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Anita Patel April 22, 2012

MENTAL HEALTH IN JUMLA, NEPAL: A QUALITATIVE STUDY EXAMINING THE EFFECTS OF WAR ON MENTAL HEALTH

by

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B.Sc. Pennsylvania State University, 2008

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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

From the Hubert Department of Global Health

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ABSTRACT

Mental Health in Jumla, Nepal: A Qualitative Study Examining the Effects of War on Mental Health

By

ANITA PATEL

(Under the Direction of Brandon Kohrt)

The effects of war on mental health in the remote population of Jumla, Nepal, have been examined through previous quantitative research. These studies have demonstrated high rates of depression, anxiety, post-traumatic stress disorder (PTSD), and suicide. In order to better understand the cause of these high rates of mental health disorders, and to understand the effects of the recently ended war, a qualitative study was conducted among a population of women. This study is a follow up to previous studies conducted in this population in 2000 and 2007.

A quantitative survey was used to measure the current rates of depression, anxiety, PTSD, and resiliency in a population of 99 women. From the depression scores obtained from this survey, women were interviewed if they had steadily increasing/decreasing BDI scores since 2000, or had changes of greater than 8 points in depression since 2007.

Qualitative results indicate that women in this society face many chronic stressors including partner use of alcohol, domestic abuse/gender-based violence, financial difficulties, and lack of educational opportunities among other factors. When women were asked about the role of the war in their mental health outcomes, they insisted that the war had little to no effect on them. Additionally, women discussed a latent paranoia in the community, suggesting a lack of social support and indicating feelings of isolation of interview participants.

Therefore, this qualitative study suggests that post-conflict mental health programming must be more purposeful in examining factors related to high prevalence of depression, anxiety, PTSD and other mood and conversion disorders. Frequently, researchers suggest that conflict causes high rates of mental health disorders, but the fact remains that underlying conditions may be exacerbated in conflict and may be the cause of mental health issues. Mental health programming in Jumla must focus on social interventions to alleviate the underlying conditions and should not focus on trauma-specific interventions alone. Marginalized communities and populations require psychosocial interventions prior to conflict and continued support throughout and post-conflict.

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DEDICATION

To all of the people who helped me realize what it means to give back in a truly selfless way, and still find something that will fulfill me. To everyone who has inspired me, taught me, and helped me become the person I wanted to be. To the faculty at Rollins School of Public Health who have dedicated their lives to ensuring that they train the leaders of the future, and to the leaders yet to come. This is dedicated to all of you.

ACKNOWLEDGEMENTS

"Experience: that most brutal of teachers. But you learn, my God do you learn."

C.S. Lewis

When we think of the culmination of an academic program, we often think of the successes and accomplishments. I view endings a little differently. In that light, I'd like to start by thanking those in my life who have let me fail. It seems counterintuitive, but I've learned as much from my mistakes and failures as the best teachers I've had – and I've been fortunate to have had many.

Thank you to my parents who have given me the opportunity to learn from my mistakes, in every area of my life – socially, academically, financially, and personally. Although we haven't always seen eye to eye – I know that at the end of the day, I wouldn't be where I am today without you. Thank you for dealing with a summer full of worrying and anxiety while I expanded my horizons and absorbed more knowledge than I ever thought I could in a three-month period.

Thank you to my Rollins family, both teachers and fellow students who have laughed, cried, stressed and worried for and with me. It's been a long, crazy ride, and I wouldn't have had it any other way.

Although there are too many people to mention, I'd like to thank the following people specifically:

Navit Robkin – Thank you for last summer. Without you it wouldn't have been possible, and wouldn't have been as amazing as it was. I'll always look back on this time in my life and smile at our memories.

Brandon Kohrt - Without whom I could not have done this project. His countless hours of time, words of wisdom, and guidance have helped me along the way, and have also taught me what it means to be an adviser and mentor.

Roger Rochat – Who *volunteered* his time to be on my thesis committee, although he has more to do than anyone else I know – I could not have done this without our weekly discussions and your help. Thank you for exemplifying what it means to care about students and to be committed to the excellence of teaching. You have been a wonderful mentor and inspiration over the past year, and I look forward to continuing to learn from you.

To the people I love most in the world – there are no adequate words to express my appreciation and gratitude.

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DEFINITIONS

The following definitions of terms are provided to help clarify key terms throughout the thesis:

Feeling good/good heart mind. Feeling good/good heart mind translates to having positive feelings and emotions.

Feeling bad/bad heart mind. Feeling bad/bad heart mind translates to having negative feelings and emotions.

CHAPTER 1

INTRODUCTION

This introduction contains pertinent information to understand Nepal, global mental health in general and in Nepal in particular, and the necessary context of the project. In order to understand mental health, and the impact of the recently ended war on mental health, the audience must first understand the economic, social, political and human rights implications of war in this location.

*N.B. War, political violence, and conflict are used interchangeably throughout this document.

Economic

Nepal, a small landlocked country located to the north of the India, ended a civil war in November of 2006, the seeds of which were planted long before the war erupted in 1996. Shortly thereafter, in 2001, the royal family was killed (Feller, 2008). Fueling the conflict was the frustration of people with a lack of economic reforms expected of a newly democratically elected government (WB, 2011). The resulting ten-year conflict between the Maoists and the government, referred to as the People's War by Maoist forces, resulted in over 15,000 deaths, approximately 150,000 displaced persons and conscription of children into the fighting. During the war, the Maoists controlled a majority of the rural areas of Nepal, including Karnali, the remote northwestern district where Jumla, the site of this study, is located.

Geographical features play a large role in the development and history of Nepal. Due to its varied and extreme terrain, Nepal has natural, geographically occurring

boundaries; the Himalayas line the northern border of the country. The terrain of Nepal played an important factor in the outcome of this war. Post-conflict analysis shows that the intensity of conflict was greatest in mountainous areas and those thickly covered with forest as these features provided security and ease of maneuverability for insurgents (HBS, 2009). Econometric analyses show that deaths caused by the Maoists and His Majesty's Government of Nepal were higher in areas of extreme poverty during the initial stages of the war. Only after these rural, poverty stricken areas were captured did the Maoists move on to more urbanized, economically developed areas (HBS, 2009). Jumla is a remote, rural, economically disadvantaged area in the Karnali district, located in the northwestern portion of the country. These details are especially important in understanding the impact of the war on the isolated population in Jumla, which served as the population for this analysis.

This conflict affected the country economically, politically, and structurally. On average, over the course of the decade long conflict, Nepal experienced a two percent annual decrease in gross domestic product (GDP) (UNDP, 2007). In 2007, 31% of the 26 million people in the country lived below the poverty line, and had an average per capita GDP of $297 (UNDP, 2007).

Government

At the conclusion of the war in 2006, a Constituent Assembly was established, and an Interim Constitution was adopted in 2007. Although the country continues to rebuild, disparities in healthcare, education, and other development indicators are apparent (UNFPA, 2007). In comparing rural and urban areas, access to healthcare, water, electricity and other basic amenities differs. Within rural areas, disparities in

Nepal's caste-based societal structure have been aggravated. Partially as a result of the war, the hierarchical structure of the caste system has been reinforced, to the detriment of those in the Dalit caste who are on the low end of all development indicators (UNFPA, 2007). The caste system was officially abolished by the government in 1963, but is still practiced and followed in many remote areas of the country (Bindloss, Holden, & Mayhew, 2007). More than just a hierarchical system, the caste system dictates a person's position in society, who they marry, how they make a living, and how others must treat them.

In 2008, Ram Baran Yadav became the first President of Nepal (BBCNews, 2012). However, recent pressures from Maoists in the government have continued to force changes in the structure of government in Nepal. In May of 2009, Prime Minister Prachanda and President Yadav resigned from government and Madhav Kumar Nepal was named the country's new Prime Minister. Following this change in government offices, the deadline for drafting the new constitution was changed to May 2011, and as of May 2011, the Constituent Assembly had failed to meet their deadline. This resulted in Prime Minister Khanal resigning and as of now, the country is ruled by the Maoist party's Baburam Bhattari who serves as Prime Minister (BBCNews, 2012).

Human Rights

Abundant human rights violations were reported on a daily basis in 27 of the 75 districts of Nepal. Maoist forces targeted civilians, particularly politicians and teachers, in many attacks involving torture, killing and bombings. Reports of insurgents murdering or threating local leaders to send them into flight, and create power vacuums pervaded

the country. Additionally, road blocks were built and bridges and roads were destroyed to isolate areas of the country (Feller, 2008).

Since the end of the war, human rights violations have subsided, but still occur with alarming frequency in Nepal. The lack of a stable government perpetuates challenges in addressing human rights violations. Since 2000, the National Human Rights Commission has made 386 recommendations about investigations and prosecution of conflict related violations (PBI, 2011). However, due to the instability of the government, only 34 of these recommendations have been implemented; whilst another 214 are completely unimplemented (PBI, 2011). The interim constitution includes a promise to create a Truth and Reconciliation Commission, but as of May 2011, this Commission had not been created (PBI, 2011).

Gender Inequality

In order to fully appreciate the structure of Nepali society, one must take into account the role of gender and the culture surrounding gender norms. In Nepal, women are still considered subordinate to men. They possess few legal rights and have limited access to assets, property or credit (UNFPA, 2007). Women are primarily engaged in the agricultural sector, and in rural areas are often sustenance farmers (UNFPA, 2007). Else, their lives are primarily dictated by marriage and giving birth to male children, the latter being the only way in which they can gain status in society (UNFPA, 2007). According to tradition, bearing a son is so important that a man can lawfully take a second wife after 10 years if his first wife was unable to have a son. Although some progress has been made in addressing gender issues, reported issues are rare as there is weak monitoring and evaluation of gender issues (UNFPA, 2007). Female infanticide was practiced in the

country in recent history. Male children are still preferred over female children reflecting the prevalent patriarchal society (Bindloss, et al., 2007).

During menstruation women are exiled to cowsheds as they are considered unclean during this time. However, this practice was outlawed in 2005, but occurs in rural, more traditional societies (Bindloss, et al., 2007). Polyandry, the practice of marrying your husband's brother upon his death and turning over all property is becoming less common, but is still occurring (Bindloss, et al., 2007).

Mental Health Background

Mental health is an often overlooked and under-researched area of public health. The intertwined nature of mental and physical health affects many aspects of health care and general well-being. Additionally, it is well documented that mental health declines have been associated with experience of traumatic events, such as war, abuse, displacement, etc. By better understanding the relationship between mental health before a traumatic event and the related effects on mental health, mental health specialists will be better able to predict how individuals may react to traumatic events and also define protective mental health factors.

This population is particularly important as women are often overlooked in this culture. Furthermore, according to a study by Breslau et al, women are twice as likely as men to develop post-traumatic stress disorder following exposure to life-threatening trauma[3].

Overall

The figure below was adapted from World Mental Health and shows the correlations between factors discussed above in relation to mental health outcomes in a population (Desjarlias, Eisenberg, Good, & Kleinman, 1995).

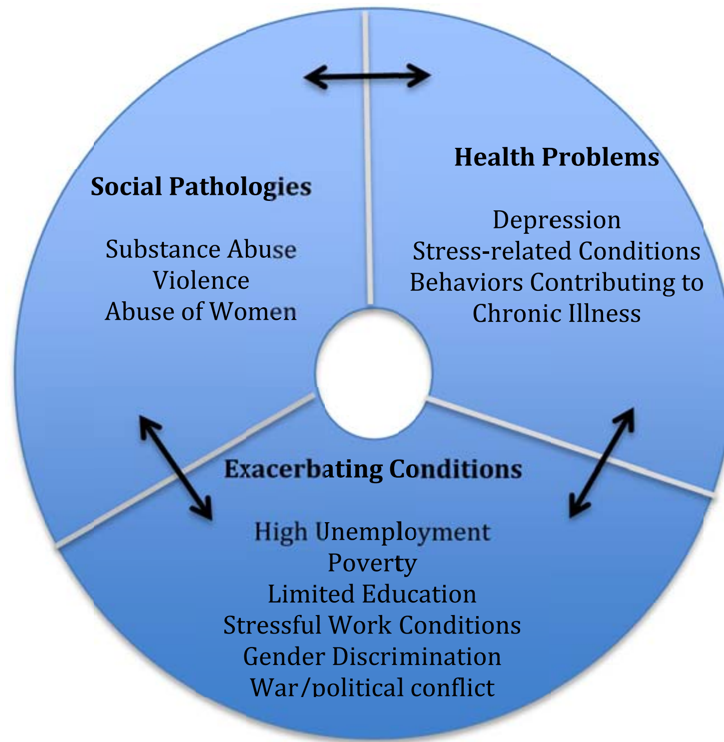

Figure 1.1 – Factors Related to mental Health Outcomes

This figure contains many of the factors present in Jumla, Nepal and has been adapted to include war and conflict. Although all of these factors can contribute to negative mental health outcomes, it is important to discern which factors are the direct cause of poor mental health, and which are periphery/secondary factors.

Problem Statement

Previous research by Kohrt et al has shown high rates of depression, anxiety and PTSD in the population of women in Jumla, Nepal (Brandon Kohrt et al., 2011; B. Kohrt

& Worthman, 2009). However, to date, the research has not qualitatively examined relationships between factors that could potentially explain the high prevalence of mental health disorders. Researchers hypothesize that the war and recent conflict has had a negative impact on the mental health of this population and is a contributing factor to the high rates of mental illness in this population.

This study aims to understand the role of war and traumatic experience in the relationship between this population and their mental health illnesses.

CHAPTER 2

LITERATURE REVIEW

Introduction:

This literature review will summarize the existing literature surrounding women in lower and middle-income countries (LAMICs) (specifically when available, Nepal), mental health including depression and PTSD, and the effects of war on mental health. Additionally, it will examine the effects of chronic domestic violence, gender based violence and spousal alcohol abuse on mental health. Finally this literature review will examine factors and address gaps in the literature in relation to resiliency in women in LAMICs.

Literature selected for this review covers a breadth of topics related to mental health and associated factors. Additionally, examples were selected from literature that is related to lower income countries and LAMICs, as the World Bank classifies Nepal as a lower income country based on its 2010 GNI per capita of $1,005 or less (WorldBank, 2012).

Overall Mental Health Summary:

Mental health in Nepal remains an insignificant part of the country's budget accounting for only 1% of the health budget (Regmi, Pokharel, Ojha, Pradhan, & Chapagain, 2004). Despite the money allocated to health, the mental health needs of the population far exceed that of the allocated budget (Regmi, et al., 2004). It is difficult to truly comprehend the nature of the health concerns in Nepal, as health data for many segments of the population is unavailable and unreliable due to recent political struggles and a lack of solidified infrastructure.

In 1997, with the help of psychiatrists and lawyers, Nepal formed a National Mental Health Policy but it has yet to be enacted (Regmi, et al., 2004). Despite the formation of a national policy on mental health, the government of Nepal has not deemed mental health a priority area for the country, and is experiencing difficult prioritizing any health care needs including sanitation, access to clean water and communicable disease prevention (Regmi, et al., 2004).

In terms of the physical resources available for mental health illness, primary care services are available in some health clinics; however the majority of Nepal's rural population walks approximately 3-4 hours to receive basic health care needs (Regmi, et al., 2004). Most health care clinics do not diagnose mental health disorders and often only recognize depressive symptomology. Although there are over 4,000 health posts and sub-health posts scattered throughout the country, there is only one mental health hospital to serve the needs of the population; this small hospital contains 50 in patient beds (Regmi, et al., 2004).

Women in Nepal:

The rate of suicide in women of child-bearing age has been increasing dramatically over the past decade and is now the leading cause of death of women in this age category (MoH, 2010). To combat this, the government of Nepal recently released an Implementation Plan which details the incorporation of mental health into the country's health plan due to the high "incidence associated with the legacy of conflict and gender-based and domestic violence" (MoH, 2010). It is hypothesized that high rates of suicide are due to the lack of power that women have over their own lives and in society in general, and also due to high rates of gender-based violence (MoH, 2010).

Compounding the difficulty of understanding mental health is the fact that women's mental health is a combination of past and present traumatic events and stressors, in the context of their physical environment (Kastrup, 2006). Frequently, women will present to healthcare centers with somatic complaints with an unknown, underlying psychological cause (Kastrup, 2006).

Risk factors for persistent suicidal ideation included many of the conditions present in society in Jumla, Nepal. According to a recent study, these risk factors include low social support, prior exposure to domestic violence, maternal depression and high self-reported depressive symptoms (Wilcox et al., 2010). Additionally, studies have found that in people diagnosed with depression, the lifetime risk of suicide may be as high as six percent (Samaritans, 2011). Harwitz and Ravizza list the following as risk factors for suicide: lack of social support, financial difficulties, medical illness, psychiatric history (major depression), and addictive disorders (Harwitz & Ravizza, 2000). They continue to say "psychiatric history of major depression or schizophrenia and history of addictive disorders are two of the most powerful predictors of suicidal behavior…" (Harwitz & Ravizza, 2000). According to the American Association of Suicidology when depression is left untreated, it can lead to mental disorders such as alcohol and substance abuse, higher rates of recurrent episodes and higher rates of suicide (AAS, 2009).

Effects of War on mental health:

According to a recent review, mental health is severely impacted by war, and populations of women and children are disproportionately affected (Murthy & Lakshminarayana, 2006). Beyond the physical destruction and toll of war, studies have

shown that conflicts have resulted in more mortality and disability than major diseases (Murthy & Lakshminarayana, 2006). Unfortunately to this point, only specific outcomes of war, such as morbidity, have been measured. Other, less apparent outcomes, such as the negative impact of war on mental health have not been carefully observed or measured (Murthy & Lakshminarayana, 2006).

Women are especially susceptible to the effects of war, which in turn affects the mental health of their children (Murthy & Lakshminarayana, 2006). It is important to note that the degree of trauma experienced by an individual is consistently linked to more pronounced symptoms. Additionally, studies have shown that physical and psychological support are both important in recovering from, and reducing the effects of war-related trauma (Murthy & Lakshminarayana, 2006). This is an especially factor when considering the impact of trauma on resilience (to be discussed later in this literature review). In studies conducted in Afghanistan, another lower income country, depression symptoms were present in 67.7% of respondents, anxiety in 72.2%, and PTSD in 42% of respondents (Murthy & Lakshminarayana, 2006). Further, women had poorer mental health outcomes which were positively and significantly associated with traumatic events (Murthy & Lakshminarayana, 2006). In a separate cross-sectional multi-cluster sample, prevalence of mental health disorders remained high, and were higher in women than men. Similarly, in a study conducted in the post-genocide era in Rwanda, almost 25% of study respondents met the criteria for PTSD (Murthy & Lakshminarayana, 2006).

Beyond solely mental health effects of war, the WHO estimates that “10% of the people who experience traumatic events will have serious mental health problems and another 10% will develop behavior that will hinder their ability to function effectively.

The most common conditions are depression, anxiety and psychosomatic problems such as insomnia, or back and stomachaches (WHO, 2001)."

Gender Based/Intimate Partner Violence:

Broadly, violence against women is defined as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women" (UN, 1993). Although domestic violence is highly underreported, estimates of the prevalence of recurrent domestic violence are approximately 81% in rural areas (Fernandez, 2011).

Domestic abuse, also known as Intimate Partner Violence (IPV) has documented effects on both the physical and psychological health outcomes of women (Feseha, Gmariam, & Gerbab, 2012). According to the WHO IPV is the result of a complicated interplay between demographic, social, cultural, environmental and relationship dimensions (WHO, 2002). This complex interaction between the factors listed above is further exacerbated by the exclusion of women in public arenas, which serves to further increase their vulnerability and reinforces their position of subordination in society (UNFPA, 2001).

In addition to the aforementioned factors, other factors also contribute to the occurrence of IPV. In a study conducted in an Ethiopia, religion, occupation and prior exposure to IPV were all significantly associated with IPV. Women who were farmers were 13 times more likely to experience IPV, and women who had prior exposure to IPV during their childhood were nine times more likely to experience IPV compared to women who had no previous exposure to IPV (Feseha, et al., 2012). Compounding those factors, women who were married to illiterate men were five times more likely to

experience IPV than those women who were married to men who had higher levels of education (Feseha, et al., 2012). Another factor with a high association to IPV is the use of alcohol and other addictive substances by a male partner. Protective factors against IPV include education and employment of both partners (Feseha, et al., 2012). Other studies have corroborated these findings and further lend evidence to the relationship between low socioeconomic status and increased likelihood of perpetrating IPV (Sambisa, Angeles, Lance, Naved, & Curtis, 2010).

A key-contributing factor to the presence of IPV is poverty. Many other factors associated with IPV vary in different populations, but poverty and its' associated stress remain consistently correlated with IPV across multiple studies (Jewkes, 2002). One theory explaining this relationship posits that stress is the mediating factor and those men in poverty stricken areas have fewer venues and resources through which to deal with stress (Jewkes, 2002). Other theories to explain the relationship between poverty and IPV integrate male definitions of success and identity, suggesting that men in poverty are unable to live up to "successful manhood" and resulting stress from this failure drives IPV (Jewkes, 2002).

Accurate estimates of IPV are not available for Nepal, due to the lack of monitoring and surveillance and the hesitation of women to report IPV for fear of repercussions and lack of agency. However, surveys conducted in other lower income countries show prevalence of IPV ranging from 31% in India to almost 50% in rural Ethiopia and higher in a population of Palestinian women in the West Bank (Feseha, et al., 2012).

Spousal alcohol abuse:

Consumption of alcohol is associated with increase risk of IPV (Jewkes, 2002). Research also suggests that men are more likely to act violent after consuming alcohol because they are less likely to feel accountable for their behavior. Additionally, in certain studies, men have admitted to using alcohol to "enable them to beat their partner because they feel that this is socially expected of them" (Jewkes, 2002).

The implications of spousal alcohol abuse are grave. Studies have found a high comorbidity between alcohol use and sexual violence within a marriage (Puri, Tamang, & Shah, 2011). In turn, this situation often results in physical manifestations of pain and mental stress including backaches, headaches, lower abdominal pain, vaginal bleeding and thoughts of suicide (Puri, et al., 2011).

Response to trauma:

It is clear that long-term exposure to violence and trauma have impacts on social cost and morbidity (Kroll, 2003). It has also been documented in the literature that the length of exposure to a traumatic event(s) is the "most important factor affecting the likelihood" of developing posttraumatic stress disorder (PTSD) (APA, 2000). However, other variables associated with the individual's life prior to exposure to trauma can also play a role in the development and severity of PTSD (Kroll, 2003). To date, it has not been well documented in the literature how different forms of violence and trauma affect mental health outcomes. For the purposes of this literature review and the following study, resilience, as a response to trauma, was measured in individuals.

<u>Resilience</u>

Resilience refers to the capacity to endure and overcome hardship. Despite the magnified impact of war on women, their resilience in stressful situations has been

recognized in the literature (Murthy & Lakshminarayana, 2006). Wagnild and Young's Resilience Scale (used in the measurement of this resiliency of the population for this study) incorporates the measurement of five core areas of resiliency: purpose, perseverance, equanimity, self reliance, and existential aloneness (Wagnild, 2010).

Areas of need:

Fortunately, steps towards including marginalized populations in healthcare plans (including women, children and caste groups that have traditionally been neglected), have been recognized and discussed. The Nepal Global Health Initiative Strategy names three focus areas one of which is to "improve health care and opportunities for women, children, and marginalized populations in the context of extending services to all" (GHI, 2010). This approach strives to integrate health services for these populations at all levels of healthcare from community health posts to private health services. Additionally, at the national level program management and monitoring and evaluation of this changes will be occurring on a consistent cycle (GHI, 2010).

The Gender Equity and Social Inclusion Strategy (GESI) is composed of three objectives with eight strategic goals (MoH, 2010). Objective 1 deals primarily with the creation of policy and programs that foster an environment conducive to incorporating GESI into the health sector (MoH, 2010). Objective 2 discusses the capacity of healthcare providers to ensure equal access to use of health services by the poor and excluded castes and ethnic groups (MoH, 2010). The last objective seeks to improve health seeking behavior in previously excluded populations in the context of a human-rights based approach (MoH, 2010). For further information and details on the complete GESI strategy, please view Appendix A.

Summary of current problem and study relevance:

By developing a better understanding of the effects of all of these factors on mental health in the context of war, researchers and healthcare professionals are better able to target and identify the needs of their populations when considering post trauma interventions. However, the relationship between the effects of war on mental health, chronic life stressors and negative mental health outcomes has not been elucidated in the available literature. Large gaps in the literature are evident when discussing the psychological responses to trauma in rural communities, especially in the developing world. Furthermore, research investigating the relationship of spousal alcohol abuse and mental health partners is severely lacking, especially in the developing world.

Limitations of the literature include a lack of evidence about responses to traumatic events in the developing world. Although studies have shown high incidences of depression and PTSD after trauma, the impacts of war have not been measured qualitatively in relation to mental health outcomes. Additionally, the link between war as a mediating factor in the relationship between PTSD/depression and chronic daily stressors has not been investigated.

This study aims to address some of the gaps in research by qualitatively studying the relationship between negative mental health outcomes (measured specifically in terms of PTSD and depression) and chronic daily life stressors. It also includes a discussion of resilience in the population and possible influencing factors.

CHAPTER 3

METHODOLOGY

Methods

This qualitative study examined mental health in a context of war in Jumla, Nepal. Jumla is a remote area in the Karnali district of Nepal, in the remote northwestern region of the country. It comprises approximately 15 percent of Nepal and is the most isolated of the 14 zones of Nepal. Jumla is the "capital" or administrative center of the district and is only intermittently accessible by road since 2008. This study site was selected as our adviser had previously worked with the population in this area in 2000 and again in 2007. In order to collect the third data point for this longitudinal study, researchers conducted research in the same area with a subset of subjects from the 2000 and 2007 study populations. The goals of the study have changed slightly over time; in 2000, investigators studied the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI). Both the BDI and the BAI are 21 item measures that are validated and were used to score patient's respective symptoms over the prior two weeks.

In 2007, investigators expanded the study to include a component on stress, which was measured by taking samples of cortisol from the saliva of subjects. The stress measurement was not included in the 2011 measurement, as the focus of the study was primarily on the mental health of the population in the context of the recently ended war. To achieve this aim, study investigators measured mental health through multiple validated mental health measures. These included: the WHODAS, BDI, BAI, Stressful Life Events, Traumatic Events, Childhood Trauma, PTSD Civilian Checklist, and the Wagnild and Young Resiliency Scale. For the purposes of this analysis, only the BDI and

Wagnild and Young Resiliency scale will be discussed and interpreted in the results section.

The data for this thesis were collected from July 2011 to October 2011. The study was conducted in collaboration with 4S, an organization based in Jumla, Nepal, the local psychosocial worker in Jumla, and the Tribhuvan University Department of Psychiatry and Mental Health/Nepal Institute of Medicine. The collaborators served primarily in a support role and helped to foster and develop relationships with the women involved in the study.

The primary purpose of this study was to examine the effects of war on mental health outcomes in a subset of women in Jumla. Additionally, the longitudinal component of the study was necessary as researchers were interested in examining the association between anxiety and depression and outcomes of PTSD and resiliency. In order to measure the effects of the war on this population, it was necessary to have a longitudinal study design with data point surrounding the beginning and end of the war and also post-war. Often, the effects of an experience such as war are not immediately visible or measurable, and therefore, it was necessary to collect a third data point to measure the "longer" term effects of war.

The study examined women, primarily of childbearing age who participated in the 2000 and 2007 studies. The women all lived in the Karnali district, in one of many villages scattered around the district headquarters in Jumla. Participants were contacted by the psychosocial worker, with whom they have worked during previous data collection and were asked if they would like to participate in the third data collection

occasion. Consent was re-acquired before each survey and interview by the research team.

IRB approval was obtained from the Emory University IRB prior to research in May 2011. Due to the qualitative, minimal risk and non-generalizable nature of the study, the protocol was submitted and approved in an expedited review. The Emory IRB protocol for this study is IRB00050725. For a copy of the IRB Approval Letter, please see page 83 (Appendix A).

In order to collect data in this population, the research team visited each participant at their home. Due to the limited technology in this area and the inability to contact participants to schedule a time to survey them, the study team went to the participant's home, asked if they were available to be interviewed/surveyed, and stayed only if the participant agreed. Often the study team went to the participant's home to find that they were not home or unavailable and revisited the participant at another time. The research team consisted of two Emory University School of Public Health graduate students, the local psychosocial counselor and a translator from Kathmandu, Nepal, the capital city.

Both the translator and the psychosocial worker conducted the surveys and interviews. Due to the low literacy rates in the sample, survey questions and possible answers were read aloud to the participants and then responses were recorded by the research team. Prior to starting data collection, the translator and psychosocial worker were trained on the survey tool and administration.

The survey tool was an extensive document that collected information on the following areas:

- demographic characteristics of participants
- the health of the participant and possible treatments sought for the health problem
- questions about each pregnancy experience (including the health of the mother post-pregnancy)
- physical ability to perform actions (WHODAS)
- depression (BDI)
- anxiety (BAI)
- physical aggression
- stressful life events (SLE)
- traumatic events
- child trauma (CTQ)
- post-traumatic stress disorder (PTSD Civilian Checklist)
- questions on alcohol, family relations and social status
- suicide
- resiliency (Wagnild and Young's Resiliency Scale)

To view the relevant components of the survey tool, please refer to page 72 of Appendix A.

Due to time and financial constraints, 100 women were selected to be surveyed. Of these women, 12 women were selected to be interviewed further depending on their depression scores over the three data points of the study. Participants who had scores that steadily changed (either increased or decreased) since the year 2000 were selected to be interviewed; only six women met this criteria and were included in the study. Additionally, another research team member conducted qualitative interviews which were

used in this analysis. Criteria for interviewing these patients included a marked increase or decrease of 10 or more points on the BDI since 2007.

The interview research tool was developed to further examine the change in depression scores over time. Therefore, it was developed from the literature and based off of the survey results. Please refer to page 72 of Appendix A for a copy of the in-depth-interview survey instrument. The interview tool was tailored to the needs of our population and colloquial language was used to assure that participants would understand the questions being asked of them. In order to make sure the tool was culturally sensitive, the tool was reviewed by an advisor who had previous experience with, and knowledge of this population. Revisions were made based upon recommendations; for example, the concept of "emotion" does not translate from English to Nepali correctly. Instead, the population would better understand the concept of "heart-mind", therefore the concept of emotion was changed in all survey and interview tools to "heart-mind". Happiness and sadness were captured with the qualifiers of "good" and "bad" heart-mind. Therefore, the question originally posed as "What makes you feel happy?" became "What makes your heart-mind feel good?"

All interviews were conducted in Nepali, and were tape-recorded and then translated by the translator. The majority of interviews were translated during the time the research team spent in the field and the remaining interviews were translated within a week of returning from the field. Due to the sensitive nature of the topics discussed in both the surveys and interviews, participants were asked to sign consent forms and were given copies of the forms for their information. These forms were read aloud to the participants as some were illiterate and they were given the opportunity to ask questions

if they did not understand. Additionally, patients were given the option to stop the survey or interview at any point if they felt that they were unable to continue, and were given the opportunity to skip questions if they felt they were inappropriate or unnecessary. Any patients who expressed the need for help were referred to the psychosocial worker in the town; and he was notified of these patients immediately.

In order to analyze the data, SAS (version 9.3 Cary, NC), and MaxQDA, were used. MaxQDA was used to code and annotate all transcriptions of the interviews and grounded theory was used to analyze the data.

One of the greatest strengths of this study is the longitudinal study design. This design allows investigators to understand how depression over time affects current PTSD status as opposed to examining a cross-sectional association between depression and PTSD. Cross sectional studies do not allow investigators to understand causality between an exposure and outcome. Additionally, the primary analysis for this thesis focuses on the qualitative data obtained during this study, which provides a unique population-specific view of mental health.

CHAPTER 4

RESULTS

Case Studies

The goal underlying the qualitative nature of this research was to elucidate the causes of depression, anxiety, and resiliency in this population. As discussed in the introduction, previous research led investigators to hypothesize that the high prevalence in mental health disorders was directly correlated to the war. In interviewing women, the true story unfolded. The following case studies describe typical examples of discussions with women in this population and are used to illustrate the multitude of factors that impact the mental health outcomes of women in this population, including economic concerns, community concerns and other factors.

Case Study 1

Interviewee: N.M., 35 years old

N.M. is a 35 year old, married female who lives in Chandanath of the Brahman caste. When we first entered the village, and began talking to people, she was one of the friendly faces seen in the downtown "bazaar". She welcomed the research team to the village by bringing us food and milk and stopping by to greet us on her way to and from the bazaar. Outwardly, she seems calm, friendly, and happy. After meeting with her and hearing her story, one realizes how remarkably similar she is to the other women in Jumla.

N.M. was married at the age of 15 through an arranged marriage to her husband. She recalls feeling sad and wondering why her parents were marrying her off at that particular time in her life. She spent most of her childhood life growing up on a large

farm which grew primarily rice, and remembers wanting to learn and become more educated. During her childhood, help was needed on the farm and "no one was willing to educate me", and to this day she regrets that she was not able to complete her studies. When asked about her husband, she tells us that he has no job, does not earn any money and is only educated enough to write letters – he studied until 8th grade. We ask her what her husband typically does all day to which she replies, "He doesn't do anything. He sleeps all the time and when he wakes up he goes to hang around." Little did we realize how true this statement was; about ten minutes after starting the interview, a man arises from the bed next to which we're sitting and walks out of the house. Shocked, we ask N.M. why her husband is sleeping at 4:00pm, and she just laughs.

N.M.'s regret seems to be that she hasn't studied enough; and she firmly believes that if she had studied more, she would have a different life, full of better opportunities. Her reputation in the community has been tarnished, due to a lack of education, and the resulting manual labor that fills her days. Each day is filled with a repetitive cycle of backbreaking work, including planting crops, tending to the crops, and plowing the land.

When we ask her to tell us about things that make her heart-mind feel sad, her response is similar to those of the other women; she feels sad when she thinks of her children (two sons and a daughter) growing up to have the same life that she has. She feels sad when she thinks about not being able to educate her children and her sadness consumes her mind at all times. In a reflective tone she says, "I have suffered a lot, but I want to make them [her children] big people. […] I can't let my children suffer."

The conversation changes to N.M.'s marriage, and her voice and demeanor change instantly. In a voice barely louder than a whisper, she tells us that she has been

sick since a year after her marriage with varying health problems. Due to her economic situation and a lack of medical resources, she is unable to visit the doctor as often as she needs, or would like. A year after she got married, her troubles with her sister in law and husband started, resulting in the aforementioned health concerns and a drastic loss of weight. In order to deal with these problems, N.M. thinks of people in the community who have less than she does and who suffer more. When she thinks of these people, she feels less alone and better about her state of affairs, and tries not to think about the people in the community who have more than she does – this, too, causes her sadness. Discussing her sadness with her husband is not an option because he denies all knowledge and responsibility, and N.M. says that this causes her more sadness and pain in her heart.

Her support system is dwindling. As with many other women we contacted, friends and loved ones have passed away, and people are left alone to deal with their problems. When we ask her why she needs support, she tells us that,

"He scorns me for no reason. He uses derogatory words to scold me. Sometimes he beats me. […] He torments me by bringing home a second wife. When the property was divided among my husband's brother, they gave me less than others." Polygamy is common in Nepal, but was "outlawed" by the government nearly a decade ago. N.M. is living proof that this tradition still exists and is still practiced in the isolated, remote areas of Nepal. She recounts stories of running to hide in the homes of others in the village to escape her husband for fear that he will beat her. She briefly interrupts the interview to ask if physical trauma to the head can cause trouble with her ear, claiming that she feels "like there is a hole in it, or a wound". As if this isn't traumatizing enough, she continues

to talk about how she contemplates suicide – either by jumping into a river or poisoning herself. With passing time, we learned that rat poison is one of the preferred methods of suicide in Jumla, as it's readily available. The source of her sadness, she claims, is her husband bringing home another wife.

"I felt like my heart was broken into pieces. I felt extremely sad. I wondered why he brought another wife when he already had a son from me. I felt like my heart is burning, I felt very sad. I do not know what mistake I made. I have no peace in my heart". Despite this, her children prevent her from taking any suicidal action. When we ask her why others commit suicide, she says that it's often because of their marriages. She claims that women try to "threaten" their husbands by taking a small amount of poison and accidentally overdose and mistakenly kill themselves – all in an effort to avoid beatings by their husbands and extremely poor marital relations.

Finally, we begin discussing the war with her; one of the hypothesized causes of all of the trauma and negative mental health outcomes. N.M. tells us that people were forced to stay inside their homes during the fighting and recalls that many people were killed – particularly policemen and Maoists. Pressing on, we ask if things have changed as a result of the war, to which she looks puzzled and answers the question with a simple "We have peace now. During the war we were scared, now we are not fearful." Fear sensed during the war was due to the cross firing that took place in Jumla and also the fear that Maoists would come to the homes of the locals and take their belongings. She also recalls seeing both sides carry away the bodies of the dead and wounded.

*This participant was referred to the psychosocial counselor to discuss her suicidal ideation further. The psychosocial counselor was also informed about the comments made during the interview.

BDI Scores: 32, 31, 19 (2000, 2007, 2011)

Case Study 2

Interviewee S.U., 40 years old

S.U. is a 40-year-old female in Chandanath from the Dalit caste. She lives with her husband, two sons, one daughter, one granddaughter and one daughter-in-law in a traditional home in Jumla. Her house is made of mud, just as the rest of the homes in Jumla. She is perched in her doorway and we are seated on mats on the floor as we interview her. People, particularly children, are continuously appearing by her side and moving away.

S.U. had an arranged marriage at 16 years of age, and barely can remember what she felt at that point. She has "forgotten everything" and simply remembers that she felt sad to be leaving her maternal home. Yet, she has chosen to continue the tradition in her family by arranging a marriage for her son. When asked how her son felt about the arranged marriage, she says that he claims "[you] got him into a mess." The conversation changes to education and S.U. informs us that he has never gone to school. Her children, however, have had the opportunity to receive some schooling, and as a result, S.U.'s son has taught her how to write her name, of which she is extremely proud. When she was younger, her parents needed her help at home and later in life, she was too busy to attend adult literacy class as she was tending to housework. In order to sustain her simple life,

S.U. plants crops and then sells whatever the family does not use in the bazaar downtown, and her husband does odd construction jobs wherever and whenever he can find employment. In addition to tending to the farm, S.U. also does odd jobs around the community and works in neighbor's homes. When I press her on this issue, she tells us that she helps others on their farms and completes tasks (such as carrying stones, etc.) for them.

Interested in S.U.'s family position in society, I ask her about her son and how having a son influences her position in society. She admits that having a son may help your reputation, but that you cannot survive based on your reputation; in her words, a reputation "doesn't feed you". "Everything in life is lack," she explains, "there is not enough of anything." This feeling extends to her social support network, which seems to be lacking. She claims that no one in the village will help her, and that when she has a problem, she has to manage things herself. She doesn't help people, and people don't help her, and she does not seem bothered by this individualistic societal organization. When I press her and ask her what would happen if she asked for help, she says that no one in the community trusts one another, and that if she asked for help, no one would trust her enough to help her.

S.U. echoes the sentiments I've heard many times when asked about making her heart-mind feel good; she would be happy if her husband had a job, or if she could meet her basic needs, or if she didn't have to do work for other people to get by, or if she had enough money to receive treatment for her medical condition. When her husband is able to find temporary employment, she is able to buy oil and salt, but when he doesn't have work, there is no food at home. There is no money to educate their children. She feels

sad that there is never enough to eat, that she can not afford books or school fees, and she feels sad that she can not take out a loan because she will never have enough money to pay it back. Finally, she feels sad about all of these things and the fact that her troubles continue to increase. I ask her how she deals with all of her problems, and she gives a unique answer. She has worked out a “barter” system, in which she will borrow things from her community members and then work for them in order to pay them back. Her unique approach to her problem surprises me, as it wasn’t mentioned by others that we interviewed. S.U. feels that her position in society is similar to a half-filled glass, explaining that no one in the community would feel happy if something good happened to her. “Who would feel good in the village if something good happens to me? They only feel jealous. The people from other villages are helpful but the people from this village are not.” I ask her how she knows that people feel jealous of her and she says that people get angry with her when something good happens for her. They [the other villagers] feel this way about everyone in the village for whom something good happens. Outsiders, she explains, would be happy about something good happening to her, but her own community members do not feel this way. Her explanation astounds me, people are like this, because the country is “spoiled. They do not feel good about what they have. No one wants to see other progress.” Jumla, she explains, is the most spoiled place. Other people in Nepal are not the same way, but because there is nothing in Jumla, people get jealous when someone in the society advances. In this respect, she feels that nothing will change in Jumla for a long time; it has been like this for her entire life and will remain this way.

Reflecting on her life, she tells us that the hardest experience she deals with is the pain of her medical problems. She tells us that she needs an operation, but that she cannot afford it because if she gets the procedure, there will not be enough money with which to eat. The operation that she needs will cost approximately 16,000 Nepali Rupees, or the equivalent of $213 USD. From her description, it sounds like she has a stone in her gallbladder, and she tells us that her sister-in-law died of the same medical problem recently. She also had trouble paying for the operation and therefore died of a treatable medical problem. Everyone has the same problems, and the same problems finding a solution to their troubles.

When we ask S.U. about depression and suicide, and the reasons people commit suicide, she brings us back to something that N.M. discussed at length in her interview. People hurt themselves because of their poor marital relations. S.U.'s sister hanged herself a year after getting married due to poor relations with her husband's family (particularly her father and mother-in-law) and trouble with her husband. Husbands drink alcohol, she explains, which causes fights, which are unbearable. She also mentions two women from her home village that killed themselves by jumping into the river as a result of arguments with their husbands. S.U. explains that she will not kill herself, despite the fact that she faces similar troubles, because "life is so short and we are going to die of pain anyways…so why do you need to kill yourself?" I ask her if she feels that this occurs frequently in Jumla, and she affirms that these incidences occur a lot, and occurs in her house a lot. She claims that she doesn't need to talk to others about this problem because it's happening everywhere, and therefore, there's no need to talk about it. Her husband drinks alcohol "day and night. He cannot do without alcohol". As

a result of his constant drinking, she feels worried; he comes home after drinking and blames her for their troubles and then S.U. feels so worried that she cannot eat. This interaction regularly causes physical fights and beatings and results in both physical and emotional pain.

We ask S.U. about her feelings on the division of labor between the sexes in Jumla, and she tells us that men do far less work than women. She feels discouraged and angered by this imbalance as women work more and men still do nothing to reward them, or make them useless. In trying to understand the current state of Jumla, we ask S.U. about the war and how it has changed Jumla. She seems confused by this question – and says that Jumla has always been the way that it is. She was not personally affected by the war she claims, but she saw bodies and knew people from the village that were killed. In particular, she talks about one of the villagers who were killed, whose body was hidden in an undisclosed location. Overall, she thinks that she is happier now than she was during the war, as a result of being less afraid. During the war, she was scared of being tortured or killed, and was afraid of the people who came to her door who would take away food supplies. She claims that people were threatened in the middle of the night and beaten by the Maoists. However, now none of these troubles exist and she feels that things have generally improved in that sense. Jumla, itself, however, has not improved. Our closing question to S.U. is overly general and asks what Jumla needs the most. S.U. replies that no matter what Jumla needs, there is no one to produce it and continues to explain that Jumla needs everything because there is nothing available. They are lacking everything and "we never knew happiness".

BDI Scores: 21, 30, 41 (2000, 2007, 2011)

TABLE 4.1: CODE RELATIONSHIPS IN QUALITATIVE DATA ANALYSIS

MAIN CODE	SUB-CODES
Marital Relations	Spousal relations
	Work balance
	Domestic violence
	Alcohol/alcoholism
	Marriage tradition
Societal Perception	Paranoia
	Community relations
	Social support
	Family position in society
	Position of sons in society
Health and emotions	Physical health concerns
	Feeling good/good heart mind (happiness)
	Change of emotion over time
	Feeling sad/sad heart mind (sadness/depression)
Demographic factors	Employment
	Family structure
	Education
	Equality between castes
Suicide	--
War	Changes since war
	Events during war

TABLE 4.2 DEMOGRAPHIC CHARACTERISTICS OF INTERVIEW PARTICIPANTS

Initials	Age	Caste	BAI Score 2011	BDI Score 2000	BDI Score 2007	BDI Score 2011	Resiliency 2011
M.A.	26	Chetri	20	15	20	12	124 (low)
K.R.	33	Chetri	24	11	27	6	142 (mod)
D.D.M.	27	Brahman	36	11	17	32	109 (low)
A.B.D.	58	Brahman	41	10	28	35	121 (low)
A.C.D.	43	Brahman	11	21	19	14	126 (mod)
S.R.K.	44	Dalit	33	24	32	29	152 (high)
D.B.	42	Brahman	29	8	8	25	122 (low)
S.U.	40	Dalit	41	21	30	41	141 (mod)
N.M.	35	Brahman	29	32	21	19	131 (mod)
A.B.K.	48	Brahman	35	26	29	34	115 (low)
N.B.	--	Brahman	30	15	21	26	127 (mod)
N.B.M.	47	Brahman	30	22	14	13	154 (high)

The purpose of the qualitative analysis was to better understand the underlying factors behind high suicide and depression rates, and high resiliency scores. Previous literature points to the impacts of war on mental health, including increased depression and suicide rates post conflict, and general decreased mental health. It was hypothesized

that the same explanation could be applied to this population, and that war was the underlying cause of poor mental health outcomes.

Throughout the 13 in-depth-interviews that were a part of this qualitative analysis, 26 distinct themes emerged from the in-depth-interviews. Upon closer examination, these 26 themes condensed into six primary themes with secondary nuances. Main themes that emerged from these data are:

- Marital relations
- Societal perception
- Health and emotions
- Demographic factors
- Suicide
- War

Each theme had subthemes to be discussed at length throughout the following analysis.

Marital Relations

This theme encompasses broadly any discussion of interaction between a husband and wife. Related codes that composed a "subgroup" of this theme included:

- Spousal relations – This code was used whenever a woman talked about interactions with her husband. It was also used when women talked about the relationship dynamics between other married couples in the community.
- Work balance – This code was used when women discussed the distribution of work in the family or in society. It was applied specifically when women discussed the distribution of work between males and females.

- Domestic violence – This code was applied whenever abuse was mentioned, either physical or verbal abuse. Although the code would have been used to describe this type of relationship between any two individuals, it was applied only to relationships between husbands and their wives.
- Alcohol/alcoholism – This code was related to domestic violence and also spousal relations. It was applied whenever alcohol or the effects of alcohol were mentioned.
- Marriage tradition – This code was applied in any instances were women were asked about how they got married, or any logistics related to their marriage. It was also applied to instances where women talked about how marriage is changing, or how their children will be married.

Spousal relations:

This code was correlated with other codes used throughout this analysis; the strongest correlation between this code and others codes occurred in thematic areas such as marital relations, societal perception codes, and health and emotions sub-codes.

Overall, women described poor spousal relations with their husbands. Only one participant felt that she was happy in her marriage and that her husband supported her. R.K. quoted that,

"My husband helps me [overcome my problems]. My husband says that if you cannot work we can hire a person to get the work done."

Of the 13 in-depth-interviews completed, only R.K. described feeling supported by her husband. The remaining 12 women all described poor spousal relations, particularly in relation to where they find support when they are struggling with their relationships.

Women described relationships with their husband in which they are physically and emotionally abused, and verbally harassed. Additionally, women are given no power over household decisions although, in many cases, they provide most of the income for their families.

In order to deal with the stress related to their poor spousal relations, women described mother's groups as a primary coping mechanism. Women described finding support in mother's groups, as meetings are called with women to discuss troubles between a man and woman. In these meetings, women try to find a solution to the problems in a couple's relationship, and "try to convince women that even if their husbands torture them, they can do something". Female empowerment was a strong underlying theme in mother's group meetings. Strongly associated with spousal relations was the use of alcohol and alcoholism in the society, which led to increased fighting between spouses as men drink and then come home and scold their wives. This will be further discussed later in the marital relations theme.

Work balance:

The distribution of work between men and women in Jumla is heavily unequal as the majority of men are unemployed. Throughout analyses, women frequently speak about the unequal burden of work across the sexes; men typically spend their days in the bazaar drinking tea and later alcohol and playing games with other men. On the other hand, women tend to the farm, sell goods in the market, take care of children, and cook and clean the house. Across the board, women felt resentful of the unfair distribution of work, and frustrated by the expectations placed upon their time by society and men in particular. When women were asked if this unequal distribution of labor, and the

resulting frustration causes issues in marriages, they agreed that this is one cause of underlying tension in spousal relations.

In addition to the frustration expressed by women, there is also a sense of resignation. Although women are frustrated by the unequal distribution of work across sexes, and feel that their lives would be different and better if they were men, they expressed sentiments of acceptance. They insist,

"It [the unequal distribution of work between the sexes] is just like this. It has been like this for generations", and *"We have been doing it forever. We are used to it."* Indeed, none of the women who were interviewed talks about the situation changing, or displays any hope for a change.

Interestingly, although this society historically values male children over female children, as they carry on the family name and inherit land/money upon death, mothers valued their female children for other reasons. Women claimed that they needed female children in order to help them with the burden of work placed upon them. Sons are of no help in terms of cooking and cleaning, and therefore, daughters are heavily relied upon to perform these tasks and ease the burden of work on women in the household.

There is a common perception that women in Jumla, as opposed to other areas of Nepal, have particularly difficult lives. In multiple instances, women made comparisons between Jumla and Terai and "other places", and stated that lives of women in Jumla are unfair due to the unequal distribution of work and expectations placed on women.

Domestic violence and alcohol/alcoholism:

The domestic violence code was heavily correlated with alcohol/alcoholism and therefore will be analyzed together as they are often difficult to tease apart.

It appears as though most women correlate alcohol with domestic violence, and feel powerless in the face of both of these situations. The majority of women who were interviewed felt that men had nothing better to fill their time and therefore turned to alcohol as something to do initially. Over time, this became an “addiction”, and men regularly came home drunk and scolded both their wives and their children. Domestic violence was heavily correlated with instances of drinking. Although some women discuss these matters in women’s groups, it seems that this is an issue that it dealt with primarily in the household and women do not report this issue to an authority. The women’s group often discusses these events, and one participant of the women’s group was quoted as saying,

“We try to convince women that even if their husbands torture them, they can do something”.

Throughout all of the conversations, this seems to be the only instance of female empowerment or of female agency. Multiple women who were interviewed have been trying to teach other women about the dangers of alcoholism and gather women to fight alcoholism in their community. In particular, S.R.K., who lost her husband due to alcohol related illnesses, is trying to educate women about the dangers of alcoholism and empower women to talk to their husbands about reducing their alcohol use. However, she is struggling to engage the community and feels that her voice is not being heard.

However, it seems that the majority of women take no legal action when it comes to instances of domestic violence. There was one recorded instance of a “divorce”, in which the women’s group came together, divided the property, and told the former husband that if he scolded or attempted to harm his former wife, there would be a case

filed against him. Women often expressed a correlation between their worries and the worries of men in relation to alcohol and the use of alcohol. For example, women often said that they worried about their families, farms, jobs, education, children and financial problems. During this time, men had nothing to do, and therefore turned to alcohol as a form of entertainment and a way to pass the time.

Accompanying the mental stress of alcoholism and domestic alcohol use are the somatic effects of alcohol in this population. Women attribute symptoms of depression, lack of appetite and feelings of hopelessness to the use of alcohol by their partners.

One woman in particular spoke about her fear of her husband's alcohol use and the physical manifestations that she dealt with, a phenomenon known as "conversion disorder", in which psychological problems manifest themselves physically (often in terms of neurological outcomes). B.D. had convulsions and experienced weakness when her husband drank and generally distrusts men who use alcohol. Her fear and distrust of men who use alcohol is not based in previous experiences, but instead in something she intuitively feels. She can only feel calm and at ease when her husband is not drinking. Another woman reported feeling upset for over a week each time her husband drinks. The same participant was hospitalized in an instance of heavy drinking by her husband. She felt very ill and was taken to the hospital on a stretcher and was told by the doctor that her husband's drinking was to blame for her medical symptoms. Her husband has since quit drinking and her medical troubles have subsided.

Alcohol as a cause of death was cited in the community. One woman recalled a story of how her husband drank until he was "completely drunk" and then fell sick and was taken to the hospital. He died in the hospital shortly thereafter, and subsequently his

wife has devoted her life to alcohol education and advocating for women to fight against alcoholism in their community. In addition to this fight for advocacy, women have approached the Chief District Officer (CDO) to ask for help fighting the problem of alcohol. Due to the license held by alcohol factories, women and the CDO are unable to fight against alcohol use at the legal or district level in their community.

Overall, rates of alcoholism in the community seem to be increasing, based on reports by study participants. This could be a function of the increasing availability of alcohol, as it is produced all around Jumla and can be flown in on weekly supply flights.

Marriage tradition:

Marriage proceedings in Jumla are centered around arranged marriages, with slight variations in specific situations. Two women mentioned having "capture marriages" (where women are "captured" and taken to her future husband's house and married). Consistently across all marriage types and ages of marriage, women felt sad to be "married off" and leaving their family's home. Women report feeling sadness for about a year or two before becoming accustomed to their new lives.

A variation on the arranged marriage is the "capture" marriage, in which a woman is literally captured while playing on her family's land, or tending to her family's farm. In this situation, the parents of the bride and groom arrange for a marriage and the daughter is simply "taken" away. Women who were married in this manner report feeling very scared immediately upon capture and for a period of time after they have been married. Women who married of their own accord report feeling disowned or troubled by their maternal home. One woman reports feeling this way for four years and claims that her maternal home still "doesn't have a good attitude towards me".

Of the women that were interviewed for this analysis, the youngest woman was married off at 11 years of age, and the eldest was 18. Over time, the tradition of arranged marriages has changed. Many women that were interviewed for this analysis are open to love marriages for their children, and do not feel that arranged marriages are necessary anymore.

Historically, men in Jumla have taken second wives in the event that their first wives do not produce male children, are illiterate, or for other reasons. Of the women that we interviewed, one husband had brought home another wife. N.M. reported that,

"I felt like my heart is burning. I felt very sad. I do not know what mistake I made. I have no peace in my heart".

Societal Perception

This theme encompasses any mention by a participant of the way she/her family is viewed by her society. It can be further examined by the following sub-codes:

Paranoia – this code was applied whenever women described how society/their community secretly "disliked" her/her family.

Community relations – this code was applied whenever women described how the community interacted with her/her family.

Family position in society – this code was applied whenever women made mention of how demographic factors, or her family structure influenced her position/hierarchy in society.

Social support – this code was applied when women talked about overcoming their problems/hardships and who was available to help them.

Position of sons in society – this code was applied whenever women talked about how males, in particular male children, influence how the family is viewed and how the family is treated by the community.

Paranoia:

This in-vivo code arose from discussions with women about their position in society. In examining resiliency, many of the questions pertain to social support and feelings support from one's family and community. Throughout interviews with women, paranoia spontaneously arose in conversation, primarily in reference to the way they are viewed and treated by their society/community.

Generally, there seems to be a sense of distrust in the community. One woman (S.R.K), in particular, who was advocating for women to stand up to alcoholism, mentioned that she mortgaged her jewelry to pay for food and drinks for meetings with the women to discuss alcoholism. S.R.K. was disappointed when women from her own community did not attend her meetings, but women from outside villages/areas came to her meetings. She expresses a Nepali sentiment of "khutha thanne" which roughly translates to the community "wishing to cut/pull my leg" – something similar to preventing an individual from succeeding by pulling their legs down so they cannot climb higher in the social hierarchy. As a result of her community's feelings towards her, S.R.K. feels isolated and alone in her quest to help women stand up to alcoholism and also in life. She relies heavily on her family for support, but has difficult finding the support that she needs.

Paranoia was also discussed in relation to the number of children that women had. A.C.D. and S.K. expressed worries that the community would "despise me" for having

too many children, and that they felt ashamed for making themselves weak during multiple childbirths. They continue to express concern over what will happen to their children after they pass, as they have a bad reputation in the community and therefore fear that no one will take care of their children. Another instance, closely related to being "despised" for having too many children, is that of being despised by the community for having few or no male children. There seems to be a conception that if women do not have male children, they would be bullied by their neighbors. N.B. said,

"A woman who doesn't have a son faces a lot of trouble in society".

Additionally, women explain that family members would have been upset with the women for not producing male children.

Most surprising, however, was the sentiment that no one in the community wants other families to progress or advance in any way. When asked about her position in society, one participant mentioned that her glass is only half-filled, and goes on to explain that she feels this way because no one in the community would feel happy for her if something positive happened. S.K. said,

"Who would feel good in the village if something good happens to me? They only feel jealous. The people from other villages are helpful but the people from this village are not."

When asked why she feels this way, she said that community members get angry when something good happens to one family in the community. They do not directly display their jealousy, but rather make comments that influence the reputation of the family in question. S.K. feels that this happens frequently in the community and that jealousy is not limited to only her family, but also all other families in the village.

Interestingly, the paranoia and resulting isolation and sadness resulting from it are also connected to having a sad heart-mind. A.B.D. talks about how she has a sad heart-mind because she doesn't have good neighbors. When we ask her to provide us with examples, she simply responds,

"The people from my village are not good…They do not say anything mean to me, but we have suffered a lot. Now that I have a bit of comfort so they keep trying to make me suffer".

Although women expressed paranoia in different forms, women who discussed this topic felt that the causes of this paranoia were a result of people being "spoiled". It seems that women believe people in the community feel that they have nothing and therefore no one should have more than they do. They claim that Jumla is becoming spoiled, and people are becoming "greedy".

Community relations and social support:

The sub-codes community relations and social support were often intertwined and co-occurring and will be analyzed together. Additionally, both of these themes are highly correlated with resiliency, as external relationships and social support are integral components of resiliency measurements.

Approximately half of the interviewed women in the village stated that they have women's groups and friends from those groups that help them through difficult times. Above and beyond social support, some women stated that they receive financial help from their friends, in that they buy them oil and salt when they are struggling financially. Others talk with their friends about their problems and exchange advice and suggestions.

D.B. mentioned that her friends will help her complete household tasks/farming work if she is unable to complete it all by herself.

However, some women felt that they did not have any friends and had no one outside of their families to turn to when they needed social support. One woman who felt this way was asked how she felt about lacking friends to which she claimed that she didn't have a feeling about it. She relies heavily on her sister and brother in law to help her when she has a problem, and to be her support system. Yet others feel that they have no one to depend on. When asked how she deals with troubles, S.K. replied,

"No matter what happens, I have to console myself. There is no one to depend on. I keep looking for support. There is no use feeling sad".

This code is related to the sub-code discussed above, paranoia. The women who were interviewed seem to have a basal sense of paranoia in thinking that people in the community do not support them. Although there have been no blatant examples of paranoia manifesting itself through social support failures, women across interviews mentioned this theme. More specifically, the interaction of paranoia and social support occurs when people need assistance in some way. People in the community are reluctant to ask for help in situations of difficulty as they feel that they are a burden on other members of society. The desire for each family/individual to better themselves impedes their ability to help others in the community for fear that others will advance. This mentality raises questions about the predominance of individualistic thinking in a putatively collectivist society.

Family position in society and position of sons in society:

When discussing the position of a family in society in Nepal, it is important to consider the role of the caste system in the lives of women. All of the women we met with discussed the role of their "maternal home" in society. However, most of the women mentioned that the caste system is not as prevalent in the society as it used to be. However, interestingly, women who were of lower castes did not echo this sentiment, this view was primarily held by persons from a higher caste (i.e. Brahman). This view was not consistently held by all women of a lower caste (only one of the two Dalit women interviewed shared this viewpoint), but was more commonly found in this group of women than women from the Brahman caste. From the perspective of someone from a higher caste, Dalits have historically had fewer rights and been treated as "untouchables" in society, but this view is slowly changing, and Dalit women are coming to be seen as equals, according to Brahmin women.

In addition to caste, other factors also play an important role in the position of a family in society. Women often referred to the importance of having sons as an influencing factor. Historically, men have inherited land and belongings and kept wealth "in the family" and have been viewed as "more important" than women. Female children are married off and become part of their husband's family and are not able to carry on tradition and keep property. For this reason, people value sons, and the more sons a family has, the "higher" their position in society becomes. In fact, women who only have sons are thought of as "different" because they do not have daughters. K.R. says that,

"…Yes they [the community] treat me differently. They say I have no troubles because I have no daughter. They think I am different from them because I do not have a daughter."

S.K.R. talks about the celebrations that took place when her sons were born. Immediately after her son was born, the community came together and played music, and celebrated the birth of a boy. When her daughter was born, she doesn't recall anyone coming to her home, or celebrating. Personally, she considers sons and daughters equal, but says that she cannot control how society views the sexes.

Most women that we talked to expressed the desire to have a daughter if they did not have one. When asked why they would want a daughter, they replied that they needed someone to help them with chores. K.R. says,

"I feel like things would have been so different if I had a daughter. She would have been grown up by now. I would have been very happy if I had a daughter. Everything would have been so easy. A mother needs a daughter. If I had a daughter, she would have helped me in whatever I did. She would have helped me with the kitchen work or household work. Sons do not care a lot".

Health and Emotions

This theme contained four sub-codes and served as a major part of the discussion and interview process in terms of understanding the health of the population.

Physical health concerns – This code was applied every time a woman talked about how her physical health is causing her pain, or stress, or associated her physical health problems with mental health causes or outcomes.

Feeling good/good heart-mind – This code was applied to conversations in which the participant made reference to anything that makes her happy or alleviates stress/negative mental health outcomes.

Feeling sad/sad heart-mind – This code was applied to conversations in which participants explained what made them feel sad

Change of emotion over time – This code was applied to segments where participants spoke about how the war impacted their health and how their mental health has changed over time

Physical health concerns:

Women talked about physical health concerns in relation to childbirth frequently. The range of physical health concerns associated with childbirth include problems directly related to birth (i.e. prolapsed uterus) to problems technically unassociated with the birthing process (i.e. eye trouble).

It seems that women are unable to talk to their husbands about their physical trouble for fear of repercussion. D.M.D. said,

"I am weak and my eye is sick. I have stomach problems but my husband gets angry if I don't work. I tell him things would be easier if I died."

D.B. talks about how her strength has waned over the years and she is no longer able to work as hard as she needs to, or used to. She is concerned that she will no longer be able to take care of her children and feed them or send them to school. Her physical health concerns have become mental health concerns as she now worries about the future and finances constantly, which results in extreme anxiety.

In addition to somatic health problems, psychosomatic illness is expressed in the community. For example, D.B. recounted a story of how she would fall sick on the nights that her husband would drink. At one point, her illness became so severe that she was taken to the hospital on a stretcher and given an IV. The next morning, the doctor

confirmed that there was no physical cause for her illness, but instead that her husband's drinking was causing her to manifest her mental stress through physical symptoms (evidence of conversion disorder). At first, her husband was resistant to this information, but she claims that he stopped drinking shortly thereafter and her illness subsided at that point. Another interviewee, A.D.B. claims that upon receiving bad news the *"nerves in my head move and I feel like vomiting."* In addition to the manifestation of physical symptoms in this situation, A.D.B. also feels "uncomfortable in my head" when people talk about "something bad" or have fights. N.M. also expresses a similar symptomology. When she worries, she feels that *"something has moved in my head. I try to scratch my head but nothing happens."*

Women also talked to us about physical health concerns that affected the community at large. D.M.D. talks about the lack of access to clean water and how it causes intestinal and digestive issues, and also places an extra burden on women in that they need to find clean water for their families to drink and use. She continues to talk about the potential for death during childbirth and the lack of access to support and healthcare facilities and personnel in the current village. She knows many people who lost their lives during childbirth, which would not have happened if they had support. K.R. discussed the dangers of working late into a pregnancy and working immediately after, and the effect on a woman's uterus. She explains that people are not knowledgeable about the dangers of carrying heavy loads of wood or other necessities immediately before giving birth and therefore often suffer from a prolapsed uterus. When asked what women in Jumla need more than other things, she explains the

importance of plumbing and clean water in the village, and the health benefits associated with easy access to adequate sanitation.

Feeling good/good heart-mind:

Across the board, when women were asked about what makes them happy, they cited similar sources of happiness. Many women talked about how alleviation of their physical health problems would lead to a good heart-mind. It seems that variables that could lead to a "good heart-mind" are all interrelated. The snowball effect, of good health leading to increased productivity, which would allow women to send their children to school to receive an education contains the majority of factors mentioned by women that lead to having a good heart-mind. Additionally, K.R. has a good heart-mind when she yields a good harvest, which she is able to use to support her family and make a profit through selling her products in the bazaar.

D.B. associates being happy with her life before she was married. Since she left her maternal home she has been unhappy.

"I used to be happy in my maternal home. How can someone be happy after coming to [an] other's home?"

She adds that she would feel happy if her husband and son were happy with her, but this does not happen often and therefore, she is not often happy. S.K.R. talks about how helping others in the community makes her heart-mind feel good. On a more fundamental level, A.B.D. talks about how having enough food to feed her family is enough to make her heart-mind feel good. She claims that she never remembers feeling truly happy in her life and that she has always felt sad.

N.M. had a unique perspective on having a good heart-mind. She incorporates the position of others in her society and evaluates her position in respect to theirs.

"I think about people who are smaller than me. I think of people who suffer more than me. When I have such thoughts I feel a bit comfortable in my heart mind. I will feel more sad if I think about people who are bigger than me or who are happier than me. What can be done?"

The other women who were interviewed do not express this comparison between themselves and the community at large.

Feeling sad/sad heart-mind:

In contrast to having a good heart-mind, women are easily able to identify reasons that they feel sad. Reasons for having a sad heart-mind range from the loss of a child to alcoholism to feeling sad after marriage and feeling sad because they did not receive the level of education they aspired to.

Some women feel an internal sense of sadness. Education is one of the primary sources of internal sad heart-mind. For example, K.R. feels sad, *"that I couldn't study further…I work at home like a slave."* Additionally, some women felt frustrated and sad when they could not take care of their children and give them the life they deserve. Yet others feel an external source of sadness. M.A. feels sad when people in the community say bad things about her. Additionally, women have mentioned that others in the community do not want them to advance. A.B.D. says that people in the village make her heart-mind sad,

"[the people in the village] know that we have suffered a lot. Now I have a bit of comfort so they keep trying to make me suffer."

Other causes of external sadness are poor marital relationships, particularly where a husband brings home another wife or has an affair. Women discussed how this situation often leads the original wife to commit suicide due to a sad heart-mind.

Women also discussed the ways in which they handle a sad heart-mind. Most women in Jumla are part of a women's group, and discuss some of their problems with the other women in the group. However, certain women feel that they are better off dealing with their problems on their own. Other women deal with their problems alone because they feel that there is no one else to console them, for example, A.B.D. said,*"[…] no matter what happens I have to console myself. There is no one to depend on."*

Financial troubles are also an underlying cause of a sad heart-mind. S.U. talks about financial troubles indirectly when discussing the lack of food, and continues to say, *"I cannot afford buying exercise books to send children to school. My son is studying in 12th standard, I do not have enough money to pay for his admissions."* Many women mention that they are sad when they have a poor harvest or crops, and are unable to make money by selling excess in the bazaar.

Change of emotion over time:

Interestingly, when women were asked if they were happier or sadder than they were the last time they were interviewed (four years ago), they tended answer in the opposite direction of their BDI score (as indicated by their BDI scores). However, most of the conversation centering around the change of emotion over time related to the effects of the war on the mental health of the population. In an effort to understand whether the women felt happier since the end of the war, they were asked, "Since the war

ended, please tell us how your feelings may have changed". Even upon further clarification and explanation, women insisted that during the war they had fear of the bombs, soldiers and killings, but after the war ended, everything went back to the way it was. Many women insisted that things in Jumla are the way they have always been since back before the war. K.R. said *"…what I can say is people are less scared now than during the war."*

Two women, K.R. and N.B. reported being happier now than they have been previously. The other women all reported being sadder, and most of them attributed their sadness to physical health problems they are currently experiencing. A.B.D. said, *"I am weaker now. My blood and bone marrow is weak. I won't be able to do things for much longer."*

Demographic Factors

The information contained in this theme is comprised of four sub-codes. These sub-codes are highly interrelated with various themes that have been previously discussed.

Employment – This code was applied whenever women talked about the necessity of employment for the family, what they do for a living, what their spouse does for a living etc.

Education – This code was applied whenever women talked about education, whether about their level of education, or that of their children.

Equality between castes – This code was applied when women spoke about the differences between their maternal castes and their spouse's caste. However, it is also

applied in situations where women discuss other families/women in the community and imply that her caste is associated with her position in society.

Employment and education:

These codes will be presented together as they are intertwined and cannot be completely separated from one another. Employment, in particular, was heavily correlated with many other sub-codes discussed above, including feeling good/good-heart mind, feeling sad/sad heart-mind, marriage tradition, etc.

The inability of the men and women in Jumla to find employment speaks to the poverty in the area and the poor economic situation that pervades the village. The lack of steady employment for men, combined with the alcoholism and the general relationships between men and women in the society are all compounded by the lack of steady employment and augment disagreements.

The education and employment connection is apparent through conversations with the women. A lack of education can lead to inability to find employment, however lack of employment leads to inability to pay for education. The cyclical nature of this relationship is apparent throughout the interviews. Many times employment and the lack of education in the society were cited as a source of feelings of sad heart-mind. In terms of overcoming obstacles, women often cited financial reasons as the major barrier.

Many women also speak about the importance of giving their children educational opportunities that they were unable to have. They believe that further educational opportunities will ensure that their children do not live the same lives that they currently lead.

Equality between castes:

Questions about equality between castes were included to understand the societal structure more completely. Women were asked if they felt that the females in their home/maternal caste were treated different from women of other castes. Answers varied across the interviews, however; generally women felt that there was a small difference between the ways that women are treated. In general, women feel that the differences between castes are starting to decrease as time continues and have hope that their children will not experience the same differences and issues that they dealt with.

Suicide

Although this was not a primary focal point of this thesis research, and is discussed at length in my colleague's analysis, suicide played an important role in the nature of this mental health discussion as it is often co-occurring with depression. Primary means of suicide in Jumla appear to be jumping into the river that divides the village in two, hanging oneself, or taking poison. In recent years, ingesting rat poison has become a leading mechanism in committing suicide.

Reasons that people in Jumla commit suicide, from the community's perspective appear varied, but are commonly shared across the area. D.M.D. states that most reasons for males to commit suicide are purely of an economic nature. People commit suicide when they are unsure of how to pay for food, or buy clothes or have enough money to live their daily lives. Women, on the other hand, commit suicide because they are *"frustrated with their lives and fate"*. K.R. has a slightly different viewpoint on why women kill themselves, but the reasons tie into the marital relationship. Women have to live their lives to please their husbands, and she gives an example of a sick woman waiting for her husband before she can eat her dinner. She adds that men sometimes kill

themselves after a particularly vicious fight with their wives, in which they could potentially maim their wives. A.B.D. corroborates K.R.'s thoughts on suicide as she talks about how frustration is often the root cause of suicide for women. She believes that a lack of satisfaction with their household, fighting and disagreement are all underlying reasons for women in Jumla to commit suicide. For example, women could kill themselves if they have bad relations with their in-laws, or if there is interfamilial conflict.

Another example of poor marital relations leading to potential suicide causes was mentioned by M.A. who talks about how women will often kill themselves after their husband brings home another woman or has an extramarital affair. Women also attribute suicide to alcohol and alcohol use. They claim that men drink too much, lose control and accidentally kill themselves by falling into the river. This point was stressed in two interviews – accidental suicide in which people accidentally kill themselves after they lose self-control due to the influence of alcohol.

Interestingly, one woman alluded to the fact that sometimes people, and women in particular, commit suicide by accident. When she is pressed about this, she tells us that sometimes people will take rat poisoning or attempt suicide because they are desperate to receive attention. Accidentally, they will ingest too much rat poison, and they die as a result of poisoning. However, she claims, this is not their initial intention – it is, instead, a scare tactic gone awry.

War

This theme contained two sub-themes that contributed to a more detailed understanding of the theme war.

Events during war – This code was applied whenever women were asked, or made reference to specific events related to the war; these include impacts of the war on themselves, their families or the community at large.

Changes since war – This code was used whenever women made reference to, or were specifically asked about how Jumla has changed since the war ended.

Events during war:

All of the women who were interviewed were able to vividly recall details pertaining to the war. D.M.D. recalls the cross firing and the people who were killed on both sides of the conflict. She also lost a brother who was a journalist during the war. This affected her profoundly and continues to affect her to this day as her brother took care of her and could have provided her with employment. This also affects her in relation to her health status, as she has a sickness in her eye, which she believes her brother would have helped her take care of. A.D.C. recalls watching the events of the war unfold and being scared of the bullets being fired. Fortunately, she did not lose anyone in the war. A.D.B. recalled being told to remain in her house, as there was ongoing fighting occurring; and recalls being told that if people left their homes, the army was not responsible for any negative outcomes. Her most vivid memories of the war are of being required to stay inside from 6pm to 8am, and of being told to keep her doors closed. K.S.U. recalls a story of the villager who died, whose body was hidden and remains were never found. She also tells us that she did not trust the Maoists because of the stories she had heard about them forcefully taking food from villagers and torturing them. However, she felt that they were safe as they were protected by the proximity of the army. N.M. also recalls seeing bodies of people who had been injured and

remembers the feeling of being scared all the time. She would constantly worry about her children if they didn't return home. K.R. remembers being terrified and living in the cowshed (a tradition in Jumla where women are forced to remain in the cowshed during menstruation). She told us that people were not allowed to leave their homes until 7 am and were too scared to open their doors due to the anxiety of the cross firing that occurred the night before. Bodies were disposed of in the bazaar and K.R. specifically remembers seeing four dead bodies at the airport. K.R. is one of the only women who alludes to the physical destruction of the bank and other buildings in the bazaar. N.B., on the other hand, recalls little disturbance as a result of the war. She said that the police came to her door in the middle of the night and questioned her family and asked them questions about security. Aside from that incident, she claims that her only other memories of the war were of bullets and cross firing. She does not know anyone who was injured or killed during the war. N.M.B. recalls in further detail the sound of the bombs falling and the earth shaking under the weight of the explosions. She recalls finding out the next day that someone from Jumla who worked in the government office had been killed. Additionally, she recounts being told not to speak and being accused of being a spy for the Maoists.

Overall, community recollection of the war seems to primarily relate to restrictions placed on the village and community members and less about the events of the war itself.

Changes since war:

Overall when participants were asked about changes that they felt since the war, people discussed the lifting of restrictions placed on members of the community. For

example, D.M.D. talked at length about the ability to go outside and walk around the community freely. During the war, she claims, this was not possible because people lived in fear of being killed at all times. Due to this increased freedom, she feels that things are better now than they were during the conflict times.

D.B. also talks about fear that she felt during the war, and the subsequent lack of fear since the war ended. She recounts how it was difficult to leave home during the night for fear of something happening, and now she can come and go as she pleases. This small distinction for her is all that has changed since the war. When she is pressed to really think about how the war has changed the community, she said, *"The community is more peaceful. After the war ended, people feel more at peace"*. Echoing this sentiment, A.D.C. talks about how the community has remained the same over time. There is no difference now than there was during the war she protests, and continues to say, "*What difference could there be?"*

CHAPTER 5

DISCUSSION

In light of the previously documented high rates of depression, suicide, anxiety and PTSD, this study aimed to understand the causal factors for these negative mental health outcomes. Specifically, the goals of this study were to understand the role of war on the mental health of women in Jumla, Nepal. The secondary goal of this study was to examine the different characteristics between women who had increasing BDI scores over time, and those that had decreasing BDI scores over time (those who are become more depressed compared to those are becoming less depressed over time) and to understand the role in these differing characteristics on mental health outcomes. The study was completed using a questionnaire that included items such as the Beck's Depression Inventory (BDI), Beck's Anxiety Inventory (BAI), Civilian Checklist for Post-Traumatic Stress Disorder (PTSD), and the Wagnild and Young's Resiliency survey. Additionally, in order to fully understand the impact of war on this population, women were interviewed one on one in in-depth-interviews.

In order to analyze the data collected for research questions, analyses were conducted in MaxQDA. Codes for the interviews were developed on approximately 2/3 of the available interviews. Once the saturation point was located, the remaining studies were coded using codes developed in the initial round of coding. Grounded theory was used to develop a theory based on the initial round of coding 2/3 of the interviews. This theory was tested through application to the full set of data. The theory based on the first round of coding held true after including the remaining interviews, and became more nuanced through the process.

In an effort to best differentiate between the study questions, the discussion below will be separated based on the research findings for each question.

Understanding the role of war on mental health:

Previous literature shows that war and conflict have a large role on mental health outcomes in the populations affected and involved (Murthy & Lakshminarayana, 2006) (WHO, 2001). However, the data available from this study does not lend itself to a similar conclusion. Instead, it can be concluded that the war had little impact on the population, if at all.

Participants discussed the war in a factual way, discussing the events of the war and the limitations placed on their lives during the war. They do not associate emotions with the war or their mental health during the war. For example, when participants were asked about the war, they immediately began to talk about concrete examples of events during the war. They mentioned restrictions imposed by the army and opposing forces, and mention fear of distinct sounds, and of being hurt. However, the attitude of the community at large was that the war was more of an annoyance than anything else.

This sentiment is echoed by participants that lost family members in the conflict, and by community members who saw bodies piled in the bazaar and were exposed to some of the harshness of the war. It was expected that proximity to the war would be related to severity of mental health outcomes, however this does not appear to be evident in this population.

Differences in viewpoints:

Study investigators were also interested in understanding whether longitudinal BDI measures influence the way participants feel happy or sad (good or bad heart-mind),

and whether resiliency is affected by previous BDI patterns. After thorough examination of the results of the qualitative analysis, there does not appear to be a correlation between history of depression (as indicated by BDI scores) and resilience. Additionally, participant responses were examined to determine the association between resilience and having a sad heart-mind. However, no qualitative differences are apparent through the analysis of the in-depth-interviews.

Instead there are specific women who differentiated themselves from the rest of the population. K.R. is the only woman who was interviewed for this project who seemed content with her life and exhibited some element of agency in her life and marital relationship. Her situation is unique in that she is one of the only women who acknowledges that the war must have affected the health of those in Jumla. Additionally, she receives support from her husband in her household tasks and furthering her education. She is well respected by her community and should be viewed a role model in future interventions and community programming (positive deviant). These characteristics set her apart from the rest of the community and could be a spring off point for future research into the role of women in Jumla.

What's actually happening?:

From the above discussion and results, it appears that war is not the causal factor in the high prevalence of negative mental health outcomes (depression, suicide etc.). In a study conducted by Kohrt et al, depression in this population was insignificant when controlling for aging (Brandon Kohrt, et al., 2011). As opposed to war causing increased depression, he postulates that there was an existing elevated psychiatric morbidity due to

poverty, infectious disease, and limited access to healthcare/education and gender-based violence (Brandon Kohrt, et al., 2011).

Kohrt et al found that depression and anxiety scores increased over the course of the conflict (pre-post conflict assessments were performed) from 30.9% to 40.6%. In terms of anxiety, 26.2% of participants had anxiety pre-conflict compared to 47.7% post conflict. Both of these increases were statistically significant ($p<.001$) (Brandon Kohrt, et al., 2011). Kohrt et al's finding seems contradictory to the findings of this study, however, when Kohrt et al controlled for depression related to aging, depression due to the war was no longer statistically significant. The same was not true for anxiety, which remained significant after controlling for aging, meaning that the conflict could have resulted in higher rates of anxiety in the population (Brandon Kohrt, et al., 2011). Depression related to aging has been documented in other scientific literature. The American Psychological Association (APA) suggests that there are some hormonal changes associated with aging that increase an individual's chance of experience depression (APA, 2012). Factors related to depression during aging include chronic and debilitating medical disorders, loss of friends and family, and physical limitations that prevent an individual from living the life he/she may have once had (APA, 2012).

Additionally, Kohrt et al found other factors significantly related to depression including sex, age, caste, education, income, and other stressful life events. These findings were qualitatively corroborated by this study in which women cited all of the above depression related factors as sources of sad heart-mind. Many of these factors are related; for example low levels of education limit the employment that women in Jumla can obtain, which in turn leads to financial difficulty and income trouble. These issues

exacerbate problems at home, which can lead to depression and mental health issues in addition to physical health problems.

Conclusions and Recommendations:

These findings corroborate findings of studies conducted in similarly marginalized populations/geographic areas. Based on previous literature and the qualitative analysis of this study population, it is clear that the measurement of high rates of mental health disorders in a post-conflict setting cannot be automatically attributed to the conflict itself. Instead investigators must understand the psychiatric morbidity prior to the conflict and the causative factors present before conflict.

This research also suggests that post-conflict mental health programming must be more purposeful in examining factors related to high prevalence of depression, anxiety, PTSD and other mood and conversion disorders. Additionally, it is important to understand that mental health programming must be focused not only on trauma-specific interventions, but also on social interventions. Marginalized communities and populations require psychosocial interventions prior to conflict, and continued support throughout and post-conflict.

Women in this community believe that a stronger education system is necessary in order to alleviate the situation currently faced by the community. A key component of this education curriculum should center on women's rights and women's empowerment issues. Throughout the interview process women alluded to the fact that women's rights in other places far exceeded the rights of women in Jumla. They are aware of their situation, and aware of the fact that it needs to change. Creating jobs for men, and

changing the culture of alcoholism is a critical step in changing the way women are treated in Jumla, and should be implemented simultaneously with an education campaign.

Strengths/Limitations:

Limitations of the study include the lack of a pilot in-depth-interview. To the best of the research team's ability, women were asked questions in colloquial language; however the research team was unable to communicate directly with study participants. Therefore, it was difficult to engage in a "conversation" with the participants and study investigators were unable to probe and fully grasp what participants were saying. Additionally, the two-month time frame was a limiting factor in the number of interviews conducted in this population. Finally, some study participants expressed frustration with the longitudinal nature of the study and lack of study results thus far.

Although the longitudinal study design was frustration for many participants, it also makes the study unique and robust. Further, the quantitative tools used in this study are validated, and all participants that were pre-selected to interview (based on BDI scores) all agreed to participate.

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APPENDIX A

Ministry of Health Gender Equality and Social Inclusion Strategy

- Objective 1: Develop policies, strategies, plans and programmes that create a favourable environment for integrating (mainstreaming) GESI in Nepal's health sector.
    - Strategy 1: Ensure inclusion of GESI in the development of policies, strategies, and plans, setting standards and budgeting, and advocate for use of such policies, standards and budget provisioning at the central level.
    - Strategy 2: Prioritize GESI in planning, programming, budgeting, monitoring and evaluation at local levels (DDC, DHO, DPHO and VDC) to ensure services are accessible and available to the poor and excluded castes and ethnic groups.
    - Strategy 3: Institutionalise the GESI unit/desk at the Ministry, establish and institutionalise at the DOHS and divisions of the DOHS, regional directorates, and DHO/DPHO, and Social Service Units for GESI at central, regional, sub-regional, and zonal hospitals.
- Objective 2: Enhance the capacity of service providers and ensure equal access and equitable use of health services by the poor and excluded castes and ethnic groups in regard to a rights-based approach.
    - Strategy 4: Enhance the capacity of service providers to deliver essential health care services equitably to the poor and excluded castes and ethnic

groups and make service providers responsible and accountable.

- Strategy 5: Address GESI-related barriers by properly identifying target groups, ensuring remote communities are reached, and emphasizing programmes to reduce morbidity and mortality among the poor and excluded.
- Strategy 6: Enhance or modify services to be sensitive to GESI, and ensure equal access and deliver services without regard to financial or social status of users.

- Objective 3: Improve health seeking behaviour of the poor and excluded castes and ethnic groups in regard to a rights-based approach.
    - Strategy 7: Develop and implement Information Education and Communication (IEC) programmes to improve health seeking behaviour of the poor and excluded groups.
    - Strategy 8: Empower the target groups to demand their rights and realise their responsibility.

RELEVANT COMPONENTS OF SURVEY TOOL:

*N.B. Although all of these tools are available in English, they were translated to Nepali for the purposes of this study. Included below are the translated-Nepali version of Western instruments, which is the reason for the variation in phrasing as not all words/ideas translate perfectly from English to Nepali and back again.

General Information Questions

1. District
2. Name of ward/Village
3. Ethnicity
4. Name of Interviewer
5. Date

Demographic Questions

1. Are you literate?
2. Until what grade did you study?
3. What religion do you follow?
4. What language do you speak at home?
5. What is your marital status?
6. How long have you been married?

7. Do you have a polygamous marriage?
8. What do you do to make an earning?
9. Do you own your land?
10. How much land do you own?
11. How long did you harvest in the past year?
12. How much harvest did you get from your land last year?
13. How many cattle do you own?
14. How much cash do you earn in one month?
15. How many members are there in your family?
16. What is the structure of your family?
17. Are you living in your own home?
18. Since when have you been living in your current home?
19. Do you have the following things in your home?
    a. Electricity
    b. Drinking water
    c. Radio
    d. Television
    e. Phone
    f. Bicycle
    g. Gas stove
    h. Cemented home
    i. Other (please list)
20. Who makes the final decision your home?

Health Questions

1. Have you been sick lately?
2. If yes, what happened?
3. When did you last fall sick?
4. What happened to you last time you were sick?
5. When did you last see a faith healer?
6. Why did you call the faith healer?
7. When did you last see a doctor or go to a health post?
8. Why did you go there?
9. Do you feel anything strange in your body? Like there is an electric current running through your body?
10. Do you have gastritis?
11. Who makes the final decision if anyone is sick in your family?

Questions about Pregnancy

1. What age were you at the time of your pregnancy?
2. What was the result of the pregnancy? (child birth/miscarriage/still birth)
3. How did you feel after childbirth/miscarriage/still birth?
4. What is the sex of the child?
5. What is the situation of the child?
6. Where did the mother stay after delivery?
7. After delivery how long did you stay in the cowshed?/maternal home?/places other than the home?

8. After delivery, for how many days didn't anyone touch you?
9. After delivery, for how many days didn't your husband touch you?
10. Did you get pregnant more than 12 times?
11. How supportive was your husband?
12. How supportive was your husband's family?
13. How supportive was your maternal home?
14. How sad did you feel?
15. How worried or anxious did you feel?
16. How lonely did you feel?
17. One month after delivery, to what extent were you able to do daily life activities?

Additional Health Questions

1. How has your health been in the past month?
2. How difficult was it for you to stand for a long time?
3. How difficult is it for you to do household work?
4. How difficult was it for you to learn new skills?
5. How difficult is it for you to participate in social activities?
6. To what extent did you health problems affect your heart?
7. How difficult is it for you to do something that requires concentration?
8. How difficult is it for you to walk for half an hour?
9. How difficult is it for you to take a bath?
10. How difficult is it for you to wash clothes?
11. How difficult is it for you to deal with a stranger?
12. How difficult is it for you to maintain a good relationship with friends?

13. How difficult is it for you to do daily life activities?
14. How difficult is it for you maintain a good relationship with family members?
15. How difficult is it for you to take care of your kids?
16. To what extend did the above problems affect your life?
17. In the past on month how many days were you affected by these problems?
18. In the past one month, how many days couldn't you do the daily activities that you normally do?
19. In the past one month, how many days did you have to lessen the usual amount of work that you do because of health problems?

Beck Depression Inventory

1. In the past two weeks, how sad did you feel?
2. In the past two weeks, how hopeless did you feel?
3. In the past two weeks, to what extent did you feel like a failure?
4. How dissatisfied were you with your life in the past two weeks?
5. How guilty did you feel for your life in the past two weeks?
6. To what extent did you suffer in your life in the past two weeks?
7. How fed up did you feel with yourself in the past two weeks?
8. How accountable were you for your mistakes?
9. To what extent did you feel like harming yourself?
10. How much did you cry?
11. How irritated did you feel?
12. How happy did you feel with others?
13. How decisive did you feel?

14. To what extent did you feel like you have improved in the past two weeks?
15. To what extent could you work?
16. How much did you sleep in the past two weeks?
17. How tired did you feel?
18. How hungry did you feel in the past two weeks?
19. Have you lost weight in the past two weeks?
20. How worried were you about your health in the past two weeks?
21. How much did you think about your life partner in the past two weeks?

Beck Anxiety Inventory

1. Did your body have weird sensations?
2. Did you feel like your was body getting hot?
3. Did you feel like your legs were getting weak?
4. How difficult was it for you to rest?
5. Are you scared that some bad incident will happen?
6. Do you feel dizzy?
7. Do you feel like your heart is beating faster?
8. Do you feel like you are losing balance?
9. How scared do you feel?
10. How anxious were you?
11. To what extent did you feel like something is stuck in your throat?

12. Do you feel like your hand was shaking?
13. Do you feel like your body was shivering?
14. Were you scared that you would lose control?
15. Did you feel difficulty in breathing?
16. How scared were you of being killed?
17. How scared did you feel?
18. Did you faint?
19. Did your face feel hot when you were angry?
20. Did you sweat even if it was not hot?

PTSD Civilian Checklist

1. Do you get flashbacks of a painful event that happened before?
2. Do you dream of painful events that happened before?
3. Are you scared of the thought that painful events that happened in your past will happen in the future?
4. How affected are you by flashbacks of painful events in the past?
5. When you have the flashback of painful events, does your heartbeat faster, do you feel difficulty in breathing or sweat profusely?
6. Do you feel like not talking with anyone about the painful event?
7. Do you feel like you have to be careful with a place, people, or activity that reminds you of the event?
8. How difficult is it for you to remember main events of the painful incidence that

occurred?

9. Do you feel like you don’t like to do something that you enjoyed doing in the past?
10. Do you feel lonely?
11. Do you feel like you don’t love the people you used to love before?
12. Do you feel like your future is dark?
13. Do you have problems sleeping?
14. Do you feel suddenly irritated?
15. Do you feel difficulty in concentrating?
16. Do you feel bothered when you have to be careful or attentive?
17. Are you bothered by problems like being suddenly scared or alert?

Suicide Questions

1. Have you heard of anyone who committed suicide?
2. People who commit suicide are embarrassed.
3. They have problems related to the heart.
4. They have problems related to the mind.
5. They loose their social status.
6. They have problems related to alcohol or drugs.
7. They have problems with intimate relationships.
8. They don’t get love from their family.
9. They are sad in their marital relationship.
10. They have problems with reproduction.
11. Those who commit suicide are not serious.

12. There is no way to stop someone who wants to commit suicide.

Wagnild and Young's Resilience

1. When I make plans, I follow through with them.
2. I usually find my way out.
3. I depend on myself rather than others.
4. It's important for me to keep interested in things.
5. If necessary, I can be on my own.
6. I feel proud of what I have achieved in life.
7. I don't feel irritated by little things.
8. I am friends with myself.
9. I can handle many things at a time.
10. I am determined.
11. I seldom think of what the use of it all is.
12. I only take one thing at a time.
13. I can go through difficult because I have dealt with difficult times before.
14. I have self-discipline.
15. I keep interested in things.
16. I can always think of something to laugh at.
17. My confidence in myself gets me through hard times.
18. In times of emergency people can depend on me.
19. I can look at a thing through a different perspective.

20. Sometimes I do things that I don’t want to.

21. My life has meaning.

22. I don’t keep thinking about things that I can’t do.

23. When I go through hard times, I always find a way out.

24. I have enough energy to do what I need to do.

25. It’s alright if there are people who don’t like me.

26. I am resilient.

Emory IRB Submission and Approval Letter

EMORY UNIVERSITY | Institutional Review Board

TO: Brandon Kohrt
Principal Investigator
RTP

DATE: June 1, 2011

RE: **Expedited Approval**
IRB00050725
Suicide and PTSD Related Outcomes in Jumla, Nepal

Thank you for submitting a new application for this protocol. This research is eligible for expedited review under 45 CFR.46.110 and/or 21 CFR 56.110 because it poses minimal risk and fits the regulatory category F7 as set forth in the Federal Register. The Emory IRB reviewed it by expedited process on 6/1/2011 and granted approval effective from **6/1/2011** through **5/31/2012**. Thereafter, continuation of human subjects research activities requires the submission of a renewal application, which must be reviewed and approved by the IRB prior to the expiration date noted above. Please note carefully the following items with respect to this approval: The following documents were reviewed and approved as part of this submission:

- HIPAA waiver was granted
- Qualitative Consent; Version dated 6/1/2011
- Quantitative Consent; Version dated 6/1/2011

Any reportable events (e.g., unanticipated problems involving risk to subjects or others, noncompliance, breaches of confidentiality, HIPAA violations, protocol deviations) must be reported to the IRB according to our Policies & Procedures at www.irb.emory.edu, immediately, promptly, or periodically. Be sure to check the reporting guidance and contact us if you have questions. Terms and conditions of sponsors, if any, also apply to reporting.

Before implementing any change to this protocol (including but not limited to sample size, informed consent, study design, you must submit an amendment request and secure IRB approval.

In future correspondence about this matter, please refer to the IRB file ID, name of the Principal Investigator, and study title. Thank you