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Violence against Women in Nicaragua:

Magnitude, Determinants, and Co-Occurrence of Child Maltreatment

By

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Master of Public Health

Global Health

_____

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Abstract

Violence against Women in Nicaragua:
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By Julia Elise DeLozier

Objective: The purpose of this research was to describe the frequency and predictors of intimate partner violence (IPV) in Nicaragua, as well as to evaluate whether IPV is associated with child maltreatment.

Method: Data for this secondary analysis were derived from the Encuesta Nicaragüense de Demografía y Salud (ENDSA 2006/07), a national probability, cluster survey. Women of reproductive age (15-49) were interviewed about demographic characteristics, reproductive health, experience of partner violence, and child punishment. The analysis was restricted to women of reproductive age who had one or more children under the age of 16. All univariate, bivariate analyses and logistic regressions were performed using SAS 9.2 (Cary, NC).

Results: The lifetime prevalences of psychological, physical, and sexual IPV were 49, 28, 14 percent, respectively. Of women who had experienced IPV, between 39 and 42 percent have children who are maltreated in their home. Women who had experienced either physical (AOR 1.35 [1.21-1.50]), psychological (1.31 [1.19, 1.44]), or sexual violence (1.23 [1.08, 1.41]) by an intimate partner were statistically more likely to report physically maltreating children in the home than the women who had not experienced the respective forms of IPV.

Conclusion: The findings highlight the need for comprehensive, multifaceted interventions that include both men and women. In order to achieve progress toward the third Millennium Development Goal, multi-sectoral interventions at the community level must be matched with comprehensive legislative and judicial commitment to promote gender equality and to protect the fundamental human rights of women and their children.

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Chapter 1. Introduction

Violence against women, including physical, sexual, and psychological, is a major public health concern that exists in all societies, cultures and economic spheres. Research indicates that between 20 and 50 percent of women globally are abused by an intimate partner or family member at some point in their lives (UNICEF 2000). A multi-country study by the World Health Organization (WHO) reveals a wide prevalence and variation in types of violence within and between countries, suggesting culturally-tailored interventions are needed to combat this epidemic (Garcia-Moreno, Jansen et al. 2006). The ubiquity and severity of violence against women calls for a multi-level approach within countries and internationally.

Problem Statement

Numerous studies clearly reveal the widespread prevalence and severity of violence against women around the world, and Nicaragua is no exception. The most common form of violence against women in Nicaragua is intimate partner violence (IPV), also commonly called spousal abuse or domestic violence. According to a study in León, Nicaragua, 52 percent of ever-married women between the ages 15 and 49 report having ever experienced physical partner violence (Ellsberg, Pena et al. 2000). Results of IPV come not only in the form of acute and chronic health-related consequences and psychological anguish to the abused woman herself, but there are far-reaching consequences to her children as well, including the unborn. In the United States, research indicates a 30 to 60 percent co-occurrence of intimate partner violence and child maltreatment, another major public health concern (Edleson 1999), but little has been studied about the connection in Nicaragua. It is unclear whether the mother's lifetime

experience of physical, sexual or emotional violence is also independently associated with child maltreatment in Nicaragua.

Purpose Statement

The purpose of this research is to describe the frequency and predictors of IPV in Nicaragua, as well as to evaluate whether IPV is associated with child maltreatment. Final recommendations will be made for the purpose of informing policy decisions.

Research Question

This research seeks to explore the association between the history of intimate partner violence in ever-married women between the ages of 15 to 49 who have children under the age of 16 and physical maltreatment of those children. The researcher hypothesizes a positive association between women in the study population who have ever been abused by an intimate partner and those who report physical maltreatment of their children.

Significance Statement

The severity and consequences of IPV vary. Psychological abuse is the most common, with 71 percent of ever-married women in a study in León reporting experiences of psychological partner abuse at some point in their lives (Ellsberg, Pena et al. 2000). Experts use several negative psychological outcomes such as major depressive episodes and suicide attempts as indicators for psychological affects of abuse. A woman who has been abused is 12 times more likely to attempt suicide than a woman who has not been abused (UNICEF 2000). Physical abuse is the second most common and the most noted form of IPV because it results in the most obvious physical consequences, ranging from bruises and lacerations to broken bones, penetrating wounds, and even

death (UNICEF 2000). Even though physical consequences are the most apparent, fear, anxiety and other psychological problems are often a result.

Sexual abuse is the least prevalent form of IPV but rarely exists on its own. Of the women who report sexual abuse in the León study, 99 percent also report either physical, psychological, or both (Ellsberg, Pena et al. 2000). Like physical violence, sexual abuse can lead to physical or psychological harm. Studies show women who have experienced physical or sexual violence are at an increased risk for adverse reproductive health outcomes such as sexually transmitted infections (STIs), including HIV, and unintended pregnancy (Heise, Ellsberg et al. 1999; Jewkes, Dunkle et al. 2010). These three categories of abuse are not exclusive; in fact, 21 percent of ever-married women in León, Nicaragua report all three forms of violence (Ellsberg, Pena et al. 2000).

Consequences of IPV go far beyond immediate physical and psychological effects. Aside from negative health consequences of the victim, there is growing evidence that links maternal violence to the health of her children (Åsling-Monemi 2003). Children of abused women are more likely to suffer from learning, emotional, and behavioral problems and are at an increased risk for infant and child mortality (Ellsberg, Pena et al. 2000; Åsling-Monemi 2003). Partner violence during pregnancy is also common, and when a woman is physically abused during pregnancy, her risk for preterm labor, low birth weight, and fetal distress or death increases (Åsling-Monemi 2003).

Intimate partner violence also results in major economic consequences for the country. In the United States, the annual cost of medical treatment and lost worker productivity due to domestic violence is estimated between 5 and 10 billion dollars (Morrison and Orlando 1999). These estimates do not include the burden on the judicial and foster care systems or resulting homelessness (Morrison and Orlando 1999). Women

who have been abused are more likely to access health care services than those who have not (Heise, Ellsberg et al. 1999). One study in the United States shows that female victims of IPV cost their health maintenance organization (HMO) 92 percent more than a random sample of female non-victims using the same health plan, excluding emergency room visits (Wisner, Gilmer et al. 1999) cited in (Heise, Ellsberg et al. 1999). In developing countries like Nicaragua where resources are limited, any preventable taxation on the health care system should be managed.

Intimate partner violence cycles from generation to generation. Children who see their parents abused are more likely to be in an abusive relationship as an adult than those who come from families without abuse (Ellsberg, Pena et al. 1999). It is, therefore, imperative, to prevent and address violence now for the sake of future generations and for the health and prosperity of the society.

Definition of Terms

Violence against Women

United Nations defines violence against women as “any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life” (WHO 2011). Although women can also be perpetrators and men, victims of IPV, this study focuses on heterosexual relationships where the male partner is the perpetrator and the female partner is the victim.

For the purpose of this analysis, IPV includes psychological, physical, and sexual violence defined as any of the following actions perpetrated by a spouse, partner, or significant other:

Psychological violence:

a. insulting or making the partner feel bad about herself,

b. scorning or humiliating her in front of other people,

c. doing things with the purpose of scaring or intimidating (ex. a manner of looking, yelling or breaking things)

d. threatening to hurt the partner or someone that she cares for.

Physical violence:

a. slapping or throwing things that can cause harm

b. pushing or pulling or tearing out hair

c. punching with the fist or other objects that could cause harm

d. kicking, drag or beat

e. trying to strangle or burning on purpose

f. threatening to use or having used a gun, knife, or other weapon against her

Sexual violence:

a. having sexual relations without desiring it because of fear

b. physically being forced to have sexual relations when the woman does not desire it

Child Maltreatment

The Centers for Disease Control and Prevention define physical child maltreatment as “the intentional use of physical force against a child that results in, or has the potential to result in, physical injury” (Leeb, Paulozzi et al. 2008) p14. These physical acts may or may not leave a physical mark or on the child, and they “can result from discipline or physical punishment” (ACF 2002) as cited in (Leeb, Paulozzi et al. 2008).

Since intention to harm does not play a role in the definition of child maltreatment, this study uses physical punishment as a proxy for child maltreatment, defined as follows:

a. Slapping, smacking

b. Hitting with a belt, ruler, rope, stick or other object

c. Hitting with a hand or fist

Chapter 2. A Global Review of Violence against Women: Frequency, Risk Factors, and Consequences in South East Asia, Sub-Saharan Africa, and Nicaragua

Violence against women is a global problem which requires a global response. This review pulled literature from around the world with specific attention to distinct types of violence in South East Asia, Sub-Saharan Africa, and Nicaragua. The focus of this review was to identify the frequency, risk factors and consequences of violence against women and to investigate literature on the association between intimate partner violence and child maltreatment. Information will then be compared between Nicaragua and other low and middle income countries in selected regions.

Multi-country

A WHO-funded, multi-country study completed between 2000 and 2003 used standardized, population-based surveys to collect information from women between the ages of 15 and 49 about experiences of physical and sexual intimate partner violence and self-reported health status. Of the 24,097 completed surveys, 19,568 were from ever-partnered women, which were included in the analysis (WHO 2005; Garcia-Moreno, Jansen et al. 2006; Ellsberg, Jansen et al. 2008).

Prevalence of lifetime experience of physical or sexual, or both, partner violence ranged between 15 percent in urban Japan to 71 percent in rural Ethiopia, with most countries between 30 and 60 percent (Garcia-Moreno, Jansen et al. 2006; Ellsberg, Jansen et al. 2008). Women who had experienced physical, sexual, or both types of violence, by an intimate partner were statistically more likely to report poor or very poor health (OR 1.6 [95% CI 1.5-1.8]), including difficulties walking or daily activities, dizziness, pain, memory loss, or vaginal discharge in the past four weeks, and they were more likely to report suicidal thoughts (OR 2.9 [95% CI 2.7-3.2]) or attempts (OR 3.8 [3.3-4.5]). The cross-sectional nature of the study did not allow for the investigators to

know which came first, the abuse or the negative health symptoms. In all but one site, the response rate was greater than 90 percent, and over 85 percent of selected women completed the interview (Garcia-Moreno, Jansen et al. 2006).

The WHO multi-country study also captured the severity and frequency of IPV in multiple contexts. Between 19 percent of the women who were ever physically abused by a partner in Ethiopia and 55 percent in Peru reported ever being injured. Of the women who had been injured, between 22 percent in Thailand and 80 percent in Bangladesh reported needing medical attention. Of ever-injured women, between 3 percent in Ethiopia and 29 percent in Serbia and Montenegro reported being injured more than 5 times by an intimate partner.

Sub-Saharan Africa

Violence against women appears in many different forms around the world. In sub-Saharan Africa, violence arises primarily through intimate partner violence (IVP), which can be physical, psychological, or sexual in nature, and in the form of harmful cultural practices such as female circumcision and forced early marriage. Even though IPV is condemned politically in most societies, it often occurs “under the garb of cultural practices and norms or through misinterpretation of religious tenets” ((Uthman, Lawoko et al. 2009) p2). In order to prevent violence against women in sub-Saharan Africa, cultural norms must be challenged.

Frequency

A study from Uthman et al. compared data from Demographic and Health Surveys (DHS) from 17 Sub-Saharan African countries between 2003 and 2007 to evaluate the effects of socio-demographics on attitudes toward intimate partner violence (Uthman, Lawoko et al. 2009). The study showed wide acceptance of IPV in all

countries, and surprisingly, in all but one country, women justified the use of violence in a relationship more often than men.

A study of ever-partnered women in rural Ethiopia showed the lifetime prevalence of physical and sexual violence at 49 percent and 59 percent, respectively. Seventy-one percent of women in the same study experienced at least one or the other form of violence at some point in her life (WHO 2005). Physical violence can be severe enough to cause bodily harm. Violent acts such as punching, kicking, dragging, threatening or attacking with a weapon are considered severe forms of violence, and 36 percent of rural Ethiopian women had experiences a severe form of violence in their lifetime (WHO 2005).

A meta-analysis of thirteen peer-reviewed African studies published between 2000 and 2010 focusing on IPV during pregnancy yielded an mean prevalence of 15.23 percent (95% CI: 14.38, 16.08). The majority of the studies reported overall IPV prevalences between 28 and 51 percent. Six studies included prevelences of sexual violence, ranging from 2.7 percent to 26.5 percent; four studies reported physical violence between 23 and 40 percent (Shamu, Abrahams et al. 2011).

In many sub-Saharan African countries, cultural traditions such as forced child marriages and female genital cutting (FGC) are widely practiced, even though these customs put young girls in harmful situations. FGC is a long-standing tradition that has been practiced. Girls are usually cut between the ages of 4 and 12 as part of a rite of passage, celebrated by women in the community, although practices vary according to ethnic group. The United Nations estimates approximately two million girls are at risk for FGC every year (UNIFEM 2007).

Risk Factors

In a DHS study 17 sub-Saharan countries looking at attitudes towards IPV, low education attainment, low wealth status, young age (15 to 24), rural residence, and female gender were all positively associated with acceptance of IPV as a practice in most countries (Uthman, Lawoko et al. 2009). Access to media sources such as newspaper, radio and television had mixed results on the perception of IPV, but generally, less access to media increased likelihood of acceptance. The most significant of predictors of IPV acceptability were female gender, low wealth status and low educational attainment (Uthman, Lawoko et al. 2009). Since the interviews were done face-to-face, there is a possibility that the respondents underreported their attitude toward IPV, but the wide coverage, tested and proven sampling methodology, and high response outweigh the limitations.

World Health Organization's multi-country study added other individual risk factors for a woman such as previous victimization and level of social support. Factors that were associated with men being perpetrators of IPV included, level of communication with his partner, use of alcohol and drugs, employment status, and whether he was physically aggressive towards other men (WHO 2005) A history of domestic violence during childhood increased IPV likelihood for both the perpetrator and victim.

A longitudinal analysis of data from a cluster-randomized control trial in rural South Africa undertaken between 2002 and 2006 looked at a cohort of 1,099 young women ages 15 to 26 years old that were followed-up for two years. The study revealed a significant positive association between gender power equity and the number of episodes of intimate partner violence, which suggests that increasing gender equality through

educational, economic, and cultural venues will in turn decrease the prevalence of IPV (Jewkes, Dunkle et al. 2010).

The meta-analysis on IPV during pregnancy indicated low levels of education, low socio-economic status, young age, history of violence, HIV positive status, and alcohol abuse were all positively associated with experiencing IPV (Shamu, Abrahams et al. 2011). Some of the strongest associations were found between IPV and alcohol consumption and the woman's history of violence, including child abuse and previous partner violence. Five studies looked at alcohol consumption by the woman and / or partner. Both occasional and heavy drinking was statistically associated with IPV during pregnancy in all five studies. Some evidence showed violence during pregnancy was lower than violence the previous twelve months (Shamu, Abrahams et al. 2011).

Consequences

Violence against women contributes to a wide range of physical and psychological effects on its victims, as well as the victim's children. In sub-Saharan Africa, where HIV is epidemic, IPV has also been linked to an increase prevalence of the virus. In a cohort study of 1,099 HIV-negative women at baseline, sero-conversions were more likely to happen to women who reported violence and higher gender power inequity at baseline than in women who did not report violence at baseline and had lower inequity (9.6 per 100 person-years compared to 5.2 per 100 person-years) (Jewkes, Dunkle et al. 2010). This distinction is potentially because women in violent relationships have less ability to negotiate condom use, and recent studies from South Africa and India indicate that abusive men are more likely to be HIV-positive (Decker, Seage et al. 2009; Jewkes, Dunkle et al. 2010).

As well, women who are exposed to violence, especially at a young age, are more likely to participate in risky sexual behaviors including transactional sex, concurrent and multiple partnerships, and are more likely to have problems with substance abuse (Jewkes, Dunkle et al. 2010). When comparing this study to the review by Shamu et al., it is evident that risky sexual behaviors, HIV infection, and substance abuse could be risk factors or consequences of IPV.

Harmful cultural practices like female genital cutting (FGC) also result in long-lasting physical and psychological effects. Negative health consequences of FGC include but are not limited to the following: death through hemorrhaging and sepsis, fistulas, urinary tract and reproductive tract infections, obstructed labor, and painful sexual intercourse and menses (UNICEF 2010). These physical consequences do not even take into account the psychological trauma these young girls face from being forced into an excruciatingly painful procedure, often performed in an unsterile environment without antiseptic or anesthesia (UNICEF 2010).

South East Asia

Frequency

In many countries in South East Asia, gender equality is nearly non-existent. Numerous surveys reveal an alarming 50 percent of married women have experienced physical abuse by their husbands compared to a worldwide average of approximately 33 percent (UNFPA 2004; UNIFEM 2007).

In a secondary analysis of longitudinal data from rural Bangladesh, two thirds of the 1,048 mothers had experienced a form of intimate partner violence at some point in her lifetime. Of those that had experienced physical abuse, 72 percent also experienced sexual violence, 56 percent had experiences emotional violence, and 31 percent reported

high level of controlling behavior by their partner (Asling-Monemi, Tabassum Naved et al. 2008). Sixty-seven percent of women said violence began within the first year of marriage. Lifetime physical and emotional violence, but not sexual violence, was associated with a lower education level of the mother. All forms of IPV were associated with lower economic level, and all but sexual violence was associated with Muslim religion (Asling-Monemi, Tabassum Naved et al. 2008).

According to Salma Khan, the former Chair of UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), violence and physical injury contribute to the deaths of more than 14 percent of pregnant women in Bangladesh (Kahn 2005). Additionally, she reports an alarming "70% of women suffer from nutritional deficiency and about 67% of pregnant women do not receive antenatal care as a result of gender discrimination" (Kahn 2005). The degraded value of women is so pervasive that it is ingrained in social and political structures, including the national health system. More than 25 percent of deaths of Bangladeshi women are linked to either pregnancy or childbirth; many of these deaths would be preventable with access to timely and skilled obstetric services (UNFPA 2004). Khan calls the unequal conditions and national dearth of emergency obstetric facilities and trained health professionals a "systematic violence against women" that must be challenged (Kahn 2005).

Dowry-related deaths and acid throwing are characteristic modes of violence against women in South East Asia. In India, en estimated 7,000 women will be murdered by their own families, in-laws or husbands this year when they cannot pay the high price of marriage (International 2005). Dowry-giving is an ancient custom, which began as protection for the wife; however, the custom is often abused and women who cannot pay expected sums become the victims of violence. Acid burnings are one potential

consequence of inability to pay a dowry. According to Amnesty International, 200 women will be disfigured or killed this year as their “spurned” husbands or suitors throw acid on them. Acid burnings may occur when a young woman refuses the advances of a suitor or if she upsets or dishonors her in-laws. The consequences of acid burning are devastating, as the target is often a woman’s face in order to blind or permanently disfigure her.

Risk Factors

A study in Bangladesh used a population-based survey of 2,700 women of reproductive age and 28 in-depth interviews of abused women to explore risk factors for intimate partner violence (Naved and Persson 2005). As previous research indicated, age, education levels, economic sharing, and parental history of violence were factors in the risk of spousal abuse. In both rural and urban areas, the risk of violence increased if the marriage involved a dowry or other demands (OR 1.63 urban; 2.06 rural) or if the husband’s mother had been abused by his father (OR 2.90 urban; 1.94 rural). In urban areas, women who were younger than their husbands and those who participated in savings and credit groups (OR 1.83), and those whose mothers were abused by their fathers (OR 2.04) were more likely to be abused. In rural areas, women who earned an income (OR 1.73) were at greater risk for abuse. Conversely, husband education level provided a protective effect, as did good spousal communication (Naved and Persson 2005). Income quartile, Muslim religion, and woman’s attitude towards gender role were also analyzed, but no significant associations were found.

Consequences

A study in India of nationally representative data of 59,467 women ages 15 to 49 from the Indian National Family Health Survey 3 found that both infant and child

mortality was statistically greater among those whose mothers had experienced IPV compared to those whose mothers had not (aHR 1.09 [95% CI 1.03, 1.15]; 1.10 [1.05, 1.15], respectively) (Silverman, Decker et al. 2011). When analyses were stratified by gender, both of these effects were only significant for girls. The adjusted hazard ratios indicated an estimated 9 percent increase in the risk of infant mortality and a 10 percent increase in the risk of child mortality based on maternal violence exposure. Again, the burden of mortality weighed on girls; the elevated mortality risk for infant girls was 15 percent and 14 percent for female children under five. The observed gender differences were statistically significant (Silverman, Decker et al. 2011).

A secondary analysis in Bangladesh also revealed no overall association between IPV and child mortality, but stratified analyses showed an interaction between mother's education, child gender and IPV in relation to child mortality. Women with more than two years of formal education had a higher risk of under-five mortality of their female offspring if ever exposed to severe physical partner violence (aHR 2.2 [CI% 1.06, 4.50]) or a high level of controlling behavior in the marriage (aHR 2.4 [95%CI 1.30, 4.90]) (Asling-Monemi, Tabassum Naved et al. 2008).

Nicaragua

Frequency

In Nicaragua, like in many Latin American countries, intimate partner violence is prevalent and culturally engrained. A 2000 study by Ellsberg et al. that combined quantitative and qualitative data gave a thorough overview of characteristics IPV in León, Nicaragua. Researchers used surveys of a representative sample of 488 women of reproductive age in order to describe the characteristics of intimate partner violence in Nicaragua. Part of the Conflict Tactics Scale was used to identify battered women, and

in-depth interviews were conducted of abused women (Straus and Gelles 1979). Of the 360 ever-married women of reproductive age, 52 percent had been physically abused by a partner at some point in their life, and 71 percent reported psychological abuse of some form, including insults, humiliation, and physical threats, from intimate partners (Ellsberg, Pena et al. 2000). There was a substantial co-occurrence in abuse forms with 21 percent of women reporting all three—physical, sexual, and psychological. Over one-third of women who had ever been abused had also experiences abuse during pregnancy (Ellsberg, Pena et al. 2000).

Risk Factors

No single factor explains gender-based violence, though there are many factors at the cultural, economic, legal, and political levels that play into the perpetuation of violence against women. Jealousy and spousal control, both economic and social, are often reported in abusive relationships; furthermore, cross-cultural reviews have revealed that male dominated decision making and financial control is a predictor of spousal abuse (Ellsberg, Pena et al. 2000; UNICEF 2000). Many abused women also report feeling shame, isolation, entrapment, as well as a lack of social support and understanding (Ellsberg, Pena et al. 2000). Often when women do reach out, they are admonished and blamed for the abuse, which can prove more emotionally devastating than the act of abuse itself (Ellsberg, Pena et al. 2000).

In countries such as Nicaragua, where there is an ideology of *machismo* (male superiority) and where masculinity is connected to dominance and strength, violence against women is more culturally accepted (Ellsberg, Pena et al. 2000). In a study by Ellsberg et al., abused women were more likely than non-abused counterparts to live in urban areas, to have more than four children, to be poor, and to have either a mother or

mother-in-law who had experienced abuse (Ellsberg, Pena et al. 2000). Another strong indicator for abuse in Nicaragua is substance use, particularly alcohol consumption. In the León study by Ellsberg, 54 percent of abused women said their husbands were usually inebriated during the act of violence, and about one third of the women believed alcohol to be the main cause of the violence (Ellsberg, Pena et al. 2000).

Consequences

Health consequences of abuse range from non-fatal physical injuries, such as bruises and cuts, to life threatening ones such as HIV infection, miscarriage, suicide and homicide. Psychological impacts like stress, anxiety, and perpetual fear are also common outcomes of abuse (Ellsberg, Pena et al. 2000). As well, violence against women contributes to socioeconomic consequences like loss of work days and expense burden on the health care system. In Managua, women who were abused were twice as likely to visit a health facility or be hospitalized for injuries as women who had not been abused, which placed a greater burden on the health system of an already impoverished country (Morrison and Orlando 1999).

The 2010 MDG Report shows mounting evidence connecting gender-based violence and HIV prevalence. One theory is that forced sex is often unprotected, which increases the likelihood of contracting HIV(2010). In this vein, women who are sexually forced are at higher risk for other STIs and unintended pregnancy (Morewitz 2004). Also, women who have STIs or HIV are more likely to be abused than women who do not (Morewitz 2004). There is a clear correlation between HIV and abuse, but the direction and causal relationship between the two is unclear.

A hospital-based case-control study of 101 low birth weight newborns was conducted in León, Nicaragua to assess the impact of IPV on infant birth weight, a

critical factor in child health and survival. For each low birth weight case, two normal birth weight infants born on the same day were randomly chosen from the hospital. Twenty-two percent of women who gave birth to low birth weight babies had experienced physical partner violence during pregnancy compared to only 5 percent of controls (AOR 3.9; 95% CI 1.7, 9.3) (Valladares, Ellsberg et al. 2002). Therefore, the risk of low birth weight increased three-fold when a woman was physically abused during pregnancy, even after adjusting for other known risk factors.

A case-referent study of 313 women between the ages of 15 and 49 in the León found a significant association between the lifetime prevalence of violence of the mother and mortality of her children. Sixty-one percent of mothers of cases had a lifetime prevalence of physical and/or sexual violence compared to only 37 percent of mothers of referents (Åsling-Monemi 2003). Even after adjusting for potential confounders, the mortality risk for children under five years of age was twice as high for those whose mothers had a lifetime history of a intimate partner violence and over six times greater for those whose mothers had experienced both sexual and physical violence than for those whose mothers had not experienced both types of violence (Åsling-Monemi 2003). Therefore, approximately 27 percent of under-five deaths could be attributed to physical or sexual partner violence. As well, under-five mortality was associated with low education, older maternal age, multiparity, and rural residence.

A study by Becker-Dreps et al. highlighted the impact of intimate partner violence on Irritable Bowel Syndrome (IBS), a chronic gastrointestinal problem. IPV had previously been linked IBS in White women of industrialized nations, but this study was the first to find that the association crosses racial barriers and was true for Latina women as well. A population-based, cross-sectional survey was conducted through Health and

Demographic Surveillance System in the Providence of León. Results showed that women who had experienced either physical or sexual violence from a partner were significantly more likely to have IBS, OR 2.08 (95% CI: 1.35, 3.21) and OR 2.85 (95%CI: 1.45, 5.59) respectively. As a recommendation from this study, women who present with IBS should also be screened for IPV. (Becker-Dreps, Morgan et al. 2010).

Comparison between Nicaragua and Other Low and Middle Income Countries

It is evident through this literature review that violence against women is prevalent around the world, particularly in low and middle income settings. More severe reports tended to be in rural areas, and the overall prevalence of IPV tended to be lower in industrialized settings like Japan and Serbia and Montenegro (Ellsberg, Pena et al. 1999; Garcia-Moreno, Jansen et al. 2006). However, urban residence was significantly associated with physical partner violence in at least one Nicaraguan study (Ellsberg, Pena et al. 2000). Some risk factors for intimate partner violence, such as parental history of violence, drug or alcohol use, and low socio-economic position, spanned societies, but others like HIV-positive status, dowry, and religion were only indicated in specific countries.

Co-occurrence of Intimate Partner Violence and Child Maltreatment

A study in the United States used data from the National Survey of Child and Adolescent Well-Being (NSCAW), which looks at children who have been reported to child protective services for abuse or neglect, to assess the association between intimate partner violence and child maltreatment. Caregivers of children who had been reported as abused or neglected were interviewed. 3,612 of the caregivers were female and 93.9% of them were biological mothers of the child investigated for abuse or neglect. IPV was assessed on the Conflict Tactics Scales (Straus and Gelles 1979). The study found a

lifetime and past 12 month prevalence of IPV was 44.8 percent and 29 percent respectively, which are almost twice as high as community estimates from National Violence against Women Survey and National Family Violence Survey. Major depression and previous reports of child maltreatment were strongly associated with history of IPV. Recommendations from this study highlight a need for IPV screening among caregivers of children who are reported for neglect or abuse. (Hazen, Connelly et al. 2004)

Summary of the Current Problem and Study Relevance

Intimate partner violence has been investigated in Nicaragua. While there are several studies highlighting the adverse results of intimate partner violence on the victim and a few on the effects on infants of battered women, there is a dearth of evidence on the association between intimate partner violence and child maltreatment in Nicaragua. This thesis seeks to explore the association.

Chapter 3. Methodology

Using national survey data from Nicaragua, the researcher evaluated the magnitude of and risk factors for intimate partner violence among ever-married women of reproductive age who have children under the age of 16; furthermore, the researcher evaluated the association between IPV and child maltreatment in this population.

Study Setting

The ENDSA 2006/07 survey was conducted nation-wide in Nicaragua, the largest Central American country, with a land mass of approximately 60,000 square miles, slightly larger than the state of New York. The population of Nicaragua is just under 6 million. The country is divided into 15 departments and two autonomous regions, with 153 municipalities. Approximately one-third of the country's Gross Domestic Product comes from agriculture, timber, and fishing. Although the country's economy has grown over the past thirty years, it is still considered one of the poorest countries in the Western Hemisphere, second only to Haiti.

Research Design

This investigation is a secondary analysis of data from the Encuesta Nicaragüense de Demografía y Salud (ENDSA 2006/07), collected by Instituto Nacional de Información de Desarrollo (INIDE) with technical assistance from Centers for Disease Control and numerous other collaborators ((INIDE) and (CDC) 2008). The ENDSA 2006/07 is a national probabilistic, two-staged, stratified, cluster survey, where the stratification was carried out by geographical subdivisions. Samples are self-weighted within each department, which reconstructs the actual participation of each department within each higher level, particularly the total country population. The use of non-proportional sampling is efficient, but it requires the use of weighting to obtain national

estimates. The houses selected for interview had an unequal probability of selection than. For example, rural departments and less populated areas were over-sampled while Managua and other departments with greater populations were under sampled. For the analysis, it is necessary to weigh the observations.

Population and Sample

Of the 19,140 selected houses, 92 percent were occupied. Of the 17,570 occupied houses, 17,209 home interviews were collected, with a 98 percent response rate. Eighty-six percent of those homes had eligible women for the individual interviews. Of the 14,847 homes with one or more women of reproductive age (15 to 49 years), 14,221 of the selected women gave a complete interview, with a response rate of 96 percent. For the purposes of this investigation, only the individual questionnaires of women of reproductive age from each household were used. The study population is ever-married or united women, ages 15 to 49, who have at least one child under the age of 16 (N=9,801; 12,509 weighted). Women of reproductive age are at highest risk for intimate partner violence (Greenfield 1998 cited in (Hazen, Connelly et al. 2004).

Procedures and Instruments

Field staff were trained in a two week workshop between August to September 2006 in order to standardize the criteria and procedures of the interviews. The field work occurred from September 2006 to April 2007. The field work was performed with nine brigades, each including four interviewers, a supervising an anthropometrist, an editor that performs evaluations and critique in the field, and a leader. Two field supervisors were responsible for supervising the advancement of the data collection and the quality of information. Work sessions lasted between two and three weeks with brief breaks in between. In the development of individual questionnaires, each interviewer applied

maintained privacy of the interview to guarantee confidentiality of the information. In particular questions in the module about domestic violence were only asked when the interviewee was alone or no other person could hear the conversation.

The Reproductive Health Surveys are considered by the CDC Ethics and Review Board to be public health practice, the primary intent of which is to provide surveillance data for evaluation, program planning, and policy formulation. As such, they have been designated as exempt from research review by CDC. Data used in this analysis did not contain any personal identifiers; therefore there were no human subject implications in the use of this data.

Variable Definitions:

Intimate Partner Violence:

Psychological violence—The respondent has ever experienced any of the following from an intimate partner (Yes / No)

a. insulting or making the partner feel bad about herself,

b. scorning or humiliating her in front of other people,

c. doing things with the purpose of scaring or intimidating (ex. a manner of looking, yelling or breaking things)

d. threatening to hurt the partner or someone that she cares for.

Physical violence—The respondent has ever experienced any of the following from an intimate partner (Yes / No)

a. slapping or throwing things that can cause harm

b. pushing or pulling or tearing out hair

c. punching with the fist or other objects that could cause harm

d. kicking, drag or beat

e. trying to strangle or burning on purpose

f. threatening to use or having used a gun, knife, or other weapon against her

Sexual violence—The respondent has ever experienced any of the following from an intimate partner (Yes / No)

a. having sexual relations without desiring it because of fear

b. physically being forced to have sexual relations when the woman does not desire it

Any abuse—The respondent has ever experienced any of the previous forms of IPV (Yes / No)

Predictors of IPV:

a. Residential area—The area in which the respondent lives (Urban / Rural)

b. Region—One of the three natural regions in which the respondent lives (Pacific, Atlantic, North-Central)

c. Wealth quintile—Lowest (1) to highest (5)

d. Education level—Highest level of education completed (None, Primary 1-3, Primary 4-6, Secondary, Higher)

e. Religion—(Catholic, Protestant / Evangelical, None, Other)

f. Age—Divided into five categories (15-19, 20-24, 25-29, 30-39, 40-49)

g. Marital status—Current marital status (married / united or divorced / separated / widowed)

h. Parent's abusive history—Before the age of 15, the respondent saw or heard her father or step-father physically maltreat her mother or step-mother (Yes / No)

i. Number of marriages—In total, the numbers of times the respondent has been married or united with a man (1 time, 2 times, 3 times, 4 or more times)

j. Drinking—During the last 12 months of their union, the frequency that the respondent has seen her husband or partner (ex-husband or ex-partner) drunk (Daily, Weekly, Monthly, Less than monthly, Never)

Outcome of IPV

a. Child Maltreatment—In the home, children are punished physically when they misbehave (Yes / No) Physical punishment includes slapping or smacking; hitting with a belt, ruler, rope, stick, or other object; or hitting with a hand or fist.

Data Analysis

For the purposes of this study, data set was restricted to ever-married women between the ages of 15 and 49 who have a child under the age of 16. The main variable of interest was types of intimate partner violence—psychological, physical, or sexual. We considered IPV as both an outcome for which predictors were identified, and also as a risk factor for the outcome of child maltreatment, specifically of children living in the home. SAS 9.2 (Cary, NC) was used to perform the following univariate and bivariate analyses and logistic modeling. All analyses used weighted data.

Univariate analyses were run on all demographic, behavioral and situational predictors (Table 1). Then the relationship between the primary study variable, IPV, and each predictor was assessed (Table 3 and Table 4). Subsequently, logistic regression models were used to calculate the odds ratios between IPV and child maltreatment (Table 6). An adjusted model was run with potential confounders which included those predictors which were significantly associated with both IPV and child maltreatment. Little meaningful difference exists between the crude and adjusted models, indicating a relative lack of confounding (Table 6).

Limitations

The results of this study only pertain to Nicaragua. The purpose of this study is to evaluate the association between intimate partner violence and child maltreatment in Nicaragua. A clear limitation is the use of physical punishment as a proxy for child maltreatment. There is no way to know where on the body the child is stricken or with what severity. The physical consequences of such punishment are also unknown. However, these actions could lead to injury and intent is not a necessary component for child maltreatment. A second limitation is the ambiguity of the perpetrator of child maltreatment. The wording of the questionnaire does not specify who punishes children in the household. It could be that a home with a violent father is both abusing the mother and child or that a woman who has been abused is more likely to abuse her children.

The cross-sectional study does not allow for inferences about temporality. Intimate partner violence may or may not be a precursor to child maltreatment. The data on lifetime experiences of IPV may be subject to recall or reporting bias because of the length of time that may have passed. Because of this, the experience of violence might be under-reported.

Results

The demographic characteristics of the study population are shown in Table 1. The majority of the women (55%) are from urban residential areas, and 53 percent are from the Pacific region, which is more densely populated than then North-Central and Atlantic regions. Most of the women were between the ages of 25 and 39 (55.5%) and claimed either a Catholic or Protestant religious affiliation (52.6% and 30.9%, respectively). The study population was roughly equally distributed among wealth quintiles. Seventy-eight percent of the women were currently married or in a union.

Intimate partner violence is widespread and prevalent in Nicaragua. One in every two women in the study population has ever experienced a form of IPV. The most commonly reported form is psychological abuse (48.9%). Nearly one in three women reports ever having experienced physical partner violence (Table 2). Sexual violence is the least commonly reported.

Table 2 also reveals that over one third of mothers reported using a method of physical punishment considered to be child maltreatment. The most common form of child maltreatment is hitting with a belt, ruler, rope, stick or other object (31.9%). Slapping or smacking and hitting with a hand or fist are less reported (3.1% and 2.6%, respectively).

Table 3 shows the distribution of potential demographic predictors of intimate partner violence. Both residential area and region are significantly associated with each category of IPV at the 0.0001 significance level with a higher prevalence at in urban areas and in the Pacific region. Wealth quintile was also statistically significant at the 0.0001 significance level; however, there is not an incremental association, instead there is a parabolic distribution with quintile 3 having the highest prevalence. Education level is significantly associated with all four IPV categories except psychological abuse. In every instance, those with higher education reported the lowest prevalence of IPV, suggesting a benefit to post-secondary education. Religious affiliation is only associated with psychological and physical IPV. The age of women is significantly associated, and, logically, there is a linear progression in age and reported IPV. By the age of twenty, 41 percent of women have experienced some form of IPV in their lifetime. Divorced or widowed respondents report more IPV than currently married respondents, and

Table 4 shows the distribution of potential behavioral predictors of IPV. Respondents who saw or heard their father/step-father physically abuse their mother/step-mother are statistically more likely to report any type of IPV. As well, as the number of marriages increases, the percentage of reported IPV increases. Respondents who have had four or more marriages report 37 percent more psychological, 40 percent more physical, and 30 percent sexual abuse than those with only one marriage. Partner's drinking habits are statistically associated at the 0.05 significance level only for physical abuse.

Table 5 shows the frequency of child maltreatment according to the mother's experience of intimate partner violence. Of women who had experienced IPV, between 39 and 42 percent have children who are maltreated in their home (Table 5). Women who had experienced either physical (AOR 1.35 [1.21-1.50]), psychological (1.31 [1.19, 1.44]), or sexual violence (1.23 [1.08, 1.41]) by an intimate partner were statistically more likely to report physically maltreating children in the home (Table 6). The odds of women who have experienced any form of IPV also maltreating their children with a form a physical punishment were 35 percent higher than the women who have not experienced any form of IPV (Table 6). Surprisingly, the prevalence of child maltreatment is less among the group with 'Any' history of IPV than among the some of the component sub-groups (for example, physical 41.5%). It is likely this finding is an artifact of the application of weights to the sample.

Summary

All forms of intimate partner violence examined in this analysis are statistically associated with child maltreatment.

Table 1. Demographic Characteristics of the Study Population

Characteristics	N=(12,509)	%
Residential Area		
Urban	6,901	55.2
Rural	5,608	44.8
Region		
Pacific	6,682	53.4
North-Central	4,012	32.1
Atlantic	1,815	14.5
Wealth quintile		
1 Lowest	2,813	22.5
2	2,626	21.0
3	2,532	20.2
4	2,416	19.3
5 Highest	2,122	17.0
Education level		
No education	2,054	16.4
Primary 1-3	1,941	15.5
Primary 4-6	3,337	26.7
Secondary	3,808	30.4
Higher	1,379	11.0
Religion		
None	1,619	12.9
Catholic	6,585	52.6
Protestant / Evangelical	3,870	30.9
Other	435	3.5
Age		
15-19	820	6.6
20-24	2,395	19.2
25-29	2,634	21.1
30-39	4,298	34.4
40-49	2,363	18.9
Marital status		
Married / In a union	9,800	78.3
Separated / Divorced / Widow	2,709	21.7

Table 2. Magnitude of Intimate Partner Violence and Child Maltreatment in Nicaragua

Type of Violence	N= 12,509	%
Intimate Partner Violence		
Any psychological	6,111	48.9
Any physical	3,487	27.9
Any sexual	1,685	13.5
Any abuse	6,394	51.1
Child Maltreatment		
Slapping or smacking	387	3.1
Hitting with a belt, ruler, rope, stick or other object	3,989	31.9
Hitting with hand or fist	326	2.6
Any child maltreatment	4,376	35.0

Table 3. Demographic Predictors and Intimate Partner Violence.

Potential Risk Factors	Overall (N=12,509)	Psychological (n=6,111)	Physical (n=3,487)	Sexual (n=1,685)	Any (n=6,394)
Residential Area					
Urban	6,901 (55.2)	***52.6	***30.8	***15.6	***55.1
Rural	5,608 (44.8)	44.2	24.3	10.9	46.2
Region					
Pacific	6,682 (53.4)	***51.5	***30.4	***15.6	***54.3
North-Central	4,013 (31.1)	43.4	22.9	10.7	45.0
Atlantic	1,815 (14.5)	51.1	29.7	11.9	52.9
Wealth Quintile					
1 Lowest	2,812 (22.5)	***44	***24.8	***10.5	***46.3
2	2,626 (21.0)	48.9	28.9	13.6	50.5
3	2,532 (20.2)	52.8	31.7	15.9	54.8
4	2,416 (19.3)	51.2	28.9	14.8	54.3
5 Highest	2,122 (17.0)	47.9	25.0	12.9	50.3
Education level					
No education	2,054 (16.4)	49.9	***30.6	***13.9	**51.7
Primary 1-3	1,941 (15.5)	49.3	30.7	14.9	52.1
Primary 4-6	3,337 (26.7)	48.8	27.6	12.8	51.1
Secondary	3,808 (30.4)	49.4	28.3	14.5	52.0
Higher	1,379 (11.0)	45.2	19.4	9.5	46.5
Religion					
None	1,619 (12.9)	**48.1	**28.5	13.8	50.7
Catholic	6,585 (52.6)	47.8	26.9	12.9	50.2
Protestant/ Evangelical	3,870 (30.9)	51.0	28.9	14.2	52.8
Other	1,379 (3.5)	48.4	31.7	14.7	51.9
Age					
15-19	820 (6.6)	***37.5	***18.5	***7.0	***41.0
20-24	2,395 (19.2)	43.2	21.5	9.5	45.1
25-29	2,664 (21.1)	46.7	26.9	12.5	49.1
30-39	4,298 (34.4)	50.6	29.8	14.6	52.6
40-49	2,364 (18.9)	57.7	35.2	18.7	60.2
Marital status (%)					
Married / In a union	9,800 (78.3)	***44.9	***24.7	***11.4	***47.1
Separated / Divorced / Widow	2,709 (21.7)	63.2	39.3	20.9	65.6

*** significant at <0.0001

** significant at 0.05

Table 4. Behavioral Predictors and Intimate Partner Violence

Potential Risk Factors	Overall (N= 12,509)	Psychological	Physical	Sexual	Any
Parents abusive history[†]					
Yes	3,577 (29.0)	***62.3	***39.6	***21.1	***64.6
No	8,758 (71.0)	43.5	21.1	10.4	45.7
Number of marriages[†]					
1	9,226 (73.8)	***43.3	***22.2	***10.0	***45.4
2	2,529 (20.2)	61.3	40.4	21.0	64.1
3	596 (4.8)	73.1	53.6	27.5	75.2
4 or more	156 (1.2)	81.0	63.2	41.3	86.5
Partner's drinking habits[†]					
Daily	515 (4.2)	83.9	**64.6	34.2	85.4
Weekly	1344 (11.0)	70.4	48.2	24.3	72.6
Monthly	956 (7.9)	59.1	39.7	17.6	63.0
Less than monthly	3952 (32.5)	45.7	23.3	10.6	47.5
Never	5408 (44.2)	40.1	19.9	9.5	42.3

[†] Missing values

*** Significant at <0.0001

** Significant at 0.05

Table 5. Frequency of Child Maltreatment According to Mother's Experience of Intimate Partner Violence

Forms of IPV	Child Maltreatment Yes (n=4,371)	p-value
Psychological		
Yes	38.5	
No	31.5	<.0001
Physical		
Yes	41.5	
No	32.4	<.0001
Sexual		
Yes	41.0	
No	34.0	<.0001
Any		
Yes	38.7	
No	31.1	<.0001

Table 6. Crude and Adjusted Associations between Intimate Partner Violence and Child Maltreatment

Forms of IPV	Crude OR	95% CI	Adjusted OR	95% CI
Psychological	1.36	1.26, 1.46	1.31	1.19, 1.44
Physical	1.48	1.37, 1.61	1.35	1.21, 1.50
Sexual	1.35	1.22, 1.50	1.23	1.08, 1.41
Any	1.40	1.30, 1.51	1.35	1.23, 1.48

Chapter 4. Discussion

This study of nation-wide data reveals a high frequency of all forms of intimate partner violence in Nicaragua. More than half of the ever-married women of reproductive age report some experience of IPV in her lifetime. Nearly 1 in 2 women reports psychological abuse, 1 in 3 reports physical, and 1 in 8 reports sexual violence. A number of important demographic and behavioral predictors of IPV were identified in ever-married women with children. Finally, the research reveals significant associations between lifetime experience of all three forms of intimate partner violence—psychological, physical, and emotional—and child maltreatment. The associations do not seem to be explained by differences in the most common risk factors such as age, education or wealth, marital status, residential area or region, and partner's drinking habits.

Frequency of Intimate Partner Violence

The prevalence of intimate partner violence in Nicaragua from this data is consistent with worldwide estimates, which predict 20 to 50 percent of women globally have experienced some form of IPV. However, the observed frequencies of physical and sexual violence in this survey were lower than that reported in studies from Asian and African regions. Furthermore, the estimates from this study present lower prevalences than the León study by Ellsberg et al. (Ellsberg, Pena et al. 2000). The discrepancy could be due to a difference in geographical scope. The Pacific region, where León is located, reports the highest levels of IPV.

Sexual violence is the least commonly reported form of IPV in Nicaragua, which is also representative of worldwide estimates, but it still represents a considerable public health problem, affecting nearly one in seven women ((Heise (1994) as cited in (UNICEF

2000)). Forms of IPV overlap considerably, so women who present with forms of physical violence should also be screened for psychological and sexual violence as well.

Risk Factors of Intimate Partner Violence

Unlike most other studies from around the world that show a higher prevalence of IPV in rural areas, urban residence proves to be a significant risk factor for all three types of IPV in Nicaragua. This finding supports reports from the León study (Ellsberg, Pena et al. 2000). Women in rural areas could be more reluctant to disclose abuse. Another possible explanation is that those in urban settings could have greater access to alcohol, which is associated with IPV in Nicaragua. There is a strong dose-response relationship between partners' drinking and experience of partner violence.

In most South East Asia and Sub-Saharan African studies, low education attainment and low economic status were highly associated with IPV. On the contrary, in this study, women with no education report roughly equal amounts of IPV as women who had completed primary or secondary education; however, the completion of higher education is a protective factor against physical and sexual IPV. Because 68 percent of women suffering IPV have a primary (4-6) education or above, intervention programs in primary schools could reach the majority of the female population. There is a substantial prevalence of partner violence in every wealth quintile. While some studies have shown an association between violence and poverty, respondents in the middle wealth quintile report the highest levels of all forms of IPV, diverging in this setting from the more typical pattern of poverty breeding violence.

Women's age and number of marriages or unions are both strongly associated with IPV. Logically, the older the women are and the greater number of marriages, the more likely they are to have experienced IPV. By the time women are 20 years old, a

surprising 40 percent have experienced some form of intimate partner violence, reflecting a need to begin interventions at a young age. The association found between violence and family history of violence is consistent with research from other countries, suggesting that violent behavior and relational norms can be learned from childhood experiences. This result highlights the importance of breaking the cycle of violence before children are involved.

Intimate Partner Violence as Risk Factors for Child Maltreatment

As hypothesized, IPV is significantly associated with child maltreatment in Nicaragua. In developing countries, abuse is often conceptualized as "punishment or chastisement," which makes physical punishment of children under the age of 16 a reasonable proxy for child maltreatment ((Garcia-Moreno, Jansen et al. 2006) p1262). However, further studies should be undertaken in order to better capture the mechanisms and relationship between partner violence and child maltreatment. Women who report or show signs of abuse should also have their children screened for maltreatment.

Recommendations

Violence against women is a complex issue shaped by individual behavior, relationships, cultural norms, and societal structures, and in order to combat the issue effectively, preventative interventions need to be targeted at root causes and fundamental inequalities. Since violence against women is a major public health problem world-wide, it is likely that interventions with demonstrated effectiveness in specific regions could be culturally adapted and made appropriate for the Nicaraguan context.

Around the world, efforts have been made to bring the issue of violence against women to the forefront. Much progress was made in the 1990s, and efforts such as the Declaration on Violence against Women, Convention on the Elimination of All Forms of

Discrimination against Women (CEDAW), and The Vienna World Conference on Human Rights in 1993 placed the issue into international focus. Progress has been made at regional level as well with conventions such as the Inter-American Convention on the Prevention, Punishment and Eradication of Violence against Women, which has increased awareness of violence against women as a human rights issue.

Before rape laws were ratified in Nicaragua in 1992, rape was considered a "private offenses," and if the rape victim was not a virgin, the perpetrator would receive a milder punishment (Ellsberg, Liljestrand et al. 1997). Nicaragua's National Network of Women against Violence includes more than 150 women's groups and hundreds of individuals nationwide (Ellsberg, Pena et al. 2000; Ellsberg, Liljestrand et al. 1997). The Network mobilized and campaigned for more than a year in order to get a Domestic Violence Law passed in 1996. Significantly, the new law included psychological injuries in the definition of injurious assault and intimate partner violence was considered aggravated, which increased sentence time to maximum (Ellsberg, Liljestrand et al. 1997). These sanctions against intimate partner violence in Nicaragua are a huge step forward; however, major obstacles remain including enforcing the laws and addressing cultural norms.

Nicaragua has few resources to help battered women at the community level, and most are located in urban centers. Acción Ya was the first organization in the country to open a battered women's shelter, and a second shelter called "el Albergue" was opened in the capital city of Managua in the late 1990s (Ellsberg, Liljestrand et al. 1997). Other organizations such as Sí Mujer, Puntos de Encuentro, and the Centre for Information and Advisory Services in Health (CISAS) work in educating the population about domestic

violence and reproductive rights through public events and media campaigns (Ellsberg, Liljestrand et al. 1997).

More recently, however, non-governmental organizations are being proactive in stopping the cycle of violence. PATH implemented a program called “Entre Amigas” targeting pre-adolescent females ages 10 to14 to inform them about important health-related issues such as STIs, HIV, and intimate partner violence. PATH uses a collaborative approach, incorporating ideas from the girls themselves and teaching them about life skills like negotiation, communication, and accessing resources. As well, the program targets support networks for pre-adolescent girls such as parents, teachers, and health personnel to provide them with tools to help young girls, to detect risk behaviors, and to respond appropriately (PATH 2004). The goal of the program is to “improve living conditions, modify personal behaviors, and increase the efficacy of services offered to this age group” (PATH 2004), p.21). Programs like Entre Amigas are important since almost 40 percent of women experience some form of IPV by the age of 19, and the majority (68%) of women complete grade school (4-6) (Tables 1 and 2).

Two community-based interventions from Sub-Saharan Africa have been effective at lowering incidences of IPV. Studies have shown that societal acceptance of partner violence is closely associated with IPV prevalence; therefore, it is important to change the underlying attitudes and acceptance of these actions, especially in women (Uthman, Lawoko et al. 2009). In Latin America, the culture of masculine dominance and *machismo* perpetuates an unequal power dynamics. Intervention with Microfinance for AIDS and Gender Equity (IMAGE) in South Africa, which WHO calls “one of the most rigorously evaluated and successful microfinance and women’s empowerment programmes to date,” is an example of a community-oriented program that has emerged

to combat gender inequality ((WHO 2010)p.48). A randomized control trial revealed that two years after completion of the IMAGE program, participants reported 55 percent fewer acts of IPV in the previous year than the control group, and a greater percentage of participants disagreed with statements condoning IPV compared to the control group (WHO 2010).

IMAGE combines a microfinance program with educational and training sessions around important subjects such as HIV prevention, communication and intimate partner violence. While the South African program targets impoverished women from rural villages, in Nicaragua the same program could be adapted for urban areas. An important and unique aspect of the program is that it invites men and boys to join the discussion, a critical component of changing cultural norms.

Similarly, Stepping Stones training package is another community-oriented intervention that involves both men and women in the discussion about HIV and IPV prevention. A randomized control trial from South Africa showed men ages 15 to 26 who participated in the program were less likely to physically or sexually abuse their partners during the two years following the completion of the program compared to a control group (WHO 2010). Both IMAGE and Stepping Stones show the importance of including men in interventions to increase communication in relationships and challenge ideas of masculine dominance. With some cultural adjustments, both IMAGE and Stepping stones could be adapted to Nicaragua.

With exception to PATH's Entre Amigas, current resources and programs in Nicaragua tend to focus more on secondary response to instead of primary prevention of intimate partner violence. In order for Nicaragua to more successfully combat partner violence, there needs to be a shift towards a systems-based approach with multi-faceted

interventions, as in IMAGES and Stepping Stones. These two rigorously evaluated programs have shown the importance of involving men and women both in the intervention, as well as incorporating aspects such as education, skills training and employment, empowerment, and when applicable, substance abuse prevention or rehabilitation. In order to achieve progress toward the third Millennium Development Goal, widespread, multi-sectoral interventions at the community level must be matched with comprehensive legislative and judicial commitment to promote gender equality, as outlined in, and to protect the fundamental human rights of women and their children.

References

(2010). The Millennium Development Goals Report. New York, United Nations.

(INIDE), N. N. I. f. D. I. and C. f. D. C. a. P. (CDC) (2008). Nicaragua Reproductive Health Survey 2006-2007. M. o. H. (NIcaragua). Managua, Nicaragua, Nicaragua National Institute for Development Information (INIDE)

Asling-Monemi, K., R. Tabassum Naved, et al. (2008). "Violence against women and the risk of under-five mortality: analysis of community-based data from rural Bangladesh." Acta Paediatr **97**(2): 226-232.

Åsling-Monemi, M. (2003). Violence Against Women Increases the Risk of Infant and Child Mortality: A Case-Referent Study in Nicaragua. The Bulletin of the World Health Organization W. H. Organization. **8:** 10-18.

Becker-Dreps, S., D. Morgan, et al. (2010). "Association between intimate partner violence and irritable bowel syndrome: a population-based study in Nicaragua." Violence Against Women **16**(7): 832-845.

Decker, M. R., G. R. Seage, 3rd, et al. (2009). "Intimate partner violence functions as both a risk marker and risk factor for women's HIV infection: findings from Indian husband-wife dyads." J Acquir Immune Defic Syndr **51**(5): 593-600.

Edleson, J. (1999). "The overlap between child maltreatment and woman battering." Violence Against Women **5**(2): 134-154.

Ellsberg, M., H. A. Jansen, et al. (2008). "Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study." Lancet **371**(9619): 1165-1172.

Ellsberg, M., J. Liljestrand, et al. (1997). "The Nicaraguan Network of Women Against Violence: Using Research and Action for Change." Reproductive Health Matters **10**: 82-92.

Ellsberg, M., R. Pena, et al. (2000). "Candies in hell: women's experiences of violence in Nicaragua." Soc Sci Med **51**(11): 1595-1610.

Ellsberg, M., A. Winkvist, et al. (2001). "Women's Strategic Responses to Violence in Nicaragua." Journal of Epidemiology and Community Health **55**: 547-555.

Ellsberg, M. C., R. Pena, et al. (1999). "Wife abuse among women of childbearing age in Nicaragua." Am J Public Health **89**(2): 241-244.

Garcia-Moreno, C., H. A. Jansen, et al. (2006). "Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence." Lancet **368**(9543): 1260-1269.

Hazen, A. L., C. D. Connelly, et al. (2004). "Intimate partner violence among female caregivers of children reported for child maltreatment." Child Abuse Negl **28**(3): 301-319.

Heise, L., M. Ellsberg, et al. (1999). Ending Violence against Women. P. Reports. Baltimore, MD, Johns Hopkins University School of Public Health.

International, A. (2005). "Violence against Women Factsheet." from http://www.amnestyusa.org/our-work/issues/women-s-rights/violence-against-women/violence-against-women-information?id=1108440.

Jewkes, R. K., K. Dunkle, et al. (2010). "Intimate partner violence, relationship power inequity, and incidence of HIV infection in young women in South Africa: a cohort study." Lancet **376**(9734): 41-48.

Kahn, S. (2005) "Violence against Women: Bangladesh Context." Focus **40**.

Leeb, R. T., L. J. Paulozzi, et al. (2008). Child Maltreatment Surveillance: Uniform Definitions for Public Health and Recommended Data Elements. Atlanta, GA, Centers for Disease Control and Prevention.

Morewitz, S. J. (2004). Violence and Maternal and Child Health: New Patterns of Trauma, Treatment, and Crimminal Justice Responses. New York, Kluwer Academic / Plenum Publishers.

Morrison, A. and M. B. Orlando (1999). Socioeconomic Costs of Domestic Violence: Chile and Nicaragua. Too Close to Home: Domestic Violence in the Americas. A. Morrison and M. L. Biehl. Washington D.C., Inter-American Development Bank.

Naved, R. T. and L. A. Persson (2005). "Factors associated with spousal physical violence against women in Bangladesh." Stud Fam Plann **36**(4): 289-300.

PATH (2004) "Preadolescent Girls: The Hidden Population from the Entre Amigas Project Baseline."

Shamu, S., N. Abrahams, et al. (2011). "A systematic review of African studies on intimate partner violence against pregnant women: prevalence and risk factors." PLoS One **6**(3): e17591.

Silverman, J. G., M. R. Decker, et al. (2011). "Gender-based disparities in infant and child mortality based on maternal exposure to spousal violence: the heavy burden borne by Indian girls." Arch Pediatr Adolesc Med **165**(1): 22-27.

Straus, M. A. and R. J. Gelles (1979). "Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scale." Journal of Marriage and the Family **41**: 75-88.

UNFPA (2004). Programming to Address Violence against Women, UNFPA. **2**.

UNICEF (2000). "Domestic Violence against Women and Girls." Innocenti Digest(6).

UNICEF. (2010). "Female Genital Mutilation/Cutting." Child protection from violence, exploitation, and abuse. Retrieved November 11, 2010, from http://www.unicef.org/protection/index_genitalmutilation.html.

UNIFEM (2007). Violence against Women--facts and figures.

Uthman, O. A., S. Lawoko, et al. (2009). "Factors associated with attitudes towards intimate partner violence against women: a comparative analysis of 17 sub-Saharan countries." BMC Int Health Hum Rights **9**: 14.

Valladares, E., M. Ellsberg, et al. (2002). "Physical partner abuse during pregnancy: a risk factor for low birth weight in Nicaragua." Obstet Gynecol **100**(4): 700-705.

WHO (2005) "WHO Multi-country Study on Women's Health and Domestic Violence against Women: Initial results on prevalence, health outcomes, and women's responses.".

WHO (2010). "Preventing intimate partner and sexual violence against women: Taking action and generating evidence."

WHO. (2011). "Violence against Women." Fact sheets Retrieved March 9, 2011, from http://www.who.int/mediacentre/factsheets/fs239/en/.

Wisner, C. L., T. P. Gilmer, et al. (1999). "Intimate partner violence against women: do victims cost health plans more?" J Fam Pract **48**(6): 439-443.

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