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Support of former child soldiers in Nepal: How psychosocial wellbeing and function are impacted socioecologically during the reintegration stage following conflict

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Abstract

***Support of former child soldiers in Nepal: How psychosocial wellbeing and function are
impacted socioecologically during the reintegration stage following conflict***

By Christopher A. Morley

Background: There is a paucity of evidence for effective interventions to improve the mental
health of child soldiers returning home after war. Most approaches emphasize family support and
vocational rehabilitation. As war effectively distorts and creates profound change in children's
socioecology, this change can affect normal child development, putting them at greater risk
psychologically. Many children who participate in conflict often return to their homes only to
find new struggles with problematic reintegration and psychological trauma. Research has
demonstrated, however, that when a child is provided family and social support, they build
greater resilience and show more positive reintegration outcomes, as opposed to those child
soldiers with limited to no support.

Objectives: Using multiple theories in a mixed methods approach, we examined how
socioecological support affects the psychosocial wellbeing and function of former child soldiers
in Nepal.

Methods: We performed thematic analysis of 8 key informant interviews of former child
soldiers which then guided bivariate and hierarchical linear regression analyses on a dataset of
former child soldiers (n = 142) from 10 districts in Nepal.

Results: Several overarching themes emerged from the interviews, including socioecological
impact on how a child soldier manages during reintegration post-conflict, the link between hope
and education, and the relationship a child has with his or her peers and daily function.
Quantitative measures showed that a child's social ecology accounted for a significant proportion
of the variance in hope, function, and PTSD above that accounted for by demographic variables.
Specifically, a higher degree of community support was associated with a greater sense of hope, a
lower level of peer support was associated with greater levels of functional impairment, and
lower levels of community support were associated with higher levels of PTSD.

Conclusions: As the mental health of child soldiers and other children affected by armed conflict
are influenced significantly by the degree of social support, especially from peers and family
members, post-conflict interventions should consider that fostering peer support, minimizing
discrimination, and emphasizing educational programming can have dramatic effects on
promoting resilience of reintegrating child soldiers.

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Introduction

It has been written that war is anathema to public health (Levy & Sidel, 2008). With war comes the destruction of infrastructure, communities, and the loss of safety. In the loss of these, there is the rise of social injustice, the decline of human rights, and increased presence of health disparities. Often, the impact on public health is clear: steep rises in morbidity and mortality, as well as loss of access to healthcare and health treatment. Other times, however, the links to public health may be more ambiguous: growing malnutrition and sanitation problems with the decimation of natural resources and community. Each person sees the results of war differently, as well. When war is introduced into regions where chronic structural violence pre-exists, the challenges are exacerbated exponentially. Survivors are often scarred for life, physically, mentally, or both. The possibilities of psychological trauma and distress can have profound effects on the post-war person. These potential outcomes, collectively, demonstrate the public health challenges presented in the wake of war.

In terms of its participants, warfare has changed considerably. Where vulnerable groups such as the old, the infirm, women and children were once given societal protection (Walzer, 1992), we now find that the boundaries have shifted so significantly that vulnerable groups often play a considerable role in war. It is no longer unusual to see children used as tactical pieces in many modern conflicts. Examples range from Rwandan radio broadcasts during the 1994 genocide reminding Hutu killers not to forget the "little ones", to Serbian snipers during the siege on Sarajevo who deliberately shot at children walking between parents (Singer, 2006). Such reports are staggering, with estimates noted at over six million children disabled or seriously injured due to conflict, twenty-five million children forced into displacement, and over ten million children experiencing psychological trauma as a result of war (Mazurana & Carlson, 2006; UN Report, 1996). For these children, war effectively creates a dramatic change in their social ecology. This can have profound effects on normal child development and put them at greater psychological (and potentially physical) risk (Betancourt & Khan, 2008).

On February 13, 1996, the country of Nepal was thrown into civil war, declared "The People's War" by the Communist Party of Nepal Maoist Army (CPN(M)), against the Nepali Government. The rationale of the CPN(M) was based upon principles of economic and social injustice, and the abolition of the reigning monarchy (Kohrt et al., 2009; Thapa & Sijapati, 2004). When the government rejected demands for change, the CPN(M) declared war and began a violent, agrarian revolution (Kohrt, Tol, et al., 2010). The People's War ultimately ended in November of 2006 at the signing of peace accords. During this ten-year conflict, however, an estimated 13,000 to 17,000 people were killed and, more tragically, children played a major role in the war (Human Rights Watch, 2007; Mehta, 2005).

Both sides of the conflict contributed to the larger problem of recruiting individuals younger than 18 years of age. These children were utilized as soldiers, sentries, informers, cooks, porters, and messengers (Human Rights Watch, 2007; UN, 2006). There were also reports of sexual exploitation of girls who had been conscripted as child soldiers (UN, 2004). Estimates from local groups have noted that as many as 9,000 children participating in the war were between fourteen and eighteen years of age, with forty percent being girls (Human Rights Watch, 2007). It was also found that as many as ten percent of the Royal Nepal Army during the conflict was below the age of eighteen (Singh, 2004).

In 2007, leading global agencies in child security and welfare, such as UNICEF, seeing an urgent need to protect against the use of children in war, created a document entitled The Paris Principles. This international guidance document refers to child soldiers as "children associated with armed forces or armed groups" (CAAFAG), and who meet the following criteria:

> *Any person below 18 years of age who is or who has been recruited or used by an armed force or armed group in any capacity, including but not limited to ... fighters, cooks, porters, messengers, spies or for sexual purposes. It does not only refer to a child who is taking or has taken a direct part in hostilities (UNICEF, p. 7, 2007).*

Continued evolution of this guidance document, as well as the increase in the number of relief agencies promoting CAAFAG welfare, have allowed for a greater understanding on the complexities of reintegration of CAAFAG.

Research, Reintegration, & Rehabilitation

Considerable focus in post-conflict work with CAAFAG is with the reintegration of those children into their families and communities. Many of these reintegration programs specifically address mental health and psychosocial wellbeing. Problems with reintegration involve the fact that many children may return to their homes only to find new struggles with problematic reintegration and psychological trauma (Betancourt & Khan, 2008; Betancourt et al., 2008; Betancourt et al., 2010; Boothby, 2006; Boothby, Crawford, & Halperin, 2006; Boyden & Mann, 2005; Fox & Tang, 2000; Howana, 2006; Kohrt et al., 2008; Kohrt, Jordans, et al., 2010; Singer, 2006; Stichick, 2001; Thabat & Vostabis, 2000; Wessels, 2005). Nepal, for example, experienced an increase in the incidence of depression, posttraumatic stress disorder, and suicide following the end of the war. Recent reports estimate the prevalence of mental health issues in post-conflict Nepal as high as 30% (Singh, Dahal, & Mills, 2005). Compare this to the average global burden of mental health problems, which is approximately 14% (Prince et al., 2007). Thus, as expected, CAAFAG demonstrate higher prevalence of depression, PTSD, and functional impairment compared to children who experienced the conflict but were not members of fighting forces. However, anxiety rates did not differ between the two groups (Kohrt et al, 2008).

Substantial structural, emotional, and physical violence existed pre-conflict for Nepali child soldiers (*Ibid.;* Kohrt & Maharjan, 2009; Kohrt, Tol, et al., 2010; Kohrt, *Forthcoming*). A major challenge of Nepali CAAFAG was to develop adequate and appropriate coping skills. Coping and coping development often met their own set of problems, however, as additive effects of violence and deprivations during war often could overwhelm coping skills. This may have left children vulnerable to internalizing and externalizing adjustment difficulties and symptoms of posttraumatic stress disorder (Allwood, Bell-Dolan, & Husain, 2002).

Typical coping mechanisms developed in CAAFAG have varied considerably between the negative and positive extremes. Mechanisms may range from negative behaviors, such as substance abuse and poor control of aggression, to positive behaviors, such as greater focus on education and leadership roles in their civilian communities. As a result, research in this area must look beyond the traditional role of individual empowerment and understand how ecological factors such as family and community play into the development of these varied outcomes.

Prior research in child development and coping formation has shown that families who mistreat their children characteristically provide fewer opportunities for positive experiences and growth outside the family than found in an environment that helps to promote normal developmental outcomes (Belsky, 1993; Belsky & Vondra, 1989; Cerezo, 1997; Cicchetti & Lynch, 1995; Howes, Cicchetti, Toth, & Rogosch, 2000). On the other hand, and specific to this study, research has also demonstrated that, when provided family and social support, CAAFAG build greater resilience and show more positive reintegration outcomes, when compared to CAAFAG with limited to no support (Boothby et al., 2006; Boothby, 2006; Stichick, 2001).

Theoretical Underpinning

This paper focuses on four behavioral and developmental theories as guides in understanding the relationships child soldiers have with persons or groups around them, as well as how those relationships affect that child's psychosocial wellbeing. These theories are: (1.) The Ecological-Transitional Model of Child Development (Bronfenbrenner, 1979); (2.) The Social Determinants of Health Model (Baer et al., 2003); (3.) Social Cognitive Theory (Bandura, 1977); and (4.) Grounded Theory (Glaser & Strauss, 1967). These models work through social ecology and self-efficacy, and their effects upon mental health. All four theories play an interconnected role in explaining this vulnerable population's outlook and potential outcome.

Social Ecology and Interactional Impact. In considering relationships within complex settings such as those of children within armed conflict, Bronfenbrenner's (1979) Ecological-Transitional Model of Child Development provides a framework for the analysis of psychosocial

impact. This model provides constructs for the various systems of the child's social ecology –

Microsystem, Mesosystem, Exosystem, and Macrosystem. There is a fifth level, the *Chronosystem*,

which Bronfenbrenner purportedly introduced later, but which is considered somewhat challenging to

use for this study due to the lack of research on its application in the context of complex settings. In

consequence, the Chronosystem level will not be discussed in this paper, but may be considered for

future research on the role time plays in adolescent resilience following exposure to war trauma.

      CMA Social Determinants of Health Model. This paper makes use of the ecological model

previously established by Kohrt et al (2010a) in consideration of a child soldier's psychosocial

wellbeing. Additionally, the Social Determinants of Health Model, taken within a critical medical

anthropology (CMA) framework (Baer et al, 2003), should be considered as complementary to and

supportive of the Ecological-Transitional Model.

      Although researchers have utilized Bronfenbrenner's ecological model to better explain the

wellbeing of children exposed to violence (Belsky, 1980; Betancourt, 2005; Cicchetti & Lynch, 1993;

Tol et al., 2009), this study maintains that the synthesis of the ecological-transactional approach with

the CMA Social Determinants Model may clarify some of the psychosocial consequences of being a

child soldier and the family-child relationships which have an effect on that child's sense of wellbeing

(Kohrt, 2010a). Additionally, ethonographic research has found that the most culturally appropriate

expressions of ecology involve terms taken from the Social Determinants of Health Model (Kohrt et.

al., 2010b). Thus, for the purposes of this paper, we have mapped the Ecological Model's systems of

the child's social ecology onto the Social Determinants of Health Model (See Figure 2), and we will

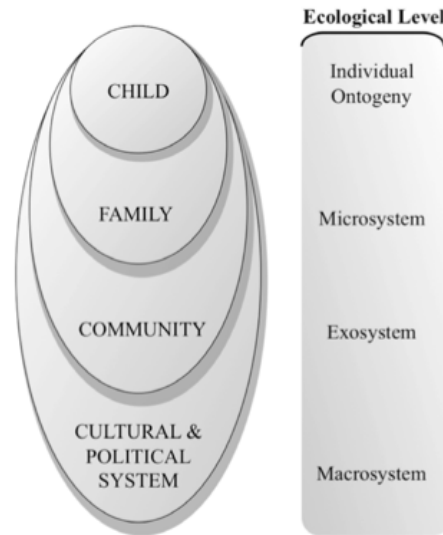refer to the ecological levels as Child, Family, and Community.

Figure 1. Social Ecology With CMA Social Determinants of Health Considered for Psychosocial Wellbeing Contexts in Children Associated with Armed Forces or Armed Groups (*taken from Kohrt, Jordans, et al., 2010*)

The first, innermost layer of this joint model is known as the *Child* within the CMA Social Determinants framework (known as the *Individual* (Ontogeny) in the Ecological-Transactional Model). This level of the model takes into consideration factors which are exhibited solely within the child, such as age, gender, and disposition. It is this individual level which reflects children's different histories, personalities, and psychobiological states (*Ibid*.). Typically seen in modern interventions for CAAFAG are factors which affect this single layer, although work by Betancourt and others (2010b) is showing great efficacy in incorporating expanded ecological systems within their reintegration programming.

The second layer, is referred to as the *Family* (or *Micro-social*) level within the CMA Social Determinants Model (the *Microsystem* within the Ecological-Transitional Model), involves the relationship of the child and the immediate environment. The immediate environment can include areas such as school, home, and workplace (Cicchetti, Toth, & Maughan, 2000). Belsky (1980), in his child maltreatment research, considers this family level the "family environment".

There is an additional layer to Bronfenbrenner's model, which is not shown in the above diagram, but which does play an important role in describing ecological relationships – the

Mesosystem. The interactional relationship described here is between the child and two or more settings of relevance to that developing child. Specifically, the Mesosystem establishes the connections between multiple relationships within the Microsystem (Berk, 2000). Bronfenbrenner defined this level as "a set of interrelations between two or more settings in which the developing person actively participates" (Bronfenbrenner, 1979, p. 209). Examples of this include interactions between the family and schools, or the family and the child's peer group. While investigating Mesosystems merits further research, it falls out of the scope of this study.

The *Community* (or *Intermediate*) social level in the CMA Social Determinants Model (also described as the *Exosystem* in the Ecological-Transitional Model) contains ecological environments which do not necessarily contain the developing person (i.e., the child) but still maintain an effect on experiences in the child's immediate settings (Berk, 2007). The intermediate social level is developed from both the formal and informal social structures (and networks) that create the environment in which the Individual and Family levels function, including neighborhoods, social support groups, and employers (Cicchetti, Toth, & Maughan, 2000; Cicchetti & Lynch, 2003). Overall, in theory, the community is only indirectly relevant to the individual and the relationships that pertain to that individual.

Finally, there exists a social level known as the *Macro-social* level within the CMA theoretical model (known as the *Macrosystem* in the Ecological-Transactional Model) which includes elements of corporations and the medical-industrial complex (Baer, Singer, and Susser, 2003). This last ecological system will not be a focus of this paper as it describes relationships at the institutional level and beyond, falling outside the scope of our study. What is important to note, however, is the impact the Macro-social level has upon all other ecological levels, as cultural, historical, and political influences are all reflected, to a degree, in each system (Betancourt, 2005).

Self-Efficacy in Posttraumatic Coping Mechanisms. Established in 1977, the Social Cognitive Theory (SCT) was built from earlier work in learning within the human social context (Bandura, 1977; Glanz et. al., 2008; Miller & Dollard, 1941; Rotter, 1954). SCT later integrated cognitive

psychology constructs to better describe human processes and biases surrounding experience and observation, as well as capacity and behavior (Bandura, 1986; Bandura 1997; Bandura, 1999). While our model, thus far, describes the child and the ecological levels that impact the child, SCT incorporates another factor that can impact the child, i.e., the child's behavior. SCT proposes a dynamic interplay of personal, behavioral, and environmental influences (Bandura, 1977; Bandura, 1995; McAlister, Perry, & Parcel, 2008).

SCT emphasizes one particular personal influence, *Self-efficacy*. Self-efficacy is one's belief in one's capability to organize and execute whatever is needed to manage a prospective situation (Bandura, 1995). According to Bandura, "Among the mechanisms of agency, none is more central or pervasive than self-efficacy" (p. 2). Self–efficacy theory posits that a person works to understand his or her capacity in order to understand the quality of functioning and the events that affect his life.

Self-efficacy plays a key role in stress reactions and the quality of coping in threatening situations (Bandura, 1997). Specifically, self-efficacy works through cognitive, motivational, affective, and decisional processes to arrive at a belief about each person's ability to effectively manage her or her functioning and demonstrate control over the events that affect his or her life. This can manifest in the form of an individual's thinking in self-enhancing or self-debilitating ways, the degree to which a person is self-motivated and perseveres under duress, or in the quality of one's emotional life and sense of resilience during adversity, stress, and depression (Bandura, 2004; Gully, Incalcaterra, Josi, & Beaubein, 2002; Holden, 1991; Holden, Moncher, Schinke, & Barker, 1990; Moritz, Feltz, Fahrbach, & Mack, 2000; Multon, Brown, & Lent, 1991; Sadri & Robertson, 1993).

Trauma, traumatic events, and the aftermath can easily overwhelm coping capabilities. Most people have a manageable recovery from traumatic experience, lending to resilience, but others may remain in a state of chronic debilitation from their trauma (Herman, 1992). What supports the use of this construct in our research are, firstly, that coping strategies are not developed solely by an individual and, secondly, self-efficacy in the individual can be enhanced by social support, which may in itself act as a protective factor, potentially mitigating negative effects (Bandura, 2004).

Research has shown that self-efficacy not only acts as a mediator of social support, but can also work to establish it (Holahan & Holahan, 1987a,b). Working against this premise, however, Bandura points out that social support that relieves stress through social dependence on the supporter may be not only a buffer, but also operate as a disabler of coping capabilities (Bandura, 2004). Thus, SCT not only helps us to understand how social support aids in posttraumatic reactions, but it also provides a guide for how social support may be structured in order to optimize its benefits for the development of coping mechanisms.

Research Hypotheses

This study proposes to investigate three interconnected hypotheses: First, the presence of increased support and fewer problems during the reintegration, as reported by former Nepali child soldiers, correlates with higher levels of hope and hopefulness in the post-reintegration phase; second, that former Nepali child soldiers who report greater support and fewer perceived problems during reintegration demonstrate less functional impairment in daily life; and third, that among former Nepali child soldiers, children who report greater support and fewer problems during the post-reintegration phase will demonstrate a fewer posttraumatic stress disorder symptoms.

Literature Review

With the considerable shift in how warfare has been conducted over the last few decades, there has concurrently been a significant shift in the role civilians have played, including increases in human rights violations such as the use of children in war (Pedersen, 2002; Singer, 2006; Tol et al., 2010). The image of a child in war is reprehensible to most people who see it. Children are, arguably, our most vulnerable population. We work as a society to preserve the integrity of their welfare, especially with regard to exposure to violence, in this case, war. Over the course of history, however, children have played an ever-increasing role in war. Children, even if not involved in direct fighting, have carried indirect roles as messengers (Bishop, 1982), musicians (*Ibid.*), and cooks (Kohrt, Jordans, et al., 2010). In the last two decades, however, there has been a considerable shift in the ways in which human societies wage war on one another; the victim burden is more traumatic, and vulnerable populations find themselves involved in the war to a much greater extent. A good case study of this shift can be seen with the decade-long civil war in Sierra Leone. This war proved not only devastating for its length and severity, but also for the fact that the most prominent participants in the engagements were children. Reports indicate that upwards of 80% of all fighters were between the ages of seven and fourteen (Boothby & Knudsen, 2000). Regardless of whether the war is in West Africa, or Colombia, or in Nepal, it can produce profound and lasting psychophysiological changes on the exposed (Herman, 1992). In this chapter, we seek to review the literature in order to give merit to the trauma this unique population of children endures, how those children cope and the context of that coping, as well as the ecological interactions which determine reintegration outcomes.

An Overview of Child Soldiers

When considering child soldiers, those unfamiliar with the complex dimensions of the population typically think about images represented in popular media (e.g., movies like *Blood Diamond*). To characteristically represent child soldiers with accuracy, their varied backgrounds, conflict experiences, and social wellbeing must be taken into account (Betancourt, 2008; Betancourt et al., 2008; Kohrt, Tol, et al., 2010; Kohrt & Maharjan, 2009; Wessells, 2006). Child soldiers are

richly studied across several disciplines, and the group is one with many stories to tell. This, in turn, makes ethnographic research of child soldiers of great interest (Boyden & De Berry, 2004; Honwana, 2006).

Child soldiers, however tragic, have been reported in numerous countries around the world including Burma, Cambodia, Central African Republic, Colombia, Democratic Republic of Congo, El Salvador, Liberia, the Palestinian Territories, Sierra Leone, Somolia, and Uganda (Coalition to Stop the Use of Child Soldiers, 2004, 2008). In 1996, a United Nations-sanctioned study on the impact of armed conflict on children was released, pushing the phenomenon of child soldiers into the forefront of international human rights and humanitarian issues (Machel, 1996). Because of this, the international community has rallied around denouncing this practice (United Nations, 2003, 2004). It was Machel's (1996) report which gave much attention, advocacy, and programming to the lives of child soldiers (Lee, 2009). In subsequent years, governmental organizations (e.g., United Nations (UN), the United Nations Children's Fund (UNICEF), the Office of the Special Representative of Children and Armed Conflict (OSRCAC)), as well as non-governmental organizations (e.g., Save the Children, Coalition Against the Use of Child Soldiers) have worked together to develop guidelines defining children's role in war, with the intent that such documents will enhance global child protection and rehabilitation. Despite internationally-recognized guidance documents such as the Paris Principles, however, the use of children continues in various conflicts around the globe.

Case Examples Demonstrating Considerations for Child Soldiers Around the World

While research on child soldiers is plentiful in the literature, the holistic considerations of child soldiers around the world are somewhat limited (e.g., perspectives of the child, family, and community-level considerations). This section of the chapter touches upon three important cases of child soldiering around the globe (although we must note that many poignant cases exist around the globe), and describes the relevant psychosocial, as well as ecological, impact on the child. It also demonstrates how these experiences affect the family and community. While reviewing these case examples, it should be noted that generalizations across this population, globally, are often not

possible. There is far too much diversity in groups, the ways children prioritize reintegration supports differ, and the roles ritual plays in the child-community differ. What all children do share is the fact that once their role in their war is over, many new psychosocial battles are just beginning.

Sierra Leone: A violent tear in the fabric of social norms. Coming out of the grimness of extreme examples of child soldiering, Sierra Leone following the civil conflict between 1991 and 2002 gives considerable evidence of the damage done to children. The youngest reported cases, globally, of child soldiers come from this conflict, as young as 7 years old (Betancourt et. al., 2008). What makes this subpopulation of child soldiers so dramatic is the degree to which trauma was experienced; reports of participatory events included torture, rape, executions, forced displacement, and massacres of family members (Betancourt et al., 2010). What compounded much of this trauma was the intense degree to which militant groups attempted to dislodge the relationship between a child and his or her family and community, mostly achieved through forced killings of those same family community members (*Ibid*.; Wessells, 2005).

In considering associations between community factors and psychosocial wellbeing, researchers such as Betancourt have taken an important, holistic approach to this niche-population research, considering multiple factors such as the ecological roles (Betancourt & Khan, 2008) and symptom mitigation through educational programming (Betancourt et al., 2008). Where this research has proven important for our work is the important role a child's community can play in predicting reduced depressive symptoms (Betancourt et al., 2010). It is protective factors such as the community's acceptance that underline the need for greater research toward programming on the Family and Community ecological levels.

Mozambique: "Like everyone else". Boothby's (2006) work in Mozambique is a flagship longitudinal study of child soldiers. With an armed conflict lasting almost 30 years (1964 – 1988), the period of the late 1970s brought about a considerable rise in the already-present practice of guerrilla operations and the use of children as combatants. The country had already been challenged by high Under Five mortality statistics (UNICEF, 1987). Research immediately following the war showed

remarkably high statistical levels for traumatic-experience exposure in children (Boothby, 2006; Boothby, Crawford, & Halperin, 2006). This initial research led to longitudinal analysis of 39 former child soldiers from 1988 – 2004. Through use of clinical instruments such as the Trauma Symptoms Checklist (adapted from the Harvard Trauma Questionnaire to assess adult outcomes of former child soldiers), and conducting focus groups with children, family members, neighbors, and village leaders, data showed that desire to be reconnected with family was the greatest want of the child soldier (*Ibid.*). Additionally, as these children became adults, former child soldiers, families, and neighbors believed that ceremonies (e.g., cleansing ceremonies) played a considerable role in improved psychosocial outcomes (*Ibid.*). But, while there were many factors which allowed the children to cope more effectively, research also indicated that each of the children were left with lasting trauma imprints (e.g., psychological distress symptomology)(*Ibid.*).

What remains important from Boothby et al.'s (2006) work and that of others who have engaged in long-term research of the population is watching how child soldiers' recovery and coping develop into adulthood. In the Mozambique case study, there is a clear, hopeful outcome for former child soldiers. The children show, over time, the power and capacity of resilience, as well as point out the importance of learning the meaning in their violent past, cleansing as a means of gaining community forgiveness and acceptance, and finally, identity. Highly relevant to this research is the role family, community, and allied support systems play in the child's "healing" process. Considering what is important at each ecological level is what makes Boothby's work powerful.

Child Soldiers in Nepal. Nepal ranks as one of the poorest countries in the world (with a GDP of approximately $440 per capita, annual; World Bank, 2009). Additionally, Nepal has been steeped in a modern history of political violence (Tol et al., 2010), torture (Lykke & Timilsena, 2002), excessive violence (Shurestha, 2007), forced migration (Dolma, Singh, Lohfeld, Orbinski, & Mills, 2006), and the recent civil war.

In Nepal, children are surrounded constantly by structural violence challenging their mental health status. Living in areas of political violence may result in compromised psychosocial wellbeing,

psychological distress, or mental disorders (Tol et al., 2010; WHO, 2005). With regard to the decade-long civil war (1996-2006), children suffered forced separation (Boyden et al., 2006), ridicule and violent harassment (*Ibid*.; Pettigrew, 2007), increased externalization in the form of violence (Boyden et al., 2006), as well as some reports of torture (Kohrt, 2009). Pettigrew (2003) has written extensively about factors which led to sleep disturbances and chronic illness stemming from being under a constant state of threat and fear. Children are not exempt from this. Boyden et al. (2006) reaffirmed the psychological distress in children qualitatively through key informant interviews. Child soldiers show a high burden of anxiety, depression, and posttraumatic symptomology (Betancourt, Borisova, et al., 2010; Kohrt, Jordans, et al., 2010). While much of this is from the conflict, it is also important to recognize that although the majority of child soldiers, when interviewed, stated they desired reintegration, leaving the Maoist Army is not psychologically easy. Many of those interviewed expressed the thought that reintegration (leaving the Maoist Army) gave them fear of CPN(M) resentment; the risk of being arrested, tortured, and detained; being re-recruited; and stigma within the community (CAAFAG Working Group, 2006).

Nepal: The People's War

The People's War was a challenging climate with regards to the use of children in war. Both sides of the conflict contributed to the larger problem of recruiting individuals younger than 18 years of age. These children were utilized as soldiers, sentries, informers, cooks, porters, and messengers (Human Rights Watch, 2007; UN, 2006). There were also reports of sexual exploitation of girls who had been conscripted as child soldiers (UN, 2004). Estimates from local groups have noted that as many as 9,000 children participating in the war were between fourteen and eighteen years of age, with forty percent being comprised of girls (Human Rights Watch, 2007). It was also found that as many as ten percent of the Royal Nepal Army during the conflict was below the age of eighteen (Singh, 2004).

Nepali CAAFAG Pilot Study

      In 2007, Kohrt et al., in conjunction with Transcultural Psychosocial Organization (TPO) Nepal (http://www.tponepal.org/), conducted the first pilot study on CAAFAG psychosocial wellbeing post-reintegration in Nepal. This cross-sectional study was a comparison of mental health characteristics between former child soldiers (N_{CAAFAG} = 142) and children never conscripted by armed groups ($N_{Non-CAAFAG}$ = 142) matched on age, sex, education, and ethnicity. Participants all completed two parts of the study – a private, key informant interview with trained research assistants, followed by a comprehensive survey instrument. The survey instrument was composed of several standard clinical, wellbeing, and life assessment tools designed to assess depression, anxiety, posttraumatic stress disorder, and general psychological difficulties. Most components of the overall survey instrument were validated (assessing cultural appropriateness, accuracy, and clinical cut-off thresholds) prior to this study, with a separate sample of Nepali children (Kohrt et al., 2011) using the Global Assessment of Psychosocial Disability as an external criterion (Dryborg et al., 2000; Schorre & Vandvik, 2004). Additional survey questions were included in the overall instrument based on previous qualitative research with former child soldiers, children never conscripted, and adult community members. Questions included from this research covered roles in armed group communities, exposure to combat, the process of returning home, and the voluntary (versus not) nature of joining the armed group. All children and caregivers were consented according to protocol and according to IRB requirements with the study protocol approved by Emory University IRB.

      Child participants in the study ranged in age from five to sixteen years at the time of conscription. Both former child soldiers and civilian children reported experiencing at least one type of trauma. In former child soldiers, 53.2% demonstrated depressive symptoms, 46.1% showed anxiety, 55.3% showed characteristics of posttraumatic stress disorder, and 62.4% showed some degree of functional impairment. Controlling for covariates such as traumatic exposure and socioeconomic factors resulted in former child soldiers presenting with statistically greater depression and posttraumatic stress disorder (especially for girls) than civilian children (Kohrt et al., 2008).

These findings confirm that former child soldiers in Nepal present epidemiologically with more severe mental health problems than their civilian counterparts in specific domains, but not in all mental health and functioning domains.

CAAFAG Mental Health

Research has shown that exposure to violence, in particular political violence, is associated with an increased risk of both acute and chronic posttraumatic stress disorder (Fax & Tang, 2000; Hubbard et al., 1995; Michultka, Blanchard, & Kalous, 1998; Miller et al., 2002; Miller & Rasco, 2004; Shresta et al., 1998; Thabat & Vostanis, 2000; Weine et al., 1998). Posttraumatic stress disorder causes profound and lasting psychophysiological changes. Patients may suffer from a combination of generalized anxiety symptoms and specific fears (Pitman, 1990). Symptomology may also include extreme startle response, intense reaction to stimuli referent to a traumatic event (McFall, Murburg, & Roszell, 1989), and hyperarousal to the point of affected sleep patterns. Children, however, may be more highly susceptible to these changes, as they are still developing. Eisenbruch (1988) applied developmental theory (Erikson, 1950) to understand the vulnerability of children during war and showed that experiences of mistrust, self-doubt, and inferiority exacerbate the psychosocial crises that occur under normal development (Lustig et. al., 2004). In addition, this substratum of child soldiers in war faces their own unique challenges on top of those noted above, including more severe cases of depression (Kohrt et al., 2008; Ovuga, Boardman, & Wasserman, 2005a) or suicidal tendencies (Ovuga, Boardman, & Wasserman, 2005b).

There is one important complexity to note with regards to mental health in Nepal, and when considering Nepali CAAFAG – the concept of posttraumatic stress disorder is challenged in being defined contextually. Crucial to understanding mental health in vulnerable global settings is ethnographic research. In the case of Nepal CAAFAG, Kohrt & Hruschka (2010) indicate that a local construct for PTSD is not readily present in language or in emotional and behavioral concepts. In consequence, to further complicate the problems CAAFAG face, as described above, there is concern for proper diagnosis according to local cultures and social norms.

Reintegration

At some point during or following conflict, the child soldier will likely leave the armed group he or she is associated with and reintegrate into society. The reintegration may be met with exceptional difficulties, including high degrees of stigma from both family and community (Betancourt et al., 2010), loss of social status (Betancourt, Agnew-Blais, et al., 2010; Kohrt, Tol, et al., 2010), and psychosocial distress (Kohrt et al., 2008; Kohrt, Jordans, et al., 2010). Of particular interest in the literature today is the role coping plays in psychosocial outcome post-reintegration, specifically mediating factors which may influence a child's coping mechanisms. Additionally, there is increased importance for understanding the role social ecology and social relationships play in a child's outcome (Betancourt, 2003; Boothby, Strang, & Wessells, 2006; Kohrt, Jordans, et al., 2010; Wessells, 2006).

The Future of CAAFAG: Where Research Is Going

How CAAFAG cope with extreme trauma, including family and community assimilation, merits more research. As our understanding of the individual child's challenges with the return to his or her community is becoming better defined, what becomes more important is learning how these children can be better supported. Specifically, we hope to learn what family-level antecedents exist which impact behavioral risk factors, and what associations are present between protective factors and increased self-efficacy, leading to improved psychosocial wellbeing. Using the data from Nepal, we seek to demonstrate evidence of both.

Methods

Institutional Review

Prior to the conduct of this study, the Institutional Review Board at Emory University had previously approved the study protocol (IRB Protocol #IRB00000393; Protocol Approval Date 04/17/2007) from which these data were obtained. It was determined that these analyses constituting the current study fell within the Aims outlined in the existing protocol Amendment 4 (IRB Protocol #AM4_IRB00000393; Amendment Approval Date 09/01/2010).

Design

For this study, we performed secondary analysis to consider the association between the perceived psychosocial wellbeing and functioning of Nepalese children following conscription (exposure to being a child soldier) and the role that child's surrounding ecological levels play in helping or hurting the reintegration process. A combination of qualitative and quantitative methods were used in this study.

Qualitative. The qualitative portion of this study was conducted using case study and interview methodology. As noted by Keen and Packwood (1995), case study methodology is "valuable where broad, complex questions have to be addressed in complex circumstances," (Keen & Packwood, 1995, p. 444) and is flexible enough to provide "a way of thinking about complex situations which takes the conditions into account, but is nevertheless rigorous" (Keen & Packwood, 1995, p. 444).

Quantitative. The quantitative portion of the study was conducted using a cross-sectional comprehensive evaluation that followed a matched comparison group.

Participants

Child soldiers included in the study must have met all of the following inclusion criteria: (1.) had been in armed group participation for at least one month, (2.) were younger than 18 years of age at the time of study enrollment, and (3.) had a consenting caregiver. With regards to the sample, both

qualitative and quantitative participants were recruited from the same communities for the study. Thus, there is shared representativeness of the overall populations in each district.

Qualitative. There were a total of 9 case studies; each comprised of key informant interviews with the former child soldier, a family member or primary caregiver, and 1 – 2 community members familiar with the child. Case studies were selected through partner nongovernmental organizations, community health workers, or leaders in the community. They were asked to identify one child soldier who was having a difficult time reintegrating and one child soldier who was reintegrating well. Coupled with the children selected for the case studies, researchers interviewed at least one individual from the following groups: a family member, a community member relevant to that case, and another individual who could speak about the child's particular adjustment following service in the Maoist Army. Key informants for the case studies were selected jointly by the Nepali psychosocial case workers and the Primary Investigator (PI) to include a mix of individuals representative of the best and worst case for re-integration, based on challenges and limitations of the child. In this study, as only one of the case studies was of a child in the service of the Royal Nepali Army, this child was excluded from analysis to avoid heterogeneity of the study group. The sample presented here, therefore, comprises 8 children all formerly associated with the Maoist Army.

Quantitative. Experts, comprised of representatives to the 1612 Working Group (a United Nations resolution for children in armed conflict) and the Children Associated with Armed Forces and Armed Groups (CAAFAG) Working Group provided names and locations of child soldiers who had returned home. The lists included all of the known child soldiers at the time of the study. Local civil society groups, teachers, and community leaders validated the veracity (e.g., based on news media documentation, disruption in school attendance, hospital records) of these child soldier cases before providing information to human rights groups and humanitarian agencies. Every child and her/his caregiver on the lists provided by the experts were invited to participate in this study.

Former child soldiers who agreed to participate identified a matched child who had never been conscripted by an armed group. Matching factors were sex, age, level of education, and

ethnicity. Human rights groups and community leaders confirmed 'never conscripted' status. Matching was used to increase the feasibility of identifying a comparison (unexposed) group and to control for potential confounding by the matching factors. The matched counterparts comprised 37 siblings, 40 other relatives, and 65 unrelated peers. Of the matched pairs, 125 (88%) were from the same villages. This resulted in a total of 142 child soldiers and 142 civilian children participating in the quantitative portion of the study.

Study Instruments

Qualitative. A 37-item Key Informant Interview (KII) instrument was used to identify community perceptions of an experience with returned child soldiers. The KII addressed beliefs about child development, a child's ability to understand and rationalize politics and war, reasons for recruitment into armed forces, experiences had during involvement with armed forces, the separation and return process following participation, healing and use of traditional healing, and supportive mechanisms available upon return (TPO, 2010). The survey targeted former child soldiers, parents of returned children, and community members who play either a direct or indirect role in the life of the former child soldier. Interviews were conducted with 152 individuals across eight districts of Nepal. Of the 152 interviews, eight children were chosen for case studies (outlined in the Participant section above). KIIs explored the following domains: roles and responsibilities, wellbeing and the impact of trauma, symptoms, support mechanisms, and reintegration challenges.

Quantitative. The study questionnaire was comprised of several individual, validated clinical and non-clinical instruments. This format of one comprehensive questionnaire was chosen to consolidate the quantitative evaluation process. Validated instruments were used to assess symptoms of depression, anxiety, posttraumatic stress disorder, and general psychological difficulties. Validation of all instruments was performed locally in Nepal with a separate sample of Nepali children (n = 162) in earlier studies (Jordans et al., 2007; Kohrt et al., Manuscript submitted for publication). All instruments followed a Nepali culturally sensitive translation procedure (Van Ommeren et al., 1999).

Demographics. Categorization of demographic variables was determined by considering each within the socioecological framework of this study. Variables analyzed as covariates at the Child level included age, gender, education level completed (How much education have you completed?), marital status (What is your marital status?), literacy status (Are you literate or illiterate?), and the type of trauma a child was exposed to (using the Traumatic Events and Violence questionnaire). Family level variables included family size (aggregating total number of family members listed), and religion (categorical listing of religion types). Also included for the Family level were wealth and change in wealth following conflict. However, understanding that measuring individual wealth is a multi-dimensional issue (UNDP, 1998), for the purpose of this study we are defining wealth as the number of household items of value (such as electricity, a radio, or a television) and ownership status of a home. To consider wealth in this way also was advantageous, as most Nepali children participating in this research did not have a good understanding for how much money the family generates at any given time, but did equate wealth to how many possessions his/her family held. A change in wealth following (but not necessarily due to) the conflict is reported independently, but should be considered as supportive to the wealth variable, with responses including a positive change, a negative change, or no change in wealth. Finally, at the Community level, caste (categorical) was considered. Ethnicity was assessed, as it has been associated with mental health outcomes in Nepal (Kohrt et al., 2005; Kohrt et al., 2008; Thapa & Hauff, 2005). All variables were recorded as either continuous (e.g., wealth), dichotomous (e.g., literacy) or categorical (e.g., caste).

Supports and Challenges. The Reintegration Process (RP) instrument is an index, created through qualitative research to understand and describe the ecological impacts of supports and difficulties experienced by children during the reintegration process (Kohrt, Jordans, et al., 2010). The instrument is established to allow children to indicate whether the Family, a Friend, a Teacher, a Political Organization, a Neighbor, or Another Organization (i.e., NGO, IGO) had an impact on their reintegration. Responses are given as a dichotomous Yes or No, with Yes indicating that the specified person or group had an impact. Sample items within the supports included, "Helped to take me

home", "Was proud of me", and "I could share my inner feelings". Sample items within the problems included, "Ashamed of me", "Teased me", and "Threatened and pressured me".

Hope. The Child Hope Scale (CHS) is a 5-item, self-report instrument originally developed and validated by measurements among children in disparate settings (Snyder et al., 1997). It was here used to assess a sense of hope in children. Responses are based on a 6-point scale ranging from 0 (none of the time) to 5 (all of the time), with higher score indicating a greater sense of hope and hopefulness. Cronbach's alpha internal reliability was measured as 0.84, and a Spearman-Brown coefficient for test-retest reliability as 0.70 in other studies of Nepali children (Jordans et al., 2010). A sample item from this scale is, "When I have a problem, I can come up with lots of ways to solve it." The CHS instrument used in this study was adapted for use in Nepal through a five-step, trans-cultural translation process. This included discussion of each item and scale by a focus group of Nepali children.

Functional Impairment. The Child Functional Impairment (CFI) scale is a rating scale developed to measure children's functioning in context (Jordans et al., 2009). It was developed based on an adaptation of the methodology used by Bolton and Tang (2002). This 10-item, self-report scale assesses the following functions of daily living: getting meals, working in the fields, cooking food, doing housework, playing sports and games/recreational activities, spending time with others, studying in school, doing homework, and helping neighbors (Kohrt, Jordans, et al., 2010). Responses are based on a 4-point scale ranging from 0 (never difficult) to 3 (usually difficult), with higher scores indicating more functional impairment. The instrument has a Cronbach's alpha of 0.87, and a Spearman-Brown coefficient for test-retest reliability of 0.80 in other studies (Kohrt et al., 2008; Kohrt, Jordans, et al., 2010). A sample item from this scale includes "In the past two weeks, how difficult was it for you to study in the school?"

Current Posttraumatic Stress. Current posttraumatic stress was assessed using the Child PTSD Symptom Scale (CPSS-1). The CPSS-1 is a measure of posttraumatic stress disorder (PTSD) symptoms developed from the Posttraumatic Diagnostic Scale (PTDS; Foa et al., 1997), for use

among children exposed to trauma (Foa et al., 2001). The modifications made to the PTDS to develop the CPSS included the incorporation of developmentally appropriate language to assist in children's understanding of the items. It was adapted, in accordance with Nepali concepts of psychosocial trauma (Kohrt & Hruschka, 2010), for use in Nepal. The scale has two sections. The first scale is related to understanding symptoms. It is a 17-item self-report scale with responses based on a 4-point scale ranging from 0 (Not At All or Only At One Time) to 3 (5 or More Times a Week/Almost Always), for a possible range of scores between 0 and 51. The second scale is related to functioning in a child's life. These seven items are scored dichotomously as *Yes* or No, and yield a total score ranging from 0 to 7, with higher scores indicating greater functional impairment. Together, higher scores overall indicate higher prevalence of posttraumatic stress symptoms over the past week. The instrument has a Cronbach's alpha of 0.94 for the symptoms section, and 0.85 for the functioning section. Cronbach's alpha for the overall instrument was 0.86. It has been validated for use with Nepali children (Jordans et al., 2007; Kohrt et al., 2011); the clinical cut-off for posttraumatic stress is 20, with sensitivity = 0.68 and specificity = 0.73. A sample item from this scale is, "Having feelings in your body when you think about of hear about the event (for example, breaking out into a sweat, heart beating fast)."

Procedure

Qualitative Data Collection. Oral consent was obtained from each participant. Because of high illiteracy rates, research assistants read consent forms. Participants then completed a 37-question key informant interview with trained interviewers, conducted in private locations away from other caregivers and others. The interviews took 60- to 90-minutes to complete. The interviews were conducted in Nepali. Children were provided with a snack during the interview and received a notebook and pen in appreciation of the participation. Caregivers were not offered any incentive for their children to participate. No participant had received psychosocial services prior to enrolling in the study (Kohrt et al., 2008).

Quantitative Data Collection. As the quantitative sample differed from the qualitative sample, oral consent was obtained from each participant. Because of high illiteracy rates, research assistants read consent forms. Participants whose symptom scores were above the cutoff, who reported suicidal ideation, or who requested services were enrolled subsequently in programs for psychosocial support. The questionnaire included the CPSS-1, K-SADS PTSD traumatic event checklist, CHS, Health and Coping Behavior instrument, and CFI. Study participants were also asked basic demographic information at this time. An interpreter was available to assist the respondent with any questions during the instrument completion. Each survey instrument was coded with an identification number to maintain confidentiality. Children were provided with a snack during the interview and received a notebook and pen in appreciation of the participation. Caregivers were not offered any incentive for their children to participate. No participants had received psychosocial services prior to enrolling in the study (Kohrt et al., 2008).

Data Analysis

Qualitative Analysis. Transcripts were analyzed using Thematic Analysis, a method used for identifying, analyzing, and reporting patterns within the data (Braun & Clarke, 2006). As this study was designed to understand patterns and interactions in the reintegration of former child soldiers in Nepal across several districts, thematic analysis was the most appropriate method to use for qualitative data analysis.

Two trained research assistants, led by a lead qualitative methodologist, independently read three transcripts and began to identify and define codes (Braun & Clarke, 2006). Discussions between the research assistants and lead qualitative methodologist served to further develop and refine the codebook. During this time, research assistants wrote reflective memos for each transcript to provide a foundation for these discussions. Research assistants confirmed codebook definitions and hierarchy with three additional transcripts, then validated the codebook by confirmation from two additional qualitative methodologists. Each research assistant coded each of the remaining transcripts to ensure

inter-rater reliability. Transcripts were discussed bi-weekly between research assistants, with any disagreements reconciled by the lead qualitative methodologist.

Quantitative Analysis. In order to understand what children report as causal factors in psychosocial wellbeing and functioning, we analyzed the data using Predictive Analytic Software (PASW) Version 18, a statistical software package, formerly known as Statistical Package for Social Science (SPSS). A test of normality was conducted on all continuous variables to assess whether the data were normally distributed.

First, proportions, means, ranges, and standard deviations, were calculated to describe the sample's characteristics. Second, bivariate statistics were calculated to examine the association between hypothesized variables of interest, as well as to assess for potential covariates. Finally, multivariate hierarchical linear regression models were constructed to assess the strength of proposed predictor variables in explaining variance in the proposed criterion variables controlling for covariates. Multicolliniarity was assessed to assure that variables were not measuring highly overlapping constructs. For our analysis, statistical significance was established at the $p < 0.05$ level.

With regards to how variables were considered for the purposes of this study, it is important to establish that Community is considered an aggregate scoring of the impact Teachers, Neighbors, and Peers had on the child. While Peers could certainly be considered independent from the community in theory, however, multivariate linear regression (described later) showed that excluding Peers may negate the effect of the Community. Additionally, understanding that the measure of individual wealth is a multi-dimensional issue (UNDP, 1998), for the purpose of this study, we are defining wealth as the number of household items of value (such as electricity, a radio, or a television). To consider wealth in this way also was advantageous, as most Nepali children participating in this research did not have a good understanding for how much income the family generates at any given time, but did equate wealth to how many possessions his/her family held. A change in wealth following (but not necessarily due to) the conflict is reported independently, but should be considered as supportive to the wealth variable, with responses including a positive change, a negative change, or

no change in wealth.

Results

During the data collection phase and prior to this study, researchers identified 227 former child soldiers as potential study candidates, of which 169 (74%) met inclusion criteria. Of the 169 children meeting inclusion criteria, 27 did not participate in study due to relocation (n = 10), educational obligations (n = 5), or fear of retaliation due to participation (n = 12). Following identification of the 142 case children, matched pairs of control children were identified. As this study is investigating specific outcomes of case children only, discussion of matched pair counterparts falls outside the scope of this study. The names of all respondents was changed in this paper to preserve confidentiality.

Qualitative Results

Following service in the Maoist force, former child soldiers from Nepal consistently report mild to moderate problems during their reintegration into their communities, unless the child reports some continued exposure to the armed force (e.g., student recruitment, community outreach, cultural performances). In this study, perceived positive daily functioning and an increased sense of hope relied more heavily upon social network strength and the presence of education, than solely on the family support unit. The traditional (primary) form of support – the family – had some impact on how a former child soldier perceived his or her reintegration to be, but most children, when asked directly, stated that their greatest sense of support came from outside of the family ecological level.

Hope and Hopefulness. Hope and having a sense of hope for the future was a very powerful motivator expressed by all interviewees at all ecological levels. Having hope, they would all note, gave a promise for future success. What was more common to see than hope, however, was regret, which here was linked to hope. Children often expressed feelings of longing for home or regret for what was left behind as a result of the service. Most often, that regret centered on education, especially in relation to where non-child soldier friends were in their educational level. A good example of this hopelessness manifested as regret came from Maya. Maya, a 17-year old youth (at the time of interview), was involved in the conflict for close to three years. Her feelings of loss of

accomplishment and success in school, created a powerful commentary on what, she feels, her future

holds.

> *My friends who continued their studies have done well. But because I dropped out*
> *early, I feel I have lost an important part of my future. To do any job, one needs a*
> *good education or the knowledge of English, both of which are lacking in me. So*
> *when I think of my future, I feel sad.*

This regret was not limited to the children, however. Regret for leaving, especially leaving school,

was seen at every ecological level. Families consistently gave leaving education as large part of the

loss of hope felt as a result of the child's participation in the conflict. A family member of Maya's

reinforced how education could help to minimize the hopelessness Maya feels:

> *As far as the negative aspects [of Maya's service with the Maoist Army] are*
> *concerned, it is only two things. First and foremost, she missed out on her education.*
> *Her friends are studying in higher grades. They have made their futures bright. But*
> *Maya missed school, didn't she? She looks so mature, even though she is still young.*
> *To qualify for any job or employment, one needs a good education and English.*
> *That's lacking in her. Education is the gateway to a good future.*

At an even higher ecological level, we see that these emotions of loss of hope linked to regret radiated

outwards. Here, a local teacher to one of the youth CAAFAG, described what he felt the key to

improving a hopeful outlook is:

> *But look at the damage done to his life! This is his age to study; he is 16-17, so he*
> *should be in school. He will have a good life only if he gets an education; otherwise*
> *his life will become bleak.*

> *Exposure to a Traumatic Event.* All children included in this study reported some degree of

exposure to a traumatic event. Here, we define a traumatic event as an event or series of events out of

the ordinary (sometimes catastrophic), where the child felt out of control or victimized. In several

cases, the act of having to leave home (both voluntarily or by forced conscription) was, in itself,

traumatic. Much of this trauma is more subtle, emerging thematically in constructs like the

hopelessness and regret seen above. In more dramatic instances of exposure, however, the trauma

experienced was more violent, commonly associated with combat or war-related violence. In these

exposures, the lasting impact was pronounced. Raj, a 17-year old youth (at the time of interview),

described a defining moment which irreparably altered his psychological status during his time in

service. Raj, who was 14-years old when he was conscripted into the Maoist Army, talked about his

sharp decline in mental health following combat exposure:

> *After this, the leader planned to attack the opposition army camp in Chisapani of Karnali. ... So the Maoists gave me weapons and sent me with the attack group. We fired guns all night until the sun rose. My right leg got wounded and I still have problems with it. It was heavy gun firing from our side than the opposition army. So I felt I might get shot by my friends by mistake. ... About 10 people from our side died in that attack. We carried their dead bodies and walked through river banks and then walked up hills and buried some dead bodies and then some bodies were taken to different places.... After this, we went up hills and my body started shivering, my eyes started to blur.... My body was shivering because I carried dead bodies and I was thinking of my friends who were killed in Chisapaani attack. I was very disturbed with all those things and I thought god was not happy with me. ... I kept all my feeling inside me because my other Maoists friends laughed and would not believe me.*

This tragic rift in normal psychosocial wellbeing was experienced not only by the children,

however. As is typical of combat veterans, families and communities experience the dramatic change

of the individual. Here, they expressed their understanding of the psychological impression war

leaves on the child soldier. In discussion, the mother of Raj, the boy described above, addressed her

observation of the emotional change in her son by saying:

> *Raj is a dhaami [Shaman; spiritual leader]. The dhaami god got angry with him because he had to carry dead bodies and eat anything that he found. He couldn't follow the rules of the dhaami god so his body started shivering. He dreamed only about war. He has nightmares.*

Psychosocial Problems. The spectrum of psychosocial disorders was noted in the case

studies. While none were clinically diagnosed, all demonstrated evidence of mental health disorders

or conditions common to children exposed to war-related trauma. The severity of psychosocial

problems varied in degree and severity according to exposure type. In the case studies reviewed, Raj

(who, again, was 14 years of age when kidnapped) demonstrated more overt symptoms of

posttraumatic stress disorder, including nightmares ("*He dreamed only about war. He has

nightmares.*"), irritability ("*[Raj] ... gets angry very quickly if we joke around.*"), emotional distance

("*He used to come in our community and visit many friends but now he mostly just sits by himself. He

speaks very little and he is very reserved these days.*"), dissociative re-living of the trauma ("*I think

he speaks with himself and thinks of his friends who died during battle. It seems as if he has big problems inside him."), increased startle reflex ("*He gets scared very easily.*"), and emotional numbing ("*He is very spacey these days. He does not respond to what we say.*"). Anecdotal evidence from prior research would indicate that the case of Raj is not an isolated event, that symptomology like this exists to an even greater degree.

An important consideration in how extreme trauma can affect the child or the child soldier is how that exposure can begin a future cycle of violence. Jamal, a 16-year old youth (at the time of interview) gives his commentary on how witnessing war trauma can have future implications for the mental health of children. He notes:

> *Interviewer: Jamal bhai, how does war affect children mentally? What is your experience?*
>
> *Jamal: They don't have to murder. If they have seen people being killed and assaulted, that's enough to affect them mentally. When they see it, they want to imitate it. When they are staying at home, they might do something and create a scene in the community. Because they will have seen such things happen before and that will have affected them mentally. So they want to do the same after returning to the community.*
>
> *Interviewer: Are you saying they want to become violent?*
>
> *Jamal: Yes.*

The implications of responses like this lies with researchers, who need to further understand how to integrate themes surrounding the break in a cycle of violence with child reintegration interventions.

Coping Mechanisms. All children interviewed stated that they felt some sense of loss during the reintegration stage. This loss was connected to the inability to measure up to (or be held in the same regard as) their peers, due to lack (loss) of education or the inability to find employment. If the child was physically injured during his or her service in the Maoist Army, the child's expressions of difficulties in managing reintegration were notably worse. The hopelessness is felt in Maya's futile statements relating to finding work. During her training with the Maoist Army, she sustained a

physical injury, which had not fully recovered. This injury, coupled with the challenges of

educational loss and a questionable future, put her in a purgatory of direction. She states:

> *I wish I would get a proper treatment for my hand from somewhere. I cannot work*
> *with this hand now. I was hoping to get it treated through Red Cross, but they say the*
> *treatment will be confined to Kailali. I don't know what to do.*

In the development of personal coping strategies during reintegration, both positive and

negative examples of strategies were found. Positive strategies typically revolved around support

being linked to outcome (e.g., support from families, support from peers, support form community

members). Negative strategies, while more focused on "abuses" in the literature (i.e., substance abuse,

physical abuse), here in Nepal were more centered on avoidance and lack of purpose (ergo, passive

coping). Children who leaned towards negative strategies felt they could travel down the path of

avoidance and improve, simply by finding a job and contributing to the family infrastructure. Raj,

who was already facing considerable psychological problems with potential PTSD, placed his success

in not thinking about the past. Raj noted:

> *I need to find some work that will keep me busy and help me be distracted from my*
> *past. I will try to do some work and help my family.*

On the other end of the spectrum, children interviewed also discussed that the presence of having a

strong network of family and friends can work to improve positive outcomes. Leepa was a good

example of a youth who understood how she was positively enabled by her family and community (in

this case, peers with a common, shared experience) rallying around her at a crucial time. She gives

two good examples of this by saying:

> *I got much support from my home and family, then from the community. Talking*
> *about the community, only particular persons helped, not all. Not everyone supports*
> *you, anyway. There are bound to be a few opponents. But friends do help.*

and,

> *It wasn't very nice and sometimes I felt sad when I came to think of it. But again,*
> *when I saw children of my age in their group, I didn't feel so bad after all. They*
> *seemed to be having fun. So in a way it was reassuring to see other children like us.*
> *Even my friends used to say the same thing.*

Not all children are so fortunate to have such support, however. Children, including those who have experienced tragedy, continue to struggle with how to manage the challenges and problems affecting their outcome. A common theme seen across the interviews dealt with how reintegration problems created larger psychological distress signals. The most common way in which children reacted to the combination of traumatic event exposure and a lack of support from either (or both) the family or the community was internalization. Raj, who was described previously as a child with PTSD symptoms, became withdrawn following his experience in the armed force. A friend of Raj gave his impression of what Raj is going through.

> *I think Raj tried to keep his problems inside him. He tried to cope with the situation*
> *by hiding his problems.*

Another example of how problems during reintegration can produce negative outcomes was seen with Prami. Prami is a 17-year old girl (at the time of the interview), who was abducted around age 13 by the Maoist Army. She expressed feelings of great discrimination by her community, especially as a result of her gender ("Daughters are treated as second class citizens in our society."). In consequence, she feels more the need to turn inward to self-manage her problems during reintegration.

> *Interviewer: You had suffered from different kinds of problems during your stay with*
> *them. How did you solve your problems by yourself?*
>
> *Respondent: I had no one helping me solve my problems. I sat quietly by myself and*
> *kept those problems inside me. I sometimes told my friends, but they never tried to*
> *help me.*

As was seen, children often felt alone and unequipped as to how to manage their collective experience. More problematic is that, because of the problems (or, more so, the lack of support), they cannot learn positive and effective coping strategies.

> *Factors Which Impact Support During Reintegration: "Parents understand their children's happiness and sorrow" (Prami)* Families can have considerable influence on a child's sense of wellbeing during the reintegration process. If a family can maintain a positive, supportive position, both the child and family perceive that the outcome (the future) will be better. Jamal's uncle provided a good example of the positive support a family member can have on a child's growth, noting that:

Things will improve because times will change; [Jamal's] inner ideas will mature. We have predicted that he will be no ordinary person. You can tell from his conduct. He will do well. Even now he can go back to school, because education will surely help.

Interesting to this study, however, was that families, as a whole, did not emerge thematically as having a considerable influence on the child. Among all eight case studies, support was prevalent, but support from parents as a protective factor for positive outcome was only mentioned by two of the children. What emerged over families, surprisingly, was how *communities* can enhance the support and coping of children during reintegration, especially coming from peers.

The Role of Community: "Children are like clay of the potter: any shape could be given to them" (Prami). Communities played a major role in influencing a child's coping strategies. Cases where the child was reporting community reactions tended to be more positive. Maya reflected on her experience during reintegration by saying:

After spending some time in Kailali, I went to Kalikot. The community there was very supportive. Although I had shocked them initially by joining the insurgency, they said I had done a good thing by returning home at last. They encouraged me to go back to school.

Additionally, the supportive position of a community also showed robust protective factors for the child having a greater sense of purpose and hope. This community support may not have been monetary, but more so in giving the child a sense of direction. Maya, again discussing her reintegration, noted below how it was the community which helped her mental health in the transition out of the armed force:

They said I should do good things now that I was back; I should make an effort from my own end. Although they were not able to help me in material terms, they have given me their mental support.

The case studies consistently gave evidence that a sense of communal responsibility and support would do nothing short of help the child in the adjustment phase of reintegration. In support of Prami, and making the case on behalf of the community, an educator from the Kaikali District laid out where communities should strengthen their support for children coming out of conflict. He said:

I think that all different political parties and organizations should have strong rules

and regulations for stopping any involvement of young children in that place. As long as the government and opposition parties do not stop their movement (activities), involvement of children will not stop in politics either. There should be strong rules and regulations to provide opportunities for education. Children are like mud (clay) of the potter, any shape could be given to them. So the government must think about it and create a good environment for making children qualified and independent for their future. It is not easy to be dependent. All political parties, the government, different organizations, and all intellectuals should not wait to bring plans and programs to the educational field.

It was important to note, however, that all children (and most parents of former child soldiers) believed that support should be free of judgment, prejudice, and any stigmatization. Embodying what can become the greatest example of this in these cases, a local teacher from Ilam encouraged community support by saying:

Interviewer: So the family and the community must take action. Who can play what roles in his simple rehabilitation in the community?

Respondent: The neighbors have to give him love and support instead of rejecting him because he had gone there. He needs their love.

Other Factors Impacting Reintegration. Thematic analysis indicated that there were other factors that influenced reintegration outcomes. Resoundingly, all children and all families felt that education, specifically returning to school post-reintegration, could increase the likelihood of a stronger outcome. The grandfather of former child soldier, Jamal, stated:

The main thing for a good future is education. Education, health… If your economic condition is good, you can attain higher degrees of education and that will brighten your future. But if your economic base is weak, where to start and how far to go? The main thing is education.

Another factor which played a considerable role in impacting the reintegration process was gender. Using the case studies as examples, girls joining the Maoist Party almost always did so voluntarily. They left home because of the pressures of marriage, or because the cultural norm to put girls as "second-class citizens" (Prami). All girls participating in the qualitative portion of this study reported experiencing more of an egalitarian existence within the Party. They, then, hoped for a change in community mindset upon return, but often were met with the frustration of its continued presence. Prami, who played a role in promoting the feminist perspective on rights of the woman for the Maoist

Army, described the cultural trend towards gender discrimination by saying:

> *Interviewer: What is your experience about boys and girls who were involved in the conflict group and how were they viewed by society?*
>
> *Prami: I think, for boys it is not that bad. They go to India and do some work and run their lives. Our societies forgive them for their mistakes, but for the girls it is the other way around. They also point their finger at the character of the girls. Instead of encouraging girls, the society tries to demoralize them and put mental pressure on them just because they are girls. Daughters are treated as second-class citizens in our society.*

Stigmatization due to identity as a former child soldier, not just because of gender, was also a pervading theme with the children, though not seen as commonly from family and community respondents. In describing community reaction to him following return from service with the Maoist Party, Jamal felt stigma was preventing him from successful daily functioning. He noted:

> *People have shown various reactions [since returning to the community]. Some dislike me because they dislike the Party I had joined. Such people look at me in a different way and create obstacles for my work. Even now, such things are happening within the society.*

Raj felt similar sentiments, with his spouse reinforcing this stigma on his association with the Maoist Army by saying:

> *Recently, Raj tried to get a job as a guard, but the officer rejected him saying that it was because Raj was in the Maoists group. This kind of discrimination should not exist any more. People should treat Raj equally.*

And there is not just the implication that it affects functions such as employment, but also that it has a considerable emotional impact, leading to increased difficulty in developing coping strategies. Prami described how stigma affected her by saying:

> *Interviewer: Do people around you know that you were in that community?*
>
> *Prami: I think that they know directly or indirectly. They talk behind my back about me.*
>
> *Interviewer: Have you heard them talking about you?*
>
> *Prami: Yes, many times. Some of them come to me directly and ask about it. Some of them create fights with me because I was with that group. It is like this.*
>
> *Interviewer: How do you feel when it happens?*

Prami: I feel very bad. On one hand, I lost my studies and on the other hand, people talk about me in a bad way. I feel I am neglected and I feel bad.

Thematic Overview of the Case Studies. Overall, there were several overarching themes and ideas that emerged from review of the case studies. First, there is a clear socioecological impact on how a child soldier manages during their reintegration after war. Second, considering our research question related to hope, the child's sense of hope and hopefulness following war is driven by their ability to return to school, as school can open up the possibility of a better future (through employment and problem solving). Finally, following the experience of a traumatic event, the child feels that his/her chance of recovery (and sense of resilience) is built upon the integration of socioecological supportive mechanisms, most notably from their peers in the community. When children discussed supportive mechanisms, community was defined as a child's peer network (*"I need my friends and their help, I would be very happy if I could play with my friends, go to school together like we used to do before." (Samir)*). On the other hand, when CAAFAG discussed marginalization or stigma, that child's community did not explicitly include mention of peers (*"People have shown various reactions. Some dislike me because they dislike the Party I had joined. Such people look at me in a different way and create obstacles for my work. Even now, such things are happening within the society."* (*Jamal*)). This suggests that a CAAFAG peer network is considered by the child to be separate and distinct from the overall community. It is this last qualitative finding which brings together our research questions concerning the inter-relatedness of function, posttraumatic disorder and recovery, and specific constructs within a child's perceived socioecology.

Quantitative Results

Descriptive Analyses. Categorizing of variables was determined by considering each within the socioecological framework of this study. Tables 1 (Child-level variables), 2 (Family-level variables), and 3 (Community-level variables) provide an overview of the descriptive analyses. We

conducted descriptive analyses to obtain means, standard deviations, ranges, and proportions for all demographic variables.

Child-Level Variables. Children at the time of interviewing ranged in age from 11 to 18, with the mean age of the sample being 15.8 (sd = 1.6). The sample was almost equally split in terms of gender (67 boys (47.2%) and 75 girls (52.8%). Most children were unmarried (n = 122; 85.9%). Few children reported being divorced (n = 2), and none reported being widowed. The education level of children interviewed was mixed, with 42 (29.6%) considering themselves at a secondary school level, 44 (31.0%) at a lower secondary level, 40 (28.4%) at an elementary school level, and just a few with no prior schooling (n = 8; 5.6%). Several children reported having received their School Leaving Certificate, the equivalent to a high school diploma (n = 7; 4.9%). The majority of the sample was literate (n = 134; 94.4%). With regards to age at recruitment into the Maoist Army, 86 (60.6%) children reported themselves as conscripted at less than 14 years of age.

As for exposure to traumatic events, every participant reported exposure to at least one trauma type (consistent with the qualitative findings). Exposure was reported as either having witnessed, suffered, or committed an event. Witnessing a person being physically beaten (n = 95; 66.9%), a fire event (n = 76; 53.5%), and explosions (n = 65; 45.8%) were most common among children in the sample. For children who suffered a traumatic experience, abduction (n = 25; 17.6%) and death of a person (n = 12; 8.5%) were most common. Finally, of children reporting committing an event, there were 5 (3.5%) who stated they participated in creating a bombing event, and 1 (0.7%) who stated that he/she had participated in the murder of a family member. For the purposes of conducting the regression analyses within this study, however, we recoded the original exposure to traumatic events variable into a new two-level variable: Exposed (to at least one trauma type) or Not Exposed (no exposure to any type of trauma). Thus, "exposed", for the purposes of this study, means that a child has either witnessed, suffered, and/or committed at least one (or more) trauma type.

Table 1. Child-level socioecological demographics (n = 142). These variables, both continuous and categorical, represent characteristics of the child as an individual.

Variable	Mean (SD; Range)	Percentage (N)
Age	15.8 (1.6; 11 – 18)	
Gender		
Boys		47.2 (67)
Girls		52.8 (75)
Marital Status		
Single / Unmarried		85.9 (122)
Married		12.7 (18)
Divorced		1.4 (2)
Education Level		
No Prior Education		5.6 (8)
Primary School		28.2 (40)
Lower Secondary		31.0 (44)
Secondary or Higher		29.6 (42)
School Leaving Certificate (Secondary School Graduate)		4.9 (7)
Literacy Status		
Literate		94.4 (134)
Illiterate		5.6 (8)
Past Exposure to Traumatic Event		
Bus Accident		38.0 (54)
Fire		55.6 (79)
Natural Disaster		19.7 (28)
Beating (Given or Received)		73.2 (104)
Abduction (Experienced or Performed)		51.4 (73)
Bombing (Experienced or Caused)		56.3 (80)
Torture (Experienced or Performed)		28.9 (41)
Violent Death of Another (Experienced or Caused)		40.1 (57)

Family-Level Variables. On average, children reported their family held 1.9 possessions. A slight majority (52.1%; n = 74) reported that the family's wealth changed for the worse following the conflict, with only 1 (0.7%) reporting a change for the better. As for religion, the overwhelming majority of children participating were of the Hindu faith (128; 90.0%).

Table 2. Family-level socioecological demographics (n = 142). These variables, both continuous and categorical, represent characteristics of the child-family relationship.

Variable	Mean (SD; Range)	Percentage (N)
Size of the Family (Number of Family Members)	6.1 (2.2; 1 – 13)	
Wealth of the Family (Number of Household Items)	1.9 (1.5; 0 – 6)	
Change in Family Wealth Following Conflict		
Change for the Better		0.7 (1)
Change for the Worse		52.1 (74)
No Change in Wealth		47.2 (67)
Religion		
Hindu		90.1 (128)
Buddhist		2.1 (3)
Other		7.8 (11)
Past Exposure to Traumatic Event		
Parents Fighting with Each Other		15.5 (22)
Physical Abuse by a Parent		4.9 (7)
Murder of a Family Member (Experienced or Caused)		4.2 (6)

Community-Level Variables. Only one variable was considered at the community level – caste. Previous research has shown that caste correlates with rates of mental health disorders (Kohrt et al., 2009; Kohrt & Worthman, 2009) and stigmatization (Kohrt, Tol, et al., 2010). In consequence, it was appropriate in this study to consider caste in the higher socioecological context. With regards to caste, 24 Brahman (16.9%), 18 Chhetri (12.7%), 46 Dalit (32.4%), and 27 Janajati (19.0%) children participated in the study.

Table 3. Community-level socioecological demographics (n = 142). This variable of caste (categorical) represents characteristics of the child-community relationship.

Variable	Percentage (N)
Caste	
Dalit	32.4 (46)
Brahmin/Chheteri	29.6 (42)
Janajati	19.0 (27)
Other	19.0 (27)

Bivariate Analyses

Examination of the Predictors. Simple linear regressions were conducted to explore the

bivariate association between predictors and outcomes in six separate regression models: supports during reintegration (predictor) with (1) hope (outcome), (2) functioning (outcome), and (3) PTSD (outcome), as well as problems during reintegration (predictor) with (4) hope, (5) functioning, and (6) PTSD. Each model was stratified by ecological level (Family, Peers only, and Community), giving a total of 18 initial univariate models. Inter-correlations between predictors and outcomes are presented in Tables 4 and 5.

     Research Question 1: Hope and Hopefulness. When using supportive measures as predictors of a child's sense of hope, regression analysis indicated a moderate correlation between supportive measures and a child's sense of hope ($r = 0.288$; $p = 0.001$), with 8.3% of the variance explained by family support ($p = 0.002$). Peer support, alone, was very strongly associated with a sense of hope ($r = 0.427$; $p < 0.0001$), with 18.2% of the variance explained ($p < 0.0001$). Community support, including peer support, was also strongly associated with hope ($r = 0.430$; $p < 0.0001$), with 18.5% of the variance explained ($p < 0.0001$). When considering a child's perceived problems during reintegration, regression analyses indicated no significant association between the frequency of family problems a child experienced at reintegration and that child's sense of hope ($r = 0.031$; $p = 0.371$). The impact of peer problems on hope, however, was significant and moderately negatively associated ($r = -0.258$; $p = 0.002$), with 6.7% of the variance explained by peer influence. Communities, though not as strong, demonstrated a similar negative association ($r = -0.181$; $p = 0.026$), but with only 3.3% of the variance explained by the model.

     Research Question 2: Functional Impairment. When considering support measures as predictors of a child's daily functioning, regression analysis showed no correlation between a family's support of the child and the level of daily functioning ($r = -0.024$; $p = 0.423$). Peer support during reintegration was negatively correlated with function ($r = -0.225$; $p = 0.034$), with 5.1% of the variance explained by the model. Community support, however, did not show a significant association with a child's daily function ($r = -0.050$; $p = 0.343$). When considering the socioecological impact of problems and function, Family ($r = 0.089$; $p = 0.236$), Peers ($r = 0.088$; $p =$

0.238), and Community (r = 0.179; p = 0.074) was not significantly correlated with function.

   Research Question 3: Posttraumatic Stress Disorder. Family support (r = -0.033; p = 0.360)

and PTSD scoring showed no significant association. Peer support, however, was highly correlated

with PTSD score (r = -0.466; p < 0.0001), with 21% of the variance explained by the model.

Community support (r = 0.240; p = 0.005) was correlated as well, with 5.8% of the variance

explained (p = 0.009). Considering the impact of reintegration problems on PTSD scoring, there was

a significant association between the number of family reported problems and PTSD score (r = 0.216;

p = 0.010), with 4.7% of the variance explained by the model. Problems from Peers Only was highly

correlated (r = 0.521; p < 0.0001), with 27.1% of the variance explained. Community impact on

problems was also highly correlated (r = 0.511; p < 0.0001) with 26.1% of the variance explained (p

< 0.0001).

Table 4. Pearson Correlation coefficients for outcomes of hope, functional impairment, and PTSD. The
correlation and significance of reintegration supports or problems and the three outcomes in question are noted
within this table.

	Outcomes		
Predictors	Hope	Functional Impairment	PTSD
Family			
Supportive During Reintegration Process	0.288†	ns	ns
Problematic During Reintegration Process	ns	ns	0.216*
Peers			
Supportive During Reintegration Process	0.427†	- 0.225§	- 0.446†
Problematic During Reintegration Process	- 0.258§	ns	0.521†
Community			
Supportive During Reintegration Process	ns	- 0.050†	0.240*
Problematic During Reintegration Process	- 0.181§	ns	0.511†

*§ p < 0.05, * p < 0.01, † p < 0.001; ns = not significant*

Table 5. Pearson Correlation coefficients for the outcome of PTSD, split by instrument constructs. The CPSS-1 is divided into two sections of measurement – PTSD symptoms and daily functioning (see the Instruments descriptions in this manuscript). This table describes the correlation and significance of reintegration supports or problems and the two CPSS-1 constructs.

	PTSD	
Predictors	Symptoms	Functional Impairment
Family		
Supportive During Reintegration Process	ns	ns
Problematic During Reintegration Process	0.225*	ns
Peers		
Supportive During Reintegration Process	- 0.461†	0.225*
Problematic During Reintegration Process	0.489†	ns
Community		
Supportive During Reintegration Process	- 0.245*	ns
Problematic During Reintegration Process	0.497†	- 0.211*

§ p < 0.05, * p < 0.01, † p < 0.001; ns = not significant

Examination of Potential Predictors. To assess for potential covariates to be included and controlled for in the multivariate regression models, Child, Family, and Community level demographic variables, as well as individual trauma exposure variables, were analyzed with hope, function, and PTSD as the dependent variables in bivariate analyses. Variables reaching a significance level of $p \leq 0.2$ were included as covariates in multivariate regression models (see Table 6). In each of the analyses, both the overall models were shown to be statistically significant ($p \leq 0.05$). As the "non-conflict" related variables of bus accident, fire, and natural disaster did not contribute to any of the models, they were removed from the analyses. The variables Literacy Status and Religion were also removed from analyses by the same rationale. Specific to the PTSD model, initial bivariate analysis with exposure to trauma was not significant ($p = 0.194$). Review of additional trauma exposure covariates indicated that abduction, parents fighting with one another, and torture did not contribute to the PTSD model. Once removed, the overall PTSD model became significant. Thus, the construct of trauma exposure was created specific to each exposure. Of note, there were three variables whose p-values in bivariate analyses were slightly greater than the cutoff of 0.2 – gender, physical abuse by a parent, and murder of a family member. These three variables were retained in the models for theoretical reasons, as all emerged as predictors of the outcomes in the

qualitative research.

Table 6. Regression analysis of potential predictors with hope, functional impairment, and PTSD. The correlation and significance of demographic and individual trauma exposure variables and the three outcomes in question are noted within this table.

Predictors	Hope		Functional Impairment		PTSD	
	(n = 138)		*(n = 88)*		*(n = 138)*	
	β	p-value	β	p-value	β	p-value
Age	*ns*		*ns*		0.123	(0.159)
Gender	-0.101	(0.217)	0.258	(0.006)	0.097	(0.250)
Marital Status	*ns*		*ns*		-0.132	(0.122)
Education Level	0.296	(0.003)	*ns*		*ns*	
Literacy Status	*ns*		*ns*		*ns*	
Size of the Family	*ns*		0.120	(0.169)	*ns*	
Wealth of the Family	0.282	(0.001)	-0.367	(<0.0001)	-0.249	(0.005)
Change in Family Wealth Following Conflict	*ns*		-0.242	(0.024)	*ns*	
Religion	*ns*		*ns*		*ns*	
Caste	*ns*		-0.145	(0.122)	-0.277	(0.002)
Past Exposure to Traumatic Event						
Beating	0.188	(0.029)	-0.140	(0.171)	-0.116	(0.178)
Abduction	0.155	(0.087)	0.161	(0.111)	*ns*	
Bombing	-0.139	(0.138)	0.358	(0.003)	0.248	(0.009)
Torture	0.234	(0.117)	*ns*		*ns*	
Violent Death of Another	*ns*		-0.234	(0.046)	*ns*	
Parents Fighting with Each Other	-0.125	(0.145)	0.137	(0.192)	*ns*	
Physical Abuse by a Parent	*ns*		0.128	(0.207)	*ns*	
Murder of a Family Member	*ns*		*ns*		0.105	(0.215)

ns = not significant

Hierarchical Linear Regression Analysis

Considering the theoretical associations that emerged during qualitative research and preliminary quantitative analyses, two hierarchical multiple linear regression models were constructed utilizing three blocks for each outcome (hope, functional impairment, PTSD) controlling for empirically-derived and/or theoretically-determined covariates. The first regression model constructed to predict each of the three outcome variables: block one included all demographic variables specific to the outcome of interest (determined from the above discussed bivariate analyses); block two included the dichotomized overall trauma exposure variable, and each trauma exposure variable constructed specific to the outcome of interest (also determined from the above discussed bivariate analyses); and block three included Family Was Supportive During Reintegration and

Community Was Supportive During Reintegration. Initially, as noted earlier in this paper, Peers (separate from Community) was chosen to be a potential (exploratory) independent variable of interest for this model due to the strong influence peers and peer social networks had on the former child soldiers from the qualitative research. Thus, in exploring each model, Peers was considered together with Community as an overall Community variable, as well as separately for its individual contribution when the overall model was significant.

The second regression model constructed to predict each of the three outcome variables was identical to the first, replacing the three ecological "support" variables with the ecological "problem" variables (i.e., My Family Caused Problems During Reintegration, My Community Caused Problems During Reintegration, My Peers Caused Problems During Reintegration).

Research Question 1: Hope and Hopefulness. Table 7 presents variables associated with a child's sense of hope. In this hierarchical regression model, peers and community were considered together, as considering peers and community separately resulted in an overall non-significant model $(F(7,137) = 7.639; p = 0.081)$. Based on model fit statistics, when considering supportive contributions during reintegration, the variables associated with hope were education level, wealth, the presence of family support, and the role of the community during reintegration. The presence of a child's family support, in conjunction with community support accounted for a significant increase in the overall variance explained in the model $(\Delta R^2 = 0.035; \Delta F = 3.237; \Delta F_{Sig} = 0.042)$. When considering negative associations during reintegration, the same variables were retained, with the exception of families being the cause of problems, which did not contribute significantly to the model $(\beta = 0.045; p = 0.571)$. Community, however, did remain significant $(\Delta R^2 = 0.037; \Delta F = 3.406; \Delta F_{Sig} = 0.036)$.

Table 7. Hierarchical multiple linear regression model for a child's sense of hope during the reintegration process.

	β‡	R^2	ΔR^2	Adjusted R^2	p-value
Supportive During Reintegration					
Block 1		0.251	0.251	0.234	< 0.0001
Education Level	0.303†				
Wealth	0.293†				
Gender	ns				
Block 2		0.254	0.003	0.232	0.445
Education Level	0.299†				
Wealth	0.286†				
Gender	ns				
Exposure to Traumatic Event	ns				
Block 3		0.289	0.035	0.257	0.042
Education Level	0.276*				
Wealth	0.266*				
Gender	ns				
Exposure to Traumatic Event	ns				
Family Supportive During Reintegration Process	-0.213§				
Community Supportive During Reintegration Process	0.252§				
Problematic During Reintegration					
Block 1		0.251	0.251	0.234	< 0.0001
Education Level	0.303†				
Wealth	0.293†				
Gender	ns				
Block 2		0.254	0.003	0.232	0.445
Education Level	0.299†				
Wealth	0.286†				
Gender	ns				
Exposure to Traumatic Event	ns				
Block 3		0.291	0.037	0.258	0.036
Education Level	0.287†				
Wealth	0.246*				
Gender	ns				
Exposure to Traumatic Event	ns				
Family Problematic During Reintegration Process	ns				
Community Problematic During Reintegration Process	-0.210§				

§ p < 0.05, * p < 0.01, † p < 0.001; ns = not significant

Research Question 2: Functional Impairment. Table 8 presents variables associated with a child's functional impairment. In this hierarchical regression model, peers and community were considered separately, as considering peers and community together made the overall model insignificant ($F_{(8,87)} = 10.204$; $p = 0.293$). It was considered as such for theoretical reasons, based on the qualitative research for this study, in which the children interviewed described the considerable impact their peers had on their ability to maintain daily school and communal responsibilities.

Based on model fit statistics, when considering factors during reintegration, the variables associated with functional impairment were gender, wealth, change in wealth following the conflict, and peer support during reintegration. The presence of a peer support or a strong peer social network accounted for a significant increase in the overall variance explained in the model ($\Delta R^2 = 0.046$; $\Delta F = 2.591$; $\Delta F_{Sig} = 0.059$). When considering negative factors during reintegration, demographics remained significantly associated with functional impairment, but the overall model lost significance following the introduction of socioecological levels as problematic during the reintegration process (F $(8,87) = 9.680$; $p = 0.834$).

Table 8. Hierarchical multiple linear regression model for a child's functional impairment during the reintegration process.

	β‡	R^2	Δ R^2	Adjusted R^2	p-value
Supportive During Reintegration					
Block 1		0.476	0.476	0.444	< 0.0001
Gender	0.269*				
Caste	ns				
Wealth	-0.367†				
Change in Wealth Following Conflict	-0.235§				
Family Size	ns				
Block 2		0.493	0.017	0.455	0.104
Gender	0.250*				
Caste	ns				
Wealth	-0.347†				
Change in Wealth Following Conflict	-0.253*				
Family Size	ns				
Exposure to Traumatic Event	ns				
Block 3		0.539	0.046	0.485	0.059
Gender	0.218*				
Caste	ns				
Wealth	-0.425†				
Change in Wealth Following Conflict	-0.219§				
Family Size	ns				
Exposure to Traumatic Event	ns				
Family Supportive During Reintegration Process	ns				
Peers Supportive During Reintegration Process	-0.474§				
Community Supportive During Reintegration Process	ns				
Problematic During Reintegration					
Block 1		0.476	0.476	0.444	< 0.0001
Gender	0.269*				
Caste	ns				
Wealth	-0.367†				
Change in Wealth Following Conflict	-0.235§				
Family Size	ns				
Block 2		0.493	0.017	0.455	0.104
Gender	0.250*				
Caste	ns				
Wealth	-0.347†				
Change in Wealth Following Conflict	-0.253*				
Family Size	ns				
Exposure to Traumatic Event	ns				
Block 3		0.500	0.007	0.443	0.761
Gender	0.236*				
Caste	ns				
Wealth	-0.347*				
Change in Wealth Following Conflict	-0.272*				
Family Size	ns				
Exposure to Traumatic Event	ns				
Family Problematic During Reintegration Process	ns				
Peers Problematic During Reintegration Process	ns				
Community Problematic During Reintegration Process	ns				

*§ p < 0.05, * p < 0.01, † p < 0.001; ns = not significant*

     Research Question 3: Posttraumatic Stress Disorder. For PTSD, when considering how Community should be defined within the model, both Peers and Community were explored together and as separate correlates. Both Support During Reintegration models proved to be significant, with little variation in the predictor contribution. Noteworthy, however, is that when the variables of Peers and Community were considered separately, Peers became highly significant ($p < 0.0001$), and Community became non-significant ($p < 0.069$). A similar condition was seen when considering Problems During Reintegration models, with Community becoming highly non-significant (β = -0.044; $p = 0.787$). Peers as a separate variable followed the same pattern in both models. Table 9 presents variables contributing to a child's presentation of posttraumatic stress disorder. When considering contributions during reintegration, the correlates of PTSD were caste, wealth, the presence of family support, and the role of the community during reintegration. The presence of a child's family support, in conjunction with community support accounted for a significant increase in the overall variance explained in the model ($\Delta R^2 = 0.096$; $\Delta F = 9.219$; $\Delta F_{Sig} < 0.0001$). When considering negative contributions during reintegration, the correlates stayed same, with the exception of families being the cause of problems, which did not contribute significantly to the model (β = 0.095; $p = 0.193$). Communities, however, did contribute significantly and considerably to the model ($\Delta R^2 = 0.203$; $\Delta F = 23.148$; $\Delta F_{Sig} < 0.0001$).

Table 9. Hierarchical multiple linear regression model for posttraumatic stress disorder during the reintegration process.

	β‡	R^2	ΔR^2	Adjusted R^2	p-value
Supportive During Reintegration					
Block 1		0.213	0.213	0.183	< 0.0001
Age	*ns*				
Gender	*ns*				
Caste	-0.305†				
Wealth	-0.259*				
Marital Status	*ns*				
Block 2		0.231	0.018	0.196	0.082
Age	*ns*				
Gender	*ns*				
Caste	-0.294*				
Wealth	-0.242*				
Marital Status	*ns*				
Exposure to Traumatic Event	*ns*				
Block 3		0.327	0.096	0.286	< 0.0001
Age	*ns*				
Gender	*ns*				
Caste	-0.333†				
Wealth	-0.188§				
Marital Status	*ns*				
Exposure to Traumatic Event	*ns*				
Family Supportive During Reintegration Process	0.432†				
Community Supportive During Reintegration Process	-0.335*				
Problematic During Reintegration					
Block 1		0.213	0.213	0.183	< 0.0001
Age	*ns*				
Gender	*ns*				
Caste	-0.305†				
Wealth	-0.259*				
Marital Status	*ns*				
Block 2		0.231	0.018	0.196	0.082
Age	*ns*				
Gender	*ns*				
Caste	-0.294*				
Wealth	-0.242*				
Marital Status	*ns*				
Exposure to Traumatic Event	*ns*				
Block 3		0.434	0.203	0.399	< 0.0001
Age	*ns*				
Gender	*ns*				
Caste	-0.243*				
Wealth	-0.173§				
Marital Status	*ns*				
Exposure to Traumatic Event	*ns*				
Family Problematic During Reintegration Process	*ns*				
Community Problematic During Reintegration Process	0.435†				

§ p < 0.05, * p < 0.01, † p < 0.001; ns = not significant

Overall Results. The data indicate that for this sample of child soldiers, a child's social ecology accounted for a significant proportion of the variance in hope, function, and PTSD above that accounted for by demographic variables. The results suggested that a higher degree of community support was associated with a greater sense of hope for the former child soldier ($\beta_{Community} = 0.252$). Counterintuitive, however, is that a greater sense of hope is also associated with a lower degree of family support ($\beta_{Family} = -0.213$). Additionally, a lower level of peer support was associated with greater levels of functional impairment ($\beta = -0.474$). Finally, lower levels of community support were associated with higher levels of PTSD ($\beta = -0.335$).

Discussion

This study examined the way in which a former child soldier's social ecology impacted his or her sense of hope, functioning (reported as functional impairment), and level of PTSD during reintegration. Children who reported communities being supportive of them during the reintegration process had increased levels of hope and hopefulness. Contributing to this was the presence of education and the child's overall wealth, both of which have been implicated in the literature as contributing to a child's positive outcome in post-conflict settings (Almedom, 2004; Betancourt, 2003; Carballo et al., 2004; Flores, 1999; Hundt, Chatty, Thabet, & Abuateya, 2004; Jensen & Shaw, 1993; Jordans et al., 2010). As wealth (including change in wealth) is often associated with an increase in opportunity, this becomes a common theme across outcomes.

Children who reported a weaker peer support network also have increased functional impairment during reintegration, giving rise to questions of how peers can help during the reintegration process. Contributing to the impairment was gender, as well as wealth, and the change in wealth following conflict. The finding regarding gender also supports prior discussions on stigma due to gender, and that stigma may play a significant role in how that child interacts and behaves daily (Betancourt, Agnew-Blais, et al., 2010), as well as supporting the view that because girls play a considerably lesser role in Nepali societies (Kohrt & Koenig, 2009), they may experience less purpose in life, which may affect daily function. This finding reinforces our use of Bandura's, Social Cognitive Theory, which describes each person's ability to effectively manage his or her functioning during stress and adversity (Bandura, 1997; Bandura, 2004).

Finally, posttraumatic stress disorder symptoms were reported as higher when community support was not present. There was also a potential risk role that family support may play in the psychosocial wellbeing of a child. These two ideas together may show that socioecological levels are directly linked to the degree to which PTSD symptoms manifest, returning us to the rationale for using our ecological theories within this study.

Hope is not a well-explored construct for CAAFAG. What is more commonly investigated is how a child, during the reintegration process, perceives factors that influence his or her success in becoming hopeful people. Here, clearly, hope is enhanced by their surroundings – relationships (e.g., the family-child relationship), environment (e.g., the community-child relationship), and available resources (e.g., access to education). The results of this study corroborate previous findings that communities play a vital role in the psychosocial outcome of children during this vulnerable period in their adolescent lives. As was described in this study, children, families, and community members all agree that the child's greatest chance for future success (which often is equated to hope) lies in every person's positive contribution to the child's welfare. This includes preventing stigmatization or marginalization, providing the child with emotional support, and aiding in the child's quick return to an educational setting. Together, we can consider these ideas under a larger construct called "communal responsibility". In considering how this study can inform larger ideas on CAAFAG research and social psychology, communal responsibility should become a building block for intervention design.

In this study, children expressed that peer support was a driving force in how they function daily; in the absence of peer support, function declined (or vice versa – in the absence of function, peer support declined). This is important in beginning to describe connections CAAFAG have with their peers, specifically questioning how the peer social network can enhance various aspects of child soldier rehabilitation programming. But integral to this argument is understanding the manner in which the family also contributes, either positively or negatively, to the child's functional impairment. Research has demonstrated that the relationship between peer and family support, and their impact upon adolescents is complex (Stice, Ragan, & Randall, 2004; Young, Berenson, Cohen, & Garcia, 2005). In our study, we found that the impact families have on function (functional impairment) was not significant, but theoretically and resonating in the qualitative research was the fact that families and peers may work *synergistically* to foster better mental health. Specifically, a child's reliance upon peers and peer social networks is paramount to creating their sense of hope,

purpose, and ability to function regularly. In conditions where mental health is low, however, in order to gain that peer support, family support must be present. Along these same lines, we believe that greater research will show that as a child experiences greater family support, peer support would not decline, per se, but be enhanced, which is well supported in psychotherapy and developmental literature (Criss et al., 2009; Melby et al., 2008; Sentse et al., 2009; Stovall-McClough & Cloitre, 2006).

To draw upon adolescent development theories, both family and peer support underlie developmental aspects of a child's social competence and manner of adapting to risk and resilience (Sroufe, Egeland, & Carlson, 1999). Within our context, as is consistent with both middle childhood (Cook, et al., 2005; Criss, et al., 2009; Vandell et al., 2010) and adolescent developmental theories (Guaze, Bukowski, Aquan-Assee, & Sippola, 1996; Hartup, 1999; Savin-Williams & Berndt, 1990; Steinberg, Dornbusch, & Brown, 1992; Steinberg & Silverberg, 1986), as hope declines and trauma exposure increases, there is a rise antisocial behavior, which pushes peer support away. It is in this peer isolation that families often become the guiding supportive mechanism. Additionally, the ability of peers to effect behavior is amplified when adolescents perceive family support as negative or lacking (Savin-Williams & Berndt, 1990). Therefore, it may not be the child's social ecology which allows for increased mental health status, but it may be that better mental health status promotes increased self-efficacy and peer-family supports. What continues to not be clear, however, is how trauma exposure affects this relationship, especially when considering trauma variables such as length of exposure, degree of exposure, numbers of traumatic exposures, and types of traumatic exposure. It is the relationship between the peer-family relationship with the child, and trauma variables in this context of adolescent development which merits further investigation.

In returning to the outcome of hope and hopefulness, there was a demonstrated link between a child's community, education, and a sense of future success. This study approached measuring community with and without peer influence, but what is important is how peers and community are defined in construct by the child. To build upon the argument for separating peers from the rest of the

community, we feel that the role education played in this study is noteworthy and supportive. Relating hope to reintegration found that education played a highly significant role in a child's hope and perceived future success. While these data showed that when peers and community were considered separately, the overall model became statistically slightly non-significant, it can be argued that exploring the predictors more fully may have created a stronger link between education, peers, and hope. The need for this exploration is reinforced by the case study interviews, this connection being identified by CAAFAG, their families, and their communities. But more so, there is an important, albeit controversial, intervention development question being introduced: What is the link between a child's resilience (here considered to be increased hope and improved functioning capability) and the academic level at which that child is returned to school? If increased peer support is linked with greater self-efficacy and a greater sense of hope, but decreased peer support is linked with poor function and less chance to succeed, reintegration programs targeting education should explore the possibility of defining grade level socially, rather than academically. Considering themes emerging from this study, we propose that the impact returning a child to school at the level of their peers may be a means of increasing the potential for positive outcome, and merits further investigation.

Finally, with former child soldiers in this study, an increase in PTSD symptomology is related to lower levels of community support. Reinforcing this idea was the impact caste had on PTSD levels, as well as the presence of wealth. These findings support previous research on Nepali CAAFAG, indicating that caste relations played a considerable role in stress and discrimination (Kohrt, Speckman, et al., 2009), both of which contribute to higher levels of PTSD (Kohrt, Tol, et al., 2010; Kohrt & Koenig, 2009). For this study, it is posited that, perhaps, it is not that the presence of community-level issues such as caste contribute to higher levels of PTSD, but more so their presence prevents the decrease of severity. Understood from the literature is that what puts people at higher risk for developing PTSD includes increased duration of a traumatic event, a higher number of traumatic events endured, higher severity of the trauma experienced, having an emotional condition

prior to the event, or, importantly, having little social support in the form of family or friends (Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003). It is this last risk factor that is corroborated by our study.

Limitations

There were several limitations of this study. First, the Child Functional Impairment (CFI) instrument used in this study was created from a framework established by Bolton and Tang (2002), who presented a model for performing psychiatric assessment in resource poor areas. There is, however, considerable controversy with cross-cultural adaptation of measures, ranging from translation issues, to validation in capturing appropriate constructs. Additionally, for our study, preliminary analysis of outcome differences between using the CFI versus using the 7-item Function section of the CPSS-1 indicated almost identical results. In consequence, the CFI may not be the most appropriate measure for function, especially taking into account the challenges described in the literature. Instead, the CPSS-1 Function scale may be a better indicator of functional impairment.

Our research with social ecology analysis followed suit with prior research by using multivariate regression. However, this sample was clustered into 10 districts, and within each district there are individual Village Development Committees (VDCs), which create even greater, local-level clustering. It is recognized that previously with case-control mental health with child soldiers in Nepal, a more conservative, generalized estimating equation (GEE)-based strategy may be more appropriate to use to control for this clustering effect (Kohrt, Jordans, et al., 2010).

One of the major limitations of the study was the collapse of independent variables. While recognized that the sample size may be small compared to the number of independent variables if all trauma exposure and socioecological levels had been presented individually, it was important to examine if there was an overall effect of trauma exposure within the sample. Dichotomizing exposure was considerably limiting, however, as it minimized analysis on the degree to which exposure to trauma impacted each dependent variable. Treating concepts of witnessing (e.g., I watched this event take place.), suffering (e.g., This event personally happened to me.), and committing (e.g., I did this

event.) as equal ignores the severity of each concept. What dichotomizing also created was the potential for disregarding independent variables of particular interest in prior studies. For example, in this study, the independent trauma exposure variable of Torture was not included in the final analysis due to its lack of significant impact on the model. This was challenging, as theoretically it should be included, as well as prior research has indicated that torture is a strong predictor of PTSD within this population (Kohrt, Jordans, et al., 2010). Future research on socioecological impact during reintegration should certainly revisit this model and further investigate the role of this trauma variable and others. Additionally, when considering clinical psychopathologies such as mental health disorders as a result of trauma exposure, understanding more fully what contributes to that pathology is essential for analyzing impact.

Finally, the cross-sectional nature of this study was, in itself, a limitation. Much of what we have described could implicate a possible cause-effect relationship, but due to study design, we can only inference this putative relationship. While some research suggests the possibility of assessing the directionality in cross-sectional research (Flanders, Lin, Pirkle, & Caudill, 1991), when considering CAAFAG in Nepal, understanding more fully the psychosocial issues at hand would be best served through longitudinal work. A prospective approach as such may give a better gauge as to what can assist children in the immediate post-conflict period, and, perhaps, work more quickly to reduce the possibility of chronic psychosocial problems.

Recommendations

There are two larger contextual questions which have emerged from this study, both of which affect the overall argument about how to best support former child soldiers in rehabilitation following service – "Are we inappropriately calling CAAFAG 'children'," and "Can education play a greater role in building CAAFAG resilience?".

To respond to the first question, we must take into consideration the complexities of child development, and developmental definitions. Much of the commentary and application in current resiliency literature points to programs rooted in a youth development framework. The building

blocks for youth development, however, are not necessarily apropos nor synonymous to the developmental milestones and tasks of adolescents (Resnick, 2000). Additionally, Kohrt & Maharjan (2009) argue that evidence in Nepal indicates that CAAFAG being defined, not by age (as happens with global regulatory groups such as UNICEF), but by local frames of development and impairment, may be most appropriate. Relevant to our study, the notion that these were, perhaps, children at conscription, but are not children at reintegration presents potential challenges not only to the verbiage applied within The Paris Principles, but also to the ways in which we are creating or tailoring reintegration programs.

The second question pushes us to understand what part of the educational process makes a difference in the improved wellbeing of the former child soldier. The perception that lack of education makes one's life futile is found throughout the Nepali discussions ("*Illiterate people have become useless now.*" (Mother of Maya)). Being educated is considered paramount in life in order to succeed and have opportunity. But, with education and educational programming for former child soldiers, we return to the question of whether it is more appropriate to consider proper academic level or placing children in the same level as their peers, even though they will be academically behind and risk marginalization. Future research should support prior CAAFAG educational research (Betancourt, Brewer, & de la Soudiere, 2005; Betancourt et al., 2008; Sommers, 2003), as well as be directed towards understanding the risks and challenges, not only behind educational models, but also in ascertaining to what degree these models contribute to the resilience of former child soldiers, including any potential diminishing or extinguishing effects upon trauma severity over time (which may bring the controversial fifth level of Bronfenrenner's model into consideration – *Chronosystem*).

<u>Conclusion</u>

From a public health perspective, promotion of the psychosocial wellbeing of child soldiers during reintegration, if successful, can have synergistic effects on a broad range of health problems as well as contribute to the development of skills that will enhance the self-efficacy and life of the child. This nurturing environment can be developed and enhanced by the presence of socioecological factors and levels, notably increased family, peer, and community support and acceptance. Children and adolescents experience their world through their relationships with parents and communities. These relationships are fundamental to the healthy development of the brain and, consequently, the development of physical, emotional, social, behavioral, and intellectual capacities. This study supports the need for greater research in enhancing the peer-education relationship with reintegration programming, as well as clarifying the distinction between a peer social network (peers separate and distinct from the overall community) and a peer-community environment. Through exploration of these dynamic relationships, we hope to continue identifying factors contributing to increased psychosocial wellbeing of former child soldiers, including educational and income-generating programming, as well as advance the understanding of how to continue to build social capital during the reintegration stage following conflict.

References

Achenbach, TM, Becker, A, Döpfner, M, Heiervang, E, Roessner, V, Steinhausen, HC, & Rothenberger, A. (2008). Multicultural assessment of child and adolescent psychopathology with ASEBA and SDQ instruments: Research findings, applications and future directions. *Journal of Child Psychology and Psychiatry*. 49:251−275.

Allwood, MA, Bell-Dolan D, & Husain, SA. (2002). Children's trauma and adjustment reactions to violent and nonviolent war experiences. *Journal of the American Academy of Child & Adolescent Psychiatry*. 41:450-7.

Almedom, AM. (2004). Factors that mitigate war-induced anxiety and mental distress. *Journal of Biosocial Science.* 36:445-461.

Baer, HA, Singer, M, & Susser, I. (2003). *Medical Anthropology and the World System.* Westport, CT: Praeger.

Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1995). *Self-Efficacy in Changing Societies*. Cambridge, UK: Cambridge University Press.

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York, NY: Freeman.

Bandura, A. (1999). Moral Disengagement in the Perpetration of Inhumanities. *Personality and Social Psychology Review*. 3:193-209.

Bandura, A. (2004). Health Promotion by Social Cognitive Means. In J. Bryant & D. Zillman (Eds.), *Media Effects: Advances in Theory and Research*. Hillsdale, NJ: Erlbaum.

Belsky, J. (1980). Child maltreatment: an ecological integration. *American Journal of Psychology.* 35:320-335.

Belsky, J. (1993). Etiology of child maltreatment: A developmental–ecological analysis. *Psychological Bulletin.* 114:413–434.

Belsky, J & Vondra, J. (1989). Lessons from child abuse: The determinants of parenting. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 153–202). New York, NY: Cambridge University Press.

Berk, LE. (2000). *Child Development*. Boston, MA: Allyn and Bacon.

Berk, L. (2007). *Development Through the Lifespan.* Boston, MA: Allyn and Bacon.

Betancourt, TS. (2003). Stressors, supports and the social ecology of displacement: psychosocial dimensions of an emergency education program for Chechen adolescents displaced in Ingushetia, Russia. *Culture, Medicine, and Psychiatry.* 29:309-340.

Betancourt, TS, Brewer, S, & de la Soudiere, M. (2005). *Holding on to hope: Education, coping, and the struggles of children associated with fighting forces in Sierra Leone. A report to the International Rescue Committee Children and Youth Protection and Development Program.* New York, NY: International Rescue Committee.

Betancourt, TS, Simmons, S, Borisova, I, Brewer, SE, Iweala, U, & de la Soudiere, M. (2008). High hopes, grim reality: Reintegration and the education of former child soldiers in Sierra Leone. *Comparative Education Review.* 52:565-587.

Betancourt, TS & Khan, KT. (2008). The mental health of children affected by armed conflict: Protective processes and pathways to resilience. *International Review of Psychiatry.* 20:317–328.

Betancourt, TS, Agnew-Blais, J, Gilman, SE, Williams, DR, & Ellis, BH. (2010). Past horrors, present struggles: The role of stigma in the association between war experiences and psychosocial adjustment among former child soldiers in Sierra Leone. *Social Science & Medicine.* 70:17-26.

Betancourt, TS, Borisova, II, Williams, TP, Brennan, RT, Whitfield, TH, de la Soudiere, M, Williamson, J, & Gilman, SE. (2010). Sierra Leone's Former Child Soldiers: A Follow-Up Study of Psychosocial Adjustment and Community Reintegration. *Child Development.* 81:1077-1095.

Birleson, P. (1980). Depression in childhood. *Developmental Medicine in Child Neurology.* 22:518-521.

Birleson, P. (2007). Behavioural pediatrics and mental health programs: a case for integration? *Journal of Paediatric Child Health.* 43:101-102.

Bishop, E. (1982). *Ponies, Patriots, and Power Monkeys: A History of Children in America's Armed Forces, 1776-1916.* Del Mar, CA: Bishop Press.

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

Boothby, NG & Knudsen, CM. (2000). Children of the Gun. *Scientific American.* 282:60-65.

Boothby, N. (2006). What happens when child soldiers grow up? The Mozambique case study. *Intervention.* 4:244-259

Boothby, N, Crawford, J, & Halperin, J. (2006). Mozambique child soldier life outcome study: Lessons learned in rehabilitation and reintegration effort. *Global Public Health.* 1:87-107.

Boothby, N, Strang, A, & Wessells, M. (2006). *A World Turned Upside Down: Social Ecological Approaches to Children in War Zones.* Bloomfield, CT: Kumarian Press, Inc.

Boyden, J & De Berry, J. (2000). Children in Adversity. *Forced Migration Review.* 9: 33-36.

Boyden, J & De Berry, J. (2004). *Children and Youth on the Front Line: Ethnography, Armed Conflict and Displacement.* Oxford, UK: Berghahn Books.

Boyden, J. & Mann, G. (2005). Children's Risk, Resilience and Coping in Extreme Situations. In M. Ungar (Ed.), *Handbook for Working with Children and Youth: Pathways to Resilience Across Cultures and Contexts*. Thousand Oaks, CA: Sage Publications.

Braun, V & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*. 3:77-101.

Brewin, CR, Andrews, B, & Valentine, JD. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*. 68:748-766.

Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, UK: Harvard University Press.

Carballo, M, Smajkic, A, Zeric, D, Dzidowska, M, Gebre-Medhin, J, & Van Halem, J. (2004). Mental health and coping in a war situation: the case of Bosnia and Herzegovina. *Journal of Biosocial Science*. 36:463-477.

Cicchetti, D & Lynch, M. (1995). Failures in the expectable environment and their impact on individual development: The case of child maltreatment. In D. Cicchetti & D. Cohen (Eds.), *Developmental psychopathology: Vol. 2. Risk, disorder and adaptation* (pp. 32–71). New York, NY: Wiley.

Cicchetti, D, Toth, SL, & Maughan, A. (2000). An ecological-transactional model of child maltreatment. In A.J. Sameroff, M. Lewis, & S.M. Miller (Eds.), *Handbook of Developmental Psychopathology*. New York, NY: Kluwer Academic/Plenum.

Cicchetti, D & Lynch, M. (2003). Links between community violence and the family system: Evidence from children's feelings of relatedness and perceptions of parent behavior. *Family Process*. 41:519-532.

Coalition to Stop the Use of Child Soldiers. (2004). *Child soldiers: Global report 2004*. London, UK: Author.

Coalition to Stop the Use of Child Soldiers. (2008). *Child soldiers: Global report 2008*. London, UK: Author.

Cook, A, Spinazzola, J, Ford, J, Lanktree, C, Blaustein, M, Cloitre, M, DeRosa, R, Hubbard, R, Kagan, R, Liautaud, J, Mallah, K, Olafson, E, & van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*. 35:390-398.

Criss, MM, Shaw, DS, Moilanen, KL, Hitchings, JE, & Ingoldsby, EM. (2009). Family, neighborhood, and peer characteristsics as predictors of child adjustment: A longitudinal analysis of addictive and mediation models. *Social Development*. 18:511-535.

Dolma, S, Singh, S, Lohfeld, L, Orbinski, JJ, & Mills, EJ. (2006). Dangerous journey: documenting the experience of Tibetan refugees. *American Journal of Public Health*. 96:2061–2064.

Dyrborg, J, Larsen, FW, Nielsen, S, Byman, J, Nielsen, BB, & Gautre-Delay, F. (2000). The Children's Global Assessment Scale (CGAS) and Global Assessment of Psychosocial Disability

(GAPD) in clinical practice - substance and reliability as judged by intraclass correlations. *European Child and Adolescent Psychiatry*. 9:195-201.

Eisenbruch, M. (1988). The mental health of refugee children and their cultural development. *International Migration Review*. 22:282–300.

Erikson, E. (1950). *Childhood and Society.* New York, NY: Norton.

Flanders, WD, Lin, L, Pirkle, JL, & Caudill, SP. (1991). Assessing the direction of causality in cross-sectional studies. *American Journal of Epidemiology*. 135:926-935.

Flores, J. (1999). Schooling, family, and individual factors mitigating psychological effects of war on children. *Current Issues in Comparative Education*. 2:23-42.

Foa, EB, Johnson, KM, Feeny, NC, & Treadwell, KR. (2001). The child PTSD Symptom Scale: a preliminary examination of its psychometric properties. *Journal of Clinical Child Psychology*. 30:376-384.

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

Glaser, B & Strauss, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Piscataway, NJ: Transaction Publishing.

Gully, SM, Incalcaterra, KA, Joshi, A, & Beaubien, JM. (2002). A meta-analysis of team-efficacy, potency, and performance: Interdependence and level of analysis as moderators of observed relationships. *Journal of Applied Psychology*. 87:819–832.

Guaze, C, Bukowski, WM, Aquan-Assee, J, & Sippola, LK. (1996). Interactions between family environment and friendship and associations with self-perceived wellbeing during early adolescence. *Child Development* 67:2201–2216.

Harel-Fisch, Y, Radwan, Q, Walsh, SD, Laufer, A, Amital, G, Fogel-Grinvald, H, & Abdeen, Z. (2009). Psychosocial outcomes related to subjective threat from armed conflict events (STACE): Findings form the Israeli-Palestinian cross-cultural HBSC study. *Child Abuse & Neglect*. 34:623-638.

Hart, J. (2007). The Politics of Child Soldiers. *Brown Journal of World Affairs*. 13:217-226.

Hart, J. (2006). Saving Children: What Role for Anthropology? *Anthropology Today*. 22:5-8.

Hartup, WW. (1999). Peer experience and its developmental significance. In M. Bennett (Ed.), *Developmental Psychology: Achievements and Prospects*. Philadelphia, PA: Psychology Press.

Herman, J. (1992). *Trauma and Recovery*. New York, NY: Basic Books.

Holahan, CK, & Holahan, CJ. (1987a). Self-efficacy, social support, and depression in aging: A longitudinal analysis. *Journal of Gerontology*. 42:65–68.

Holahan, CK & Holahan, CJ. (1987b). Life stress, hassles, and self-efficacy in aging: A replication

and extension. *Journal of Applied Social Psychology*. 17:574–592.

Holden, G. (1991). The relationship of self-efficacy appraisals to subsequent health related outcomes: A meta-analysis. *Social Work in Health Care*. 16:53–93.

Holden, G, Moncher, MS, Schinke, SP, & Barker, KM. (1990). Self-efficacy of children and adolescents: A meta-analysis. *Psychological Reports*. 66:1044–1046.

Honwana, A. (2006). *Child Soldiers in Africa*. Philadelphia, PA: University of Pennsylvania Press.

Howes, PW, Cicchetti, D, Toth, SL, & Rogosch, FA. (2000). Affective, structural, and relational characteristics of maltreating families: A systems perspective. *Journal of Family Psychology*. 14:95–110.

Hubbard, J, Realmuto, G, Northwood, A, & Masten, A. (1995). Comorbidity of psychiatric diagnosis with posttraumatic stress disorder of survivors of childhood trauma. *Journal of the American Academy of Child & Adolescent Psychiatry*. 34:1167-1173.

Human Rights Watch. (2007). *Children in the Ranks: The Maoists' Use of Child Soldiers in Nepal*. Kathmandu, Nepal: Human Rights Watch.

Hundt, GL, Chatty, D, Thabet, AA, & Abuateya, H. (2004). Advocating multi-disciplinarity in studying complex emergencies: the limitations of a psychological approach to understanding how young people cope with prolonged conflict in Gaza. *Journal of Biosocial Science*. 36:417-431.

Jensen, PS & Shaw, J. (1993). Children as victims of war: current knowledge and future needs. *Journal of the American Academy of Child & Adolescent Psychiatry*. 32:697-708.

Jordans, MJD, Kohrt, BA, Tol, WA, & Luitel, N. (2007). *Validation Study: Mental Health and Functioning Assessment Instruments for Children Affected by Armed Conflict in Nepal*. Kathmandu, Nepal: Transcultural Psychosocial Organization Nepal; Save the Children–United States.

Jordans, MJD, Komproe, IH, Tol, WA, & de Jong, JT. (2009). Screening for psychosocial distress amongst war-affected children: cross-cultural construct validity of the CPDS. *Journal of Child Psychology & Psychiatry*. 50:514-23.

Jordans, MJD, Komproe, IH, Tol, WA, Kohrt, BA, Luitel, NP, Macy, RD, & de Jong, JTVM. (2010). Evaluation of a classroom-based psychosocial intervention in conflict-affected Nepal: a cluster randomized controlled trial. *The Journal of Child Psychology & Psychiatry*. 51:818-826.

Kaufman, J, Chambers, W, Puig-Antich, J, Birmaher, B, Rao, U, & Ryan, ND. (1996). *Kiddie-SADS—Present and Lifetime Version*. Pittsburgh, PA: University of Pittsburgh.

Keen, J & Packwood, T. (1995). Case study evaluation. *British Medical Journal*. 311:444-446.

Kohrt, BA & Koenig, RA. (2009). Child soldiers after war. *Anthropology News*. 50:27.

Kohrt, BA, Kunz, RD, Baldwin, JL, Koirala, NR, Sharma, VD, & Nepal, MK. (2005). Somatization and co-morbidity: a study of jhum-jhum and depression in rural Nepal. *Ethos*. 33:125-147.

Kohrt, BA. (2006). *A brief report on psychological trauma and psychosocial services in Kathmandu, Nepal -- a distributed report*. Kathmandu, Nepal: CAAFAG Working Group.

Kohrt, BA, Jordans, MJD, Tol, WA, Speckman, RA, Maharjan, SM, Worthman, CM, & Komproe, IH. (2008). Comparison of mental health between former child soldiers and children never conscripted by armed groups in Nepal. *Journal of the American Medical Association*. 300:691-702.

Kohrt BA, Speckman RA, Kunz RD, Baldwin JL, Upadhaya N, Acharya NR, Sharma VD, Nepal MK, & Worthman CM. (2009). Culture in psychiatric epidemiology: using ethnography and multiple mediator models to assess the relationship of caste with depression and anxiety in Nepal. *Annals of Human Biology*. 36:261-280.

Kohrt, BA & Worthman, CM. (2009). Gender and anxiety in Nepal: The role of social support, stressful life events, and structural violence. *CNS Neuroscience & Therapeutics*. 15:237-248.

Kohrt, BA & Maharjan, SM. (2009). When a child is no longer a child: Nepali ethnopsychology of child development and violence. *Studies in Nepali History and Society*. 14:107-142.

Kohrt, BA, Tol WA, Pettigrew J, & Karki, R. (2010). Children and Revolution: The Mental Health and Psychosocial Wellbeing of Child Soldiers in Nepal's Maoist Army. In M. Singer & G.D. Hodge (Eds.), *The War Machine and Global Health*. Lanham, MD: Altamira Press.

Kohrt, BA, Jordans, MJD, Tol, WA , Perera, E, Karki, R, Koirala, S, & Upadhaya, N. (2010). Social ecology of child soldiers: Child, family, and community determinants of mental health, psychosocial wellbeing, and reintegration in Nepal. *Transcultural Psychiatry*. 47:727–753.

Kohrt, BA & Hruschka, DJ. (2010). Nepali concepts of psychological trauma: the role of idioms of distress, ethnopsychology and ethnophysiology in alleviating suffering and preventing stigma. *Culture Medicine and Psychiatry*. 34:322-352.

Kohrt BA, Jordans MJD, Tol WA, Luitel N, Maharjan SM, Shrestha P, & Upadhaya N. (2011). *Validity of cross-cultural child mental health and psychosocial research instruments: Adapting the DSRS and CPSS in Nepal*. Manuscript submitted for publication.

Kohrt, BA. (2011, Forthcoming). The role of traditional rituals for reintegration and psychological wellbeing of child soldiers in Nepal. In A.L. Hinton & D.E. Hinton (Eds.), *Legacies of Violence: Symptom, Memory, and Intervention in the Aftermath of Mass Trauma*. New Brunswick, NJ: Rutgers University Press.

Lee, AJ. (2009). *Understanding and Addressing the Phenomenon of Child Soldiers: The Gap between the Global Humanitarian Discourse and the Local Understandings and Experiences of Young People's Military Recruitment*. Oxford, UK: Refugee Studies Center.

Levy, BS & Sidel, VW. (2008). *War and Public Health*. New York, NY: Oxford University Press.

Lustig, SL, Kia-Keating, M, Knight, WG, Geltman, P, Ellis, H. Kinzie, D, Keane, T, & Saxe, GN. (2004). Review of Child and Adolescent Refugee Mental Health. *Journal of the American Academy of Child & Adolescent Psychiatry*. 43:24-36.

Lykke, J & Timilsena, MN. (2002). Evidence of torture in the mid west region of Nepal. *Danish Medical Bulletin*. 49:159–162.

Machel, G. (1996) *Promotion and Protection of the Rights of Children: Impact of Armed Conflict on Children*. New York, NY: United Nations.

Mazurana, D & Carlson, K. (2006, September). *The girl child and armed conflict: Recognizing and addressing grave violations of girls' human rights*. Report presented at the UNICEF Expert Group Meeting on Elimination of all Forms of Discrimination and Violence Against the Girl Child, Florence, Italy.

McAlister, AL, Perry, CL, & Parcel, GS. (2008). How individuals, environments, and health behaviors interact: Social Cognitive Theory. In K. Glanz, B.K. Rimer, & K. Viswanath (Eds.), *Health Behavior and Health Education*. San Francisco, CA: John Wiley & Sons, Inc.

McCarthy, J & Geddes, A. (2003). The impact of emotional and behavioral problems on the lives of children growing up in the care system. *Adoption and Fostering*. 27:14−19.

McFall, ME, Murburg, MM, Roszell, DK, & Veith, RC (1989). Psychophysiologic and neuroendocrine findings in Posttraumatic Stress Disorder: A review of theory and research. *Journal of Anxiety Disorders*. 3:243-257.

Mehta, AK. (2005). *The Royal Nepal Army: Meeting the Maoist Challenge*. New Delhi, India: Rupa and Co.

Melby, JN, Conger, RD, Fang, SA, Wickrama, KAS, & Conger, KJ. (2008). Adolescent family experiences and educational attainment during early adulthood. *Developmental Psychology*. 44:1519-1536.

Michultka, D, Blanchard, E, & Kalous, T. (1998). Responses to civilian war experiences: Predictors of psychological functioning and coping. *Journal of Traumatic Stress*. 11:571-577.

Miller, K, Weine, S, Ramic, A, Brkic, N, Djuric Bjedic, Z, Smajkic, A, Boskalio, E, & Worthington, G. (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.

Miller, KE, & Rasco, LM. (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*. East Sussex: Psychology Press.

Miller, NE & Dollard, J. (1941). *Social Learning and Imitation*. New Haven, CT: Yale University Press.

Moritz, SE, Feltz, DL, Fahrbach, KR, & Mack, DE. (2000). The relation of self-efficacy measures to sport performance: a meta-analytic review. *Research Quarterly for Exercise and Sport*. 71:280–294.

Multon, KD, Brown, SD, & Lent, RW. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*. 38:30–38.

Ovuga, E, Boardman, J, & Wasserman, D. (2005a). Prevalence of depression in two districts in Uganda. *Social Psychiatry and Psychiatric Epidemiology*. 40:439-45.

Ovuga, E, Boardman, J, & Wasserman, D. (2005b). Prevalence of suicide ideation in two districts in Uganda. *Archives of Suicide Research*. 9:321-32.

Ozer, EJ, Best, SR, Lipsey, TL, & Weiss, DS. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis. *Psychological Bulletin*. 129:52-73.

Pedersen, D. (2002). Political violence, ethnic conflict, and contemporary wars: broad implications for health and social wellbeing. *Social Science & Medicine*. 55:175-190.

Pitman, R. (1990). Biological findings in PTSD: Implications for DSM-IV Classification. (unpublished ms., Veterans Administration Center, Manchester, NH, 1990), 16.

Prince, M, Patel, V, Saxena, S, Maj, M, Maselko, J, Phillips, MR, & Rahman, A. (2007). No health without mental health. *Lancet*. 370:859-877.

Resnick, MDR. (2000). Protective factors, resiliency, and healthy youth development. *Adolescent Medicine*. 11:157-164.

Rotter, JB. (1954). *Social Learning and Clinical Psychology*. Englewood Cliffs, NJ: Prentice Hall.

Sadri, G & Robertson, IT. (1993). Self-efficacy and work-related behavior: a review and meta-analysis. *Applied Psychology: An International Review*. 42:139-152.

Savin-Williams, RC & Berndt, TJ. (1990). Friendships and peer relations during adolescence. In S.S. Feldman & G.R. Elliott (Eds.), *At the Threshold: The Developing Adolescent*. Cambridge, MA: Harvard University Press.

Schorre, BEH & Vandvik, IH. (2004). Global assessment of psychosocial functioning in child and adolescent psychiatry: a review of three unidimensional scales (CGAS, GAF, GAPD). *European Child Adolescent Psychiatry*. 13:273-286.

Sentse, M, Veenstra, R, Lindenberg, S, Verhulst, FC, & Ormel, J. (2009). Buffers and risks in temperament and family for early adolescent psychopathology: Generic, conditional, or domain-specific effects? The TRAILS Study. *Developmental Psychology*. 45:419-430.

Shrestha, N, Sharma, B, Van Ommeren, M, Regmi, S, Makaju, R, Komproe, I, Shrestha, G, & de Jong, J. (1998). Impact of torture on refugees within the developing world: Symptomology among Bhutanese refugees in Nepal. *Journal of the American Medical Association*. 280:443-448.

Shrestha, A. (2007). Consequences among protest survivors of 2006 in Nepal. *Torture*. 17:57–59.

Singer, PW. (2006). *Children at War*. Berkley, CA: University of California Press.

Singh, S. (2004). Posttraumatic stress in former Ugandan child soldiers. *Lancet*. 363:1648.

Singh, S, Dahal, K, & Mills, E. (2005). Nepal's war on human rights: a summit higher than Everest.

International Journal for Equity in Health. 28:1-7.

Snyder, CR, Hoza, B, Pelham, WE, Rapoff, M, Ware, L, Danovsky, M, Highberger, LHR, & Stahl, KJ. (1997). The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychiatry*. 22:399-421.

Sommers, M. (2003). *Education in emergencies*. Washington, DC: Creative Associates International.

Sroufe, LA, Egeland, B, & Carlson, EA. (1999). One social world: The integrated development of parent-child and peer relationships. In W.A. Collins & B. Laursen (Eds.), *Relationships as Developmental Contexts*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Steinberg, L, Dornbusch, SM, & Brown, BB. (1992). Ethnic differences in adolescent achievement: An ecological perspective. *American Psychologist.* 47:723–729.

Steinberg, L & Silverberg, SB. (1986). The vicissitudes of autonomy in early adolescence. *Child Development.* 57:841–851.

Stice, E, Ragan, J, & Randall, P. (2004). Prospective relations between social support and depression: Differential direction of effects for parent and peer support? *Journal of Abnormal Psychology*. 113:155-159.

Stichick, T. (2001). The psychosocial impact of armed conflict on children: Rethinking traditional paradigms in research and intervention. *Child and Adolescent Psychiatric Clinics of North America*. 10:797–814.

Stovall-McClough, KC & Cloitre, M. (2006). Trauma reactions to terrorism: The individual and collective experience. In L.A. Schein, H.I. Spitz, G.M. Burlingame, P.R. Muskin, & S. Vargo (Eds.), *Psychological Effects of Catastrophic Disasters: Group Approaches to Treatment*. New York, NY: The Haworth Press.

Thabat, A & Vostabis, P. (2000). Posttraumatic stress disorder reactions in children of war: A longitudinal study. *Child Abuse and Neglect*. 24:291-298.

Thapa, D & Sijapati, B. (2005). *A Kingdom Under Siege: Nepal's Maoist Insurgency, 1996 to 2004*. London, UK: Zed Books.

Thapa, SB & Hauff, E. (2005). Psychological distress among displaced persons during an armed conflict in Nepal. *Social Psychiatry and Psychiatric Epidemiology*. 40:672-679.

Tol, WA, Jordans, MJD, Reis, R, & De Jong, JTVM. (2009). Ecological resilience: working with child-related psychosocial resources in war-affected communities. In D. Brom, R. Pat-Horenczyk, & J.D. Ford (Eds.), *Treating Traumatized Children: Risk, Resilience, and Recovery*. New York, NY: Routledge.

Tol, WA, Kohrt, BA, Jordans, MJD, Thapa, SB, Pettigrew, J, Upadhaya, N, & de Jong, JTVM. (2010). Political violence and mental health: A multi-disciplinary review of the literature on Nepal. *Social Science & Medicine*. 70:35-44.

Transcultural Psychosocial Organization. (2010). *Psychosocial support model for children associated with armed forces & armed groups in Nepal.* Kathmandu, Nepal: Author.

United Nations. (1996). *Report of the Expert of the Secretary General Graça Machel, "Impact of Armed Conflict on Children".* Document A/51/306 & Add. I. August 26, 1996

United Nations International Children's Emergency Fund. (2003). *Guide to the optional protocol on the involvement of children in armed conflict.* New York, NY: Author.

United Nations (2004). *Child Soldier Use 2003: A Briefing for the 4th UN Security Council Open Debate on Children and Armed Conflict.* New York, NY: United Nations Security Council; January 16, 2004.

United Nations. (2006). *Report of the Secretary-General on Children and Armed Conflict in Nepal.* New York, NY: United Nations Security Council; December 20, 2006.

United Nations Development Programme. (1998). Income, consumption, and poverty. In D.R. Panday, C. Mishra, P.R. Pandey, Y. Khatiwada, & P.D. Pant (Eds.), *Nepal Human Development Report.* New York, NY: Author.

United Nations Children's Fund. (2007). *The Paris Principles: Principles and Guidelines on Children Associated With Armed Forces or Armed Groups.* New York, NY: United Nations Children's Fund.

Vandell, DL, Belsky, J, Burchinal, M, Steingberg, L, Vandergrift, N, & NICHD Early Child Care Research Network. (2010). Do effects of early child care extend to age 15 years? Results from the NICHD Study of early child care and youth development. *Child Development.* 81:737-756.

Van Ommeren, M, Sharma, B, Thapa, S, Makaju, R, Prasain, D, Bhattaria, R, & de Jong, JTVM. (1999). Preparing instruments for transcultural research: use of the translation monitoring form with Nepali-speaking Bhutanese. *Transcultural Psychiatry.* 36:285-301.

Walzer, M. (1992). *Just and Unjust Wars: A Moral Argument with Historical Illustrations.* New York, NY: Basic Books.

Weine, S, Vojvoda, D, Becker, D, McGlashan, T, Hodzic, E, Laub, D, Hyman, L, Sawyer, M, & Lazrove, S. (1998). PTSD symptoms in Bosnian refugees one year after resettlement in the United States. *American Journal of Psychiatry.* 155:562-564.

Wessels, M. (2005). Child soldiers, peace education, and postconflict reconstruction for peace. *Theory into Practice.* 44:363-369.

Wessells, MG. (2006). Child soldiers: From violence to protection. Cambridge, MA: Harvard University Press.

World Bank. (2009). Retrieved from *http://data.worldbank.org/country/nepal.* Dec, 2, 2010. Washington, DC: World Bank.

World Health Organization. (2005). *Mental health atlas – Revised edition*. Geneva, Switzerland: World Health Organization.

Young, JF, Berenson, K, Cohen, P, & Garcia, J. (2005). The role of parent and peer support in predicting adolescent depression: A longitudinal community study. *Journal of Research on Adolescence*. 15:407-423.