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# War exposure, daily stressors, and mental health in conflict and post-conflict settings: Bridging the divide between trauma-focused and psychosocial frameworks

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ABSTRACT

This paper seeks to bridge the divisive split between advocates of trauma-focused and psychosocial approaches to understanding and addressing mental health needs in conflict and post-conflict settings by emphasizing the role that daily stressors play in mediating direct war exposure and mental health outcomes. The authors argue that trauma-focused advocates tend to overemphasize the impact of direct war exposure on mental health, and fail to consider the contribution of stressful social and material conditions (daily stressors). Drawing on the findings of recent studies that have examined the relationship of both war exposure and daily stressors to mental health status, a model is proposed in which daily stressors partially mediate the relationship of war exposure to mental health. Based on that model, and on the growing body of research that supports it, an integrative, sequenced approach to intervention is proposed in which daily stressors are first addressed, and specialized interventions are then provided for individuals whose distress does not abate with the repair of the social ecology.



As the papers in this special issue of *Social Science and Medicine* make clear, interest in the psychological effects of organized violence has grown tremendously over the past 25 years. As in any growing field of inquiry, a number of controversial issues have emerged in research and practice with war-affected populations. Particularly salient among these issues is the conflict between advocates of what we refer to in this paper as *trauma-focused* versus *psychosocial* approaches to understanding and addressing the mental health needs of communities affected by armed conflict.

Underlying these two approaches are fundamentally different assumptions regarding the factors that most influence mental health in conflict and post-conflict settings. For trauma-focused advocates, the critical factor is direct exposure to the violence and destruction of war—the types of potentially traumatic exposure typically assessed by war-events checklists (e.g., physical assault, the destruction of one's home, the disappearance or death of loved ones in the Harvard Trauma Questionnaire; Mollica et al., 1992). In contrast, for psychosocial advocates attention is focused primarily on the stressful social and material conditions caused or worsened by armed conflict—conditions such as poverty, malnutrition, displacement into overcrowded and impoverished refugee camps, strife and divisions within communities, the destruction of social networks and the resulting loss of social and material support, and the ostracism and struggle for survival of groups such as former child soldiers, widows, sexual assault survivors, orphans, and people with war-related disabilities (Boothby, Strang, & Wessells, 2006; Miller & Rasco, 2004; Wessells & Monteiro, 2004). Where trauma-focused advocates primarily see evidence of enduring war-related trauma requiring specialized clinical treatment (Neuner & Elbert, 2007; Yule, 2002), psychosocial advocates see distress rooted largely in the stressful conditions of everyday life in settings of organized violence. From a psychosocial viewpoint, altering those stressful conditions is likely to improve people's mental health, while also fostering their inherent capacity to recover—with adequate social support and the passing of time—from the lingering effects of exposure to war-related violence and loss (Betancourt & Williams, 2008; Boothby et al., 2006). Conversely, trauma-focused advocates believe that ameliorating symptoms of war-related trauma will not only improve mental health, but will also enable people to cope more effectively with ongoing environmental stressors.

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The debate between trauma-focused and psychosocial approaches has been fueled in part by differences that are not easily reconciled. Such differences include disagreement over the extent to which people are vulnerable or resilient in the face of extreme and persistent stress (Bonanno, 2004; Kostelny & Wessells, 2004; Neuner & Elbert, 2007); the ethics and efficiency of individualized clinical interventions in settings where distress is widespread and mental health resources are scarce (Inter-Agency Standing Committee, 2007; Miller & Rasco, 2004; Neuner, Karunakara, & Elbert, 2004); and the appropriateness of applying Western psychiatric diagnoses such as post-traumatic stress disorder (PTSD) and trauma-focused clinical treatments such as narrative exposure therapy (Neuner, Karunakara, et al., 2004; Neuner, Schauer, et al., 2004) and EMDR (Shapiro, 2001) to war-affected populations that are overwhelmingly non-Western (Bracken, Giller, & Summerfield, 1995; Kostelny & Wessells, 2004; Miller, Kulkarni, & Kushner, 2006; Summerfield, 1999; Wessells & Monteiro, 2004).

Beyond such differences, we suggest that the debate between advocates of trauma-focused and psychosocial approaches has also been driven by an empirical framework that—until recently—has failed to capture the various pathways by which organized violence impacts mental health. Research on the psychological impact of armed conflict has traditionally focused rather narrowly on examining the relationship between direct war exposure and mental health. Implicit in this focus is a simple direct effects model to explain psychological distress in settings of organized violence. In that model, depicted in Fig. 1, there is a straight line with an arrow leading from war exposure to mental health, reflecting the direct effect that exposure is believed to have on mental health status. The model in Fig. 1 does not include any intervening variables (such as daily stressors) that might either partly or fully explain the impact of war exposure on mental health.

Armed conflict undoubtedly has profound effects on those who experience it directly. However, organized violence also generates or exacerbates a host of highly stressful conditions or daily stressors, such as poverty, social marginalization, isolation, inadequate housing, and changes in family structure and functioning. Only recently have researchers begun exploring what happens when daily stressors are added to the model in Fig. 1. Several studies, in settings as diverse as Afghanistan (Miller et al., 2008; Panter-Brick, Eggerman, Mojadidi, & McDade, 2008), Chad (Rasmussen et al., in press), Sri Lanka (Fernando, Miller, & Berger, in press), Lebanon (Farhood et al., 1993), Algeria (de Jong et al., 2004), and the West Bank (al-Krenawi, Lev-Wiesel, & Sehwail, 2007), have now examined the role of daily stressors in helping to explain the high rates of psychological distress so often found among survivors of armed conflict. Thus far, the data have consistently shown that daily stressors also have powerful effects on mental health outcomes. In our review of those findings in this paper, we suggest that that the overly simplistic conceptual model in Fig. 1 has unfortunately led trauma-focused advocates to overestimate the magnitude of the direct effects of direct war exposure in explaining psychological distress within communities. We further suggest that this in turn has contributed to an emphasis on trauma-focused interventions aimed at alleviating war-related PTSD in situations where greater attention to daily stressors may have yielded greater benefits.

At the same time, the available data also suggest that a narrowly psychosocial focus is likely to underestimate the adverse impact that exposure to armed conflict can have on mental health and psychosocial functioning. Interventions that exclusively target daily stressors risk overlooking the need for more specialized treatment for persistently traumatized or depressed individuals (see Hubbard & Pearson, 2004, for an excellent discussion of this issue). To our knowledge, there have been no published studies showing that altering stressful social and material conditions is in and of itself sufficient to foster the resolution of severe and persistent trauma or unresolved grief.

Implicit in much of the discourse regarding the psychosocial framework is a conceptual model that places great emphasis on precisely those variables—daily stressors—that are missing from the trauma-focused model. To the extent that the psychological impact of armed conflict is seen to operate largely or wholly through the stressful social and material conditions it creates, the psychosocial conceptual model may be considered fully mediated—that is, other factors (i.e., daily stressors) largely or fully account for the impact that armed conflict has on mental health. This model is depicted in Fig. 2. The dashed arrow between war exposure and mental health is meant to reflect the fully mediated effect accorded to direct war exposure in explaining psychological distress within a psychosocial framework.

In fact, neither the direct effects model that guides trauma-focused interventions (Fig. 1), nor the fully mediated model that informs many psychosocial programs (Fig. 2), is consistent with what we are learning about the relative contribution of war exposure and daily stressors to mental health. As we discuss below, war exposure does exert a significant direct effect on mental health, beyond the stressful social and material conditions it creates. However, the addition of daily stressors to the model does two important things: (1) it significantly increases the overall explanatory power of the model, and (2) it consistently weakens—though by no means eliminates—the direct relationship between war exposure and mental health. To reflect these findings, we adopt the model recently delineated by Fernando et al. (in press) based on their research with war and disaster-affected youth in eastern Sri Lanka. This model, depicted in Fig. 3, includes both war exposure and daily stressors as predictors of mental health status, and illustrates the role that daily stressors may play in partially mediating the relationship of war exposure to psychological distress. In the model, armed conflict results in exposure to violence and loss, which in turn directly affect mental health and psychosocial functioning. Exposure to armed conflict also gives rise to a constellation of daily stressors, which in turn affect psychological wellbeing (partial mediation). Importantly, the model also includes daily stressors unrelated to armed conflict. This reflects a point to which we return below—namely, that not all distress (including psychological trauma) in situations of armed conflict is related to the violence itself or to the stressful conditions it so often generates.

In the discussion that follows, we draw on an increasingly robust set of empirical findings that support this more complex model, and examine the different pathways through which organized violence appears to exert its effects on psychological wellbeing. We recognize that the utility of any model that purports to explain distress among survivors of armed conflict ultimately lies in its

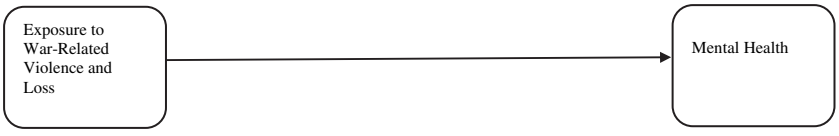


**Fig. 1.** Direct effects model of the relationship between war exposure and mental health.

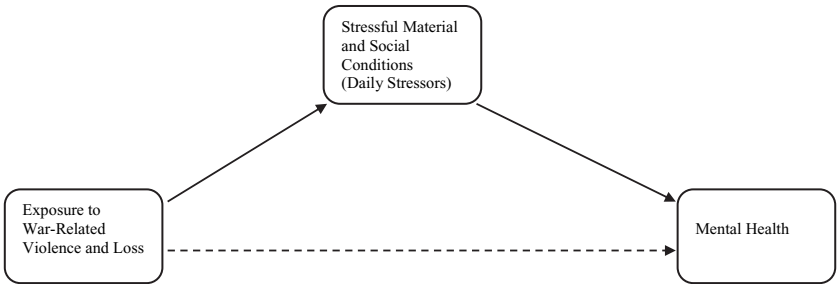


**Fig. 2.** Mediation by daily stressors of the relationship between war exposure and mental health.

capacity to inform the development of interventions and the allocation of scarce resources. It is our hope that the model discussed here, and the integrative approach to intervention that we propose based on it, will contribute to that end, while also helping to bridge the problematic divide between trauma-focused and psychosocial frameworks.

We begin by examining those factors that have led to a gradual shift among researchers away from the direct effects model, and towards a greater consideration of the ways in which war exposure and daily stressors both contribute to mental health difficulties. Woven into that discussion are findings from recent studies that illustrate and support the partial mediation model in Fig. 3. We then explore why daily stressors are so powerfully linked to mental health, drawing on findings from research on the adverse impact of chronic stress, and on theory concerning the relative importance of *proximal* versus *distal* stressors to mental health (Kanner, Coyne, Schaefer, & Lazarus, 1981; Rowlison & Felner, 1988). We also consider shortcomings of the term daily stressors; for example, as we note below, some "daily stressors" do not actually occur on a daily basis. Moreover, the category lumps together chronic low level stressors (e.g., overcrowded housing) with events that are potentially quite traumatic (child sexual abuse). Finally, we suggest an integrated and sequenced model of intervention that addresses the effects both of war exposure and of the stressful social and material conditions to which armed conflict invariably gives rise.

## Looking beyond the direct effects model

Recent interest in examining the ways in which war exposure and daily stressors might both contribute to mental health status has its roots in three sets of research findings: (1) the consistently large amount of unexplained variance in mental health outcomes when war exposure is used as the sole predictor of psychological distress (i.e., concern over the limited explanatory power of the direct effects model); (2) research with refugees in developed nations showing that that post-migration or exile-related stressors such as social isolation, unemployment and discrimination consistently predict levels of psychiatric symptomatology as well as, or better than, pre-migration exposure to organized violence (Steel, Silove, Bird, McGorry, & Mohan, 1999; for a meta-analysis examining pre- and post-migration stressors see Porter & Haslam, 2005); and (3) studies of non-war-affected populations in which so-called "daily hassles" are often more highly associated with mental health symptom severity than major life events (Kanner et al., 1981; Rowlison & Felner, 1988). We consider each of these factors below. First, however, we briefly consider the origin of the direct effects model and the particular context that gave rise to it.

### *Origin of the direct effects model*

Research on the mental health effects of organized violence on civilians began in earnest in the 1980s, and followed two rather distinct tracks. In apartheid era South Africa and in Latin American countries suffering under prolonged state terror and civil war, psychologists adopted a broad view of the pathways by which organized violence influenced mental health (Buitrago Cuellár, 2004; Dawes & Donald, 1994; Gibson, 1989; Martín Baró, 1989; Melville & Lykes, 1992; Straker, 1988). The effects of direct exposure to physical violence were seen against the backdrop of the structural violence that formed that stressful context of everyday life (poverty, discrimination, and marginalization; Farmer, 2004; Dawes & Donald, 1994). In a similar vein, the impact of violence was analyzed at all levels of the social ecology, from individual mental health to the functioning of families and communities (Buitrago Cuellár, 2004; CODEPU, 1989; Martín Baró, 1989).

In contrast, researchers in North America, Europe, and Australia tended to view the mental health needs of refugees recently arrived from Latin America and Southeast Asia through the lens of Western psychiatry and the recently developed diagnosis of PTSD. Although it was developed based on research and clinical work with

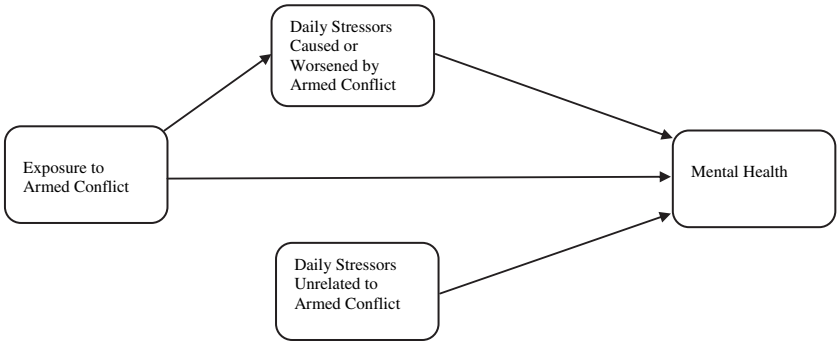


**Fig. 3.** Daily stressors as partially mediating the relationship of armed conflict to mental health and psychosocial status. Adapted from Fernando et al., in press.

American veterans of the Viet Nam War, the diagnostic criteria for PTSD clearly specified that it was intended as the diagnosis of choice when post-traumatic symptoms arose following any sort of traumatic event that entailed at least the perception of life-threatening danger beyond one's control. For many refugees, who had survived terrifying experiences of extreme violence and showed visible signs of distress, PTSD seemed ideally suited for classifying their experience of distress. Given the salience of their war stories, it was understandably assumed that their high levels of distress were the result of their exposure to the frightening violence and destruction from which they had escaped (Arroyo & Eth, 1986; Kinzie, Sack, Angell, Clarke, & Ben, 1989; Kinzie, Sack, Angell, Manson, & Rath, 1986). Within a short time, research with refugees had become focused heavily on assessing the "dose-effect" relationship between direct war exposure and PTSD symptom levels (Mollica et al., 1998; Smith, Perrin, Yule, Hacam, & Stuvland, 2002); that is, the emphasis was on examining the extent to which degree of war exposure predicted or accounted for severity of PTSD symptoms or the likelihood of receiving a diagnosis of PTSD. As we suggested earlier, underlying this emphasis was an assumption that war exposure represented the critical determinant of distress among survivors of political violence (and that PTSD represented the critical mental health impact of war exposure). Although the strength of the association between exposure and PTSD varied considerably across studies, consistent evidence of a dose-effect relationship emerged over time (Fox & Tang, 2000; Jaranson et al., 2004; Mollica et al., 1999; Tang & Fox, 2001). War exposure was clearly linked to the development of PTSD symptoms, and greater exposure was predictive of greater PTSD symptomatology. Based at least partly on this research, clinical guidelines and recommendations were developed and widely disseminated regarding the treatment of traumatized refugees (Basoglu, 1998; van der Veer, 1999; Varvin & Hauff, 1998). This combination of PTSD-focused research and clinical work with refugees was also critical in launching a worldwide interest in the mental health of war-affected populations, and continues to play a critical role in procuring critical resources in refugee populations in disaster and resettlement settings (Breslau, 2004), much as research and treatment with returning Viet Nam veterans spurred a growth in resources for veterans and active duty soldiers today.

Rapid growth in the field of traumatology has fueled global interest in the study of PTSD. Researchers trained in Western psychiatry and clinical psychology have increasingly adopted the trauma-focused framework developed in the West, shifting the focus of research in non-Western societies affected by armed conflict to the study of PTSD (and related psychopathology) and its relation to war exposure (Fox & Tang, 2000; Lopes Cardozo et al., 2004; Neuner, Karunakara, et al., 2004; Neuner, Schauer, et al., 2004; Thabet & Vostanis, 2000). A similar pattern of results has emerged to that found in earlier studies of refugees resettled in Western societies: greater direct exposure to war events is associated with higher levels of PTSD symptoms (see Barenbaum, Ruchkin, & Schwab-Stone, 2004; de Jong, 2002, for excellent reviews). Although much of our focus in this paper is on the mental health correlates of exposure to the indirect effects of armed conflict (i.e., daily stressors), we also recognize the profoundly distressing nature of direct exposure to armed conflict.

### *Unexplained variance in the direct effects model and the inclusion of daily stressors*

The recent addition of daily stressors to the direct effects model reflects a growing concern that variability in the degree of direct war exposure leaves a substantial proportion of variance in mental health outcomes, including PTSD, unexplained when war exposure is used as the sole predictor of distress. Having just established that exposure does predict PTSD symptom levels, we also note that such prediction is far from perfect; in fact, war exposure typically accounts for less than 25% of the variance in PTSD symptoms, and often much less than that. For example, in their study of mental health among adults in the Afghan capital of Kabul, Miller et al. (2008) found a correlation of .39 between level of war exposure (as measured by total score on the Afghan War Experiences Scale) and level of PTSD symptomatology (assessed using the Impact of Events Scale-Revised; Weiss & Marmar, 1997). Squaring that correlation coefficient, we find that war exposure in the war-torn city of Kabul accounted for only about 15% of the variance in PTSD symptom levels.

Findings have been similar in other studies. In their study of factors influencing the mental health of youth in eastern Sri Lanka (a region of the country badly affected by civil war and natural disaster), Fernando et al. (in press) found that war and disaster exposure accounted for a mere 8% of the variance in PTSD symptom levels. In a study of Palestinian youth in the West Bank, al-Krenawi et al. (2007) assessed exposure to political violence as well as various forms of violence within the family. They found a correlation of .14 between exposure to political violence and scores on the Brief Symptom Inventory, suggesting that direct exposure accounted for only about 2% of the variance in distress among the youth in their sample (as we note below, family violence was a considerably stronger predictor of distress in their sample). And in a study of predictors of distress among Darfurian refugees in refugee camps in Chad, Rasmussen et al. (in press) found that only about 1% of variance in PTSD symptom levels was attributable to the violence experienced in Sudan.

In all of these studies, only a small proportion of the variance in PTSD symptom severity levels was related to the degree of exposure to armed conflict. This same pattern is found extensively in studies using war exposure as the sole predictor of distress, and it is even more pronounced when outcomes other than PTSD are used as dependent variables (e.g., depression, functional impairment). This robust finding would appear to call into question the widespread assumption that the degree of war exposure is the critical determinant of mental health severity in conflict and post-conflict societies. The large amount of unexplained variance has led researchers to ask what other variables beyond war exposure might be contributing to levels of distress or psychiatric symptomatology. The decision to focus on daily stressors was informed at least partly by recent studies of refugees resettled in developed nations, for whom post-migration stressors have been found to predict mental health status at least as strongly as prior history of war exposure.

### *The salience of post-migration stressors among refugees in developed nations*

As described above, early studies of refugees' mental health needs focused on measuring the "dose–effect" relationship between war exposure and psychopathology, primarily PTSD but also depression, anxiety, and functional impairment. Research lagged behind the experience of clinicians and resettlement workers, however, who noted that the experience of resettlement confronted refugees with a host of stressful challenges, ranging from a lack of culturally relevant competencies to inadequate housing, poverty, social isolation, discrimination, and—for undocumented individuals, a chronic fear of discovery and deportation (Birman et al., 2005; Silove, 1999). As researchers began adding these post-migration or exile-related stressors to their models, they discovered that post-migration stressors accounted for equal or greater variance in symptomatology relative to pre-migration war exposure. Post-migration stressors have been consistently stronger

predictors than war exposure of depression, while war exposure has tended to be more strongly related than post-migration stressors to PTSD (Ellis, MacDonald, Lincoln, & Cabral, 2008; Gorst-Unsworth & Goldenberg, 1998; Miller et al., 2002; Montgomery, 2008; Steel et al., 1999). Nonetheless, post-migration stressors have also consistently been related to PTSD symptom levels among refugees, though the mechanism by which they may affect PTSD symptomatology remains unclear at present (e.g., do they deplete coping resources, thereby leaving people more vulnerable to the impact of prior war exposure? Are some exile-related stressors themselves traumatogenic?). In any case, the significance of these findings for practitioners cannot be overstated. Clearly, a narrow focus on healing war-related trauma among refugees risks overlooking significant sources of current environmental stress that might readily be targeted for intervention (Miller, 1999; Silove, 1999).

There is an interesting similarity between findings regarding the salience of post-migration stressors among refugees and the clinical significance of post-disaster stressors in settings of natural calamities. For example, in the wake of the bushfire disaster in southeastern Australia in 1983, Clayer, Bookless-Pratz, and McFarlane (1985) found that post-disaster stressors such as financial hardship and difficulties rebuilding were as powerfully related to survivors' mental health as their actual exposure to the fire itself. In a similar vein, McFarlane (1995) notes that that post-disaster stressors that ensued from the an earthquake that hit the Yunnan province of China accounted for twice the variance in PTSD symptoms compared with the actual experiences of injury, loss, and threat resulting from direct exposure to the earthquake. And in the previously mentioned study by Fernando et al. (in press), the impact of the tsunami that hit Sri Lanka in 2004 was at least partly mediated by the stressful living conditions it created—that is, daily stressors resulting from the tsunami (e.g., displacement to refugee camps, inability to get basic needs met) were at least as powerful as actual exposure to the tsunami in predicting symptoms of distress.

There is a natural parallel between the concepts of post-migration and post-disaster stressors, on the one hand, and the idea of daily stressors in conflict and post-conflict settings, on the other. In each case, the reference is to constellations of stressors that are generated or exacerbated by highly distressing and potentially traumatic situations. In the case of resettled refugees, armed conflict exposes to people to violence and loss, but it also forces them into exile, where they are confronted with a host of potentially stressful challenges related to adapting to life as refugees or asylum seekers. In conflict and post-conflict settings, armed conflict gives rise to (or worsens) the social and material conditions of everyday life. Survivors of organized violence are thus confronted with a set of enduring and stressful phenomena with which they must contend while also coping with the impact of direct exposure to situations of violent conflict.

As researchers began exploring the salience of daily stressors in conflict and post-conflict settings, two related questions became central:

1) To what extent do daily stressors help account for high levels of unexplained variance in levels of distress? That is, to what extent does the addition of daily stressors strengthen the explanatory power of the direct effects model?
2) To what extent do daily stressors function to mediate or explain the relationship between war exposure and distress?

Several studies have examined the relative contribution of war exposure and daily stressors to levels of distress without specifically looking at whether daily stressors actually mediate the relation of war exposure to mental health. The findings have generally been quite consistent: daily stressors have shown strong and significantly related main effects on mental health outcomes, including PTSD (al-Krenawi et al., 2007; Catani, Schauer, & Neuner, 2008; Farhood et al., 1993; Miller et al., 2008). Moreover, in two recent studies (Fernando et al., in press; Rasmussen et al., in press), the addition of daily stressors to the model substantially weakened, though did not eliminate, the relationship of war exposure to mental health status. Perhaps most importantly, the addition of daily stressors significantly increased the explanatory power of models predicting levels of distress, disorder, or functional impairment.

In the Miller et al. (2008) study of mental health in Afghanistan, locally salient daily stressors were first identified through interviews with community members and with input of an expert panel of local Afghans. The Afghan Daily Stressors Scale (ADSS) was created based on these qualitative data. Sample items on the ADSS include overcrowded housing, poverty, unemployment, the security situation, violence in the home, poor health, air pollution, and traffic congestion making public transportation extremely difficult (in a subsequent study of university students in Kabul by Panter-Brick et al. (2008), two subscales were identified in the ADSS, socioeconomic stressors and family stressors; not all items loaded on these two scales, however). The ADSS was then used together with a measure of war exposure to predict levels of PTSD, depression, anxiety, functional impairment, and a locally derived measure of general distress, the Afghan Symptom Checklist (Miller, Omidian, et al., 2006). The addition of daily stressors significantly increased the explanatory power of each model (i.e., the predictive power for each mental health outcome); it also lowered (but did not eliminate) the predictive power of war exposure on all mental health outcomes. Moreover, daily stressors moderated the effect of direct war exposure, so that the effect of war experiences was weaker among those who experienced more severe daily stressors. Had daily stressors not been included in the analysis, the predictive power of war exposure would have been deceptively inflated because it masked the contribution of daily stressors. With regard to specific outcomes, daily stressors were better at predicting depression, functional impairment, and general distress. Among women, war exposure and daily stressors were comparably strong predictors of PTSD, while among men, only daily stressors predicted PTSD.

In their study of Palestinian youth in the West Bank, al-Krenawi et al. (2007) found that family violence, including spousal violence, parental violence against children and violence between siblings, better predicted children's mental health status ($B = .38$) than their level of exposure to political violence in the community ($B = .08$). Family violence, specifically child physical abuse, was also found to strongly predict PTSD symptom levels among Tamil children in the northeast of Sri Lanka (Catani et al., 2008). The likelihood of child abuse was related to paternal substance abuse and war exposure, suggesting that the relationship of war-related violence to children's mental health may have been mediated at least partly through the impact of violence on fathers' substance use and increased likelihood of engaging in violent parenting.

In one of the earliest studies looking at daily stressors and war exposure as predictors of mental health, Farhood et al. (1993) found that among Lebanese families, "daily hassles" associated with the breakdown in community services, economic hardship, and difficulty maintaining contact with family and friends as a result of the war were all better predictors of distress than the constant threat of war-related violence.

To our knowledge, only three studies have looked specifically at the mediating role of daily stressors. Rasmussen et al. (in press) formally tested the role of refugee camp-related daily hassles in mediating the relationship of prior war exposure to mental health

among Darfurian refugees in neighboring Chad. Despite the high level of extreme violence to which the refugees had been exposed, daily stressors related to a lack of basic needs and a lack of safety in the camps were better predictors of PTSD than war exposure; in fact, daily stressors fully mediated the relationship of war exposure to PTSD. Both war exposure and daily stressors predicted levels of depression, while current level of perceived safety mediated the relationship of war exposure to functional impairment. Daily stressors significantly enhanced the overall explanatory power for all mental health outcomes, including the indigenous constructs *majnun* and *hozun*.

As noted earlier, Fernando et al. (in press) examined the role of daily stressors in mediating the relationship of war and disaster exposure to several mental health outcomes including PTSD, depression, anxiety, and psychosocial functioning among Sri Lankan youth in the eastern district of Ampara—a region badly affected by civil war and a tsunami that killed over 35,000 people on the island in December, 2004 (SAFMA, 2008). Daily stressors were identified through focus groups with youth of all three ethnic groups (Sinhalese, Tamil, and Muslim), and data were used to create the Children's Daily Stressor Scale (CDSS). A factor analysis of the CDSS revealed three subscales or sets of daily stressors: deprivation, child abuse, and inter-parental violence. The addition of these three subscales to the regression model substantially reduced the relationship of war and disaster exposure to all mental health variables; however, the relationship remained significant in all cases, suggesting that war exposure and daily stressors both were contributing significantly to levels of distress and functional difficulties. Mediational analysis further revealed that the relationship of war and disaster exposure to mental health was partially mediated by deprivation and child abuse, a finding consistent with the apparent meditational role of paternal child abuse in the study of Tamil youth cited above (Catani et al., 2008).

Although the focus of this paper is on the impact of armed conflict and daily stressors on civilians, a recent finding by Betancourt (2008) with former child soldiers in Sierra Leone is germane to our discussion. Based on two waves of data from 156 youth of both sexes, the authors found that having wounded or killed others was significantly related to levels of anxiety and hostility. However, when current stigma (perceived discrimination) related to their status as former child soldiers was added to the analysis, the relationship between wounding or killing and mental health status was no longer significant (i.e., the main effect was no longer significant). That is, the current experience of feeling stigmatized within their communities (a form of chronic daily stress) fully mediated the relationship between the experience of wounding or killing as a combatant and the subsequent development of psychiatric symptomatology. Interestingly, stigma did not mediate the relationship between the experience of rape and self-reported levels of anxiety or hostility. That is, the experience of having been sexually assaulted exerted a main effect on mental health regardless of the level of stigma subsequently experienced in the community.[1]

In all of these studies, the addition of daily stressors significantly increased the explanatory power of models predicting psychiatric symptomatology, including symptoms of PTSD in those studies that assessed it. War exposure generally remained an important contributing factor, and as the findings of Betancourt (2008) suggest, it may be that some types of war exposure (e.g., rape) are particularly likely to influence mental health directly. Clearly, however, the data consistently underscore the importance of taking into account the stressful social and material conditions of everyday life when seeking to understand and address patterns of distress in conflict and post-conflict settings.

### *The importance of daily stressors to mental health status in non-war-affected populations*

The findings we have reviewed above are consistent with research on major life events and "daily hassles" in non-war-affected populations. In a somewhat counter-intuitive yet highly robust set of findings, numerous studies have found that the cumulative effect of daily hassles—the lower level stressors of everyday life—is more strongly predictive of psychological distress than exposure to major life events—the sort of acutely stressful experiences measured by such life events checklists as the widely used Holmes and Rahe Scale (1967) (Johnson & Sherman, 1997; Kanner et al., 1981; Rowlison & Felner, 1988; Ruffin, 1993). Although both popular and professional attention is consistently drawn to dramatic and potentially traumatic events, whether in peaceful societies or settings of armed conflict, there is a substantial and growing body of evidence which suggests that it may be the less dramatic but more enduring stressful conditions of everyday life that eventually take the greatest toll on people's psychological wellbeing.

## Why are daily stressors so stressful?

Having established the important contribution that daily stressors make to mental health and psychosocial functioning in conflict and post-conflict settings, it may be fruitful ask why daily stressors are so impactful. We suggest four reasons. First, daily stressors represent proximal or immediate stressors, whereas war exposure is often more of a distal experience, particular in post-conflict settings or situations of low intensity warfare where violence is episodic rather than constant. Poverty, social isolation, and overcrowded housing confront people on a daily basis; specific acts of political violence, though highly distressing, may have occurred a year or more in the past, and thus simply be less psychologically salient. Research with non-clinical community samples has shown that survivors of traumatic events are generally far more resilient than clinical studies and case reports tend to suggest (Bonanno, 2004), and that with adequate support and the passing of time, the majority of trauma survivors are likely to regain their psychological equilibrium (Foa & Rothbaum, 2001). Consequently, distally experienced war exposure may be highly traumatic in the immediate wake of the exposure, but no longer be experienced as traumatic during assessments conducted after a significant period of time has passed (Thabet & Vostanis, 2000). In contrast, daily stressors represent ongoing and often chronic threats to psychological wellbeing; therefore, their effects are likely to continue being felt even with the passing of time. Because of their chronicity, daily stressors may gradually erode people's coping resources and tax their mental health. Kubiak (2005) has suggested that chronic daily stress may gradually diminish people's capacity to cope effectively with potentially traumatic life events, thereby increasing the likelihood of such events causing enduring symptoms of PTSD. Sapolsky (2004) has documented the numerous ways in which continuous exposure to stressful circumstances—including lower level, non-traumatic stressors—gradually erodes physical and psychological health, and leaves people increasingly vulnerable to both physical and psychological illness. More specifically, research on the psychophysiology of stress suggests that the human stress response is evolutionarily quite well

[1] Betancourt et al. note that their measure of stigma may have failed to adequately capture the particular experience of stigma/discrimination experienced specifically by survivors of sexual assault, which may partly explain the absence of a mediating effect of stigma on the relationship between sexual assault and anxiety or hostility.

adapted to helping us cope effectively with exposure to acute, life-threatening events, which may help explain why, as noted earlier, only a minority of people exposed to potentially traumatic experiences actually develop PTSD or other psychiatric disorders (Bonanno, 2004; Foa & Rothbaum, 2001). In contrast, chronic stress exposure maintains the stress response system (specifically the sympathetic nervous system and the hypothalamic-pituitary-adrenal axis) in a state of continuous activation, which in turn has been linked (via the effects of prolonged exposure to epinephrine, norepinephrine, and glucocorticoids) to increased risk of both physical and emotional disorder (Christopher, 2004; Gunnar & Quevedo, 2007; Sapolsky, 2004).

Second, daily stressors are stressful in part because they are noxious stimuli that are largely beyond people's control (just as direct war experiences are beyond control). Lack of access to clean water, vulnerability to sexual assault while gathering firewood on the outskirts of a refugee camp, overcrowded and unsafe housing, loneliness and a lack of social support because one's family has been killed or dispersed due to violence—these are all stressful circumstances that may lead people to feel a fundamental lack of control over the basic resources on which their physical and psychological wellbeing depend. As Sapolsky (2004) has noted, such lack of control over unpleasant or aversive events contributes powerfully to the perception of those events as stressful. This suggests that psychosocial interventions that foster a greater sense of control over challenging circumstances may hold considerable promise as an approach to reducing stress (and thereby improving mental and physical wellbeing) in conflict and post-conflict settings.

Third, daily stressors are pervasive within conflict-affected populations, whereas direct war exposure is highly variable in many conflict and post-conflict settings (Macksoud & Aber, 1996). Everyone in a refugee camp has been displaced, and everyone must contend with the numerous challenges and hardships of camp life. However, not all camp residents have necessarily been directly exposed to the violence that caused the displacement. This was the case in the previously mentioned study of Darfurian refugees in Chadian refugee camps (Rasmussen et al., in press). Fully 25% of the refugees in the study reported having had no direct exposure to organized violence in Sudan; everyone in the study, however, was exposed to the deprivation and vulnerability of life in the camps. The situation was similar among Guatemalan refugees in southern Mexico, many of whom had escaped into Mexico upon hearing of massacres in neighboring villages in the early 1980s (Manz, 1988).

Finally, the term *daily stressors* includes a wide range of stressful phenomena, some of which may be quite traumatic (e.g., child physical and sexual abuse, intimate partner violence). The inclusion of potentially traumatic experiences in the same category as lower intensity chronic stressors such as lack of access to education or overcrowded housing is a problematic issue to which we return below; here we note merely that such potentially traumatic events may account for at least some of the consistently strong relationship that has been found between daily stressors and mental health status, including PTSD.

## Are daily stressors really daily? Unpacking the construct

In seeking to broaden the focus of research beyond the effects of direct war exposure, we suggested that research on major life events and daily hassles might offer a useful framework. On closer inspection, however, there are some reasonable objections that might be raised to this parallel. First, daily hassles are generally conceptualized as just that: hassles that occur on a daily basis. However, some of the phenomena we have considered in the category of daily stressors do not necessarily occur daily; in fact, they may occur only episodically, yet still have a significantly adverse impact on mental health. A child may be sexually abused periodically by a relative or a teacher, a woman may be beaten recurrently though intermittently by her husband, and poisonous snakes may enter homes in refugee camps only occasionally. Though not a daily occurrence, such events are clearly likely to represent significant sources of stress (and distress). What *is* likely to be daily in these examples is the realistic fear of recurrence and the experience of vulnerability that such intermittent events may elicit.

A second objection is the inclusion under the label *daily stressors* of such a broad range of stressors of highly varied intensity. As noted in the previous section, measures of daily stressors have sometimes included items that may be quite traumatic in their intensity; this does not seem consistent with the lower level types of chronic stress that were intended by the concept of *daily hassles* (Kanner et al., 1981; Rowlison & Felner, 1988). We find merit in this concern, and propose a distinction between lower intensity and potentially traumatic daily stressors. Lower intensity stressors include such experiences as overcrowded housing, lack of access to education and employment, and social isolation resulting from the loss of social networks. Potentially traumatic daily stressors, in contrast, would include experiences such as physical and sexual abuse of children, spousal abuse, and criminal acts not directly related to armed conflict (sexual assault in or around refugee camps by other camp residents or local officials). The concept of potentially traumatic daily stressors is important because it underscores the reality that even in settings of armed conflict, there are sources of psychological trauma other than exposure to the conflict itself. This point was underscored in a recent study of children's mental health in Afghanistan (Panter-Brick, Eggerman, Gonzalez, & Safdar, 2009). Not surprisingly, exposure to violence was strongly predictive of both PTSD and depression symptom levels; however, much of the violence that children reported was not directly related to war exposure, including domestic and community violence, accidents, and medical treatment. In fact, the authors note that "Some children identified severe beatings, a severe accident, or a frightening medical treatment as more traumatic than having witnessed parents or grandparents being killed in rocket attacks" (p. 8). This is a critical point when planning interventions. A focus on healing the effects of previously experienced war trauma may seem profoundly out of sync to a child who is currently being beaten or sexually abused at home or in the community.

## Implications for intervention: a sequenced, integrated model

The findings from the literature we have reviewed in this paper suggest the potential utility of an integrated approach to intervention that addresses, in a sequential manner, both daily stressors (low intensity and potentially traumatic) and war exposure. They also suggest the utility of an empirically-informed set of guidelines for the allocation of mental health resources and the development of interventions aimed at improving mental health and psychosocial wellbeing in conflict and post-conflict settings. We note that the guidelines we propose are consistent with those suggested by Barenbaum et al. (2004), Betancourt and Williams (2008), and Bolton and Betancourt (2004).

### *Guideline 1: It is important to undertake a rapid and contextually grounded assessment of locally salient daily stressors before developing mental health and psychosocial interventions*

There are both similarities and differences in the types of daily stressors that are salient in different geographic, economic, cultural, and sociopolitical contexts. Moreover, the salience of

particular stressors is likely to vary by age and gender; for example, children may be particularly vulnerable to school-related problems, parental neglect or abandonment, and physical or sexual abuse, while women may struggle with domestic violence or high rates of reproductive health-related problems. Numerous reports describe quick and efficient methods (focus groups, free-listing, key informant interviews) for identifying locally salient daily stressors, as well as resources available to help people cope with or modify those stressors (Bolton & Tang, 2002; de Jong & van Ommeren, 2002; Miller, Fernando, & Berger, in press).

*Guideline 2: Before providing specialized clinical services that target psychological trauma, first address those daily stressors that are particularly salient and can be affected through targeted interventions.*

Advocates of psychosocial approaches have long maintained that reducing ongoing sources of stress that tax coping resources, and reestablishing social ties that foster emotional and material support, are likely to go a long way towards improving mental health in war-affected communities. The data we have reviewed are consistent with this position, for several reasons.

First, daily stressors clearly exert a direct effect on mental health. By targeting particularly impactful stressors for change, we can expect to see a direct benefit in terms of reduced distress and improved psychosocial functioning. Second, daily stressors contribute to continuously high levels of stress, and it seems reasonable to infer that coping with continuous stressors—poverty, family violence, unsafe housing, social isolation—is likely to place considerable demands on people's coping resources. To the extent that interventions are able to reduce the occurrence and/or intensity of such stressors, coping resources will be less taxed and thus be more available for healing from any persistent effects of war-related violence and loss. In short, by altering the social and material environments in ways that improve mental health, the need for formal and resource-intensive mental health services may be reduced (Bolton & Betancourt, 2004).

Third, findings from research on stress and social support suggest that strengthening social support networks is likely to exert significant beneficial effects on mental health, and may in fact buffer against the development of PTSD in the wake of exposure to potentially traumatic stress (Norris et al., 2002). This may in turn have the beneficial effect of reducing the need for specialized mental health care.

Finally, as Bolton and Betancourt (2004) have noted, by improving mental health to the extent possible through psychosocial interventions aimed at reducing daily stressors (or, phrased more positively, by improving the quality of the social and material ecology), it will be easier to identify those individuals whose persistent distress does not abate with the reduction of daily stress and who may in fact require specialized assistance.

*Guideline 3: When specialized mental health interventions are indicated, interventions should go beyond PTSD to address the diverse forms of distress that may result from exposure to war-related violence and loss.*

Although researchers and clinicians have a shown a strong interest in PTSD, the studies we have reviewed show that war exposure is also related to a variety of other forms of distress, including depression, anxiety, impaired social functioning, and various local idioms of distress. While recognizing that many symptoms of PTSD are found transculturally and may benefit from clinical intervention, we share Breslau's (2004) concern (see also Barenbaum et al., 2004; de Jong, 2002; Miller, Kulkarni, et al., 2006; Miller, Omidian, et al., 2006; Summerfield, 1999) that a narrow focus on treating PTSD may reflect the interest of mental health professionals more than it does the actual priorities of community members regarding their own mental health.

*Guideline 4: It is essential to take into account that not all symptoms of trauma are necessarily related to conflict exposure. Even in situations of armed conflict, there are other sources of psychological trauma.*

Although this may seem intuitive or self-evident, we have been struck by how few studies of mental health in war-affected communities have assessed exposure to forms of traumatic stress other than direct war exposure. Given what is known about the increased risk for PTSD and more complex forms of trauma caused by experiences such as child abuse (Garbarino &Ganzel, 2000; Terr, 1990) and intimate partner violence (Stein & Kennedy, 2001), it seems imperative to us to consider the inclusion of potentially traumatic daily stressors such these in any assessment of factors contributing to psychological distress in conflict and post-conflict settings. As we suggested earlier, the relevance and impact of mental health or psychosocial interventions are likely to be considerably enhanced when they are seen as targeting those sources of stress that are most immediately and severely affecting people. A programmatic focus on healing the effects of previously experienced war exposure is likely to have limited impact on individuals who are facing ongoing exposure to traumatic stress in their homes or communities.

## Conclusion

In this paper, we have sought to bridge the longstanding and unhelpful division between advocates of trauma-focused and psychosocial approaches to understanding and addressing mental health needs in conflict and post-conflict settings. We have suggested that among the various factors underlying this split in the field is a fundamental difference in perception regarding what factors most critically affect mental health in the wake of organized violence. Until recently, there was a paucity of data to inform this largely opinion-based and experience-driven difference in perception. Presently, however, there are sufficient data to permit an empirically-informed discussion. We believe that the findings we have presented make a compelling case for the inclusion of daily stressors in any model purporting to explain patterns of distress in war-affected populations. In fact, the available data suggest that addressing daily stressors should be a priority in the development of mental health policy, the allocation of scarce resources, and the design of interventions to assist war-affected communities. Daily stressors are strongly related to the severity of psychological distress and psychiatric symptomatology; and, because they are ongoing, may be targeted for change through well-designed intervention programs.

The inclusion and prioritization of daily stressors by no means negates the value of more specialized clinical interventions for highly distressed individuals whose symptoms do not abate with the normalization of their environment through the reduction of daily stressors. War exposure does exert a direct and adverse effect on mental health, though the data are not consistent with the current trend towards conceptualizing that effect solely in terms of PTSD. We suggest that a broad range of specialized interventions should be brought to bear, from culturally informed adaptations of Western treatment strategies (Hubbard & Pearson, 2004) to the use of traditional healers whose explanatory models and methods of treatment are more likely to be familiar to community members (de Jong, 2004).

As we suggested in the introduction to this paper, the difference in underlying conceptual models is by no means the only point of disagreement between trauma-focused and psychosocial advocates. Other issues must also be addressed, such as the appropriateness of applying Western diagnoses, the efficacy of professionally staffed clinical treatments in non-Western cultural contexts, and even the appropriateness of mental health outcomes altogether. We recognize, for example, that many advocates of psychosocial interventions eschew a narrow focus on reducing psychopathology as the desired outcome of their interventions, opting instead to focus on strengthening families and communities and promoting positive outcomes in children (Boothby et al., 2006; Kostelny & Wessells, 2004). It is our hope that in seeking to build a bridge between more clinically focused and psychosocially oriented approaches, we have at least helped initiate a discussion that may lead to further exploration of common ground and collaboration between the advocates of these two influential frameworks.

## References


al-Krenawi, A., Lev-Wiesel, R., & Sehwail, M. (2007). Psychological symptomatology among Palestinian children living with political violence. *Child and Adolescent Mental Health, 12*, 27–31.

Arroyo, W., & Eth, S. (1986). Children traumatized by Central American Warfare. In R. Pynoos, & S. Eth (Eds.), *Post-traumatic stress disorder in children (pp. 101–120)*. Washington, DC: American Psychiatric Press.

Barenbaum, J., Ruchkin, V., & Schwab-Stone, M. (2004). The psychosocial aspects of children exposed to war: practice and policy initiatives. *Journal of Child Psychology and Psychiatry, 45*, 41–62.

Basoglu, M. (1998). Behavioral and cognitive treatments of survivors of torture. In J. Jaronson, & M. Popkin (Eds.), *Caring for victims of torture* (pp. 131–148). Washington, DC: American Psychiatric Publishing.

Betancourt, T. S. Stigma and the psychosocial adjustment and social reintegration of former child soldiers in Sierra Leone. Presentation at the International Society for Traumatic Stress Studies (ISTSS) 2008 Annual Meeting, Chicago, IL, November, 2008.

Betancourt, T. S., & Williams, T. (2008). Building an evidence base on mental health interventions for children affected by armed conflict. *Intervention, 6*, 39–56.

Birman, D., Ho, J., Pulley, E., Batia, K., Everson, M. L., Ellis, H., et al. (2005). Mental health interventions for refugee children in resettlement: white paper II. National Child Traumatic Stress Network. Retrieved on March 1, 2009, from. http://www.nctsnet.org/nctsn_assets/pdfs/promising_practices/MH_Interventions_for_Refugee_Children.pdf.

Bolton, P., & Betancourt, T. (2004). Mental health in postwar Afghanistan. *Journal of the American Medical Association, 292*, 626–628.

Bolton, P., & Tang, A. (2002). An alternative approach to cross-cultural function assessment. *Social Psychiatry and Psychiatric Epidemiology, 37*, 537–543.

Bonanno, G. (2004). Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*, 202–208.

Boothby, N., Strang, A., & Wessells, M. (2006). *A world turned upside down*. Bloomfield, CT: Kumarian Press.

Bracken, P. J., Giller, J. E., & Summerfield, D. (1995). Psychological responses to war and atrocity: the limitations of current concepts. *Social Science & Medicine, 40*, 1073–1082.

Breslau, J. (2004). Cultures of trauma: anthropological views of posttraumatic stress disorder in international health. *Culture, Medicine, and Psychiatry, 28*, 113–126.

Buitrago Cuellár, J. (2004). Internally displaced Colombians: the recovery of victims of violence within a psychosocial framework. In K. E. Miller, & L. M. Rasco (Eds.), *The mental health of refugees: Ecological approaches to healing and adaptation* (pp. 229–262). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Catani, C., Schauer, E., & Neuner, F. (2008). Beyond individual war trauma: domestic violence against children in Afghanistan and Sri Lanka. *Journal of Marital and Family Therapy, 34*, 165–176.

Christopher, M. (2004). A broader view of trauma: a biopsychosocial-evolutionary view of the role of the traumatic stress response in the emergence of pathology and growth. *Clinical Psychology Review, 24*, 75–98.

Clayer, J. R., Bookless-Pratz, C., & McFarlane, A. (1985). *The health and social impact of ash wednesday bushfires: Survey of the 12 months following the bushfires of February 1983*. South Australia: Mental Health and Evaluation Centre, South Australian Health Commission.

CODEPU. (1989). The effects of torture and political repression in a sample of Chilean families. *Social Science & Medicine Special Issue: Political violence and health in the Third World, 28*(7), 735–740.

Dawes, A., & Donald, D. (1994). Understanding the psychological consequences of adversity. In Dawes., & D. Donald (Eds.), *Psychological perspectives from South African research* (pp. 1–27). Claremont, South Africa: David Philip Publishers, Lts.

Ellis, H., MacDonald, H., Lincoln, A., & Cabral, H. (2008). Mental health of Somali adolescent refugees: the role of trauma, stress, and perceived discrimination. *Journal of Consulting and Clinical Psychology, 76*, 184–193.

Farhood, L., Zurayk, H., Chaya, M., Saadeh, F., Meshefedjian, G., & Sedani, T. (1993). The impact of war on the physical and mental health of the family: the Lebanese experience. *Social Science & Medicine, 36*, 1555–1567.

Farmer, P. (2004). An anthropology of structural violence. *Current Anthropology, 45*(3), 305–325.

Fernando, G., Miller, K., & Berger, D. Growing Pains: the impact of disaster-related and daily stressors on the psychological and psychosocial functioning of youth in Sri Lanka. *Child Development*, in press.

Foa, E., & Rothbaum, B. (2001). *Treating the trauma of rape*. New York: The Guildford Press.

Fox, S., & Tang, S. (2000). The Sierra Leonean refugee experience: traumatic events and psychiatric sequelae. *Journal of Nervous and Mental Disease, 188*, 490–495.

Garbarino, J., & Ganzel, B. (2000). The human ecology of early risk. In J. Shankoff, & S. Meisels (Eds.), *Handbook of early childhood intervention* (2nd ed.). (pp. 76–93) New York: Cambridge University Press.

Gibson, K. (1989). Children in political violence. *Social Science & Medicine, 28*, 659–667.

Gorst-Unsworth, C., & Goldenberg, E. (1998). Psychological sequelae of torture and organized violence suffered by refugees from Iraq: trauma-related factors compared with social factors in exile. *British Journal of Psychiatry, 172*, 90–94.

Gunnar, M., & Quevedo, K. (2007). The neurobiology of stress and development. *Annual Review of Psychology, 58*, 145–173.

Holmes, & Rahe. (1967). Holmes-Rahe life changes scale. *Journal of Psychosomatic Research, 11*, 213–218.

Hubbard, J., & Pearson, N. (2004). Sierra Leonean refugees in Guinea: addressing the mental health effects of massive community violence. In K. E. Miller, & L. M. Rasco (Eds.), *The mental health of refugees: Ecological approaches to healing and adaptation* (pp. 95–132). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Inter-Agency Standing Committee. (2007). *IASC guidelines on mental health and psychosocial support in emergency settings*. Available from http://www.humanitarianinfo.org/iasc/content/products/.

Jaranson, J. M., Butcher, J., Halcon, L., Johnson, D. R., Robertson, C., Savik, K., et al. (2004). Somali and Oromos refugees: correlates of torture and trauma history. *American Journal of Public Health, 94*, 591–598.

Johnson, J., & Sherman, M. (1997). Daily hassles mediate the relationship between major life events and psychiatric symptomatology: longitudinal findings from an adolescent sample. *Journal of Clinical and Consulting Psychology, 16*, 389–404.

de Jong, J. (2002). Public mental health, traumatic stress and human rights violations in low-income countries. In J. de Jong (Ed.), *Trauma, war, and violence: Public mental health in socio-cultural context* (pp. 1–91). New York: Kluwer.

de Jong, J. (2004). Public mental health and culture: disasters as a challenge to western mental health care models, the self, and PTSD. In J. Wilson, & B. Drozdek (Eds.), *Broken spirits: The treatment of traumatized asylum seekers, refugees, war and torture victims* (pp. 158–178). New York: Brunner-Routledge.

de Jong, J., Komproe, I., van Ommeren, M., el Masri, M., Khaled, N., van de Put, W., et al. (2004). Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *Journal of the American Medical Association, 286*, 555–562.

de Jong, J., & van Ommeren, M. (2002). Toward a culture-informed epidemiology: combining qualitative and quantitative research in transcultural contexts. *Transcultural Psychiatry, 39*(4), 422–433.

Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparisons of two models of stress measurement: daily hassles an uplifts versus major life events. *Journal of Behavioral Medicine, 4*, 1–39.

Kinzie, J. D., Sack, W., Angell, R., Clarke, G., & Ben, R. (1989). A three-year follow-up of Cambodian young people traumatized as children. *The American Academy of Child and Adolescent Psychiatry, 28*, 501–504.

Kinzie, J. D., Sack, W., Angell, R., Manson, S., & Rath, B. (1986). The psychiatric effects of massive trauma on Cambodian children: I. The children. *Journal of the American Academy of Child and Adolescent Psychiatry, 25*, 370–376.

Kostelny, K., & Wessells, M. (2004). Internally displaced East Timorese: challenges and lessons of large-scale emergency assistance. In K. E. Miller, & L. M. Rasco (Eds.), *The mental health of refugees: Ecological approaches to healing and adaptation* (pp. 187–225). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Kubiak, S. (2005). Trauma and cumulative adversity in women of a disadvantaged social location. *American Journal of Orthopsychiatry, 75*, 451–465.

Lopes Cardozo, B., Bilukha, O., Gotway Crawford, C., Shaikh, I., Wolfe, M., Gerber, M., et al. (2004). Mental health, social functioning, and disability in postwar Afghanistan. *Journal of the American Medical Association, 292*, 575–584.

Macksoud, M. S., & Aber, J. L. (1996). The war experience and psychosocial development of children in Lebanon. *Child Development, 67*, 70–88.

Manz, B. (1988). *Refugees of a hidden war*. New York: SUNY Press.

Martín Baró, I. (1989). Political violence and war as causes of psychosocial trauma in El Salvador. *International Journal of Mental Health, 18*, 3–20.

McFarlane, A. C. (1995). Helping the victims of disasters. In J. R. Freedy, & S. E. Hobfall (Eds.), *Traumatic stress: From theory to practice* (pp. 287–314). New York: Plenum Press.

Melville, M., & Lykes, B. (1992). Guatemalan Indian children and the sociocultural effects of government-sponsored terrorism. *Social Science & Medicine, 34*, 33–48.

Miller, K. E. (1999). Rethinking a familiar model: psychotherapy and the mental health of refugees. *Journal of Contemporary Psychotherapy, 29*(4), 283–306.

Miller, K.E., Fernando, G., & Berger, D. Daily stressors in the lives of Sri Lankan youth: A mixed-methods approach to assessment in a context of war and natural disaster. *Intervention*. (In press).

Miller, K. E., Kulkarni, M., & Kushner, H. (2006). Beyond trauma-focused psychiatric epidemiology: bridging research and practice with war-affected populations. *American Journal of Orthopsychiatry, 76*, 409–422.

Miller, K. E., Omidian, P., Rasmussen, A., Yaqubi, A., Daudzai, H., Nasiri, M., et al. (2008). Daily stressors, war experiences, and mental health in Afghanistan. *Transcultural Psychiatry, 45*, 611–639.

Miller, K. E., Omidian, P., Qurashy, A. S., Nasiry, M. N., Quarshy, N., Nasiry, S., et al. (2006). The Afghan symptom checklist: a culturally grounded approach to mental health assessment in a conflict zone. *American Journal of Orthopsychiatry, 76*, 423–433.

Miller, K. E., & Rasco, L. M. (2004). An ecological framework for addressing the mental health needs of refugee communities. In K. E. Miller, & L. M. Rasco (Eds.), *The mental health of refugees: Ecological approaches to healing and adaptation* (pp. 1–64). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Miller, K. E., Weine, S., Ramic, A., Brkic, N., Djuric Bjedic, Z., Smajkic, A., et al. (2002). The relative contribution of war experiences and exile-related stressors to levels of psychological distress among Bosnian refugees. *Journal of Traumatic Stress, 15*, 377–387.

Mollica, R., McInnes, K., Pham, T., Fawzi, M., Smith, C., Murphy, E., et al. (1998). The dose–effect relationships between torture and psychiatric symptoms in Vietnamese ex-political detainees and a comparison group. *Journal of Nervous and Mental Disease, 186*, 543–553.

Mollica, R. F., Caspi-Yavin, Y., Bollini, P., Truong, T., Tor, S., & Lavelle, J. (1992). The Harvard trauma questionnaire: validating a cross-cultural instrument for measuring torture, trauma, and post-traumatic stress disorder in Indochinese refugees. *Journal of Nervous and Mental Disease, 180*, 111–116.

Mollica, R. F., McInnes, K., Sarajlic, N., Lavelle, J., Sarajlic, I., & Massagli, M. P. (1999). Disability associated with health status in Bosnian refugees living in Croatia. *Journal of the American Medical Association, 281*(5), 433–439.

Montgomery, E. (2008). Long-term effects of organized violence on young Middle Eastern refugees' mental health. *Social Science & Medicine, 67*, 1596–1603.

Neuner, F., & Elbert, T. (2007). The mental health disaster in conflict settings: can scientific research help? *BMC Public Health, 7*, 275.

Neuner, F., Karunakara, U., & Elbert, T. (2004). A comparison of narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an African refugee settlement. *Journal of Consulting and Clinical Psychology, 72*, 579–587.

Neuner, F., Schauer, M., Karunakara, U., Laschik, C., Robert, C., & Elbert, T. (2004). Psychological trauma and evidenced for enhanced vulnerability for posttraumatic stress disorder through previous trauma among West Nile refugees. *BMC Psychiatry, 4*, 1–7.

Norris, F. H., Friedman, M., Watson, P., Byrne, C., Diaz, E., & Kaniasty, K. (2002). 60,000 Disaster victims speak: an empirical review of the empirical literature, 1981–2001. *Psychiatry, 65*, 207–239.

Panter-Brick, C., Eggerman, M., Gonzalez, V., & Safdar, S. (2009). Violence, suffering, and mental health in Afghanistan: a school-based survey. *The Lancet*. doi:10.1016/S0140-6736(09)61080-1. Published online, August 21, 2009.

Panter-Brick, C., Eggerman, M., Mojadidi, A., & McDade, T. (2008). Social stressors, mental health, and physiological stress in an urban elite of young Afghans in Kabul. *American Journal of Human Biology, 20*, 627–641.

Porter, M., & Haslam, N. (2005). Predisplacement and postdisplacement factors associated with mental health of refugees and internally displaced persons. *Journal of the American Medical Association, 294*(5), 602–612.

Rasmussen, A., Nguyen, L., Wilkinson, J., Vundla, S., Raghavan, S., Miller, K. E., et al. Rates and impact of trauma and current stressors among Darfuri refugees in Eastern Chad. *American Journal of Orthopsychiatry*, in press.

Rowlison, R., & Felner, R. (1988). Major life events, hassles, and adaptation in adolescence: confounding in the conceptualization and measurement of life stress. *Journal of Personality and Social Psychology, 55*, 432–444.

Ruffin, C. (1993). Stress and health: little hassles vs. major life events. *Australian Psychologist, 28*, 201–208.

Sapolsky, R. (2004). *Why zebras don't get ulcers*. New York: Owl Books.

Shapiro, F. (2001). *Eye movement desensitization and reprocessing: Basic principles, protocols and procedures* (2nd ed.). New York: Guilford Press.

Silove, D. (1999). The psychosocial effects of torture, mass human rights violations, and refugee trauma. *Journal of Nervous and Mental Disease, 187*, 200–207.

Smith, P., Perrin, S., Yule, W., Hacam, B., & Stuvland, R. (2002). War exposure among children from Bosnia-Hercegovina: psychological adjustment in a community sample. *Journal of Traumatic Stress, 15*, 147–156.

South Asia Free Media Association. (2008). Sri Lanka: ethnic conflict, civil war, and politics. http://www.lankalibrary.com/pol/militancy_history.htm Retrieved June 3, 2008.

Steel, Z., Silove, D., Bird, K., McGorry, P., & Mohan, P. (1999). Pathways from war trauma to posttraumatic stress symptoms among Tamil asylum seekers, refugees, and immigrants. *Journal of Traumatic Stress, 12*, 421–435.

Stein, M., & Kennedy, C. (2001). Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence. *Journal of Affective Disorders, 66*, 133–138.

Straker, G. (1988). Post-traumatic stress disorder: a reaction to state-supported child abuse and neglect. *Child Abuse and Neglect, 12*, 383–395.

Summerfield, D. (1999). A critique of seven assumptions behind psychological trauma programmes in war-affected countries. *Social Science & Medicine, 48*, 1449–1462.

Tang, S., & Fox, S. (2001). Traumatic experiences and the mental health of Senegalese refugees. *Journal of Nervous and Mental Disease, 189*, 507–512.

Terr, L. (1990). *Too scared to cry: Psychic trauma in childhood*. New York: Harper & Row.

Thabet, A., & Vostanis, P. (2000). Post-traumatic stress disorder reactions in children of war: a longitudinal study. *Child Abuse and Neglect, 24*, 291–298.

van der Veer, G. (1999). *Counseling and therapy with refugees and victims of trauma: Psychological problems of victims of war, torture, and repression*. New York: Wiley.

Varvin, S., & Hauff, E. (1998). Psychoanalytically oriented psychotherapy with torture survivors. In J. Jaronson, & M. Popkin (Eds.), *Caring for victims of torture* (pp. 107–116). Washington, DC: American Psychiatric Publishing.

Weiss, D., & Marmar, C. (1997). The impact of events scale-revised. In J. Wilson, & T. Keane (Eds.), *Assessing psychological trauma and PTSD: A handbook for practitioners* (pp. 399–411). New York: Guilford Press.

Wessells, M., & Monteiro, C. (2004). Internally displaced Angolans: a child-focused, community-based intervention. In K. E. Miller, & L. M. Rasco (Eds.), *The mental health of refugees: Ecological approaches to healing and adaptation* (pp. 67–94). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Yule, W. (2002). Alleviating the effects of war and displacement on children. *Traumatology, 8*, 160–180.