.g., *jigar khun, asabi, fishar-e-bala*, and beating oneself when highly distressed), as well as items commonly found in western assessment measures (e.g., rumination, crying, insomnia). *Jigar khun* reflects a state of grief, sadness, or heartbreak; *asabi* is a state of nervous irritability or reactivity, and *fishar-e-bala* refers to a feeling of emotional pressure and agitation, sometimes misinterpreted as a state of high blood pressure. A sample narrative is included below (from Miller, Kulkarni, et al., 2006: 425).

### Box 3.1 Sample narrative

The daughter of the woman who is the focus of this story told us the story. She said "We were four sisters and four brothers". Only two of our sisters were older and the rest of our brothers and sisters were younger when our father died of natural causes. Our mother raised the children under very poor circumstances. During that time the fighting was very bad. One of our brothers left home to go get groceries; he was only 21 years old. The fighters asked him where he was from then they killed him. This affected our mother very much. Then our 18-year-old brother left to go get groceries too, and a bomb hit that area and he died. Our family was at home but they brought the bodies to our mother. Our second brother died 2 months after the first brother. Our mother continued to live her life but she is very weak. She works at a hospital. Her pay, which is 1700–1800 Afghanis (about 36 dollars) a month helps her live her life. And her two sons live with her. She always has a severe headache. Her *fishar* is always high and she has diabetes. She doesn't have much of an appetite. She often becomes *jigar khun* and cries a lot and tries to stay away from people when she is at home. She tries to stay away from gatherings and if she does go she becomes very impatient while she is there. Every time she thinks about one of her sons and how one was shot with holes in his body and how the other one was shattered into pieces because of the bomb she becomes very impatient. When she is very impatient she becomes angry and starts fighting. She is always talking about her sons. There are tears in her eyes all the time and when she cries too much her eyes turn red. When she is at home she puts a curse on the people who took her sons away from her. She prays, and she does not have a good relationship with her family.

Once the narratives were gathered, the most frequently mentioned indicators of distress were then identified, and were used to form the items of the new measure, the Afghan Symptom Checklist (ASCL). Although we had hoped to include an equal number of items reflecting the three domains of distress that emerged (distress limited to a person's internal state, distress affecting behavior within the

family, and distress affecting behavior within the community), a disproportionate number of items fell into the first category ("internal state") and so the 22 item ASCL reflects this. The measure, initially created in English, was then translated into Dari and back-translated into English, and any discrepancies were corrected. The survey team then reviewed all items for ease of understanding. The ASCL asks participants to indicate how often they have experienced each of the items during the past two weeks, ranging from "Not at All" (using the graphic of an empty glass) to Everyday (using the graphic of a full glass). The graphics served as visual aids to help participants understand the answer choices after each item was read aloud to them by the surveyors (because of Afghanistan's low literacy rate, the survey was administered orally by the survey team).

The ASCL was then pilot tested on a community sample of 30 women and 30 men in two districts of Kabul. All items were readily understood, and the measure demonstrated a high level of internal consistency (Cronbach's alpha = 0.93). Therefore, all items were retained, and the ASCL was subsequently administered to an additional 264 adults, 132 women and 132 men, representing eight of Kabul's 16 districts. 58% of the participants reported having fled their homes and communities at some point during the war, either becoming internally displaced or crossing the border into Pakistan.

To assess the validity of the ASCL, we also administered the Afghan War Experiences Scales (AWES), a measure of commonly experienced war-related stressors. Given the strong relationship generally found between measures of distress and war exposure, we expected to find a similarly strong association between the ASCL and the AWES if the ASCL was in fact a valid measure of distress. That is precisely what we found: the ASCL and AWES correlated at $r = 0.70$ ($p < .001$). Finally, we conducted an exploratory factor analysis of the ASCL, and found that it contained three factors or subscales, two reflecting different states of dysphoria (one with social withdrawal, rumination, and somatic distress, and one without those symptoms) and another reflecting a state of nervous irritability. Internal consistency of the subscales ranged from 0.93 to 0.74.

The ASCL has subsequently been used as a tool for needs assessments and program evaluation by organizations working in Afghanistan; it has also been used as an outcome measure in several studies of mental health in Afghanistan and the range of factors influencing it (Miller et al., 2008; Miller, Omidian Kulkarni, Yaqubi, & Rasmussen, 2009; Panter-Brick, Eggerman, Mojadidi, & McDade, 2008). In our own research, we first used the ASCL to assess patterns of distress among Afghans in Kabul (Miller, Omidian, et al., 2006). In that study, women showed markedly higher rates of distress than men, while widows, who comprised roughly half the sample of women, reported still higher levels of distress than married women. In a subsequent study examining war exposure, daily stressors, and mental health in Kabul (Miller et al., 2008), the ASCL was used along with several conventional measures of distress (depression, anxiety, functional impairment, and PTSD). In that study, salient daily stressors were first identified through focus groups and then assessed systematically using the newly created Afghan Daily Stressor Scale (ADSS). For most outcomes, including the ASCL, current daily stressors were a better predictor of mental health status than level of previously experienced war

exposure, suggesting the importance of addressing mental health through comprehensive interventions that target not only war-related trauma but also ongoing stressors such as poverty, unemployment, overcrowded and unsafe housing, domestic violence, health concerns, illiteracy, and social isolation. Finally, we also used the ASCL in a study examining the validity and usefulness of the PTSD construct in Afghanistan. In that study, we found that although PTSD does seem to be a valid diagnostic category among Afghans, it has limited utility relative to local expressions of distress such as *jigar khun*, *fishar*, and *asabi*, which seem to better capture the experience of distress among Afghans in the wave of painful and potentially traumatic life events.

In addition to providing us with a culturally relevant set of indicators of distress that we used to create items on the ASCL, the story-telling/free-listing task yielded rich data regarding local beliefs concerning factors that give rise to different types of distress, ways in which psychological distress may impact functioning, and the types of resources – both intrapersonal and social – that are likely to promote psychological resilience or foster recovery among Afghans in the wake of adverse life events. We learned about the importance of distinguishing between suffering resulting from *djinn* (spirit) possession and distress related to difficult life events; about the enduring and painful nature of *jigar khun* in a society so pervasively affected by experiences of loss; and about the psychological importance of external social support (emotional and material) as well as inner resources such as *saber* (an Arabic term referring to patience and, in the Afghan context, holding on to one's faith and not losing hope). Thus, the qualitative phase of the mixed methods approach described here can serve at least two important functions: the identification of key variables for instrument development, and a contextualized understanding of those variables.

The ASCL is not intended to replace western measures of mental health; rather, it is meant to serve as a culturally grounded complement to such measures. Having said that, however, the ASCL is a valid measure of psychological distress for use in Afghanistan, and its items reflect the most salient ways in which distress is expressed among Afghans. Consequently, for service organizations or researchers requiring a culturally appropriate and easily administered measure of distress, we believe the ASCL is a useful option. The measure has since been translated into Pashto, the other major language of Afghanistan, and has been adapted for use with youth as well (Panter-Brick, personal communication).

## Research in Sri Lanka: War Exposure, Natural Disaster, and Daily Stressors as Predictors of Mental Health among Youth in Eastern Sri Lanka

Fernando (2008) has described her adaptation of the mixed methodology used to create the ASCL in her research with adults in Sri Lanka, where she developed the Sri Lankan Index of Psychosocial Status for Adults (SLIPSS-A). The SLIPSS-A is

a culturally grounded tool that provides a comprehensive self-report-based assessment of adult mental health and psychosocial wellbeing. In a follow-up study, we used focus groups, parent interviews, and an expert panel to develop items for a child and adolescent version called the SLIPSS-C (Fernando et al., in press). We also used that same methodology to develop a measure of daily stressors – the Children's Daily Stressor Scale (CDSS). Here, I briefly describe the development of the CDSS and its use in a study of factors affecting mental health among youth in eastern Sri Lanka. Interested readers are referred to Miller et al. (in press) for a more detailed discussion of the development of the CDSS, and to Fernando et al. (in press) for an in-depth discussion of the study and its findings.

As in other areas affected by war and natural disaster, research on mental health in Sri Lanka has tended to focus on the post-traumatic sequelae of direct exposure to armed conflict or disaster-related events (e.g., Neuner, Schauer, Catani, Ruf, & Elbert,, 2006). A compelling exception is the ethnographic work of anthropologist Jason Hart and his colleagues (Hart, Galappatti, Boyden, & Armstrong, 2007) examining multiple sources of stress (and distress) among children in the eastern province of Batticaloa. Like Hart et al., we hoped to move beyond a narrow focus on direct exposure to also consider the influence of ongoing environmental stressors that might be adversely affecting young people's wellbeing in the southeastern district of Ampara, a region badly affected by both the civil war and the tsunami. Unlike Hart et al., however, whose work was strictly qualitative, we hoped to gather qualitative data in the service of developing contextually and psychometrically sound measures for use in a multivariate study that would allow us to examine the relative contribution of war and disaster exposure on the one hand, and daily stressors on the other, to young people's mental health and psychosocial wellbeing (see also, Hernández-Plaza et al., this volume).

## Development of the Children's Daily Stressor Scale

Our first step in constructing the CDSS was to identify locally salient daily stressors affecting youth in the three ethnic groups represented in Ampara District: Sinhalese, Tamil, and Muslim. Working in collaboration with the staff of the Centre for Psychosocial Care, a multiethnic psychosocial service organization in Ampara, we conducted six focus groups with youth in various settings and in the primary language of group members: two Sinhalese groups were held on the grounds of two schools serving primarily Sinhalese students; two Tamil groups were conducted in village meeting halls, and two Muslim groups were held in the meeting spaces of two camps for families that had been displaced by the tsunami. The Sinhalese youth came primarily from villages on the frontline of the civil war ("border villages"), while the Tamil and Muslim youth had been heavily affected by the tsunami and, particularly for Tamil youth, the prolonged armed conflict as well. With regard to forced mobility, many families in the border villages had been leaving their homes with their families every night for the better part of the previous 7 years,

staying with relatives or friends farther from the frontline, in response to a series of massacres that left local villagers too frightened to remain in their homes during the night. Among families whose homes were destroyed by the tsunami, many has spent roughly 18 months in crowded and impoverished camps, with no clear prospect of when they would be able to return to their homes. Thus, the experience of displacement was salient for many of the participants in this study.

To help us identify daily stressors for the CDSS, participants in each group were asked to identify anything that made young people's lives difficult or stressful in their community. Although we were concerned that girls might not be forthcoming in mixed-sex groups, participation by youth of both sexes was similarly good in all of the groups. Focus groups included an average of seven participants, ranging in age from 13 to 19 years, with a roughly equal number of male and female participants.

A total of 20 stressors were identified in the focus groups. Nine additional items were added to the CDSS based on input from the local counselors of our NGO partner, all of whom had extensive experience working in the area, and based on previous research by Fernando (2008). The 29-item CDSS can be seen in Table 3.1. The 20 items identified in the focus groups are the first 20 items on the scale.

**Table 3.1** Items on the children's daily stressor scale

| | |
|---|---|
| 1. | Lack of privacy |
| 2. | Going to jungle at night |
| 3. | Lack of educational resources |
| 4. | Lack of educational opportunities. |
| 5. | Problems with teachers tutoring some children |
| 6. | Inadequate housing |
| 7. | Unwanted sexual advances |
| 8. | Parental substance abuse |
| 9. | Sibling drug and alcohol abuse |
| 10. | Sibling smoking |
| 11. | Social rejection |
| 12. | Risk of being sexually exploited |
| 13. | Fear of being sexually abused |
| 14. | Inadequate water |
| 15. | Snakes in house or environment |
| 16. | Parent abandonment |
| 17. | Inadequate religious education |
| 18. | Media portrayals of sex |
| 19. | Physical abuse by teachers |
| 20. | Physical abuse by parents |
| 21. | Saw your mother or father hitting your father or mother |
| 22. | Heard your mother or father hitting your father or mother |
| 23. | Heard your mother or father yelling at your father or mother |
| 24. | Hit so hard you had injuries |
| 25. | Had a serious medical illness |
| 26. | Yelled so hard it frightened you terribly |
| 27. | Touched sexually without your permission |
| 28. | Taken care of someone who was dying |
| 29. | Leaving home in order stay safe |

Respondents are asked to indicate whether they have experienced each item Never (0), Once (1), or More than once (2).

After an extensive process of translation and back-translation from Sinhalese into English and Tamil and back again, and an additional set of focus groups to ensure accuracy and ease of understanding, the CDSS was then used, along with a measure of direct war and tsunami exposure, to examine factors influencing the mental health and psychosocial wellbeing of youth in Ampara District. Interested readers are referred to Fernando et al. (in press) for a detailed description of that study and its results. Here, the key findings are briefly summarized:

- An exploratory factor analysis revealed three factors or subscales within the CDSS, including "Deprivation", "Interparental Conflict" (verbal and physical), and "Abuse" (including both physical and sexual abuse).
- Multiple regression analyses revealed that daily stressors accounted for greater variance than war and tsunami exposure in levels of PTSD, depression, and anxiety symptoms.
- On the locally constructed measure of psychosocial wellbeing (the SLIPSS-C), daily stressors and war/tsunami exposure accounted for roughly equal variance in (i.e., were similarly good predictors of) SLIPSS-C total score and the Externalizing, Internalizing, and Social Withdrawal subscales.
- Similar results were found when the CDSS subscales were used instead of the CDSS total score. Abuse was related to all outcomes at a level comparable to or greater than war/tsunami exposure. Deprivation was significantly related to PTSD, internalizing behavior, and anxiety at levels equal to or greater than war/tsunami exposure.
- Meditational analysis revealed that Abuse and Deprivation partially mediated (explained) the relationship between war and tsunami exposure and mental health. Abuse and Deprivation were both positively related to war and tsunami exposure and to levels of distress; when these daily stressor subscales were added to the regression models predicting distress, the relationship between direct exposure and mental health status was markedly reduced, though it remained significant.

The results of the survey reflect what we learned in the focus groups; namely, that the stressful social and material conditions of everyday life, many of which were caused or worsened by the war and/or tsunami, represent enduring sources of stress (and distress) for young people in Ampara District. This suggests the importance of comprehensive interventions aimed at altering those stressful conditions, rather than focusing narrowly on healing the lingering effects of war- disaster-related post-trauma reactions. Moreover, the salience of child abuse and its relation to PTSD suggests that even in emergency settings, not all post-trauma reactions are related to catastrophic events such war and disaster. Indeed, for children suffering under ongoing abuse at home or in the community, intervention programs focused on healing the effects of previously experienced war or disaster trauma may seem profoundly out of sync if current sources of trauma are not also addressed.

## Conclusion

Mixed methods designs such as those described in this paper are ideally suited for helping researchers identify locally salient constructs and variables, and for developing contextually grounded assessment and evaluation tools. The methods are easily implemented, and require a minimum of outside expertise for organizations' limited research capacity. Moreover, the qualitative methods not only help to identify key items for questionnaires, they also give insight into the relative importance of different variables (e.g., what stressors are most salient in different settings? Which mental health problems are of greatest concern to different groups within particular communities? What resources are available to help young people cope with different sources of stress?). As interest grows in understanding the ways in which increased mobility, including forced new settlement, affect mental health, there will be an ever greater need for methodologies that allow researchers to understand the impact of changing contexts on psychological wellbeing. Mixed-methods approaches can greatly enhance our ability to ground our research in local contexts and to capture the relationship of changing contexts to the mental health among individuals and families displaced by extreme adversity.

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