

Distribution Agreement

In presenting this thesis or dissertation as a partial fulfillment of the requirements for an advanced degree from Emory University, I hereby grant to Emory University and its agents the non-exclusive license to archive, make accessible, and display my thesis or dissertation in whole or in part in all forms of media, now or hereafter known, including display on the world wide web. I understand that I may select some access restrictions as part of the online submission of this thesis or dissertation. I retain all ownership rights to the copyright of the thesis or dissertation. I also retain the right to use in future works (such as articles or books) all or part of this thesis or dissertation.

Signature:

Afshan Kamrudin

Date

Assessing the Mental Health of Girls in Nepal:
A Study of the Impact of Societal Factors on Former Child Soldiers Conscripted into Nepal's
Maoist Movement and Non-Conscripted Children

By

Afshan Kamrudin
MPH

Behavioral Sciences and Health Education

Delia Lang, Ph.D.
Committee Chair

Brandon Kohrt, MD/Ph.D.
Committee Member

Michael Windle, Ph.D.
Department Chair

Assessing the Mental Health of Girls in Nepal:
A Study of the Impact of Societal Factors on Former Child Soldiers Conscripted into Nepal's
Maoist Movement and Non-Conscripted Children

By

Afshan Kamrudin

B.A.
University of North Texas
2009

Thesis Committee Chair: Delia Lang, Ph.D.

An abstract of
A thesis submitted to the Faculty of the
Rollins School of Public Health of Emory University
in partial fulfillment of the requirements for the degree of
Master of Public Health
in Behavioral Sciences and Health Education
2011

Abstract

Assessing the Mental Health of Girls in Nepal: A Study of the Impact of Societal Factors on Former Child Soldiers Conscripted into Nepal's Maoist Movement and Non-Conscripted Children

By Afshan Kamrudin

The present study was developed to assess the mental health of young adolescent girls in Nepal with special consideration towards young girls that were conscripted into the Maoist Army during the 10-year civil war between the Royal Nepalese Army (RNA) and the Maoist movement from 1996-2006. Utilizing a combined model, which incorporates the Theory of Gender and Power, the Social Ecological Model, and Cultural Consonance, we hope to add insight to a complex phenomenon in this population. Using multiple theories to outline the study of mental health and society, the aim is to gain a deeper understanding of how external factors influence individual mental health as well as provide areas for future research among this population. This study was conducted using a cross-sectional correlational design. Using variables related to theoretical constructs, univariate statistics, bivariate statistics, and regressions were utilized to test relevant hypotheses. Independent t-tests comparing mental health outcomes based on conscription status revealed that former child soldiers experienced significantly more functional impairment, depression, and anxiety. Regressions testing variables based on constructs of the Theory of Gender and Power, including the Sexual Division of Labor and Sexual Division of Power were used to explain how mental health is influenced by societal factors. The Social Ecological Model was used to categorize variables and their relationship to the participants and understand the influence of aggregate social groups on mental health. Mental health outcomes in this study were then classified as the Structure of Cathexis. All three regression models predicting each individual mental health outcome were found to be significant. This study is limited in the capacity to make causal inferences and generalize to a larger population. Recommendations include considering social determinants when assessing mental health and considering the implications it has for future studies, especially with respect to the role of women involved in political movements and their overall mental health.

Assessing the Mental Health of Girls in Nepal:
A Study of the Impact of Societal Factors on Former Child Soldiers Conscripted into Nepal's
Maoist Movement and Non-Conscripted Children

By

Afshan Kamrudin

B.A.
University of North Texas
2009

Thesis Committee Chair: Delia Lang, Ph.D.

A thesis submitted to the Faculty of the
Rollins School of Public Health of Emory University
in partial fulfillment of the requirements for the degree of
Master of Public Health
in Behavioral Sciences and Health Education
2011

Table of Contents

INTRODUCTION	1
DEFINITION OF THE PROBLEM.....	1
JUSTIFICATION OF THE PROBLEM.....	4
THEORETICAL FRAMEWORKS	7
<i>Cultural Consonance</i>	10
<i>Gender and Power</i>	11
FORMAL STATEMENT OF PROBLEM	14
LITERATURE REVIEW	15
WOMEN IN NEPAL.....	15
YOUTH SOLDIERING AND FEMALES.....	16
APPLICATIONS OF THEORY IN ASSESSING MENTAL HEALTH.....	23
SOCIAL CONSIDERATIONS TO CONSCRIPTION AND MENTAL HEALTH	28
CASTE/RELIGION.....	29
GENDER	30
FUNCTIONAL IMPAIRMENT	31
DEPRESSION	32
ANXIETY	33
FEMALES AND COMORBIDITY	34
HEALTH STATUS, SOMATIZATION, AND ITS RELATION TO MENTAL HEALTH	35
STUDY AIM.....	37
HYPOTHESES	38

METHODS.....	39
PARTICIPANTS.....	39
MEASURES.....	40
<i>Demographics Questionnaire.....</i>	<i>40</i>
<i>Screen for Child Anxiety Related and Emotional Disorders (SCARED-5)</i>	<i>40</i>
<i>The Birleson Depression Self-Rating Scale (DSRS).....</i>	<i>41</i>
<i>Functional Impairment.....</i>	<i>42</i>
DESIGN AND PROCEDURE.....	42
DATA ANALYSIS	43
RESULTS	44
DEMOGRAPHICS	44
CORRELATIONS	46
T-TEST.....	46
REGRESSIONS	47
DISCUSSION	50
FILLING IN THE THEORETICAL FRAMEWORK WITH DATA	50
SIGNIFICANCE OF RESULTS	55
LIMITATIONS	57
PUBLIC HEALTH IMPLICATIONS.....	58

Introduction

Definition of the Problem

Child soldiers are defined as armed troops under the age of 18 years old, often seen as “convenient, cheap, and available in abundance”, whose forced services are likely to benefit government and/or rebel groups during times of warfare (Wessells, 2006). It is estimated that over 300,000 children worldwide are part of government armies, warlords, rebel groups, paramilitaries, and other militarized groups (Machel, 2001).

In Nepal, the rise of the Maoist movement led to a civil outbreak, termed the People’s War, which resulted in an ongoing civil conflict beginning in 1996 and lasting for over 10 years (Singh, Dahal, and Mills, 2005). Both sides, the Royal Nepal Army (RNA) and the Communist Party of Nepal (Maoist), were accused of having ties to the use of child soldiers (UN, 2004). Although there was no policy indicating active recruitment of soldiers under the age of 18 by the RNA, the government was reported to target children suspected of affiliation with the Maoist forces and to take these children into custody to be utilized as child soldiers or as informers (UN, 2004). On the other hand, the Maoist insurgency was found to openly target children, particularly students, between the ages of 15 and 18 (UN, 2004). Children abducted by the Maoist party often reported being indoctrinated or trained in guerrilla warfare while children recruited into both the Maoist party and the Royal Nepalese Army served as fighters, human shields, messengers, porters, and in some cases, especially among girls, for sexual exploitation (UN, 2004). While some

children began to return after the civil war ended in 2006, others returned by running away prior to the end of war (Koenig & Kohrt, 2009).

Upon their return, former child soldiers were re-introduced into communities in desperate need of rebuilding, reuniting displaced populations, and reconstructing essential infrastructure (Barber, 2009). Many reintegration programs for these children assume that peaceful communities already exist, into which former child soldiers may integrate. However, because of war, and especially in the case of a civil conflict, many communities live in unsteady situations where peaceful existence is more often a desire than a reality (Wessells, 2006). Acceptance of child soldiers back into society is a tangible challenge; not only for families but also for the communities to which these children return. Reintegration varies in difficulty and success due to individual contributing factors such as age, gender, religion, and societal or cultural norms.

During the war, Maoist child soldiers were often recruited or abducted from community institutions, such as schools and village gathering. This recruitment tactic forced many establishments to close, as a result caused fear among parents who became afraid of sending their children to school (Sharma, 2005). This fear particularly impacted girls because school closures meant widening already existing gender gaps in education (Sharma, 2005). The social repercussion of this led to an increased likelihood of girls being married off, and this practice was further fueled by the belief that abducted and indoctrinated girls were seen as unmarriageable (Sharma, 2005). Thus, marriage may have acted as a cultural buffer against Maoist indoctrination. As a result, the experience of mental health problems among women

in Nepal in general, may have been multiplied with the added stigma of returning as a former child soldier and may have lead to other forms of psychological distress (Kohrt & Wortham, 2009).

While the community response to returning child soldiers is an intricate situation that varies from region to region, a common theme that characterizes the reintegration process was the systematic stigmatization of returning child soldiers. Collective stigmatization, such as community trials treating returning child soldiers as criminals, reduced the children's chances of successful integration (Wessells, 2006). This was especially detrimental when considering the unique position of child soldiers who may have been abducted as opposed to those who joined willingly (Wessells & Kostelny, 2009). With returning child soldiers, it was vital to reconcile attitudes of community members and to enable people who fought on or supported different sides of the conflict to live together without further animosity (Wessells , 2006). When communities want to hold child soldiers accountable for their war crimes, reintegration becomes increasingly difficult at the institutional level(Wessells M. , 2006). Reconciliation efforts should begin at grassroots level, starting with the community, as opposed to the governing body or the individuals. The United Nations Children's Fund (UNICEF) developed a strategy for partnering with local NGOs to initiate service-oriented reintegration programs for returning child soldiers (Crowe and Logan, 2010). These programs include a choice of formal education, apprentice or vocational training, education in health professions, or starting up a small business. Related interventions modeling this approach have been successful in helping child soldiers adopt positive roles in their local villages

with facilitation from external agencies (Wessells, 2006). Former child soldiers then become actors in the community's restorative process, and often perceive themselves as repaying their moral debts to their communities (Wessells, 2006).

Justification of the Problem

The king of Nepal stated that the violence caused by the rebels has led to enormous suffering for the people and the nation. The other side of the story is that Nepal's government forces have retaliated with arbitrary arrests, detentions, "disappearances", executions, and torture, including rape (Amnesty International, 2004). The Human Rights Watch claims that both the Maoist rebels and the Royal Nepalese Army are engaged in regular intimidation and extortion leading to a climate of intense fear in Nepal (Human Rights Watch, 2010). Through this war, the Nepali people have been massively displaced, which has led to their current state of adverse social and psychological well being (Singh, Dahal, and Mills, 2005). There are noticeably high rates of child mortality due to related civil violence, which is especially high among women with no education and among those who live in rural areas (Singh, Dahal, and Mills, 2005). Furthermore, over 70% of Nepalese prisoners claim to have been tortured while in custody of the Maoist insurgency (Stevenson, 2001).

Nepal, as a whole, has experienced an increase in the incidence of depression, posttraumatic stress disorder, and suicide since the conflict began. In fact, it is estimated that the prevalence of mental health issues in Nepal is as high as 30%, which is more than twice the average burden of mental health problems globally,

which is estimated at 14% (Singh, Dahal, and Mills, 2005; Prince et al., 2007). The effects of war have burdened mental health services in Nepal, which were generally non-existent before. The growing need for mental health services are highlighted in the growing incapacity of mental health providers to meet the needs of communities in Nepal thus placing a great burden on Nepalese society. Addressing these issues cannot solely come from the health sector, but must also be a rehabilitative product of adopting broader social policies made with consideration of the sensitivity of the conflict and incorporate participatory action and development (Singh, Dahal, and Mills, 2005).

Some mental health interventions in Nepal have focused on child soldiers as the median through which to implement structural and societal reintegration. A participatory approach to health is an evolution of traditional research that is based on the premise of creating a developmental process from which community members who are the target recipients are also the ones planning, implementing, organizing, and mobilizing resources and services with little facilitation (Karki, Kohrt, and Jordans, 2009). This kind of participation accounts for the fluidity between ecological subgroups (individual, family, and community) and often leads to more positive interaction among these groups. Humanitarian workers have found that participatory approaches encourage a sense of ownership of interventions resulting in a greater degree of program sustainability (Karki, Khort, and Jordans, 2009).

The United Nations Convention on the Rights of the Child (CRC) advocated on behalf of a participatory and empowerment approach by emphasizing child

participation (UN,1989). The CRC recognizes children as “persons with rights and the capacity to participate in enhancing their wellbeing, rather than as submissive objects of adult interventions” (Woodhead, 1997). An example of a participatory intervention in Nepal with a significant amount of participation from children was a study conducted by Karki, Khort, and Jordans (2009) using child led indicators.

Child led indicators are markers of psychosocial well being that children prioritized, recognized in others, and could monitor throughout the project cycle. This allowed the children to indicate challenges or barriers of their participation in programming (Karki, Khort, and Jordans, 2009). This intervention was successful in reintegrating former child soldiers back into their communities through acquiring education or vocational training. One 16 year-old former girl soldier said, “After getting support from the local NGO, the community perception toward us has changed. There is more respect and concern for us, especially when people find that we are doing well in school or in learning job skills” (TPO, 2007).

Despite the evidence of success of participatory reintegration programs, there is still a range of negative attitudes targeting former child soldiers, and has the potential to inhibit or facilitate a community-based intervention and improving the lives of former female soldiers. Boyden (2003) has studied adult attitudes toward the perception of children who were formerly associated with armed groups and highlights the sentiment that adults may view these children as morally corrupt, which could be a barrier to empowerment and participatory activities of former youth combatants post-conflict. Boyden (2003) also found that supportive adults who were sympathetic to the notion of enabling children to express their views still

feel uncomfortable. Notably, when assessing these attitudes among former child soldiers, even they have frequently reported a sense of unease with community participation and reintegration programs (Lansdown, 2001).

Though there is a lot of attention to the needs of former child soldiers, girls in Nepal have historically and generationally experienced neglect from society and the community at large (Stash & Hannum, 2001). This is particularly true when considering the neglect in attending to issues of mental illness in the forms of depression, anxiety, or functional impairment. To achieve a thorough understanding of mental health manifestation among girls in Nepal, an approach that encompasses both culture and community is necessary. For this reason, the Social Ecological Model by Bronfenbrenner (1977) was utilized to understand community-level factors associated with mental health outcomes regardless of conscription status. Additionally, the Theory of Gender and Power by Connell (1987) and Cultural Consonance by Dressler (2007) were utilized to understand cultural factors in association with mental health outcomes.

Theoretical Frameworks

Social Ecological Model

Urie Bronfenbrenner (1977) created the social ecological model to counter the prevailing reductionist scientific theories dominating the intellectual sphere in social sciences during the 1970's. Bronfenbrenner (1977) felt strongly that understanding human development goes beyond the direct observation of behavior, but instead requires an examination of multi-person systems of interaction, such as

institutions and communities, as well as taking into account aspects of the environment beyond the individual; he referred to this perspective as the “ecology of human development”. This is particularly salient among adolescents who, throughout the process of development, are involved with many institutions (such as schools) and communities (such as peer groups) that may have a large impact on their perceptions and decisions.

The ecological environment Bronfenbrenner (1977) conceived was topological and nested in an arrangement of structures, each contained within the next: the microsystem, exosystem, macrosystem and the mesosystem. The *microsystem* is the relationship between the person and the environment; this consists largely of the individual and his or her personal connections to their own development and place in the ecology at large. The *exosystem*, which encompasses specific social structures, both formal and informal, may not contain the participant directly but impinge upon or encompass the immediate setting in which the participant is found. These structures include the major institutions of the society both “deliberately structured and spontaneously evolving.” The exosystem encompasses educational institutions, employment, neighborhood or community, media, agencies of government (local, state, and national), the distribution of goods and services, communication, transportation facilities, and social networks. The *macrosystem* consists of the overarching institutional patterns of the culture or subculture, such as the economic, social, educational, legal, and political systems, of which microsystem and exosystems are the concrete manifestations. This system is regarded the least quantifiable of all, and generally is based on the socially

constructed assumptions of society. The macrosystem carries information and ideology that places meaning and motivation in particular networks and fundamentally differs from the exosystem in that it does not refer to the specific circumstance affecting a particular person. The macrosystem is generalizable to people who identify within the culture or subculture and is best described as a "blueprint" of society in which participants are placed, with concrete laws or regulations as well as social constructs and implicit meanings outlining the social system. The *mesosystem* consists of the relationships among the participant with major settings with particular attention to interactions with family and peer groups. A mesosystem can best be described as a system of many microsystems and more simply can be seen as the supports a participant utilizes in the context of their community.

In addition to outlining the above systems, Bronfenbrenner (1977) elaborated on the concept of ecological validity, described as the "investigation in a natural setting [which] involves objects and activities of everyday life". However, he criticizes his own idea by calling it too simplistic and unsound. Bronfenbrenner (1977) also juxtaposes ecological validity to theoretical validity, or the implicit notion that there is a theoretical standard to reach. Ecological validity, he argues, is not congruent to theoretical validity, because no singular ecology can be a "target" to measure. To account for this, the inclusion of cultural consonance may serve as a point of ecological construction of validity.

Cultural Consonance

Dressler (2007) begins the explanation of the concept of cultural consonance by citing Emil Kraepelin, a German psychiatrist, who suggested, “cultural milieu has altered the risk of psychiatric disorder”. Dressler describes cultural consonance as a theory that “links the collective representations that make up the culture of the group with the practices of individuals who enact those representations”. Cultural consonance as a theoretical model, is the collection of experiences shared among a cultural group, which can serve as a measure of health by identifying areas where an individual deviates from a collection of social norms and how this influences their mental well being.

Before the cultural consonance theory was conceptualized, Leighton & Leighton (1967) formulated the ‘social disorganization’ hypothesis. The social disorganization hypothesis is based on the concept that communities can be organized along a continuum, ranging from the most integrated to the most disorganized or disintegrated. Indicators of the degree of disintegration would include measures such as poverty levels and family stability; but the defining characteristic of a disorganized community was if a community was confused about its own cultural values (Leighton & Leighton, 1967). Measureable outcomes, such as high blood pressure averages in an urban area, could then be attributed in part to the divergence of values and beliefs between traditional societies versus that of modern ones, or on a more personal level, differences among home grown values versus those in the host society (Dressler, 1999). In the attempt to more precisely define the role of culture in the process of health, Dressler asserts, cultural

consonance is an elaboration of other theories of psychosocial stress, such as the stress and coping theory by Lazarus and Folkman (Lazarus, 1966).

The theory of cultural consonance comes with two key assumptions suggesting that culture is: 1) both learned and shared; and that 2) the locus of culture is both within individuals as well as among aggregate social groups. Goodenough (1996) defines culture as the shared knowledge an individual must have to function adequately within a social group with a shared collective schema. Therefore, the measurable difference between individual practice to shared cultural expression is what Dressler (2007) calls cultural consonance.

Dressler (2007) notes that there is a growing interest in national identity among other large scale cultural components and it's relation to health. The measurement of cultural consonance has afforded a new and innovative approach these phenomenon. Dressler (2007) himself has tested cultural consonance in Brazil and he states it can be used within any cultural domain. He emphasizes that the model for cultural consonance should look like a "series of concentric circles around the individual, with family and friends forming the inner circles, and less intimate relationships forming the outer circle", which is nearly identical to the social ecological model mentioned previously.

Gender and Power

The Theory of Gender and Power, as suggested by Robert Connell (1987) in his book *Gender and Power: Society, the Person and Sexual Politics*, is a practice-based theory consisting of three constructs: the sexual division of labor, the sexual

division of power, and the social structure of cathexis. Each division is a unique division of the understanding of the larger contextual marginalization of women within a given society.

The Sexual Division of Labor

The sexual division of labor is defined as the “allocation of particular types of work to particular categories of people”. In the case of the majority of agrarian societies, this generally means women and men take on shared roles where as in a capitalist or hierarchical system, global inequality is a result of imperialism and access.

Connell (1987) argues that discrimination is mostly indirect where the sexual division of labor is not just a matter of the allocation of work to people, it also involves the design of the work – in particular it’s nature or organization of this work. The Marxist perspective regards capitalism as fundamentally defined by class relations (Marx, 1848). However, Connell (1987) argues that gender relationships are not an “ideological addendum to a class structured mode of production” but rather a “deep-seated feature of production itself”. Gender divisions, in this relationship to production, are fundamental and essential to capitalism as class divisions.

The Sexual Division of Power

Power is often defined in terms of the individual engaging in acts that oppress another person or a group. On the other hand, the sexual division of power

is “a set of social relations with some scope and permanence”. A radical demonstration of this in terms of war is rape. Rape is often described as a weapon of war but is grounded in a patriarchic structure where male supremacy and dominance is asserted (Keairns, 2002). As Connell (1987) notes, “far from being a deviation from the social order, it is in a significant sense an enforcement of it.” Critical feminism, as Connell (1987) proposes, is devoted to contesting cultural power, particularly in the concept of what defines a woman, her roles, or associated gender stereotypes.

Social Structure of Cathexis

To understand the sexual component of the model, Connell (1987) makes it very clear that sexuality does not only exist in a physical form. Sexuality, instead encompasses the “social practices in which relationships between people are formed and carried on.” Connell (1987) notes that every relationship has an emotional dimension; thus the organization of these emotional attachments in society is the “structure of cathexis” which includes all relationships, whether shaded positively (i.e. affection or happiness) or negatively (i.e. anger or hostility) as well as ambivalence among these shades which include a spectrum of emotions (Connell, 1987).

Social patterns, especially patterns of emotional attachment, constrain women and men into culturally specific regulations. This is most evident in social taboos and prohibitions by constraining actions, which is led by the intention to destroy relationships. Connell (1987) also mentions that the structure of cathexis

“must be regarded as multileveled and major relationships as ambivalent”. In this study the social ecological model and cultural consonance represent these multiple levels.

Formal Statement of Problem

Using a quantitative approach, we hope to understand this multifarious issue of mental health among former female child soldiers through the theoretical constructs described above. We hypothesized that female child soldiers from socioeconomic backgrounds characterized by lower caste, poverty, and discrimination based on ethnicity report more depression, anxiety, and impaired functioning than female child soldiers from more advantaged socioeconomic backgrounds. Additionally, we hypothesize factors such as education, social status, economics, and politics will be significant factors influencing well-being among all girls, regardless of conscription status.

Literature Review

Women in Nepal

Nepal, a landlocked country in South Asia, is a place of great geographical and cultural diversity – home of the Himalayan mountain range and a population estimated of 29 million of different ethnic, religious, and regional identities (CIA , 2009). Nepal is bordered by India to the south and the Tibet region of China in the north. In 1996, the civil struggle in Nepal resulted in a war, which was centered on a clash between two major social ideologies from both of its neighboring nations – communism from China and the caste system of India. Traditional Nepalese society is a patriarchic system in which men are figures of authority and where women are often not in a position of power in society, which runs counter to the gender equality impressed by communism.

According to the Human Development Index, Nepal ranked number one in most improved country between 1980 – 2010, moving from a low human development rank to a medium development rank (United Nations Development Program, 2011). Despite the great strides in human development, in the global gender development index Nepal ranks 142, paralleled to the gender development of countries such as Bangladesh, Cameroon, and Haiti (GDI, 2008). Girls in Nepal are half as likely to be literate when compared to boys, denying them opportunities that can lead to upward mobility through education (CIA , 2009). For this reason, among many others, the civil war was a change in social structure and an opportunity to challenge the notion of gender in Nepal, which may sometimes lead to political or military involvement.

Youth Soldiering and Females

Singer (2005) has estimated that children have served as fighters in over two-thirds of recent conflicts. In countries that have faced conflict within the last few decades – such as Angola, El Salvador, Ethiopia, Sierra Leone, and Uganda – girls reportedly accounted for 30% to 40% of child soldiers (Mazurma, McKay, Carlson & Kasper, 2002). The geographic diversity in the regions where child soldiers have been documented is a testament to the fact that child soldiers are not a monolithic group. Even within a particular collective of child soldiers, differences exist between the children who enter into military services. The reasons for joining, experiences while serving as a soldier, and situations following demobilization are independent for each child (Wessells & Kostelny, 2009).

Much of the social construction around the phenomenon of child soldiers is often the result of sensationalized journalism, where media images range from youth soldiers as innocent victims or hardened killers comprising a lost generation and more often these are extreme cases on both ends of the spectrum (Wessells & Kostelny, 2009). What it means to be a youth in any given culture is centered around achieving culturally salient milestones and culturally-specific life experiences. In the western world, an adolescent is typically defined as a person between the ages of 13 and 18 years, in which a key life task is to define one's identity (Dressler, 2007; Wessells & Kostelny, 2009). The term "adolescent" itself is a cultural construct, which demonstrates a large variation in social context and deviates from the traditional definition imposed by western psychology and varies by assumed roles

and functions adolescents play. Part of this construction of assuming an adolescent identity comes from the youth themselves. Youth construct meanings around their life experiences, which are related to their concept of culture, gender, class, and ethnicity and are further mediated by life events and particularly those experiences that create a sense of resilience (Wessells & Kostelny, 2009).

Youth soldiers generally get involved with armed groups or armed forces through three overarching recruitment tactics: forcible, voluntary, and compulsory recruitment (UNICEF, 2007; Wessells & Kostelny, 2009). Forcible recruitment is the illegal and unwarranted abduction of an adolescent (such as at gunpoint or intimidation); voluntary recruitment is when youth join a group without any apparent forced conscription; and compulsory recruitment is required recruitment most often mandated by the government through legislation, which mostly takes the form of legal conscription into the country's military forces. However, most states do not actively recruit members under a certain age, typically 18 years of age.

Youth recruitment is most common among non-state actors, who target and recruit youth purposively (Wessells & Kostelny, 2009). Among the different forms of recruitment tactics armed groups use, evidence suggests that forced recruitment is the preferred method of recruitment among non-state actors (UNICEF, 2003; Wessells & Kostelny, 2009). However, when examining youth conscription within the context of a country with few opportunities, lack of resources, significant life pressures, hardships, and structural barriers to accessing basic needs, distinguishing between forced and voluntary recruitment is difficult (Brett & Specht, 2004; Wessells M. , 2006; Wessells & Kostelny, 2009). Another complicating factor

common among the Maoist Army in Nepal are abductions which occur by proxy such as threatening the village or promising to provide resources to the village and not following through (Brett & McCallin, 1996). Abductions and kidnappings often occur in more subtle ways that straddle the boundary between forced recruitment and voluntary recruitment (Wessells & Kostelny, 2009). Collectively, abductions and kidnappings may also politically and psychologically highlight the local leaders' inability to protect the village, weakening their ability to mobilize a local resistance (Wessells & Kostelny, 2009). The lack of national priority given to civilians may also play a complicating factor in voluntary recruitment. Civilians joining an opposing military force may be doing so in order to receive tangible support to sustain their personal well being, possibly leading them to side with the non-state actors who are seen to have more power. Convincing ideology is also a salient feature of non-forced recruitment, which may engage adolescents to join non-state actors or national armed forces (Wessells & Kostelny, 2009). The decision to join is frequently bounded by experiences of victimization, difficult life conditions – such as poverty or a basic desire to protect oneself and meet basic needs (Wessells & Kostelny, 2009; Wessells & Kostelny, 2009). These decisions to join are often influenced by important social ecologies such as peers, families, and communities.

Girls who join armed forces by choice are often not used in sexual exploitation, either due to cultural mediators (such as a highly religious society or collectivist culture) or in part due to the solidarity in holding certain ideological beliefs. In Sri Lanka, girl soldiers in armed groups such as the Liberation Tigers of Tamil Eelam (LTTE/Tamil Tigers) were not sexually abused while in the military.

Notably, some armed groups explicitly forbid sexual exploitation (Keairns, 2002). Child soldiers, girls as well as boys, perform multiple roles such as combatants, cooks, porters, spies, bodyguards, and mine clearers (Wessells & Kostelny, 2009). These roles change with a youth soldiers' experience, level of competence, and as the trust in their capabilities among their commanders and peers increase (Wessells & Kostelny, 2009).

There is a tendency among western mental health professionals to impose psychological categories that don't fit local understanding or the personal perspectives of youth soldiers (Wessells & Kostelny, 2009). Emotional well being is culturally grounded and serves as a reflection of local understanding of what is considered healthy emotional expressions. With respect to this, western clinical psychologists who may tend to focus on the impact of violence and trauma may deviate from a youth soldiers' prevailing concerns such as the inability to earn an income, fear of rejection by their community, or, in the case of females, possible stigmatization as being unsuitable for marriage (Waters, 2010; Wessells & Kostelny, 2009). Cultural sensitivity with deference to the population of focus necessitates a more holistic approach to the understanding of what is mental health.

A holistic approach looks beyond a deficit-based lens focusing only on the negative outcomes youth may have experienced while serving in the armed forces. In the case of Nepal, youth who identify with Maoist and Communist rhetoric may see the opportunity of becoming a child soldier as a way to access opportunities such as 'training, leadership, and commitment to a meaningful cause' (Wessells & Kostelny, 2009). If youth are coming from a more impoverished background, joining

the Maoists may be seen as an opportunity to meet the basic needs of food, water, clothing, and social support. It is also important to recognize that once a child returns from duty, the experience of living as a former child soldier continues. Demobilization of non-state actors such as the Maoists may leave behind residual feelings among the communities the children are returning to. Being associated with a soldiering group has the potential to rupture relations between youth and their communities, whose leaders may regard them as deviants (Wessells & Kostelny, 2009). With this fear, adults may be reluctant to allow them to reenter the community (Wessells & Kostelny, 2009). Youth often report that the return to their village was as stressful as their experience in an armed group has been (Wessells & Kostelny, 2009). Due to this stress, youth soldiers may experience negative psychosocial effects such as trauma, depression, and anxiety (Kohrt, et al., 2010; Boothby, Crawford, & Halperin, 2006). Returning children may isolate themselves and withdraw from normal activities such as schooling that may be difficult post re-entry (Wessells & Kostelny, 2009). These social repercussions may amplify negative psychosocial effects for girls. As an outcome of strong gender elements, girls who have been soldiers in other countries have been regarded as unsuitable for marriage (Wessells & Kostelny, 2009).

A youth's recovery may also be contingent upon their perceptions of war. Youth may suffer a less negative impact if they respond to traumatic experiences with the notion that they felt they were fighting for a cause and saw the violence as meaningful as opposed to youth who saw their time as a child soldier as meaningless and traumatic exposures as random, senseless violence (Wessells &

Kostelny, 2009). In the case of Maoist child soldiers, this could be the difference between youth who were kidnapped or abducted versus those who joined willingly. However, it should be noted that youth soldiers exhibit extraordinary resilience to the stressors of conflict, which is often undermined because they are seen as youth incapable of handling stressors adequately (Cairns, 1996).

Many adolescents play active roles in political conflict, which merits attention to their personal experiences apart from the exclusive focus on their psychological well being (Barber & Olsen, 2009). Understanding the capacity of youth to participate in political movements and influence social, civic, or political change is essential to the recognition of a core reason youth are involved in civic conflict (Barber & Olsen, 2009). Focusing on negative functioning has proven inadequate given the evidence of successful or adaptive functioning by youth confronted with grief and many types of traumatic experiences which, in the case of Nepali children, may have led to positive social changes which have continued to exist in society after the war; such as the empowerment of women (Barber & Olsen, 2009).

However, there are many recognized weaknesses to joining armed forces. Poverty, a well-recognized cause as to why youth join armed groups, does little to moderate associated hardships (Wessells & Kostelny, 2009). Compounded by the reality that poor communities are often prime targets of armed groups, in Nepal, people of particular castes (which often determine economic status by social virtues) were more vulnerable to recruitment, such as the Dalit class (Barber 2009; Kohrt, 2009). The benefits of joining a youth soldiering group may sometimes come

as a great economic cost to the community specifically through the destruction of community infrastructure such as markets, schools, health posts, wells, roads, and bridges (Wessells & Kostelny, 2009). For this, and other structural and emotional costs, reintegration of child soldiers must include programs which combine both the youth's and the community's well-being in economic, social, spiritual, emotional dimensions (Wessells & Kostelny, 2009).

Among youth soldiers, emotional well being is inextricably linked with social, economic, physical, and spiritual well-being, however, the psychosocial impact cannot be reduced to clinical syndromes, such as PTSD, depression, or anxiety alone (Boothby, Crawford, & Halperin, 2006; Bracken & Petty, 1998). One of the biggest limitations of current research is the attention and predominant focus only on an individual's psychological functioning, without capturing the impacts and density of personal and social factors (Barber & Olsen, 2009).

In addition, the reactions to war are certainly influenced by cultural beliefs, including spiritual beliefs, which are often not considered in western psychology (Wessells & Kostelny, 2009). For example, child soldiers returning from war may experience guilt and moral distress because of their interest in armed forces and many exhibit sophisticated moral reasoning to draw together their experience which may not necessarily align with western reasoning (Straker, 1992). However, cultural interventions such as rituals play an important role for some returning child soldiers. If, for example, a cleansing is performed by a traditional healer and is believed to be capable of removing spiritual impurity, this can be a very beneficial and cathartic experience for returning soldiers (Wessells, 2002). Rituals among

various other youth soldier groups in Sierra Leone, Mozambique, Angola, have been implemented by the community to reintegrate former child soldiers back into society and coincides with cultural values and norms with the potential to facilitate or limit reintegration efforts (Kohrt, forthcoming). Therefore, the impact of youth soldiering is best studied in the ecological perspective, which emphasizes the influence of specific social ecologies such as family, peers, and the community members (Dawes & Donald, 2000; Kostelny, 2006).

Applications of Theory in Assessing Mental Health

Social ecology is a core domain of psychosocial well-being and overall health, and by revealing the patterns of the socio-ecological model as observed among child soldiers, researchers can better identify the main determinants of well-being (Kohrt, et al., 2010). Social ecology has been used in the past to describe resilience promotion among war-affected children and communities, however macrosystem variables have been difficult to study due to the challenge of identifying variables salient to this level of the social ecological model (Kohrt, et al., 2010). While many researchers and interventionists working with child soldiers have advocated for the use of the social ecological model and numerous studies have outlined analyses using data from various ecological levels, there is no standard model on how to utilize this framework in quantitative or qualitative studies (Boothby, Crawford, & Halperin, 2006).

As mentioned in the introduction, the application of theory is critical to the fundamental understanding of the whole concept of health. For this reason, a

condensed and concise version of the theoretical framework can be found in Figure 1. In order to use the social ecological framework in the context of this study, it is first necessary to define what the constructs will comprise. Each social system for participants in this study will include their immediate family, school, and communities. The core of the social ecological model is the individual or the microsystem. The exosystem may include educational institutions, social outlets, and family gatherings among other things. In the context of former Nepali child soldiers, this system may be expanded to encompass reintegration services, contact with NGO's, local, regional, and national government mandates, as well as communication through media and social networks. The macrosystem, in the context of our population could mean Nepali's who also identify with a specific religious, social, or caste identity, therefore inheriting a collective association, or being placed into one by others. Between the microsystem, the exosystem, and macrosystem is the mesosystem. For former child soldiers, this may represent interactions with people of influence including immediate family, close friends, and influential mentors such as teachers or aid workers. For girls in general, this may mean the relationship they have with their male peers, fathers, and male authority figures.

Another model that fits with the overall concept of this study is the cultural consonance model. In Nepal, consonance may be defined by the expression of customs, engaging in social norms, and reaching culturally salient milestones are part of life. Deviating from these norms may have negative social and health implications. For women, this may include deviating from the established

patriarchal norms. For example, female child soldiers may adopt the Maoist position that everyone deserves to be treated equally, and opposing the traditional Nepalese patriarchal norms. The associated stress which may result from the contrast of these values may have health-related consequences.

Fittingly, this model is based on the idea of feminism, which is derived from Marxism and also the driving ideology behind the Maoist movement in Nepal (Connell, 1987). The parallels in this case are naturally occurring. With this in mind, the theory of gender and power extends the concepts of sexual division of labor, sexual division of power, and structure of cathexis as a sociological model that can be applied to the study of health. The sexual division of labor in the complex societies of Nepal generally means discriminatory employment where women are allocated positions traditionally held by women such as nurses or teachers and only 52% of the eligible female workforce in Nepal is employed (World Bank, 2010). Nepal is one of the poorest countries in the world with one-quarter of its population living below poverty and one of the highest unemployment rates in the world, at 46% (CIA, 2009). Connell remarks that the division of labor may also be characterized in terms of “equal pay” but in the case of former child soldiers, this could be in the form of equal resources to food, clothing, resources, or reintegration services.

The sexual division of power in Nepal, disenfranchising young women, is evident when comparing Nepal to other countries. In the global gender development index, Nepal ranks 142, which falls in the medium human development section along with countries such as Bangladesh, Cameroon, and Haiti (GDI, 2008). As for

young girls, the division of power may arise in the form of lack of access to resources at school, at work, at home, or part of larger institution, and there may be a much starker difference of this access based on class as well. Access to resources may also be unevenly distributed not only geographically, but also contextually. Female child soldiers, for example, may choose to go back to school upon their return, or they may be forced into marriage; however, many are unlikely to engage in business or choose to be an entrepreneur due to social norms established within their respective communities. The same can be said for girls who were never conscripted into the army as a woman becoming an entrepreneur is not a norm in Nepal; however, child soldiers face the added stigma associated of being a part of the armed forces.

More critical feminism, as Connell (1987) suggests, is devoted to contesting cultural power, particularly in the concept of what defines a woman, her roles, or associated gender stereotypes. This may be especially challenging in a collectivist society such as Nepal where hierarchies (caste systems, social status, or economic status) are common cultural constructions and social practices, which fall outside this system, such as the western idea of female empowerment – are not viewed favorably.

If taken into context, social power structures often tie authority to masculinity. However, this is often complicated by the social structures in Nepal. If a lower caste man for example, has fewer rights than an upper caste man, patriarchy in its fundamental form is obstructed because class divides degrees of patriarchy.

For this reason, perhaps the community's class composition (i.e. living in a more or less class-stratified society) plays an indirect role in mental health among women.

In Connell's (1987) description of the structure of cathexis, relationships and the functions they serve is the key component. The utility of this construct may be in the type of relationship and how it relays a cultural norm. For example, it might be assumed that a child in Nepal must always listen to their parents or elders. For a returning child soldier this may be a difficult concept to grasp. An adolescent returning home may lose the degree of independence they may have experienced as child soldiers. This may be especially difficult and demanding for female child soldiers due to strict social constraints, which may exist at home and as a part of society at large. Appropriately, these emotional attachments go beyond relational attachments and include attachments to objects, or in the case of Nepalese girls, perhaps to an idea, such as the desire to be educated or to receive resources. The attachments and relationships between boys and girls contrast sharply and are inherently unequal (Stash & Hannum, 2001). This results in a double standard in which resources are unequally distributed or access is restricted because of societal attachments to norms, which in turn may be distressful, especially for girls (Stash & Hannum, 2001).

Connell notes that none of these divisions (labor, power, cathexis) can be independent of the other and that there is no determination factor in any of these structures. This theory has been used among minority women, specifically African American adolescent women, in the United States and has proven to be a valuable

tool in assessing needs in all divisions, which have shaped prevention efforts in these contexts (Wingood & DiClemente, 2000).

It is however important to consider the context of feminism and its implications on a non-western country. Specifically, the composition of 'third world women' is a colonial projection of western hegemony and often stands at odds with the evidence of resilience found in such communities (Mohanty, 1988). Similarly, the assumption that women are a collective with indistinguishable interests based on class, ethnic, or racial differences implies a perception of gender and sexual differences among women that can be applied universally, which is unfounded (Mohanty, 1988). In the same regard, a tendency exists to impose western psychological concepts such as trauma and depression with disregard for local culture thus dismissing the importance of a collective experience youth share with family, peers, and community (Wessells & Kostelny, 2009).

Social Considerations to Conscription and Mental Health

Approximately 37% of the population in Nepal is under the age of 15, which suggests children make up over one-third of the population and were therefore a highly accessible population (CIA, 2009). Children were often times recruited at schools where cultural shows were used as propaganda (Koenig & Kohrt, 2008). Recognizing this, it is also important to note that the social circumstances in Nepal present challenges for the vast majority of people in the region.

Mental health and psychosocial well being of girls in Nepal are not solely based on the exposure to trauma during conflict but also due to ecological

relationships which existed before the conflict and how they have changed after the conflict (Kohrt, et al., 2010). There are multiple push factors towards social change present in Nepal, with particular examples being the comparatively low levels of literacy hovering around 48.6%, low life expectancy to about the age of 66, and especially with over 77% of the population earning less than 2 dollars a day (CIA, 2009). Poverty and discrimination are major influences on overall well being and have been a concern for the mental well being of girls before, during, and after the conflict (Kohrt et al., 2010). Political, economic, and cultural tribulations, such as poverty and social order, have marginalized a large portion of the population, which have consequently conveniently become the backbone of the Maoist revolution. Two of the most dominant forces in this marginalization that a majority of people faced included caste-based and gender-based discrimination (Kohrt, et al., 2010).

Caste/Religion

Caste, as a social determinant of health, has received little attention in the study of mental health, in spite of being a fundamental part of the identity of people from the South Asian region (Kohrt & Wortham, 2009). On the same token, religion has also been noted as an important indicator of the “prevalence, severity, recidivism, and presentation of mental illness” though it is often not a larger consideration in the study of mental health (Koenig, 2001). Currently, approximately 80.6% of the Nepalese population subscribes as Hindu, 10.7% as Buddhist, 4.2% as Muslim, 3.6% as Kirant (a form of animism mixed with Hindu and Buddhist teachings), and 0.9% other. (CIA, 2009). Ethnically, Nepal’s population is

divided as 15.5% Chhettri, 12.5% Brahman-Hill, 7% Magar, 6.6% Tharu, 5.5% Tamang, 5.4% Newar, 4.2% Muslim, 3.9% Kami, 3.9% Yadav, 32.7% other, and 2.8% unspecified representing a range of ethnic identities among the Nepalese (CIA , 2009). Nepal's population comprises more than 60 ethnic and caste groups as well as a long history of hegemonic power by higher Hindu caste groups (*Brahman* and *Chhetri*) over minority ethnic groups and of those deemed lowest castes (*Dalit*) (Kohrt, et al., 2010). Among the two main 'high caste' groups, Brahman were historically priests and Chhetri were historically warriors and rulers; Dalit castes are often referred to as untouchables (Kohrt, et al., 2010). In Nepal, high caste Brahman and Chhetri dominate politics, education, and business while Dalit are generally excluded from positions of power (Kohrt & Wortham, 2009). In considering these stark class differences and their translation to mental health, the Dalit/Nepali castes have considerably greater prevalence of depression and anxiety when compared with high castes groups (Kohrt, et al., 2010).

Gender

Local groups and NGO's estimate that at the end of the war, one-third of the People's Liberation Army (Maoists), approximately 10,000 members, comprised of adolescents between the ages of fourteen and eighteen year olds, of which approximately 40 percent were girls (Human Rights Watch, 2007). During the war, literacy was a protective factor associated with better mental health among internally displaced people (IDP's) (Thapa & Hauff, 2005). Within Nepal, researchers found an association between greater female literacy rates with

improved health outcomes ranging from improved child health to delayed initiation of reproduction (Levine, Levine, & Schnell, 2001; Shrestha, 2002). However, Nepal has one of the largest gender gaps in literacy rates in the world. Males in Nepal have a literacy rate of 62.7%, where as female literacy rate is 34.9% (CIA , 2009).

Concentration of high caste people in a particular community may also contribute to systematic suppression of women and thus may result in poorer mental health for women of all castes in the community (Bennett, 1983; Kohrt & Worthman, 2009). There also seems to be a trend towards stigmatization of child soldiers in communities with a higher percentage of high caste people (Kohrt, et al., 2010). Considering how discrimination, status, and gender impacts mental health, the three major mental health outcomes (functional impairment, depression, anxiety) will be explored.

Functional Impairment

The Diagnostic and Statistical Manual of mental disorders (DSM-IV-TR) includes functional impairment as an essential criterion to define many psychiatric diagnoses including major depression, anxiety, and post-traumatic stress disorder (PTSD) (APA, 2000; De Waal et al., 2004). Functional impairment in children and adolescents may present as the inability to perform routine and age-appropriate tasks at school, home, and while participating in social activities (Storch et. al, 2007). Moreover, functional impairment from anxiety disorders tends to be greater in women than in men and trauma-exposed children are also more likely to self-report physical symptoms and functional impairment than those not exposed to

trauma (Bekker, 2007; Springs & Friedrich, 1992). In terms of child development, functional impairment may have major consequences for mastery of key developmental tasks in childhood (Silverman & Saavedra, 1999). Functional impairments during psychosocial development may lead to “social, academic, vocational, and/or family dysfunction,” which persist even after acute symptoms have been resolved (Hollander, et al., 1998). However, there are strong indications of functional limitations independently influenced by anxiety, depression, and somatoform disorders (De Waal et al., 2004; Lowe et al., 2008; Kroenke et al., 1997).

PTSD is a well-known precursor to functional impairment and is more prevalent among women than men (Breslau et al., 1997). Pre-existing anxiety disorders and major depressive disorders also play a role in observed sex differences in functional impairment and the sex difference was markedly greater if traumatic exposure occurred in childhood than as an adult (Breslau et al., 1997). Various levels of depression (from mild to severe) all have an impact on functional impairment, and the contribution of the similarities between depression, anxiety and somatization with functional impairment considerably surpass their individual contributions (Rapaport & Judd, 1998). However, the individual effects of psychological ill health should not be overlooked, regardless of how great the overlap (Lowe et al., 2008).

Depression

Depression, as defined in the DSM-IV-TR is defined as presenting with five or more symptoms from a predetermined list during the same 2-week period and

experience a change from previous functioning – one of the symptoms must be either a depressed mood or a loss of interest or pleasure (APA, 2000). There are no observable gender differences in depression rates among children, however, after the age of 15, women are about twice as likely to be depressed as men (Nolen-Hoeksema & Girgus, 1994).

Depression is a clinically significant predictor of distress or impairment in school, at home and with social activities and other important areas of functioning (Nagar, Sherer, Chen, & Aparasu, 2010; Bird et al., 1990). Other studies also suggested depression in children and adolescents may lead to a more debilitating form of functional impairment (Birmaher, et al., 1996). Environmental factors such as family size, parents' psychiatric history, education, poverty status, and living arrangements reportedly have a significant impact on functional impairment in children and adolescents (Bird et al., 1990). Depression and anxiety have been found to co-occur up to 50% of the time (Lowe et al., 2008).

Anxiety

By western diagnostic criteria, anxiety disorders are typically described as “at least 6 months of ‘excessive anxiety and worry’ about a variety of events and situations” (APA, 2000). Physiologically, anxiety and depression are both considered elements of stress; reactions of fight or flight where anxiety is an over-reaction to the fight reaction and depression is an over-reaction of the flight reaction (Sapolsky, 2007). The thought process behind anxiety is centered on anticipated harm or

danger whereas depression is a result of giving up due to an excessive amount of distress (Beck et al., 1987).

Anxiety in children is often presented in the form of functional impairment. However, in the past it has only been studied in terms of fears and phobias (Kashani & Orvaschel, 1990). Anxious behavior, however, has been found to vary within the age spectrum of adolescents but basic elements of anxiety are the same such as negative consequences of interpersonal relationships (particularly among peers), difficulty in school, somatic complaints, and mood and behavioral problems (Kashani & Orvaschel, 1990).

Many studies have also demonstrated that females are more likely than males to experience anxiety disorders (Lewinsohn et al., 1998). There is also a general framework of study in anxiety among women, which assumes that gender differences in anxiety are due to specific cultural differences found among the two genders (Lewinsohn et al., 1998). Ecologically, environmental stressors have consistently been cited as associated with higher levels of anxiety (Lewinsohn et al., 1998).

Females and Comorbidity

Among patients with comorbid psychiatric disorders, the symptoms and functional limitations increase proportionally, resulting in a higher burden of mental dysfunction (De Waal et al., 2004). The co-morbidity of somatoform disorders (which are heavily defined by functional impairments) with either anxiety or depression was found in one study to be up to 3.3 times more likely

to occur among females than males (De Waal et al., 2004). Another study focusing on females in a juvenile detention center found that females are more likely to meet the criteria for two or more DSM disorders among a population of adolescents (Abram et al., 2003).

The higher rates of comorbidity may be due in part to shared diagnostic criteria, such as sleep problems (insomnia and hypersomnia), lack of energy, and impaired functioning (Lowe et al., 2008). The parallel associations among these three components (functional impairment, depression, and anxiety) are highly evident. In spite of assumptions to the contrary, there is a dearth of evidence that suggests depression, anxiety and functional impairment are separated by natural boundaries (Kendell, 2003).

Health Status, Somatization, and its Relation to Mental Health

Watters (2010) describes mental illnesses not as “discrete entities” with a natural history but instead defined by the idioms of distresses of the time and people. To suggest physical symptom expressions are the only means of diagnosis could never fully account for mental illness as an entity. Studies in mental health beg for the inclusion of cultural expression and values associated with disease expression and rehabilitation. Culture shapes the perception and expression of distress (Lin, Carter, & Kleinman, 1985). Unique to most Asian cultures, including Nepal, is disease expression through somatization. Somatization is characterized as the expression of personal and social distress in an idiom of bodily complaints and medical help seeking behaviors (Kanton, Kleinman, & Rosen, 1982). People who

experience somatization may not have a detectable organic pathology or may amplify existing physiological changes, and it is estimated that anywhere between 30 to 80 percent of primary care visits have psychosomatic origins of which one study found that 35% of illness visits are grounded in somatic origins (Lin, Carter, & Kleinman, 1985).

Conversely, Kleinman (1982) argues that somatization, considering the context of Asian culture, can perhaps be an adaptive coping strategy. While working with Chinese patients, Kleinman (1982) found that patients expressed depression and psychological problems predominantly through what he defined as a somatic idiom. In another publication, Kleinman (1981) notes that somatization of psychological problems may be adaptive in that it mobilizes social support from the family and the community while also providing relief from routine responsibilities that the patient might otherwise be accountable for.

It is notable that somatization has been found to be higher among women (Chung, Bemak, & Kagawa-Singer, 1998). Hysteria, which is also a presentation of mental illness that is commonly associated with women, is a poly-symptomatic disorder composed of a series of somatic complaints such as vomiting, shortness of breath, amnesia, painful menstruation (for women), back pain, or fatigue, to name a few (Goodwin & Guze, 1989). Goodwin and Guze (1989) note that hysteria does not traditionally afflict those with higher education. Ethnicity and indicators of decreased resources such as large households with financial limitations such as low-income, headed by single women, or a limited literacy is associated with somatization of mental health issues (Lin, Carter, & Kleinman, 1985).

Reflecting on the estimated prevalence of mental health burden of Nepal as almost twice that of the global burden of mental health problems, which is estimated at 14%, is important to note when considering somatic expressions as psychological ill-health (Singh, Dahal, and Mills, 2005; Prince et al., 2007). The burden of mental health to Nepal, the community, and the family of an individual affected by functional impairment or living with depression and anxiety is critical to the reintegration of a child and the recovery of a post war community for the forward mobility of the nation.

Study Aim

The purpose of this study is to understand the impact societal conditions have on the mental health of girls in Nepal. The focus on girls is driven by the stark patriarchal society that characterizes Nepal, which is a known indicator of mental health status (Kohrt & Wortham, 2009); and why the social ecological approach is being employed. Being a female, and the double stigma of being a female child soldier in life post-civil war is a unique feature of Nepal, which is the reason as to why this study employs the Theory of Gender and Power. Comparing the experiences of former female child soldiers to those who were not conscripted will help us understand the complex relationship between the structures surrounding Nepalese society, femininity, and identity in relation to mental health outcomes.

Hypotheses

1. When compared to girls who were never conscripted into the Maoist army, former child soldiers will have a significant difference in mental health outcomes, with former child soldiers having poorer mental health outcomes,
2. Societal factors related to the sexual division of labor will be salient and significant predictors of mental health among adolescent girls regardless of conscription status,
3. Societal factors related to the sexual division of power will be salient and significant predictors of mental health among adolescent girls regardless of conscription status,
4. Current health status will be a salient and significant predictor of mental health among adolescent girls.

Methods

Participants

Upon receiving approval from the Institutional Review Board at Emory University, researchers from the Transcultural Psychosocial Organization (TPO) Nepal recruited participants for this study using local NGO groups. Child soldiers were identified if the participant fit the definition of a child soldier as established by the Paris Principles which defines child soldiers as “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 children, boys and girls used as 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, 2007). Participants were also prescreened for three additional inclusion criteria: 1) being younger than 18 during study enrollment, 2) participation in an armed group for at least one month, 3) and having a consenting caregiver.

A quantitative survey was conducted by TPO in Nepal using purposive sampling. Participants were recruited from NGO's in 8 districts. Each participant provided oral assent and a parent or a caregiver provided oral consent for the child to participate. As an incentive, each participant received a notebook and a pen upon completion of the interview. For confidentiality purposes, participants who provided data were recorded only by their last name and caste/ethnicity.

The Institutional Review Board at Emory University had previously approved the study protocol (IRB Protocol #IRB00000393; Protocol Approval Date 04/17/2007). It was determined that the scope of the current study fell largely

under the Specific Aims outlined in the original protocol; therefore, an amendment was approved providing permission for analyses in this study to be conducted (IRB Protocol #AM4_IRB00000393; Amendment Approval Date 09/01/2010).

Measures

Demographics Questionnaire

The demographic questionnaire consisted of general questions assessing the child's age, gender, ethnicity, and religion. Participants were also asked questions regarding literacy rates, family composition, marital status, political involvement, and school enrollment.

Screen for Child Anxiety Related and Emotional Disorders (SCARED-5)

The Screen for Child Anxiety Related and Emotional Disorders (SCARED) was developed to assess symptoms of anxiety among children and was developed by Birmaher, et al. (1997). The original version of the SCARED is a 38-items divided into 5 factors including: somatic/panic, general anxiety, separation anxiety, social phobia, and school phobia. The SCARED-5 used in this study is a 5-item scale, which is an adaptation of the original 38-item scale. The SCARED-5 includes one question from each of the 5 factors in the original scale.

The 5-item version of the Screen for Child Anxiety Related Emotional Disorders (SCARED-5) (Birmaher et. al., 1999) assesses symptoms of anxiety among children over the past week using a 3-point likert-type scale with scores ranging from 0 to 15 (Reported Cronbach's α = 0.87, calculated Cronbach's α = .68), with a

clinically significant cutoff score of 4. An example item from this scale is “I am afraid to be alone in the house”.

In a separate article testing reliability of the SCARED-5, the study found that the scale has good internal reliability ($\alpha = .78$) and has been demonstrated to have good construct and discriminant validity (Cohen & Williamson, 1988; Cohen, et al., 1993).

The Birleson Depression Self-Rating Scale (DSRS)

The Depression Self-Rating Scale (DSRS) was developed in clinical practice by Birleson (1981) for use among children and young adolescents to assess depressive symptoms. In order to allow for efficiency and good criterion validity, Birleson used a “narrow-band” scale design. The DSRS is an 18-item self-report questionnaire in which the participant is asked to rate the occurrence of depressive symptoms during the preceding week on a three-point likert-type scale with 0 indicating “never” and 2 indicating “most of the time” where higher scores indicate more depressive symptoms. An example item includes “I think life is not worth living”.

This scale has demonstrated very good internal reliability (Reported Cronbach’s $\alpha = .80$, Calculated Cronbach’s $\alpha = .80$)(Verhulst & van der Ende, 2006). This scale has also demonstrated criterion and concurrent validity (Charman,1994; Ivarsson et al., 2002).

Functional Impairment

The Child Functional Impairment (CFI) tool used in this study is based on an adaptation of the methodology used by Bolton and Tang (2002). The CFI is a rating scale developed to measure children's functioning in a contextually valid manner (Tol, Komproe, & De Jong, under review). The final items comprised 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, helping neighbors (Kohrt, 2010). The scale is a 10-item self-report scale based on a 4-point likert-type response format with 0 meaning "never difficult" and 3 meaning "usually difficult". An example item from this scale includes "In the past two weeks, how difficult was it for you to study in the school?" This scale has also demonstrated low internal reliability among a sample of Nepali Children (Reported Cronbach's $\alpha = .68$, Calculated Cronbach's, $\alpha = .90$) (Kohrt et al, 2008).

Design and Procedure

These data were derived from surveys that were developed for use among "vulnerable children" (TPO, 2008). The survey was inclusive of measures designed to study adolescents as well as locally developed measures derived from previous qualitative research. The child and a caregiver provided informed consent for each of the interviews that were conducted. Each interview required 60-90 minutes to complete.

Each survey protocol was administered to participants by a trained interviewer and surveys were kept confidential. Participants for this study

completed a demographics questionnaire in addition to several measures of the constructs of interest.

Data Analysis

The data for this study were analyzed using Predictive Analytic Software (PASW), a statistical software package, version 18 – formerly known as Statistical Package for Social Science (SPSS). Univariate statistics – including means, ranges, and standard deviations – were calculated to describe our sample’s characteristics. Bivariate statistics were conducted to assess correlations between all study variables and to detect possible covariates. Multiple linear regression analyses were conducted to test our predictive models and to determine the amount of variance accounted for in each of the outcomes by the predictors. Multicoliniarity was calculated to assure that variables were not measuring similar constructs. For our analysis, significance will be established at the $p < .05$ level.

Results

Demographics

A total of 148 girls from Nepal participated in this study of which approximately 51% (n=75) were former Maoist child soldiers. The caste stratification of the participants was diverse, represented by, 14.9% (n=22) from the Brahmin upper caste, 12.8% (n=19) from the Chhetri upper caste, 41.2% (n=61) from the Dalit lower caste, 12.2% (n=18) from the Janajati lower caste, 8.8% (n=13) from the Chaudari caste and 10.1% (n=15) from 4 other caste groups. The average age of respondents was 15.2 years (sd = 1.60) and participants ranged from 11 - 18 years of age. In terms of literacy, 90.5% (n=134) of the participants self identified as literate and 9.5% (n=14) identified as illiterate. With regard to formal education, 28.4% (n=42) completed primary schooling, 32.4% (n=48) completed lower secondary education (middle schooling), and 27% (n=40) completed secondary education. The majority of participants identified as Hindu (93.9%, n=139) with the remaining identifying as Buddhist (1.4%, n=2), Christian (1.4%, n=2), Kirant (2.7%, n=4) or Sikh (.7%, n=1). The majority of our sample speaks Nepali at home (86.5%, n=128), with a smaller proportion speaking Tharu (8.8%, n=13) and Rai (4.7%, n=7).

A total of 90.5% of the sample was unmarried (n=134), 8.1% were currently married (n=12), and 1.4% was divorced (n=2). Among the 10 who were married or divorced, the average length of marriage was approximately 2.1 years (sd=1.82) ranging from 1 to 7 years, and half of the sample (50%, n=7) had been married for 1 year. A total of 87.2% (n=129) of the sample lived with their parents, 4.1% (n=6)

lived with extend family members, , 5.4% (n=8) lived with their husbands, and the remaining sample lived with an elder sibling (1.4%, n=2), grandparent (1.4%, n=2), or alone (.7%, n=1).

A total of 32.4% (n=48) of the participants reported being unemployed, 22.3% (n=33) reported working in agriculture, 33.1% (n=49) reported being a student, 5.4% (n=8) reported employment as a porter, 2.7% (n=4) reported doing other people's work, 2%(n=3) working in business, and .7% (n=1) reported doing domestic work (n=1) or skilled labor (n=1). Participants reported having an average of 6 family members (sd=2.28) with a range of 1 – 13 family members. A total of 69.9% (n=103) of participants lived in a nuclear family structure and 30.4% (n=45) lived in a joint family structure. In total, 62.2% (n=92) of our sample reported that the final decision maker at home is the father, 21.6% (n=32) reported the mother, 5.4% (n=8) reported a grandparent, 4.1% reported the brother (n=6) or the father and mother jointly (n=6), and 1.4% (n=2) reported an uncle, and .7% reported a sister (n=1) or themselves (n=1). Nearly four-fifths (79.1%, n=117) of the sample lives in mud houses and approximately 13.5% (n=20) live in cement houses. When asked to report about the changes in their economic condition during the conflict, only one (.7%) participant reported a better economic condition, however, a majority of the sample 52.0% (n=77) reported a worse economic condition and 47.3% (n=70) reported no change in their economic condition. All sample characteristics are presented in Table 1.

Correlations

Associations between each SES variable and the three outcome variables were computed using Independent t-tests, one way ANOVAs or Pearson correlations. P-values associated with these statistical tests are presented in Table 1. Table 2 illustrates the strength of the Pearson correlation coefficients between each SES variable and the three outcome variables. Based on these bivariate analyses, the following variables were included in subsequent multivariate regression models (variables that reached a p-value of $<.20$): education, belief in rituals, political interest, and current health status, conscription status, religion, family type, literacy, and living in a high caste society. While age and caste did not reach a significance level of $p<.20$ in bivariate analyses with all three outcome variables, these were included in multivariate regression models based on prior literature suggesting that they are related to mental health outcomes.

T-Test

To test the first hypothesis, T-tests were conducted to compare the mean scores of all mental health outcomes (functioning, depression, and anxiety) between former female child soldiers and children never conscripted into war. Upon analysis, data revealed that girls who were former child soldiers experienced significantly more difficulty with functioning ($m=8.71$, $sd=7.07$) when compared to girls who were never conscripted ($m=4.30$ $sd=5.01$) ($t=-4.36$, $df=146$, $p<.001$). Former child soldiers also experienced more depression ($m=16.04$, $sd=5.59$), when compared to girls who were never conscripted ($m=11.17$ $sd=3.68$) ($t=-6.24$, $df=146$, $p<.001$), and

girls who were former child soldiers also experienced higher levels of anxiety ($m=4.27$, $sd=2.45$) when compared to the anxiety scores of girls who were never conscripted ($m=3.38$, $sd=1.70$) ($t=-2.55$, $df=146$, $p=.012$).

Regressions

To test the second and third hypotheses, hierarchical linear regressions were performed with selected predictor variables included in the model based on specific constructs from the Theory of Gender and Power (outlined in more detail in Figure 2). The same model was constructed and used to measure each mental health dependent variable. The first step consisted of demographic and educational information such as age, Hindu/non-Hindu, high caste (consisting of Brahmin and Chhetri) /non-high caste, language spoken at home, family type (nuclear or joint), conscripted/non-conscripted status, literacy, and education passed. The second step consisted of sexual division of labor variables, such as change in economic condition post-conflict and personal interest in politics. The third step encompassed variables related to the sexual division of power such as such as marital status, if the participant believes in traditions and rituals, and whether the participant lives in a largely high caste or more stratified area versus a less high caste area. The final step adds the variable of current health status; under the assumption that health and mental health are closely related, represents a structure of cathexis.

A hierarchical linear regression was performed using independent variables identified in 4 subcategories (demographic/educational factors, sexual division of

labor, sexual division of power, and health status) to predict daily functioning, depression, and anxiety. All three resulting regression models were significant.

The first model accounted for 36% of the variance in daily functioning ($F(13,134)=7.36, p<.001$). With respect to daily functioning, significant predictors included conscription status ($\beta=.23, p=.002$), current health status ($\beta=.17, p=.015$), and negative change in economic condition ($\beta=-.34, p<.001$). Specifically, those who were conscripted had a daily functioning score that was .23 units higher when compared to non-conscripted participants. Additionally, for each unit increase in current health status, participants reported a .17 unit increase in daily functioning. Finally, for each unit change in economic decline, participants reported a .34 unit decrease in daily functioning. This model also presented with two trending relationships: political interest and belief in traditions. In terms of experiencing functional impairment, having less political interest was associated with better daily functioning ($\beta=.14, p=.066$) and believing in traditional rituals was associated with poorer daily functioning ($\beta=-.13, p=.072$).

The second model with depression as the outcome variable accounted for 43.1% of the variance ($F(13,134)=9.56, p<.001$). For depression, significant predictors included conscription status ($\beta=.39, p<.001$), current health status ($\beta=.23, p=.001$), negative change in economic condition ($\beta=-.17, p=.012$), and living in a highly stratified high caste society ($\beta=.20, p=.004$). Specifically, those who were conscripted had a depression score that was .39 units higher when compared to non-conscripted participants. Additionally, for each unit increase in current health status, participants reported a .23 unit increase in depression. For each unit change

in economic decline, participants reported a .17 unit decrease in depression. Finally, those living in a highly stratified high caste society had a depression score that as .20 units higher when compared to participants living in a less stratified society.

The third model accounted for 19.4% of the variance of anxiety ($F(13,134)=3.73, p<.001$). As expected, whether the participant was conscripted was a significant predictor ($\beta=.17, p=.023$) along with experiencing a negative change in economic condition during the conflict ($\beta=-.20, p=.012$). Specifically, those who were conscripted had an anxiety score that was .39 units higher when compared to non-conscripted participants. Additionally, for each unit change in economic decline, participants reported a .20 decrease in anxiety. Current health status of a participant however was strongly trending ($\beta=.16, p=.056$) as was living in a highly stratified high caste society ($\beta=.16, p=.059$).

Discussion

Filling in the Theoretical Framework with Data

The study of mental health in a non-western population comes with many facilitators and barriers for public health implications. Due to several considerations of culture, gender, and health, it is impossible to say that the variables we studied are all encompassing or inclusive of the complex factors that play into the mental health of these girls. However, in our attempt to understand the complexity of mental health, adolescence, and culture, the models and theories found throughout this paper were deliberately chosen to demonstrate specifically how the concept of mental health is not only related to cognition and coping but is part of a complex web of factors. These include social ecology, gender, and culture among concepts measured in this study. The concept of mental health must also be considered within the context of population dynamics, migration, development, or political and economic ideologies, which are abstract but still related.

In Dressler's (2007) model of cultural consonance, cultural consonance is presented as a present and measurable or quantifiable deviation from what is the norm. We hypothesized that, when compared to girls who were never conscripted into the Maoist army, former child soldiers will have a poorer mental health outcome. T-tests measuring the differences of mental health between child soldiers and non-conscripted girls revealed significant differences in the average experience between these two groups in all three mental health outcomes. As predicted, each of these mental health outcomes resulted in a significant association with higher functional impairment, depression, and anxiety among former child soldiers.

Notably, the mean score for conscripted children was above the standard clinical cut-off for depression (a score of 15 and above) and anxiety (a score of 4 and above), which is illustrated in Table 3.

Due to the unique focus on girls in Nepal, the Theory of Gender and Power (Connell, 1987) was utilized to guide the steps of the regression model, as was the social ecological model (Bronfenbrenner, 1977). We hypothesized that societal factors related to the sexual division of labor will be salient and significant predictor of mental health among adolescent girls. Societal factors related to the sexual division of labor in our study, based on literature and previous studies, were conscription status, literacy, education passed, economic change during the conflict, and political involvement. Among these variables, using the social ecological model (Bronfenbrenner, 1977), we identified conscription status, literacy, and education as related to the individual, economic change during the conflict as related to the individual and the family, and political involvement as related to the individual and the community. Related to this analysis, we also hypothesized that societal factors related to the sexual division of power will be salient and significant predictors of mental health among adolescent girls. Societal factors related to the sexual division of power in our study, based on a review of the literature and previous studies, were age, religion, caste, family type, marital status, belief in rituals, living in a highly stratified high caste society. Among these variables, using the social ecological model (Bronfenbrenner, 1977), we identified age as related to the individual, marital status religion and family type as related to the individual and the family, belief in rituals as related to the individual and the community, and caste

and living in a highly stratified high caste society as related to the individual, the family, and the community. Finally, it was also hypothesized that current health status will be a salient and significant predictor of mental health among adolescent girls. This was of particular significance in the regression model because past research suggests that the presentation of mental illness in various Asian cultures may present as a somatic complaint.

The hierarchical regression, which is illustrated in detail in Figure 2, was used to test the preceding three hypotheses. Using the Theory of Gender and Power as a guideline, each step was divided into 4 blocks: demographics, variables related to the sexual division of labor, variables related to the sexual division of power, and current health status; all predicting mental health outcomes, which served as the structure of cathexis in this model. Each regression predicting the individual mental health outcomes (functional impairment, depression, and anxiety) were found significant, supporting the above three hypotheses.

In each of the models, at least one variable was significant from each identified step. To note, predictors that were significant in all three outcomes included conscription status, experiencing economic change during the conflict, and health status. Conscription status was revealed by the independent t-test (Table 3) for each mental health outcome to be a significant predictor of mental health. Experiencing a change in economic condition during the war was a significant predictor in mental health as well. This measure may potentially imply more subtle influences of the political economy of Nepal, the objectives of the Maoist movement, and the investment the Nepali people made in their economic future, which now

seems uncertain. It's interesting to note that this is a self-report question and does not consider actual household incomes – so the responses are based entirely on the perception of change in economic condition, which was found to be significant for all three models. Health status, which was also found to be significant among each mental health outcome could account for idioms of distress as specific to Nepalese culture. Bodily and somatic expressions of illness are not as separate and distinct from organic expressions of disease, and may also be less stigmatizing (Lin, Carter, & Kleinman, 1985).

In the first model predicting functional impairment, in the step representing the sexual division of labor, both variables – change in economic condition and political interest – were either significant or trending and had an r-squared change of 15%. This is important to note because these factors, which are limiting function, are not necessarily health related variables. Labor, in the larger sense of this model, seems to be the capacity and the projection of circumstances of large structural institutions such as economic conditions and political systems. In the step representing the sexual division of power, only belief in rituals was a significant predictor of functional impairment. This finding speaks volumes to the importance of cultural salience and traditional treatments in studying the mental health of non-western societies. In Kohrt's (forthcoming) chapter on rituals and health, he addresses the importance understanding the function of rituals in the purposes that they serve, which he distinguished as restorative or transformative and alleviate the tension of being in a state of liminality. The state of liminality is the space between cultural transitions (Turner, 2002). For example, a young girl's state of liminality

may be between their experience as a child soldier, or as a daughter. The practice of a cultural rite, such as a ritual or the acceptance of some other form of psychosocial assistance to help with reintegration, could mediate between these two existential planes of being; and may be where the presentation of functional impairment can be found.

In the second model – predicting depression – the first step, which included mostly demographic and educational variables, age became trending, and caste, in addition to conscription status, became a significant predictor of depression. As age increases, depression decreases and identifying as a member of a higher caste is also related to increased depression. It could be speculated that with more freedom, a person is less depressed, which could be indicated by age and that the rigid social structure of a participant who is from a higher caste may find their status as limiting. Considering development as a factor of mental health, adolescence is known to be a critical time associated with the adoption of social and health behaviors, which can be challenging to navigate and may be complicated by traditional social systems (Jessor, Turbin, & Costa, 1998). In addition to this, the step identifying variables related to the sexual division of power revealed marital status in a trending relationship to depression – in which a participant who was married or divorced felt more depressed – and living in a stratified high caste society was significantly associated with depression.

In the final regression predicting anxiety, being of a high caste or from a joint family structure was significantly associated with more anxiety. In the step associated with power, living in a high caste society lead to more anxiety, which may

be explained by increased attention to social roles and traditional social systems. Related to the findings from both of these steps, between these three variables there is a noticeable cultural component in the perception of Nepalese society as large, with multiple members in a household, and the emphasis of status through the caste system. This situation may be especially stressful for girls, perhaps because the emphasis on patriarchy is more present in a traditional society, and may present as anxiety.

Significance of Results

In a local context, this study continues to build on the growing literature on female empowerment and health in non-western contexts. The purpose of focusing primarily on women is to raise the issues, concerns, and impact of an increasingly globalized world. Rapidly spreading ideologies coming from various countries, such as China, India, or the Western World, have paved the way for political renegotiation through social movements, such as the Maoist movement and female empowerment (Ferree & Tripp, 2006). This was evidenced in Nepal through Maoist recruitment through culture shows and female empowerment initiatives (Koenig & Kohrt, Returned: Child Soldiers of Nepal's Maoist Army, 2009). Available qualitative data collected by Kohrt and TPO-Nepal in 2007, suggests there were many girls who were not kidnapped or abducted by the Maoist Army, but joined the army of their own volition. However, this observation should be qualified by the fact that factors which may have led a girl to join the Maoists are multifaceted and may include such

preconditions as: economic condition at home, social pressures to join, or having increased access to resources upon matriculation; among other things.

However, it should also be noted that feminism is not a global concept (Mohanty, 1988). As such, the study of mental health is not a monolithic endeavor either (Watters, 2010). Mental illness does not present the same everywhere, and is a production, which varies by cultural norms (including the interpretation of what feminism means in the Nepali context), salient life stressors, or social determinants as regionally applicable and what are considered idioms of distress (Lin, Carter, & Kleinman, 1985).

Moving away from the individual (*microsystem*) to the influences of health from structural, social, and cultural factors (*macrosystem*), it is necessary to consider Nepal in the comparison to other countries in order to develop an understanding of the unique factors Nepal faces, particularly in terms of inequity.

As reflected previously, Nepal ranked 142 out of over 190 countries on the gender development index (GDI, 2008). Girls in Nepal were found to be half as likely to be literate when compared to boys, at a literacy rate of approximately 35%, when last measured in 2001 (CIA, 2009). However, in our sample for this study, over 90% of the participants considered themselves literate; almost three times the nation average for girls. This is an interesting finding suggesting that education may be a very important factor in mental health, providing hope for upward social mobility. With such a high literacy rate among the sample for our study, the focus should perhaps shift to the level of education of a participant as opposed their literacy. This is a curious notion however, because neither 'literacy' nor 'level of

education ' was a significant predictor of any of the outcomes we measured in this study.

In terms of a global context, and in exploring health outside the scope of this study, special attention should be attributed to recent political events. In the past few years, we have seen dramatic political shifts that have depended on the youth. More recently, political revolutions and uprisings in Iran, Egypt, Libya, and other South Asian and African countries have brought to light the importance of generational characteristics among revolutionaries. As such, there is a growing influence of young women in political movements, either in the form of important figureheads such as Neda from Iran representing the conflict over disputed election results in 2009 (Thomas, 2011), to the general engagement of women in political uprisings, as was the case in the 2011 Egyptian revolution (Naib, 2011).

Although it is not evident, the involvement of women in the political arena is an important consideration for public health, and in behavioral health in particular. Health is multi-faceted, and as such, so are the variables that impact health. In turn the impact of health affects a person and their community, so recognition of this complexity is an area in which behavioral scientists must explore.

Limitations

There are some limitations to this study that should be considered when interpreting the results. The data from this study come from a cross-sectional and correlational methodology, which limits the causal inferences that can be made.

With specific respect to the correlational nature of this study, it is difficult to

establish temporality and thus test whether the hypothesized predictor variables are actually the predictor variables or if they are the criterion variables; and the reverse is also true.

Another major limitation of this study is that the findings are not generalizable to a larger population outside of the districts studied in Nepal. The restriction of generalizability on the experience of adolescent girls from Nepal extends to a greater degree to former child soldiers. Child soldiers and their experiences are not monolithic and the findings of this study cannot be extended to other child soldier groups such as the Revolutionary United Front (RUF) in Sierra Leone, the Liberation Tigers of Talim Eelam (LTTE) or the Revolutionary Armed Forces of Columbia (FARC) (Barber, Adolescents and War, 2009). The condition in which girls are abducted and kidnapped or the motivations for why girls join the army vary widely. However, the framework utilized in this study to assess the mental well being of can be applied to similar populations.

Public Health Implications

In the context of the larger public health implications, the study of girls in Nepal and their mental health provides a medium in which practitioners and researchers can explore the relationship between health and society while specifically informing health professionals of the mental health differences between female child soldiers and those never conscripted into war. Public health, in general, is investing more practice and research into the idea of social determinants of health. This move in to the arena of understanding what experiences and

environments outside of the individual, influence the physical and mental health of various populations around the world, represent a paradigm shift (Marmor, Barer, & Evans, 1994).

By embracing this paradigm shift, public health practitioners and researchers recognize the complexity of human life experience, which includes factors outside of the context of an individual or of population aggregates such as racial/ethnic groups, gender identities, and sexual orientation. In addition to those structural factors, ecological factors such as economics, politics, geography, and developmental/structural factors diversify a person's experience of health and are often overlooked in health research.

New Directions and Future Research

This research is heavy in quantitative analysis. To better understand the mental health and social context of this population, qualitative data should be utilized to explore gaps in the study by filling in the cultural anecdotes, experiences, and characterize stressors. Future research involving this population should include longitudinal studies to measure change over time.

Participant observation is another methodology to consider when studying this population. Observing settings and locations relevant to young adolescent Nepalese girls, such as school, home, or a market, can add context to these findings. Social mapping or observing interactions and exchanges among various social ecological groups (family, peers, community, etc.) may perhaps lead to the ability to

target areas, salient among the youth of Nepal, where mental health may be compromised.

Another important measure to consider incorporating would be quality of life variables such as the Medical Outcomes Survey (MOS) or the Short Form-36 (SF-36) to measure the degree to which quality of life is related to mental health status or to account for other factors including physical and emotional health. By broadening the scope of the work through inclusion of additional instruments measuring quality life (Ware & Sherbourne, 1992), social support (Dunkel-Schetter, Feinstein, & Call, 1986), or capital and SES (Oakes & Rossi, 2003) would allow for a deeper exploration of the relationship of family structures, school compositions, and macro-level changes in society to health.

Works Cited

- Abram, K. M., Teplin, L. A., McClelland, G. M., & Dulcan, M. K. (2003). Comorbid Psychiatric Disorders in Youth in Juvenile Detention. *Archives of General Psychiatry, 60*, 1097-1108.
- American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4th Edition. Text Revised. ed.). Washington, D.C., USA: Autor.
- Amnesty International. (2004, July 28). *Nepal Human Rights Defenders Under Threat*. Retrieved March 15, 2010 from [http://www.web.amnesty.org/library/Index/ ENGASA311412010](http://www.web.amnesty.org/library/Index/ENGASA311412010)
- Amnesty International. (2004, January 20). *Nepal Killing with Impunity*. Retrieved March 15, 2010 from <http://web.amnesty.org/library/Index/ENGASA310012010?open&of=ENGNPL>
- Barber, B. K. (2009). *Adolescents and War*. New York, NY: Oxford University Press.
- Barber, B. K., & Olsen, J. A. (2009). Positive and Negative Psychosocial Functioning after Political Conflict: Examining Adolescents of the First Palestinian Intifada. In B. K. Barber, *Adolescents and War* (pp. 207-237). New York, NY: Oxford University Press.
- Beck, A. T., Brown, G., Steer, R. A., Eidelson, J. I., & Riskind, J. H. (1987). Differentiating anxiety and depression: A test of cognitive content-specificity hypothesis. *Journal of Abnormal Psychology, 96*, 176-183.

- Becker, M., & van Mens-Verhulst, J. (2007). Anxiety disorders: Sex differences in prevalence degree and background but gender-neutral treatment. *Gender Medicine*, 4, 178-193.
- Bekker, M. (2007). Anxiety Disorders: Sex Differences in prevalence, degree, and background, but gender-neutral treatment. *Gender Medicine*, 4, 178-193.
- Bird, H. R., Yager, T. J., Staghezza, B., Gould, M. S., Canino, G., & Rubio-Stipec, M. (1990). Impairment in the epidemiological measurement of childhood psychopathology in the community. *Journal of the American Academy of Child and Adolescent Psychiatry*, 29 (5), 796-803.
- Birmaher, B., Ryan, N. D., Williamson, D. E., Brent, D. A., Kaufman, J., Dahl, R. E., et al. (1996). Childhood and Adolescent Depression: A Review of the Past 10 Years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35 (11), 1427-1439.
- Boothby, N., Crawford, J., & Halperin, J. (2006). Mozambican Child Soldier Life Outcome study: Lessons Learned on rehabilitation and reintegration efforts. *Global Public Health*, 1 (1), 87-107.
- Boyden, J. (2003). The moral development of child soldiers: What do adults have to fear? *Journal of Peace Psychology*, 9, 343-362.
- Bracken, P., & Petty, C. (1998). *Rethinking the Trauma of War*. London: Free Association.
- Breslau, N., Davis, G. C., Andreski, P., Peterson, E. L., & Schultz, L. R. (1997). Sex Differences in Posttraumatic Stress Disorder. *Archives of General Psychiatry*, 54 (11), 1044-1048.

- Bronfenbrenner, U. (1977, July). Toward an Experimental Ecology of Human Development. *American Psychologist* , 513-531.
- Cairns, E. (1996). *Children and Political Violence*. Oxford: Blackwell.
- Charman, T. (1994). The stability of depressed mood in young adolescents: A school-based survey. *Journal of Affective Disorders* , 30, 109 - 116.
- Chung, R. C.-Y., Bemak, F., & Kagawa-Singer, M. (1998). Gender Differences in Psychological Distress among Southeast Asian Refugees. *The Journal of Nervous and Mental Disease* , 186 (2), 112-119.
- CIA . (2009). *World Factbook: Nepal*. Retrieved 12 10, 2010 from <https://www.cia.gov/library/publications/the-world-factbook/geos/np.html>
- Connell, R. W. (1987). *Gender and Power: Society, the Person, and Sexual Politics*. Stanford, CA: Stanford University Press.
- Crowe, S., & Logan, M. (2010). *UNICEF helping former child soldiers in Nepal develop vital life skills*. Retrieved March 15, 2010 from UNICEF: <http://www.unicefusa.org/news/news-from-the-field/unicef-helping-former-child-reintegrate-into-civilian-life.html>
- De Waal, M. W., Arnold, I. A., Eekhof, J. A., & Van Hemert, A. M. (2004). Somatoform Disorders in General Practice. *The British Journal of Psychiatry* , 470-476.
- Dressler, W. W. (2007). Cultural Consonance. In K. Bhui, & D. Bhugra, *Textbook of Cultural Psychiatry* (pp. 179-190). New York: Cambridge University Press.
- Dressler, W. W. (1999). Modernization, stress and blood pressure: new directions in research. *Human Biology* , 71, 583-605.

- Dressler, W. W. (1999). Modernization, stress and blood pressure: New directions in research. *Human Biology*, 71, 583-605.
- Dunkel-Schetter, C., Feinstein, L., & Call, J. (1986, December). UCLA Social Support Inventory. *University of California - Los Angeles*, 1-26.
- Ferree, M. M., & Tripp, A. M. (2006). *Global Feminism: Transnational Women's Activism, Organizaing, and Human Rights*. New York City: New York University .
- (2008). *Gender-related Development Index*. United Nations Development Program. United Nations .
- Goodenough, W. H. (1996). Culture. In D. Levinson, & M. Ember, *Encyclopedia of Cultural Anthropology* (pp. 291-299). New York, NY: Henry Holt.
- Goodwin, D., & Guze, S. (1989). *Psychiatric Diagnosis, 4th edition*. New York, NY: Oxford University Press.
- Hollander, E., Stein, D., Kwon, J., Rowland, C., Wong, C., Broatch, J., et al. (1998). Psychosocial function and economic costs of obsessive compulsive disorder. *CNS Spectrums Supplement*, 1, 48-58.
- Human Rights Watch. (2004). *Human Rights Watch*. Retrieved March 15, 2010 from Between a Rock and a Hard Place: Civilians Struggle to Survive in Nepal's Civil War: <http://www.hrw.org/reports/2004/nepal1004>
- Jessor, R., Turbin, M. S., & Costa, F. M. (1998). Protective Factors in Adolescent Health Behavior. *Journal of Personality and Social Psychology*, 75 (3), 788-800.

- Kanton, W., Kleinman, A., & Rosen, G. (1982). Depression and Somatization, a review . *American Journal of Medicine* , 72, 127-135.
- Karki, R., Kohrt, B. A., & Jordans, M. J. (2009). Child Led Indicators: Pilot Testing a Child Participation Tool for Former Child Soldiers in Nepal. *Intervention* , 7 (2), 92 - 109.
- Kashani, J. H., & Orvaschel, H. (1990). A community study of anxiety in children and adolescents. *The American Journal of Psychiatry* , 147 (3), 313-318.
- Keairns, Y. (2002). *The voices of girl child soldiers*. New York, NY: Quaker United Nations Office.
- Kendell, R. (2003). Distinguishing between the validity and utility of psychiatric diagnoses . *American Journal of Psychiatry* , 160 (1), 4-12.
- Kleinman, A. M. (1982). Neurasthenia and Depression: A study of somatization and culture in China. *Cultural Medical Psychiatry* , 6, 177-190.
- Kleinman, A. M., & Lin, T.-Y. (1981). *Normal and Abnormal Behavior in Chinese Culture*. Dordercht, Holland: R. Ridel Publishing Company.
- Kleinman, A., Eisenberg, L., & Good, B. (1978). Culture, Illness, and Care: Clinical Lessons from Anthropologic and Cross-Cultural Research. *Annals of Internal Medicine* , 88 (2), 251-258.
- Kohrt, B. (Producer), Koenig, B., & Kohrt, B. (Directors). (2009). *Returned* [Motion Picture]. Nepal.
- Koenig, R. (Producer), Koenig, R., Kohrt, B. (Writers), Koenig, R., & Kohrt, B. (Directors). (2008). *Returned: Child Soldiers of Nepal's Maoist Army* [Motion Picture]. Nepal.

- Koenig, R., Kohrt, B. (Writers), & Koenig, R. (Director). (2009). *Returned: Child Soldiers of Nepal's Maoist Army* [Motion Picture]. Nepal.
- Kohrt, B. A. (Forthcoming). The Role of Traditional Rituals for Reintegration and Psychosocial Well-being of Child Soldiers in Nepal. In A. L. Hinton, & E. D. Hinton, *Legacies of Violence: Symptom, Memory, and Intervention in the Aftermath of Mass Trauma* (pp. 1 -16). New Brunswick, New Jersey: Rutgers University Press.
- Kohrt, B. A., & Wortham, C. M. (2009). Gender and Anxiety in Nepal: The role of social support, stressful life events, and structural violence. *CNS Neuroscience and Therapeutics* , 15, 237-248.
- Kohrt, B. A., Jordans, M. J., Tol, W. A., Perera, E., Karki, R., Koirala, S., et al. (2010). Social Ecology of Child Soldiers: Child, Family, and Community Determinants of Mental Health, Psychosocial Well-being, and Reintegration in Nepal. *Transcultural Psychiatry* , 47 (5), 727-753.
- Kohrt, B., & Koenig, R. (2009). Child Soldiers After War. *Knowledge Exchange* , 27.
- Kroenke, K., Spitzer, R. L., deGury, F. V., Hahn, S. R., Linzer, M., Williams, J. B., et al. (1997). Multisomatoform Disorder: An alternative to undifferentiated somatoform disorder for the somatizing patient in primary care. *Archives of General Psychiatry* , 54, 352-388.
- Lansdown, G. (2001). *Promoting Children's Participation in Democratic Decision Making*. Florence: UNICEF.
- Lazarus, R. S. (1966). *Psychological Stress and the Coping Process*. New York, NY: McGraw-Hill.

- Leighton, A. H., & Leighton, D. C. (1967). Mental health and social factors. In A. M. Freedman, & H. I. Kaplan, *Comprehensive Textbook of Psychiatry* (pp. 1520-1533). Baltimore, MD: Kaplan.
- Lewinsohn, P. M., Gotlib, I. H., Lewinsohn, M., Seeley, J. R., & Allen, N. B. (1998). Gender Differences in Anxiety Disorders and Anxiety Symptoms in adolescents. *Journal of Abnormal Psychology*, *107* (1), 109-117.
- Lin, E. B., Carter, W. B., & Kleinman, A. M. (1985). An Exploration of Somatization among Asian Refugees and Immigrants in Primary Care. *American Journal of Public Health*, *75* (9), 1080-1084.
- Lowe, B., Spitzer, R. L., Williams, J. B., Mussell, M., Schellberg, D., & Kroenke, K. (2008). Depression, anxiety, and somatization in primary care: Syndrome overlap and functional impairment. *General Hospital Psychiatry*, *30* (3).
- Machel, G. (2001). A Critical Analysis of Progress Made and Obstacles Encountered in Increasing Protection for War-Affected Children. Geneva: United Nations General Assembly.
- Marmor, T., Barer, M., & Evans, R. (1994). *Why Are Some People Healthy and Others Not?: The Determinants of Health of Populations (Social Institutions and Social Change)*. New York, NY: Aldine De Gruyter.
- Marx, K. (1848). *Communist Manifesto*. Moscow: Progress Publishers.
- Mohanty, C. T. (1988). Under Western Eyes: Feminist Scholarship and Colonial Discourses. *Feminist Review*, *30*, 61-88.

- Nagar, S., Sherer, J. T., Chen, H., & Aparasu, R. R. (2010). Extent of functional impairment in children and adolescents with depression. *Current Medical Research and Opinion* , 26 (9), 2057-2064.
- Naib, F. (2011, February 19). *Women of the Revolution*. Retrieved February 20, 2011 from Al-Jazeera English:
<http://english.aljazeera.net/indepth/features/2011/02/2011217134411934738.html>
- NationMaster. (2010). *Nepal Age and Gender Distribution*. Retrieved December 10, 2010 from http://www.nationmaster.com/country/np-nepal/Age-_distribution
- Oakes, J. M., & Rossi, P. H. (2003). The measurement of SES in health research: current practice and steps towards a new approach. *Social Science and Medicine* , 56, 769-784.
- Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M. R., et al. (2007). No health without mental health. *Lancet* , 370, 859-877.
- Rapaport, M. H., & Judd, L. L. (1998). Minor depressive disorder and subsyndromal depressive symptoms: Functional impairment and response to treatment. *Journal of Affective Disorders* , 48 (2-3), 227-232.
- Schemenauer, E. C., & Prugl, E. (2007). Gender, identity, and the security state: The politics of international drug trafficking. *Doctoral Dissertation: Florida Internationa University, Miami, FL* , 3578 - 3774.
- Sesin, C. (2004, May 25). *Caring for 'drug mules' who perish on the job*. Retrieved December 2009 from MSNBC: <http://www.msnbc.msn.com/id/5050399>

- Sharma, Y. (2005). Kidnappings Widen Gender Gap. *The Times Educational Supplement International* .
- Silverman, W., & Saavedra, L. (1999). Diagnosis and classification of anxiety disorders in youth . In A. D. America, *Treating Anxiety Disorders in Youth: Current Problems and Future Solutions*. Washington, DC: Anxiety Disorders Association of America.
- Singh, S., Dahal, K., & Mills, E. (2005). Nepal's War on Human Rights: A summit higher than Everest. *International Journal for Equity in Health* , 4 (9), 1 - 7 .
- Springs, F. E., & Friedrich, W. N. (1992). Health risk behaviors and medical sequel of childhood sexual abuse. *Mayo Clinic Proceedings* , 67 (6), 603-604.
- Stash, S., & Hannum, E. (2001). Who goes to school? Educational Stratification by Gender, Caste, and Ethnicity in Nepal. *Comparative Education Review* , 45 (3), 354-378.
- Stevenson, P. (2001). The torturous road to democracy: Domestic crisis in Nepal. *Lancet* (358), 752 - 756.
- Storch, E. A., Lack, C. W., Simons, L. E., Goodman, W. K., Murphy, T. K., & Geffken, G. R. (2007). A Measure of Functional Impairment in Youth with Tourette's Syndrome. *Journal of Pediatric Psychology* , 32 (8), 950-959.
- Thomas, A. (Producer), Thomas, A. (Writer), & Thomas, A. (Director). (2011). *For Neda* [Motion Picture]. Iran.
- Transcultural Psychosocial Organization. (2007). *Childrens' participation in the monitoring and evaluation of reintegration program in Nepal. A child led indicator method of consultation with children associated with armed forces*

and armed groups report. Kathmandu: Transcultural Psychosocial Organization.

Turner, V. (2002). Liminality and Communitas. In M. Lambek, *A reader in the anthropology of religion* (pp. 358-374). London: Blackwell Publishing.

United Nations . (1989). *United Nations Conventions on the Rights of a Child*. New York: UNICEF.

United Nations. (2004, January 16). *Child Soldier Use 2003: A Briefing for the 4th United Nations Security Council Open Debate on Children and Armed Conflict*. Retrieved September 23, 2010

United Nations Development Program. (2011, January 15). *The Human Development Index*. Retrieved March 25, 2011 from The Human Development Index: <http://hdr.undp.org/en/statistics/hdi/>

Verhulst, F. C., & van der Ende, J. (2006). *Assessment scales in child and adolescent psychiatry*. United Kingdom: Informa UK Ltd. .

Wallston, B. S., Wallston, K. A., Kaplan, G. D., & Maides, S. A. (1976). Development and validation of the Health Locus of Control (HLC) Scale. *Journal of Consulting and Clinical Psychology* , 44, 580-585.

Ware, J. E., & Sherbourne, C. D. (1992). The MOS 36-Item Short-Form Health Survey . *Medical Care* , 30 (6), 473-483.

Watters, E. (2010). *Crazy Like Us: The Globalization of the American Psyche*. New York, NY: Free Press.

Wessells, M. (2006). Child soldiers: from violence to protection. *Library of Congress* .

Wessells, M., & Kostelny, K. (2009). Youth Soldiering: An Integrated Framework for Understanding Psychosocial Impact. In B. Barber, & B. Barber (Ed.),

Adolescents and War (pp. 105-124). New York, NY: Oxford University Press.

Wingood, G. M., & DiClemente, R. J. (2000). Application of Theory of Gender and

Power to Examine HIV-Related Exposures, Risk Factors, and Effective

Interventions for Women. *Health Behavior and Health Education*, 27 (5), 539-

565.

Woodhead, M. (1997). Psychology and the Cultural Construction of Children's

Needs. In J. Allison, & A. Prout, *Constructing Reconstructing Childhood*.

London: Routledge and Falmer .

World Bank. (2010). *The World Bank* . Retrieved 12 8, 2010 from

<http://data.worldbank.org/topic/social-development>

Appendix A. Figures

Figure 1. Theoretical Framework

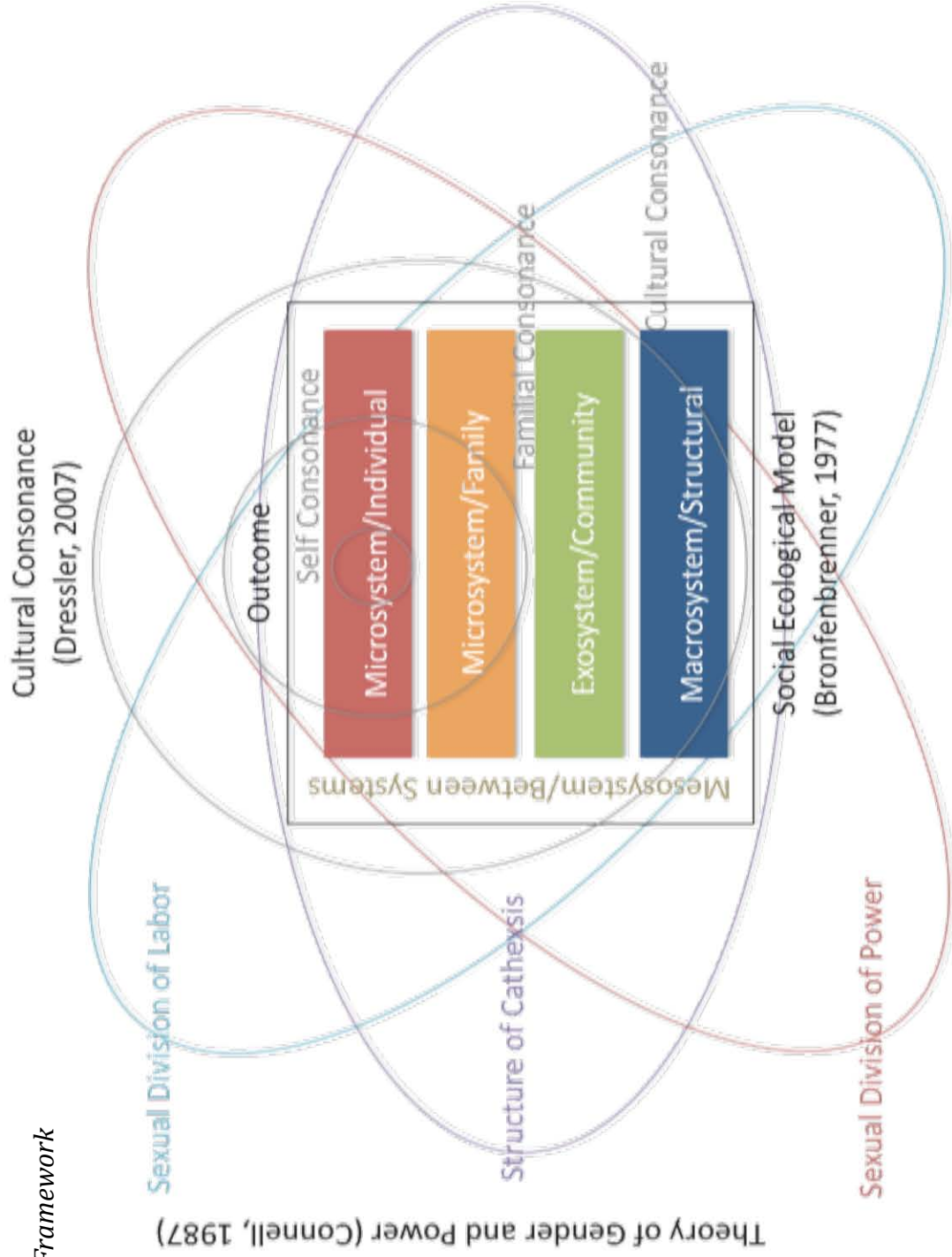
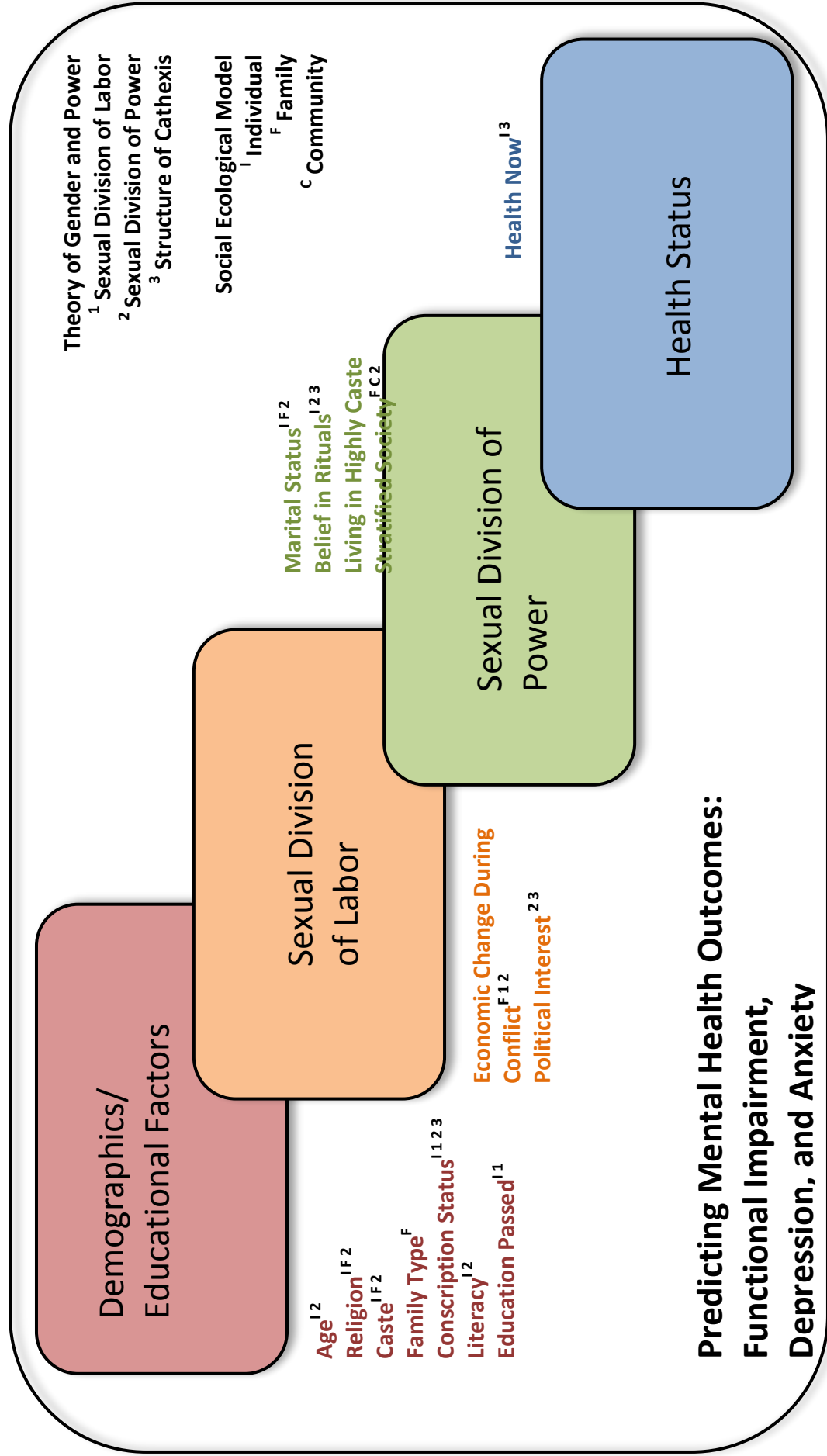


Figure 2. Regression Model with Theoretical Constructs



Appendix B. Tables

Table 1. Sample Characteristics and Pearson Correlations

Characteristics of Female Adolescents in Nepal (N = 148)					
	Mean (SD)	%(n)	Functioning	p-values	
				Depression	Anxiety
Age of Adolescent	15.2 (1.6)		.408	.907	.274
Conscription Status			<.001	<.001	.010
Conscripted		75 (50.7)			
Non-Conscripted		73 (49.3)			
Religion			<.001	.002	.254
Hindu		140 (94.6)			
Non-Hindu		8 (5.4)			
Caste			.459	.200	.056
High Caste		45 (30.4)			
Not High Caste		103 (69.6)			
Family Type			.046	.770	.046
Nuclear		103 (69.6)			
Joint		45 (30.4)			
Literacy			.001	.020	.186
Literate		134 (90.5)			
Illiterate		14 (9.5)			
Education Passed			.202	.179	.086
No Schooling/Illiterate		14 (9.5)			
Primary		42 (28.4)			

Early Secondary	48 (32.4)			
Secondary	40 (27.0)			
S.L.C. / I.A. or above	4 (2.7)			
Marital Status		<.001	.101	.160
Unmarried	134 (90.5)			
Married	12 (8.1)			
Divorced	2 (1.4)			
Belief in Rituals	2.7 (1.1)	.008	.195	.040
Living in High Caste Society		.007	<.001	.001
<40% High Caste	70 (47.3)			
>40% High Caste	78 (52.7)			
Economic Change During Conflict		.006	.012	.039
Good	1 (.7)			
No Change	77 (52.0)			
Bad	70 (47.3)			
Political Interest	2.0 (1.0)	.173	.025	.015
Health Now	1.9 (0.6)	.015	.001	<.001

Table 2. Bivariate Correlations

Variable Name	1	2	3	4	5	6	7	8
1. Age	--							
2. Education Passed	.234*	--						
3. Belief in Rituals	.103	.294**	--					
4. Political Interest	.025	-.219*	-.187*	--				
5. Health Now	.195*	.061	.014	-.026	--			
6. Functional Impairment	.076	-.117	-.240**	.125	.220*	--		
7. Depression	.010	-.111	-.107	.184*	.267**	.448**	--	
8. Anxiety	.091	-.142 ^t	-.169*	.200*	.376**	.536**	.646**	--

p<.05*, p<.001**, Trending (<.10)^t

Table 3. T-tests

Summary of t-tests comparing mental health outcomes among former child soldiers (N = 75) and non-conscripted girls (N = 73)
(Total N = 148)

Dependent Variable	Mean (SD)	t	DF	p
Functional Impairment		-4.36	146	<.001
Conscripted	8.71 (7.07)			
Non-Conscripted	4.30 (5.01)			
Depression		-6.24	146	<.001
Conscripted	16.04 (5.59)			
Non-Conscripted	11.17 (3.68)			
Anxiety		-2.55	146	.012
Conscripted	4.27 (2.45)			
Non-Conscripted	3.38 (1.70)			

Table 4. Regression Model Predicting Functional Impairment

Summary of a Hierarchical Regression Analysis for Variables Predicting Functional impairment (N = 148)

Variable	B	SE B	β
Step 1			
Age	-.03	.31	-.01
Religion (Hindu, Non-Hindu)	3.16	2.02	.11
Caste (High Caste, Non-High Caste)	-.01	1.04	-.001
Family Type	-1.04	1.02	-.07
Conscription Status	3.00	.93	.23*
Literacy	2.41	1.91	.11
Education Passed	-.51	.60	-.08
Step 2			
Economic Change During Conflict	-4.25	.89	-.34**
Political Interest	.89	.48	.14 ^t
Step 3			
Marital Status	-.27	1.09	-.02
Belief in Rituals	-.81	.44	-.13 ^t
Living in a High Caste Society	1.01	.95	.08
Step 4			
Health Now	2.06	.84	.18*

Note: $R^2 = .18$ for Step 1; $\Delta R^2 = .15$ for Step 2; $\Delta R^2 = .02$ for Step 3; $\Delta R^2 = .03$ for Step 4. $p < .05^*$, $p < .001^{**}$, Trending ($< .10$)^t

Table 5. Regression Model Predicting Depression

Summary of a Hierarchical Regression Analysis for Variables Predicting Depression
(N = 148)

Variable	B	SE B	β
Step 1			
Age	-.42	.24	-.13 ^t
Religion (Hindu, Non-Hindu)	2.39	1.56	.10
Caste (High Caste, Non-High Caste)	1.76	.81	.15*
Family Type	-.02	.79	-.01
Conscription Status	4.10	.72	.39**
Literacy	2.41	1.47	.13
Education Passed	.02	.46	.00
Step 2			
Economic Change During Conflict	-1.74	.68	-.17*
Political Interest	.55	.37	.10
Step 3			
Marital Status	1.57	.84	.12 ^t
Belief in Rituals	-.29	.34	-.06
Living in a High Caste Society	2.17	.73	.20*
Step 4			
Health Now	2.22	.65	.23*

Note: $R^2 = .30$ for Step 1; $\Delta R^2 = .07$ for Step 2; $\Delta R^2 = .06$ for Step 3; $\Delta R^2 = .05$ for Step 4. $p < .05^*$, $p < .001^{**}$, Trending ($< .10$)^t

Table 6. Regression Model Predicting Anxiety

Summary of a Hierarchical Regression Analysis for Variables Predicting Anxiety
(N = 148)

Variable	B	SE B	β
Step 1			
Age	-.16	.12	-.12
Religion (Hindu, Non-Hindu)	.09	.75	.01
Caste (High Caste, Non-High Caste)	1.01	.39	.22*
Family Type	.82	.38	.18*
Conscription Status	.79	.35	.19*
Literacy	.54	.71	.07
Education Passed	-.11	.22	-.05
Step 2			
Economic Change During Conflict	-.84	.33	-.20*
Political Interest	.24	.18	.11
Step 3			
Marital Status	.27	.41	.06
Belief in Rituals	-.07	.17	-.03
Living in a High Caste Society	.67	.35	.16 ^t
Step 4			
Health Now	.60	.31	.16 ^t

Note: $R^2 = 14.2$ for Step 1, $\Delta R^2 = .08$ for Step 2, $\Delta R^2 = .03$ for Step 3, $\Delta R^2 = .02$ for Step 4. $p < .05^*$, $p < .001^{**}$, Trending ($< .10$)^t