

FEMALE LABOR FORCE PARTICIPATION AND INTIMATE PARTNER VIOLENCE
AMONG MARRIED WOMEN IN NEPAL

by

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ABSTRACT

FEMALE LABOR FORCE PARTICIPATION AND INTIMATE PARTNER VIOLENCE AMONG MARRIED WOMEN IN NEPAL

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Nepal has the highest rate of female labor force participation (FLFP) in South Asia (Ghosh, Singh, & Chigateri, 2017), alongside high levels of violence against women (Yoshikawa et al., 2014). The explanation for the co-occurrence of high levels of female labor force participation alongside significant amounts of intimate partner violence (IPV) has not been adequately explored. Studies on how the working status of a woman in Nepal makes her vulnerable to violence are few and far between (John, 2020). Theoretical models to account for this phenomenon are crucial to formulating interventions that are protective of working women. The current study aims to fill that gap and explore the risk of and protective factors against intimate partner violence among working women in Nepal.

Empirical studies of IPV among working women in Nepal have mostly been limited to two types of models: bargaining and male backlash. (John, 2020; Nwokolo, Shrestha, Ferguson, Shrestha, & Clark, 2020). The problem of endogeneity, a correlation between the explanatory variables and the error term in a regression, has not been explored and remains a methodological drawback confounding findings from prior studies on IPV among working women in Nepal. Given the limitations of current research on IPV among working women in Nepal, this study has three

objectives. The first objective is to consider a more inclusive set of environmental factors, other than the immediate familial situation, that impinge on the working women's intimate partner experiences. The second objective is to focus on the endogeneity problem as a methodological issue. The third objective is to run a statistical analysis on three cohorts (created by the duration of marriage till the survey) to account for the recall error that DHS data on violence could be subjected to.

The study used the Nepal Demographic and Health Survey, 2016, to analyze significant predictors of violence, along with the risk of and protective factors for married working women. The study found several significant predictors at macro, meso, and micro levels that influence the likelihood of domestic abuse. The predictors with the highest odds were the husband's alcohol habits and the husband's controlling nature. Women's empowerment indicators, such as higher level of education, sole ownership of assets, a mobile phone, a bank account, and involvement in high-level professions, were found to be protective against all forms of violence.

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CHAPTER I: INTRODUCTION TO THE STUDY

Worldwide, domestic violence is a major public health problem and a violation of women's human rights (World Health Organization, 2013). Several studies have recorded negative impacts of intimate partner violence (IPV) on women's physical, sexual, and reproductive health, including increased risk of HIV/AIDS (Jejeebhoy 1998; Stephenson, Koenig, & Ahmed, 2006). More importantly, studies have shown how the health consequences of violence against women affect their future children negatively (Graham-Bermann & Seng, 2005).

The 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” (UN General Assembly 1993: Article 1). Global data from 80 countries suggest that one-third of all women in a relationship experience physical and/or sexual violence by an intimate partner at some point in their lives (WHO, 2013).

The problem's magnitude necessitates suitable strategies to resolve the challenges presented by IPV and gender-based violence (GBV). Researchers have argued that women's participation in the labor force and asset ownership can lead to empowerment and lower their risk of facing violence (Bhattacharya, Bedi, & Chhachhi, 2011). Such economic intervention could increase women's financial security and reduce poverty-related stress (Vyas & Watts, 2009) by affording higher disposable income to the family. Economic theories related to the household bargaining model suggest that women's economic role and ownership of property will increase their bargaining power and afford their agency to make decisions. Such a position

would give her the choice of leaving an abusive relationship because she has the means to improve her fallback positions (Quisumbing & Hallman, 2005).

Some researchers argue that the economic model is incomplete without including sociological and cultural factors, such as the prevailing social and gender norms that may have an equal or greater influence on power dynamics in the relationship (Kabeer, 1997). Macmillan and Gartner (1999) contend that if women's economic contribution threatens men, they may use violence to maintain their superiority, thereby negating any benefit women's income may have brought to the relationship. Including male backlash to the household bargaining theory widens the understanding of working women's vulnerability to violence. However, researchers insist the models should account for constraints on the woman's ability to exit the relationship (Aizer, 2010) to comprehend the whole context better.

Divorce is highly stigmatized in many traditional cultures, including Nepal. In such settings exiting a violent relationship may not be a practical option (Luke & Munshi, 2011), irrespective of the survivor's economic standing. Therefore, bargaining models may only partially explain violence in traditional cultures dominated by strictly patriarchal gender norms. Social norms could be powerful enough to overshadow benefits accrued from women's economic activity, even in resource-constrained households. A study in Tanzania (Vyas, Mbwambo, & Heise, 2015) found that working women had to craft astute tactics to validate their partners' roles as the head of the household even though they had access to income. The income may give working women a better bargaining position, but social constraints may considerably reduce any benefits such a position may have accrued.

The Case of Nepal

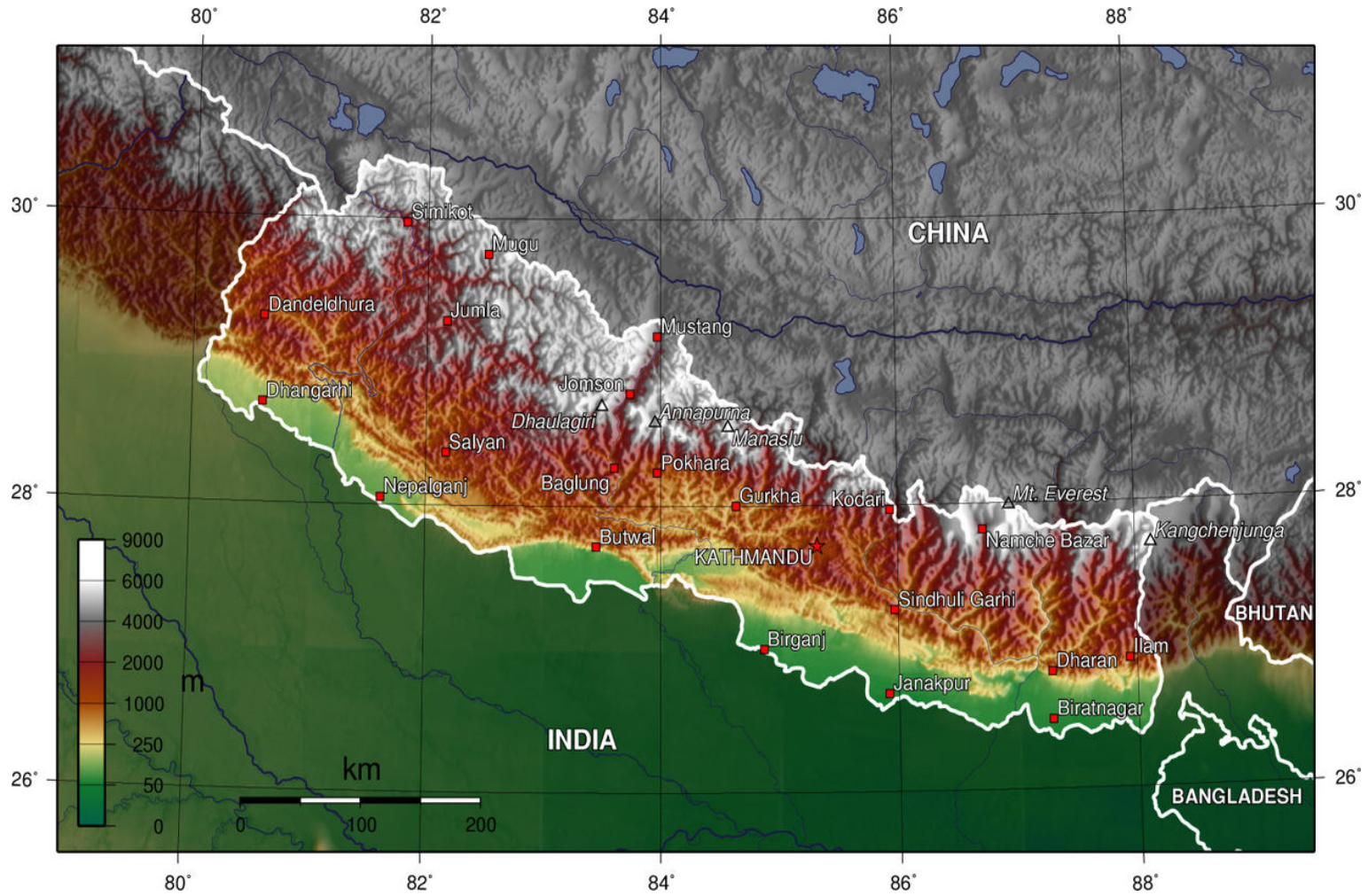
Nepal has the highest rate of female labor force participation (FLFP) in South Asia (Ghosh, Singh, & Chigateri, 2017) and also high levels of violence against women (Yoshikawa, Shakya, Poudel, & Jimba, 2014). Yet, there has been no research using national-level data to study the connection between the two variables, even though studies from elsewhere have shown a strong correlation. Research has shown that violence against women in Nepal is sometimes accepted as necessary to discipline the female partner, and a high percentage of women are exposed to physical and psychological violence (Shakya, Dangal, & Poudyal, 2014). The co-occurrence of high levels of female labor force participation alongside significant amounts of intimate partner violence has not been adequately explored. There is little research on how the working status of a woman in Nepal makes her vulnerable to violence (John, 2020). Theoretical models to account for this phenomenon are crucial to formulating interventions that are protective of working women. The current study will fill that gap and explore the risk to and protective factors against intimate partner violence faced by working women in Nepal.

At a theoretical level, empirical studies on IPV among working women in Nepal have been mostly limited to two types of models: bargaining and male backlash. (John, 2020; Nwokolo, Shrestha, Ferguson, Shrestha, & Clark, 2020). Both these modeling approaches rely heavily on the immediate family environment without adequately focusing on the socio-economic factors related to IPV among working women. In addition, the causative linkages delineated by male backlash and bargaining models do not adequately isolate the reciprocal relationship between IPV and labor force participation. This endogeneity problem remains a methodological drawback, confounding findings from prior studies on IPV among working women in Nepal. In response to these shortcomings, this study has three objectives. The first is to consider a more

inclusive set of factors than the immediate familial environment that impinges on the working women's intimate partner experiences. The second objective is to focus on the endogeneity problem as a methodological issue. The third objective is to run a statistical analysis on three cohorts (created by the duration of marriage till the survey) to account for the recall error that DHS data on violence could be subjected to.

Women's participation in the labor force should be strongly encouraged for its many benefits to the immediate family, the larger economy, and the movement to change traditional social norms (Grossman-Thompson, 2017). These benefits include better investment in children's education, nutrition, and healthcare (Vyas & Watts, 2009) and reducing child mortality and gender bias (Klasen & Wink, 2009). Working women also promote economic growth across nations (Klasen & Lamanna, 2009). However, the combination of entrenched patriarchal norms and discriminatory legal frameworks makes it challenging to reduce violence against women. Since women are most likely to be abused by a household member, particularly an intimate partner (Clark et al., 2018), it becomes imperative to understand the risk factors for IPV accompanying varying levels of labor force participation. There should be suitable measures to ensure that a working woman does not become a victim of multiple forms of violence because of her working status.

Figure 1. Map of Nepal



Source: https://en.wikipedia.org/wiki/Geography_of_Nepal

The Setting of the Study

The Federal Democratic Republic of Nepal is a landlocked country bordering Tibet, with China to the north and India to the south, east, and west (Sharma, 2020). Nepal is diverse in geography, biodiversity, and culture, with people sharing multiple ethnicities, languages, and beliefs. The geography of the country includes the three principal ecological belts known as the Himal (high mountains), Pahad (forested hills), and Terai (fertile plains). The Constitution of Nepal affirms it to be a secular federal parliamentary republic divided into seven provinces (Sharma, 2020). The population of Nepal is estimated to be 29 million, with a labor force of over 16 million people (World Bank, 2021). Driven by unemployment and under-employment, at present, about four million Nepali men and women are working abroad, mainly in India, the Gulf, and East Asia (Sharma, 2020), with men comprising more than 90% of the migrants (Ministry of Labor, Government of Nepal, 2020).

The literacy rate for the population aged five and above was 67.9% in 2020, although enrolment drops at the secondary and tertiary levels compared to primary enrolment (United Nations Development Programme, n.d). Traditional Nepali society is defined by family values, with multi-generational joint families living together, despite an increase in nuclear families in urban areas (Brunson, 2016). Two-thirds of the workforce is engaged in agriculture, contributing one-fourth of the country's Gross Domestic Product (Sharma, 2020). With the out-migration of millions of men to foreign countries (Adhikari & Hobley, 2015), women have been assigned household responsibilities, agriculture, and children. According to Nepal Labor Force Survey, 2017-18, Nepal has 125 working-age women for every 100 working-age men. The downside of women's heavy engagement in agriculture is that official statistics ignore or undervalue their contributions.

Status of Working Women in Nepal

Nepal is a developing nation that has advocated for women's increase in labor force participation (Balayar & Mazur, 2021). Traditionally, only poor Nepalese women were expected to work outside the house for survival (Acharya et al., 2010). Working class women from diverse backgrounds have been migrating within and outside the country to find work (Bhadra, 2009). Some women in Nepal work as labor for landlords throughout the year but are not paid in cash, while others work seasonally during the paddy cropping, wheat harvesting, or herding seasons (Acharya et al., 2010).

Payment in the form of cash is considered the most efficient and welfare-maximizing form of payment (Datta, Nugent, & Tishler, 2004), the implication being that women who are paid in kind are constricted in their choices. The women who are not paid in cash are compensated with food and clothing. They typically work for family sustenance and are likely to have less autonomy than women who work for cash. Women who were in paid employment were found to have higher participation in decision-making than women who were not in paid employment (Acharya et al., 2010).

Although most women in Nepal are self-employed or work in the informal sector or agriculture (Nepal Labor Force Survey, 2017/18), some have crafted significant pathways into the world of paid employment. At more than 80%, Nepal has the highest female labor force participation rate among South Asian countries (Ghosh, Singh, & Chigateri, 2017). The FLFP rate in Nepal is more than 2.5 times higher (30.5%) than that in South Asia (Ghosh, Singh, & Chigateri, 2017; ILO Nepal, 2014). The high percentage of Nepali women in the labor force can be termed an outlier for FLFP in South Asia. The high FLFP rate could be because of social norms and cultural practices that have assigned women the responsibility for taking care of

livestock (Sijapati, Bhattarai, & Pathak, 2015). Women are over-represented in agriculture, with over 80% claiming agriculture as their main occupation (Food and Agriculture Organization of the United Nations, 2019). Involvement in agriculture is considered an extension of household duties, but the soaring participation rates in recent years may have increased due to the high international migration of working-age men (Sijapati, Bhattarai, & Pathak, 2015).

In keeping with the global trends, many developing countries have formulated policies to promote women's participation in the workforce for the positive benefits it has on families. Though the extent of female labor force participation for girls and women aged 15 and above is substantial at over 80% (Ghosh, Singh, & Chigateri, 2017), it has not succeeded in lowering the risk of violence against working women. The high rate of violence against women in developing countries like Nepal has been ascribed to unresponsive law enforcement due to gender bias (Jayaweera et al., 2007), lack of infrastructural and legal protection mechanisms (Joshi & Kharel, 2008), and high tolerance of violence against women because of cultural acceptance and normalization of violence (Boyle et al., 2009; Sharma, 2007).

Interestingly, the marginalization of women in Nepal coexists with adequate sharing of power at the state level. Women occupy 41% of the seats in the local government and 33.5% in the parliament (UNDP, n.d). The interim constitution of Nepal decrees that all political parties ensure that at least one-third of the total number of candidates nominated to Parliament are women (Government of Nepal, 2007). This clause has pushed the representation of women in politics, but the relatively strong female representation in government has not translated to the service sector, where the female share of employment in senior and middle management is only 13.9% (UNDP, n.d). Despite their sizeable presence in the assembly, women have not been able to influence the culture of the male-dominated political institutions, as their representation

appears to be symbolic and has no relationship with women-advancing policies in Nepal (Kanel, 2016).

Domestic Violence in Nepal

The official recognition of domestic abuse in Nepal is a relatively recent phenomenon even though the country has significant occurrences of partner violence. The Domestic Violence (Crime and Punishment) Act, 2008, was passed to punish perpetrators of violence and offer medical relief and accommodations to the victims (UN Women, 2016). This act recognizes physical and psychological violence as domestic violence, which can be reported in verbal and written forms. In 2011, the Nepal Demographic Health Survey provided a nationally representative sample of domestic violence incidents for women aged 15–49 in Nepal for the first time. The 2012 Government report revealed that almost half of the women had experienced domestic violence at some point in their lives. Both men and women identified patriarchal norms, gender inequality, and economic disparities as the root causes of violence against women (Hawkes et al., 2013). Some effects of IPV in Nepal are disability, miscarriages, sexually transmitted infections, HIV transmission, depression, and death (Dhakal, Berg-Beckhoff, & Aro, 2014; Sharma, 2007).

An important reason for the high rates of violence against women in Nepal is that there are widespread social norms that not only accept but encourage IPV against women by their husbands as a means of exerting control in the relationship (Ghimire & Samuels, 2017). Men's aggression and authority are considered intrinsic and even defended in Nepali society (Clark et al., 2019; Sharma, 2007). The acceptance and tolerance of IPV (Yoshikawa et al., 2014) is a notable risk factor. This was confirmed by a study on violence against women in Nepal, which found that more than 90% of women were exposed to psychological and emotional IPV, and

more than 80% suffered physical IPV (Rana-Deuba, 1997). Another study (Dhakal, 2008) found domestic abuse to be the main reason for four out of every five incidences of violence experienced by women in Nepal. The high level of IPV in Nepal is a reflection of gendered norms, poverty, lack of financial independence of women, socio-cultural norms, and lack of institutional support services (Lamichhane, Puri, Tamang, & Dulal, 2011; Pandey, 2016; Puri, Frost, Tamang, Lamichhane, & Shah, 2012; Yoshikawa et al., 2014).

Domestic abuse of women in Nepal is under-reported because of the stigma associated with public acknowledgment of violence and victim-blaming and because people consider such treatment a part of the culture (Joshi & Kharel, 2008). Many women in Nepal do not feel the need to disclose domestic violence because it is tolerated by the community, which means women do not acknowledge that they are being violated (Lamichhane et al., 2011). The power imbalances within the family in favor of men encourage inequitable practices toward women, wherein women, as lesser members of society, are culturally expected to resign themselves to episodes of IPV (Sharma, 2007).

Feminism in Nepal

Feminism in Asia has been seen as aggressive, radical, and unsuitable Western import that privileges the individual over the group and goes against the collectivist social norms of Asian countries (Chanda & Owen, 2001). Nepal has imbibed some of this understanding, and women's movements have been largely about welfare activities that uplift the fundamental needs of women, such as health, education, and economic activities (Tamang, 2009). Yet, there are changes afoot. Bhadra (2001) notes that feminism in Nepal has evolved from a protection-oriented approach to a status-oriented approach, with the focus moving away from women's reproductive roles as housewives and mothers to making women active participants in

development (Bhadra, 2001). The restoration of democracy in the 1990s led to the creation of scores of non-government organizations that worked towards women-specific awareness, advocacy, and development programs to mainstream gender equality and women's empowerment (Bhadra, 2001).

The negative connotation that feminism carries can be understood from the observation by Copp (2020), who said that the leaders of organizations focused on gender-equality preferred the term Gender Equality and Social Inclusion (GESI) to reflect Nepal's commitment to policies that analyze gender issues and promotes social equality over feminism. GESI works towards delivering equal opportunities, not welfare for the poor (Copp, 2020). Despite these efforts, Nepal is still struggling with equality of opportunities and fairness in access to resources for girls (Khanal & Bhatta, 2022). Women's economic participation in Nepal has advanced from being a beneficiary of welfare projects to active participants in development, but they still prefer the softer terms of gender equality to feminism.

Malagodi (2018) argues that there is a move towards greater gender equality because feminism in Nepal has shifted from a "deferential" and "formalistic" approach to a more assertive response to issues related to gender-based discrimination (p.548). Citing legal cases, Malagodi (2018) states that the Court previously sought to ensure some amount of fairness and protection for women. Lately, the Court has moved towards "redistributive justice," referring to international laws and treating Nepali women in line with global norms (p. 549). The contribution of Nepal's Supreme Court has been significant in improving the status of Nepali women, but the interventions have not been "uniform...equally incisive... or proportionally successful" (Malagodi, 2018, p. 528). Feminism in Nepal can be seen from the perspective that

women still advocate for equal opportunities. The laws support equality in principle, but implementation at the ground level remains poor.

Factors Associated with Violence Against Women in South Asia

Several factors responsible for violence against women (Ghimire & Samuels, 2017; Heise, 1998) have been noted in the literature. This section discusses some of the important factors particularly affecting South Asian countries. They are categorized as macro, meso, and micro variables.

Macro Variables

A World Health Organization (WHO) multi-country study found IPV higher in rural populations (Garcia-Moreno et al., 2006). Rural areas have structural and institutional disadvantages that afford fewer opportunities to women, who also are less likely to be aware of their social and legal rights (Jejeebhoy, 1998; Ortiz-Rodrigues & Pillai, 2018; Peek-Asa et al., 2011). Rural areas tend to have strong beliefs in patriarchy, gender-segregated roles, and hegemonic masculinity, with support for suspected disobedience and disrespect being corrected through violence against women (Bogal-Allbritten & Daughaday, 1990; Zakar, Zakar, & Abbas, 2016). Therefore, spousal abuse is more prevalent in rural areas than in urban centers (Panda & Agarwal, 2005). A study found that women from the Mountain areas, with more urban centers, had more autonomy in household decision-making than women from the more rural Terai (Acharya et al., 2010).

A family's economic background was a strong predictor of IPV, as financial stresses can create tense situations that can lead to violence (Bajracharya & Amin, 2013; Dalal & Lindqvist, 2012; Dasgupta et al., 2015). The financially stable family had less evidence of violence (Sambisa et al., 2011). An explanation for higher levels of violence among the economically

weaker section of society is that the men who have failed in their roles as breadwinners exert violence to prove that they are still in control (Bourgois, 1996).

Meso variables

Women whose husbands were uneducated were twice as likely to face violence compared to women whose husbands were college-educated (Ackerson et al., 2007). The education of men and women was an important predictor since they relate to norms of acceptability of IPV (Martin et al., 2002). Alcohol consumption was strongly related to violence against women in Nepal and South Asia (Atteraya, Gnawali, & Song, 2015; Deuba et al., 2016; Kaur & Garg, 2010). Husband's jealousy, suspicion, and control also were related to the increased likelihood of spousal abuse (Sabri et al., 2014).

A higher number of children was linked to higher risks of violence in Bangladesh and Sri Lanka (Sambisa et al., 2011; Jayatilleke et al., 2011). The correlation could result from overcrowding in a small space that generates frustration. Being childless or having no living sons could be a risk factor for women because of the patrilocal culture that expects married daughters to move away and live with the husband and take care of his family. Studies from India and Bangladesh emphasizes the crucial role of living sons as a protective factor against IPV (Rao, 1997; Schuler, Hashemi, & Badal, 1998). Women's exposure to domestic violence in childhood and adherence to social norms that accept a husband's violence were associated with IPV in India (Sabri et al., 2014). Unemployment among husbands has been associated with IPV against women in previous studies (Cunradi et al., 2009).

A patriarchal family structure has been correlated with violence against women because a woman loses the support of her immediate family members when she moves to live with her husband's family after marriage (Dyson & Moore, 1983). The balance of power favors men in

such cases, which could be why men raised in patriarchal families are more violent towards their partners than those raised in egalitarian families (Malamuth et al., Acker, 1995).

Traditional gender norms under patriarchy that define how men and women should act in a relationship (Clark et al., 2018) could influence violence against women. Marriage at an early age was linked with higher chances of IPV among women in Nepal (Jimba, & Hokama, 2011; Oshiro, Poudyal, Poudel, 2011) and in India (Speizer & Pearson, 2011). The marriage of a young woman to an older husband could result in women having less experience dealing with situations where triggers are unleashed. Conversely, the longer the duration of the marriage, the lower the incidence of physical and psychological violence.

Micro Variables

A woman's level of education is a predictor of IPV, with highly educated women facing less risk of violence than women with little education (Acharya, Sabarwal & Jejeebhoy, 2012; Ackerson et al., 2007; Naved & Persson, 2005). Women's asset ownership was a protective factor against IPV in India (Murugan, Khoo, & Termos, 2021). Owning mobile phones was associated with women's empowerment in Pakistan (Batool, 2018) and Bangladesh (Aminuzzaman, Baldersheim, & Jamil, 2003; Hossain & Samad, 2021). Mobile phone ownership has been associated with aspirations for individual transformation, autonomy, and more powerful decision-making for women. The phone represents not just the material object but also the information and communication elements that facilitate sociocultural processes (Nguyen, Chib, & Mahalingam, 2017). A bank account was also significantly associated with women's empowerment in Pakistan (Bushra & Wajiha, 2015).

In sum, the causes of violence against women were multifactorial, led by a patriarchal belief system. The effects of spousal abuse were felt at the individual, community, and societal levels in Nepal and South Asia.

Importance of the Study

One of the study's objectives is to assess the situations in which women in Nepal are safe from intimate partner violence. Accounting for all labor situations, including unpaid work on her own farm, will help create an inclusive list for women in the labor force. This study is important for Nepal because it is the first to analyze violence against the country's working women using the national data set. Earlier research either studied violence against women without differentiating between working and non-working status (Lamichhane et al., 2011; Pandey, 2016; Puri et al., 2012) or was limited in the geographical or occupational category (John, 2020; Khatri & Pandey, 2013). The study will be the first to address the endogeneity or reverse causality for women in the labor force in Nepal and analyze the likelihood of spousal abuse resulting from a woman's working status. The results of the current study will add to the body of knowledge on intimate partner violence faced by a population that has been under-studied in the past.

CHAPTER 2: LITERATURE REVIEW

This section focuses on previous studies conducted on working women and intimate partner violence. The specific nature of the subject has not been adequately explored in Nepal; therefore, the search was expanded to include articles from South Asia. This involved a systematic review of the literature to explore the correlation between women's labor force participation and spousal abuse. The literature review aims to understand better the context that affects the likelihood of experiencing intimate partner violence in South Asia. Guided by the process for systematic reviews from Littell, Corcoran, & Pillai (2008), the review was conducted based on Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA). The PRISMA chart and detailed information of all articles are shown in Figure 2. The systematic review will explore the nature and quantitative and qualitative studies conducted on female labor force participation and intimate partner violence in South Asia, and it also will report and analyze results forwarded by these studies.

Identification of Relevant Work

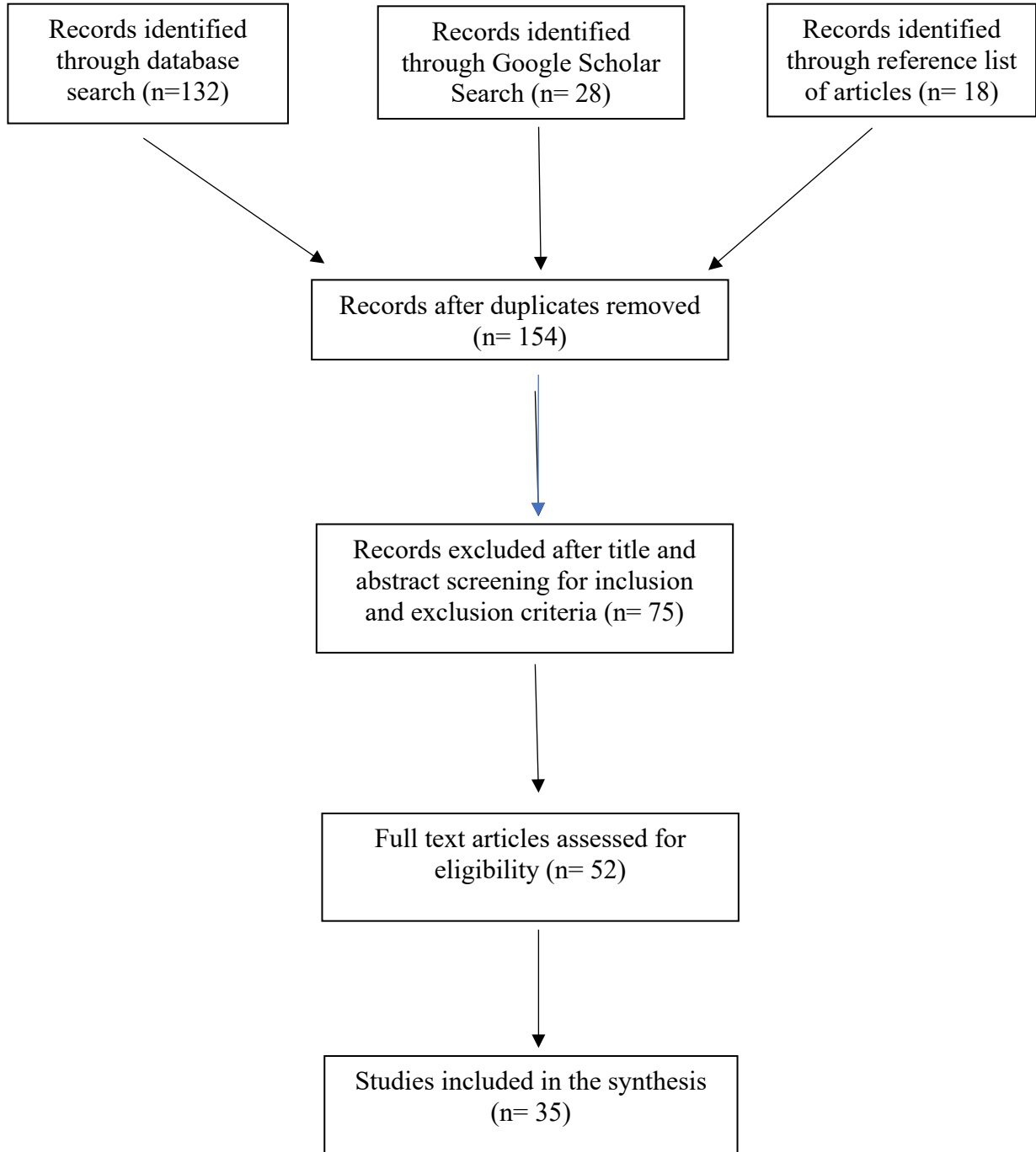
The review's objectives were twofold, first, to identify research that presented empirical population-based quantitative and qualitative findings on the association between female labor force participation and experience of IPV in South Asian nations, and second, to study the thematic relationship between these two factors. The studies reviewed in this paper focused on violence perpetrated by men against women because women are more frequent victims of spousal violence anywhere (Catalano, 2007), including the developed nations. In February 2022, a search was conducted using the following terms (domestic abuse, domestic violence, intimate partner violence, spousal violence, violence) AND (working women, women

with income, financially independent women; economically empowered women; female labor force participation) AND (Nepal, India, Sri Lanka, Bhutan, Pakistan, Bangladesh, Maldives, Afghanistan, South Asia). These terms encapsulate the crux of the subject matter as it is likely to appear within the scholarly literature. The first set of terms specifies that the study is focused on intimate partner violence, the second set stipulates that the study is related to female labor force participation, and the third set limits the study area to South Asian nations. Peer-reviewed articles were searched in Academic Search Complete, Anthropology Plus, Family Studies Abstracts, Humanities Full Text, Psychology, and Behavioral Sciences Collection, PsychINFO, and Social Work Abstracts databases.

Articles noted for inclusion had the following characteristics and were determined a priori. The articles must have been published after 2010 and focused on female labor force participation, not on other economic empowerment measures, such as land or house ownership. Only articles with empirical designs were selected; opinion, policy, or literature review publications were not. Dissertations and systematic reviews were excluded. The main objective of the systematic review was to identify themes related to female labor force participation and IPV. Considering the objective of the paper, articles that discussed inheritance or property ownership were not included, even though they are associated with women's economic empowerment. The articles for the review were screened through the process shown in Figure 2 below, which is the PRISMA chart.

Figure 2

PRISMA Chart



Correlation Between Labor Force Participation and IPV

The literature review included 27 quantitative studies, two mixed method studies, and six qualitative studies. The result was mixed in terms of the association between female employment and experience of IPV. Six studies found female employment to be a protective factor against IPV (Bhattacharya, Bedi, & Chhachhi, 2011; Bhattacharya & Bhattacharya, 2014; Chin, 2012; Dasgupta et al., 2015; Jamal, 2017; Zakar, Zakar & Abbas, 2016), while 14 studies found a positive association between female employment and experience of IPV (Amaral, Bandhyopadhyay, & Sensarma, 2015; Bhattacharya, 2015; Biswas, 2017; Clark et al., 2019; Dalal, 2011; Dalal & Lindqvist, 2012; Eswaran & Malhotra, 2011; Dhanaraj & Mahambare, 2021; Heath, 2014; John, 2020; Kimuna et al., 2013; Krishnan et al., 2010; Paul, 2016; Weitzman, 2014). One study (Luke & Munshi, 2011) found a positive association between an increase in female income and IPV but only for certain slave castes. Chibber et al., 2012) found a positive linkage between women's contribution to household income and IPV, but the relationship was protective if she was solely responsible for all the expenses. Murshid, Akincigil, and Zippay (2016) found that membership in micro-credit institutions could increase the likelihood of IPV for economically better-off women but not for poor women. Sato, Shimamura, & Lastarria-Cornhiel (2021) found that participation in self-help groups (SHGs) reduced domestic violence in the short term, but the frequency of violence increased in the medium-term after women accessed credit. Three studies (Bajracharya & Amin, 2013; Raj et al., 2018; Sambisa et al., 2011) reported no association between female labor force participation and violence.

Dhungel et al. (2017) found that inadequate income made women vulnerable to violence by limiting outside options. A longitudinal study that researched the effect of income-generation

activity on IPV found a non-linear relationship in IPV among men and women and between young married women and older women in Nepal (Shai et al., 2020). Qualitative studies (Ghosh, Singh, & Chigateri, 2017; Grossman-Thompson, 2017; Khatri & Pandey, 2013; Nwokolo et al., 2020; Pun et al., 2020; Zakar, Zakar, & Kraemer, 2013) showed the environmental contexts under which violence is likely to occur and the reasons why IPV continues to affect women's lives.

The major themes from the systematic review are discussed below.

Themes

Patriarchal Gender Norms and Intimate Partner Violence

A mixed method study from Nepal (Nwokolo et al., 2020) found that the popular understanding of a married woman's role was as a homemaker tasked with keeping the household running well. Taking care of all the household members, including the extended family and children, and doing the indoor and outdoor (farm) work was considered a moral responsibility of a married woman irrespective of her socio-economic standing. A woman's paid employment was secondary to her home duties.

A married man's primary role was as a breadwinner, and the neighbors, including women, ridiculed any man seen helping with household chores. The men in joint family systems faced pressure to establish headship in the family through either violence or strictly segregated gender roles. The patrilocal system of the married woman moving in with the husband and his family after marriage led to an unequal support system in the family.

Patrilocality has been associated with limited freedom of movement, decreased agency, and increased likelihood of domestic violence in South Asia (Khalil & Mookerjee, 2019). The study found that, in case of disputes, a husband's claim was likely to have more support than the

wife's claims, making the woman vulnerable to IPV. In disputes between the wife and the in-laws, the husband opted to scold the wife and side with his parents, which was seen as the appropriate choice of a dutiful son, irrespective of who was at fault.

The study found that men unable to control their homes and their wives were seen as weak and often resorted to violence to regain control. Men and women in the community accepted violence, which was seen as a price to be paid to maintain family dignity when a woman was suspected of infidelity or impudence. Any incidence of violence was seen as a private family matter that did not warrant interference from neighbors, society, or formal institutions. The abused woman was under pressure to keep episodes of violence within the family to save the family's reputation and to save herself from the husband's retribution for embarrassing him.

The outside employment of a married woman did not influence her household responsibilities. She was expected to manage household work alongside her employment without compromise. Supporting the findings of this study, a study among working women in urban India (Dhanaraj & Mahambare, 2021) found that the patriarchal norms were strong enough that working women accepted IPV and experienced a higher degree of marital controlling behavior by other women.

Status Inconsistency and Violence

A longitudinal study by Krishnan et al. (2010) in India, over 24 months, found that married working women faced an increased likelihood of intimate partner violence, but the intensity of violence depended on the husband's employment status. The study of the wife's employment status and husband's employment stability found that when women went from being unemployed to being employed, their odds of physical violence increased by 80%

compared to women who had stayed unemployed. Also, women whose husbands had a stable job when the researchers visited for the first time but had job difficulties by the next visit had 1.7 odds of violence compared to women whose husbands had stable employment. The inference here is that spousal employment risks are associated with changes in violence risk. Paul (2016) studied physical and emotional violence among women in India and found that employed women faced a higher risk of violence, and the violence was more severe among employed wives of unemployed husbands than of employed wives of employed husbands. Paul (2016) asserts that the higher emotional cost for men through the violation of traditional gender norms possibly increased violence. In other words, the disempowering effect of a wife's employment on a husband could provoke male backlash leading to increased levels of violence.

Kimuna et al. (2013) analyzed working women in India and found that women's labor force participation increased the risk of violence. However, if the husbands were employed, there was less risk of violence than in marriages with unemployed husbands. In these cases, husbands' employment status was a buffer to violence and a protective factor for women. Macmillan and Gartner (1999) suggest in their study that women's employment increases the risk of IPV only when their partner is unemployed and that risk of IPV decreases significantly when the abusive partner is also employed.

Weitzman (2014) analyzed the relative employment status of men and women in an intimate relationship and found that when women were the only spouses employed, the women had 1.51 higher odds of severe violence compared to non-employed women whose spouses were working. This aligns with the status inconsistency theory that when a husband's resources are limited, and he experiences resource depletion compared to his wife, he is more likely to resort to abusive behavior (Yick, 2001). Franklin and Menaker (2014) found a contradictory result in their

study of the US population. The study found that a woman in a dual–employment partnership had 2.2 times higher odds of becoming an IPV victim compared with male-only employment relationships. Husband’s employment in this study was not a deterrent to violence for working women.

Violence as a Result of Male Backlash

Weitzman (2014) studied physical violence perpetrated on working women in India. He found that women had 1.14 times higher odds of violence if both marriage partners worked than in couples where the woman was not working. Another study of married, working women in urban India (Dhanaraj & Mahambare, 2021) found that IPV was higher among urban women in paid work whose husbands were not employed or was the lower earner. Social disapproval that married men face when they fail to work and earn for their families could lead to violence (Krishnan et al., 2005). A potent combination was women’s employment and husband’s unemployment, wherein the men retaliated through violence to counter the financial imbalance in the relationship. There were exceptions. Chibber et al. (2012) found that work was protective for women when they were responsible for the entire household income.

Higher-level Job Category of Women as a Risk Factor

Biswas (2016) conducted an extensive study on violence in India and measured the correlation between job categories held by women and the possibility of facing physical, emotional, verbal, and sexual violence. The author found a strong relationship between women’s employment and the risk of facing all forms of abuse. The frequency of violence was greater for women in higher-level jobs than in middle-level jobs, and the violence intensified if the woman’s level of educational attainment was higher than that of her husband. Women in agricultural and

seasonal work faced the highest risk of violence, followed by women in skilled or unskilled professions.

Contrary to popular belief, a woman's high-status employment position did not protect her from violence. Even women in mid-level positions, such as clerical jobs, had a lower risk of violence than women in high-level professional positions. The studies show that typically unequal employment statuses between spouses increase the likelihood of violence, and the risk was highest when the husband was unemployed and the wife was employed. In contrast, the study by Chibber et al. (2012) points to the possibility that the husband was unlikely to jeopardize the family's income when the wife was the sole earner, which could make them more accepting of the relative change in roles. A study in the U.S. found similar results wherein female-only employment households reported no violence compared to dual-employment partnerships (Franklin & Menaker, 2014).

Woman's Higher Income as a Risk Factor

A wife's higher income than her husband was a significant predictor of intimate partner violence. Studies that compared spouses' incomes (Dalal, 2011; Health, 2014; Paul, 2016; Weitzman, 2014) found that women who earned the same or less than their husbands faced a lower risk of violence than women who earned more than their husbands. Anderson (1997) observed this phenomenon even in developed nations, such as the U.S., where a woman's higher income, rather than her occupational status, correlated to a higher risk of IPV. Moreover, the wider the gap between the spouses' incomes, the higher the risk of violence. Studies by McCloskey (1996), Anderson (1997), Atkinson, Greenstein, and Lang (2005), and Chung, Tucker, and Takeuchi (2008) confirmed this correlation.

The results from South Asia support the findings from other countries that women's higher earnings, compared to that of their male partners, significantly increase the likelihood of IPV victimization. Studies show that, unlike working women from developed nations, women from South Asia have not been able to use financial resources to their advantage. Working women in the U.S. can end their abusive marriages (Anderson & Saunders, 2003), but working women from South Asia have not leveraged their income to end abusive marriages because of the stigma associated with divorce (Srinivasan & Bedi, 2007).

Poverty, a Risk Factor for Violence

A Bangladeshi study (Bajracharya and Amin, 2013) made a comparative analysis of women affiliated with microcredit institutions with women who were not but who shared similar socio-economic backgrounds and found no significant difference in their likelihood of IPV. Microcredit institutions offer small loans to poor borrowers to facilitate income-generating employment activities (Ahlin & Jiang, 2008). The researchers concluded that microcredit members faced higher levels of violence because of their disadvantaged socio-economic standing in addition to being empowered and capable women. Therefore, the study concluded that violence was more likely the effect of poverty and not of membership in microcredit institutions.

Microcredit affiliation in Bangladesh has shown inconsistent results (Johnston & Naved, 2008). Microcredits specifically target poor women as a policy, and domestic violence is more likely due to being a poor household member. Dalal and Lindqvist (2010), Kimuna et al. (2013), Bhattacharya and Bhattacharya (2014), and Dasgupta et al. (2015) also found poverty to be a risk factor for violence. The findings from these studies support the contention of Bajracharya and Amin (2013) that stress created by poverty is the main reason for violence and that women's

employment status is only incidental. Poverty and domestic violence have been linked before in other studies (Jewkes, 2002; MacMillan & Gartner, 1999). For men in resource-stressed households, violence may be a way to restate their authority under the influence of patriarchal norms (Stickley, Timofeeva, & Sparen, 2008). Higher rates of poverty among microcredit beneficiaries, combined with financial stress, were a trigger for violence rather than microcredit affiliation or employment status.

Couple Exposure Reduction Through Women's Work

Chin (2011) studied violence among agricultural workers in India and found women's labor force participation reduced incidences of IPV because of exposure reduction to a potential abuser and not because work improved the bargaining power of wives within the marriage. Chin (2011) said that violence due to male backlash is reduced when working women spend less time with their spouses. The researcher found no compelling indication that the working status of women improved the relative dynamic within the marriage. Bhattacharya (2015) had similar results, finding a significant correlation between victims of IPV in India and the likelihood that these women worked away from home, year-round, or for cash. Bhattacharya (2015) states that abused women make deliberate choices to lessen the risk of conflict by working outside the home.

The research of Chin (2011) and Bhattacharya (2015) shows that married women may use work as an escape. A shortcoming of both the studies is that they were cross-sectional. So, while they established a relationship between IPV and the likelihood of working away from home, they could not establish causality; that is, the studies could not determine whether the women were working away from home because of violence or if the women faced violence because they were working away from home. A study from the U.S. supports the exposure

reduction theory to reduce IPV in that country (Dugan, Nagin & Rosenfeld, 2003). A shortcoming of the theory is that it seems to apply only if both the husband and the wife are unemployed and are compelled to share space and time. Exposure reduction, therefore, is a theory that lends to the likelihood of IPV but is not adequate by itself to explain why violence occurs even in households where spouses are not together for a major part of the day.

Women as Sole Contributors to Household Expenses a Protective Factor

A study in India found that employment could be a protective factor when the woman was the sole earner, but it was a risk factor when women's income contributed only partially to household expenses (Chibber et al., 2012). When women's contributions become substantial, men recognize and accept the new change in roles as an economic necessity or feel less able to control their wives through violence (Schuler, Hashemi, & Badal, 1998). Dhungel et al. (2017) concluded from their study in Nepal that the economic dependence of working women on their husbands was a risk factor for violence. The women in the study had low-paying jobs, and their continued economic dependence constrained the women's options for escaping violent marriages.

Women with inadequate resources find it difficult to end abusive relationships and are likely to stay in violent marriages longer (Basu & Famoye, 2004). Research from the U.S. has found that a woman's higher personal income and employment status are the strongest predictors of her decision to leave an abusive relationship (Anderson & Saunders, 2003). In cultures like South Asia, in which separation is highly stigmatized, the threat of ending the relationship by women may be taken seriously (Srinivasan & Bedi, 2007). Couple exposure reduction was a likely approach for women to protect themselves from violence in these cases.

Social Honor of a Working Woman and Risk of Violence

A study of working women in urban Nepal (Grossman-Thompson, 2017) found that working women navigated a careful path to ensuring that their participation in the labor market did not compromise their image of traditional, docile, and respectable women. The relationship between women's paid employment and traditional societal norms for women's proper roles was contested. The study found that interaction with unrelated men in the public sphere could lead to charges of immorality, and rumors of impropriety could affect a working woman's honor.

The issue of honor could be related to IPV for married women. The Grossman-Thompson study (2017) said that publicly visible women take social risks by interacting with unrelated men for various reasons; they are particularly vulnerable to accusations of moral failings. Nwokolo et al. (2020) found that society supported acts of violence against women suspected of impropriety to maintain family dignity in Nepal, and a husband who did not act against his seemingly immoral wife was seen as weak. The bounds of tradition, coupled with the economic needs of married Nepali women, put them at risk for violence. |

Patriarchal Ideology and Spousal Violence

The systematic review of female labor force participation and IPV in South Asia had two objectives. The first was to identify the relationship between female labor force participation and IPV, and the second was to investigate the reasons that explain the relationship between women's labor force participation and IPV. The review showed a complex relationship with an array of factors under the patriarchal ideology that could result in violence depending on the context. The common thread throughout South Asian countries was the set of patriarchal beliefs and patrilocal customs wherein a woman left her maternal home to live with her husband and his family after

marriage. Such an arrangement leveraged the balance of power between the spouses against the wife and put her at risk of various forms of spousal and family violence.

Male backlash, strict segregation of traditional gender roles, status inconsistency through women's higher job status or higher income compared to her spouse, and risk of losing social honor through charges of immorality or impropriety were responsible in varying degrees for a working woman's likelihood of experiencing abuse. The review showed that women's work could also be a protective factor against violence in certain cases when the couples' work situation reduced exposure and/or when women's income was responsible for all household expenses. The review showed that the intensity of the predictive cause could vary, but typically strong patriarchal influence and a discrepancy in relative income and employment status between the spouses were significantly associated with IPV for working women.

CHAPTER 3: THEORETICAL PERSPECTIVES

The researcher used two main theories, the feminist theory (Dobash & Dobash, 1979) and the social ecology model of violence (Heise, 1998), to explore and analyze intimate partner violence among working women in Nepal. Within the feminist theory, the male backlash (Aizer, 2010; Luke & Munshi, 2011; Hornung, McCullough, & Sugimoto, 1981) and the status inconsistency (Stryker & Macke, 1978) were used to explain the unequal balance of power between the spouses in the household and how it affects women's chances of victimization. The social ecology model of violence (Heise, 1998) will be examined through the Person-in-Environment framework (Kondrat, 2013) and modernization theory (Inglehart, 1971).

Feminist Theory

Feminist theorists largely see domestic violence as gender violence in which the stronger male coerces the weaker women (Dobash & Dobash, 1979). Wife abuse is one manifestation of violence that men display against women. Other forms of violence against women could include rape, sexual assault, female infanticide, and marital rape. The common factors in all these forms of violence are gender and power. Feminist theory contends that patriarchal norms of male dominance and female submission are reinforced through power structures and access to resources so that men are given decision-making authority, and women are responsible for household work, even when working outside the home (Johnson, 2005).

The case of wife assault is perceived as male domination of women in a patriarchal system. Nepal is a patriarchal society (Hillman & Radel, 2021), wherein power and authority are passed from the father to the eldest son, and everyone is expected to obey the male head of

the family. Patriarchal authority is asserted over all members of the household but is particularly expressed in the control of women (Hillman & Radel, 2021). The emphasis on family and the hierarchical organization under which it operates provides a context for understanding intimate partner violence in Nepal. Patriarchal structure and male supremacy, as explained by Heise (1998), coupled with patrilocal culture wherein the woman moves in with the husband and his family after marriage, may influence power distribution, decision-making, and authority in intimate partner relationships. The spousal relationship may be affected by notions of masculinity associated with dominance, toughness, and honor (Counts, Brown & Campbell, 1992), rigid gender roles (Malamuth et al., 1995), and a sense of male entitlement over women (Schechter, 1982).

Feminist theory claims that men and women have differential access to resources because of ascribed values assigned to certain characteristics, such as gender, making men superior and women inferior (Johnson, 2005). When women have minimal resources and options, and the threat of marital separation comes with consequences, such as losing contact with children, they feel they have no choice but to tolerate the violence. Feminist interventions call for reassigning the ascribed values to reflect an equal power balance by empowering women to exercise their agency and providing pathways to economic security.

When women join the labor force to ensure economic security, there could be consequences depending on how the new situation changes the balance of power. This is where the status inconsistency theory, backed by Murray Straus and Richard Gelles (Kurz, 1989), is useful in explaining violence against working women. The theory stresses that decision-making Power depends on the extent and the supposed value of the resources the individual contributes to the family. The family, therefore, is a power system ; every member uses some degree

of influence to control the power dynamics within the family. Status inconsistency theory suggests that violence is more likely to occur when the existing dynamic is threatened by an individual's new or changing status, and the recent change in status upsets the prevailing power dynamic.

Status inconsistency theory assumes that family members with more resources command more influence than those with fewer resources. Those family members who lack resources or who lose influence because of the improved status of others (in this case, wives) will compensate through violence to establish a new equilibrium. Status inconsistency between partners is associated with an increased risk of abusive behaviors, with women with higher occupational status relative to their spouses being most vulnerable to life-threatening forms of violence (Hornung, McCullough, & Sugimoto, 1981). Due to resource contribution from women, the new status and a changing balance of power in the spousal relationship could lead to male backlash, wherein men compensate for status inconsistency through violence.

Globally, national policies of development are enacted on the inherent assumptions that gender equality will give women better social or economic standing, which, in turn, will give them greater bargaining power within the household to make a decision that benefits themselves and the children (Parpart, Connelly, & Barriteau, 2000). However, research has led to whether the improved positions of females always increase their bargaining power. In general, in intimate partner relationships, bargaining power can be said to occur when better options exist outside of marriage, but in a patriarchal culture where divorce is highly stigmatized and not an option for women, better social or economic status of females may not necessarily transform into higher bargaining power. Instead, it might challenge the socially approved authority of men and generate male backlash (Aizer, 2010; Luke & Munshi, 2011) as the man might try to

reinstate his power over his wife by abusing her (Hornung et al., 1981; Macmillan & Gartner, 1999).

In cultures where options outside of marriage, such as divorce, are available and chosen without stigma, male backlash theory may be criticized for ignoring women's ability to rationalize their situations and end a violent relationship (Aizer, 2010). However, in cultures where divorce or separation is associated with significant stigma, not only for the woman but also for her maternal family, the threat of ending the relationship by women may not be convincing (Luke & Munshi, 2011; Srinivasan & Bedi, 2007). Empirical studies conducted in some culturally traditional areas find that greater financial independence of women, measured by income or membership in credit groups, furthers the risk of violence (Luke & Munshi, 2011; Koenig et al., 2003). In Nepal, divorce is strongly stigmatized, and women do not have options outside of marriage, making it a fertile ground for male backlash.

Social Ecology of Violence Theory

The ecology of violence (Heise, 1998) perspective highlights the importance of understanding individuals in the context of the various environments in which they live. These contexts could include familial, social, economic, physical, and community environments. The model shows concentric circles of factors from the macro, meso, and micro systems that impact a person's likelihood of facing violence (Bronfenbrenner, 1977). Placing the individual at the center of interactions between multiple levels of environmental situations allows for proper assessment and interventions. For this study, the two models have been combined to create an ecosystem with micro variables that include the woman's personal attributes, meso variables that include her immediate household environment, and macro variables that include her location and place of residence.

The Modernization Theory

Feminist theory can be further informed by the modernization theory (Inglehart, 1971), which explains the changes in attitudes about gender as society moves from an agrarian to an industrial economy. The theory says that the decrease in fertility, the smaller size of the family, and the entry of women into the labor force lead to significant changes in attitudes towards family, divorce, and gender roles in the home. Higher levels of modernization relate to more egalitarian societies, and differences between traditional and modern societies are greater than the gap between women and men within each type of society. In addition, younger generations display more egalitarian values than older generations. Individual level predictors of egalitarian attitudes, such as age, sex, educational level, employment status, marital status, number of children, and family savings, remain significant.

Person-In-Environment Theory

With elements from Person-In-Environment (PIE) theory, the social ecology model, and the modernization theory, this study will explore factors that abet and impede violence against married working women in Nepal. Within this framework, the researcher will employ the feminist theory, embedded with status inconsistency and male backlash, and use variables to assess the effects of several environmental variables as suggested by PIE, the ecology framework, and modernization theory on levels of intimate partner violence.

Study Hypotheses

The study will test five hypotheses based on literature and the Person-In-Environment model.

Hypothesis 1: Macro-level variables, such as the location of the women in terms of the rural-urban divide and ecological zones, will significantly influence the levels of IPV experienced by married working women in Nepal.

Hypothesis 2: Controlling for macro-level variables and meso-level variables, such as the spouse's education and employment status, alcohol consumption, and the number of young children in the household, will have a significant influence on the levels of IPV experienced by married working women.

Hypothesis 3: Controlling for macro and meso level variables, micro level variables, such as the married women's education and employment status, her asset ownership, and age, will have a significant influence on the levels of IPV experience by married working women in Nepal, with older women with higher education, higher level employment status, and higher socio-economic status are less likely to experience violence than younger women with less education, lower employment status, and low socio-economic status.

Hypothesis 4: Employed married women with unemployed spouses will experience higher violence levels than employed married women with employed spouses.

Hypothesis 5: A woman's experience of intimate partner violence will be related to her job category, with women in higher level job categories experiencing more violence than women in lower job categories.

CHAPTER 4: METHODOLOGY

Data

The study used a quantitative research design based on the scientific method in which judgments are adjourned till statistical data are received and reviewed (Crotty, 2003). The purpose of quantitative research is to obtain empirical evaluation through data expressed in numerical and measurable forms (Neuman, 2006). The study aims to reveal the relationship between the independent and dependent variables among Nepal's currently married, working women.

The data for this quantitative study were taken from the cross-sectional nationally-representative secondary data of the 2016 Nepal Demographic and Health Surveys (DHS). Data were collected from June 19, 2016, to January 31, 2017, to provide the latest demographic and health indicators estimate. The dataset is publicly available from the DHS website for download after the necessary registration.

This study used secondary analysis because of the scale and scope afforded by the DHS national dataset, which allowed for the exploration and testing of new hypotheses. Another advantage of analyzing existing data is that it facilitates replication (Neuman, 2006). The study used existing public data, and no participant was exposed to harm.

Nepal has 75 districts distributed across ecological and development regions, and each district is divided into urban and rural locations, which, in turn, are divided into wards. Wards are the smallest geographical units of the country. Each ward in a rural area has an average of 104 households; there is an average of 800 households in an urban area. For this survey, households were chosen from these wards as the primary sampling unit. Samples of wards were selected independently in each stratum. Implicit stratification and proportional allocation were

accomplished by sorting the sampling frame within each sampling stratum before sample selection and through probability proportional to size selection during the first sampling stage. The survey deployed stratified sampling across all administrative provinces of Nepal, with household selection carried out in two stages in rural areas and three stages in urban areas.

The interviews were conducted only in pre-selected households, and no changes or replacements were allowed during the fieldwork to avoid bias. Data were collected by interviewing respondents selected through stratified random sampling methods via a structured questionnaire. Weighting factors were calculated and applied, so the results are representative at the national and regional levels. In total, 12,862 women aged 15-49 were interviewed for the study. A sub-set of interviewed married women with small children in selected households was then randomly selected for a “domestic violence” module.

The DHS used a modified version of the Conflict Tactics Scale to measure domestic violence against women. DHS follows the World Health Organization (WHO) guidelines on the ethical collection of information on domestic violence and for questions related to violence. One eligible woman per household was randomly selected for the module, and the interview was conducted only if privacy could be secured. The women were informed about confidentiality. The Domestic Violence Module was applied at the end of the questionnaire. The women were told about the voluntary nature of the questionnaire and were given options to skip questions they did not wish to answer.

The number of women selected for the interview was 4447, but three interviews were not included because privacy could not be obtained. In all, 4444 women with varying marital statuses were successfully interviewed in person by trained interviewers. For this study, currently married women in their first union numbered 3562. Of these, 2521 were working women.

Measurement of Variables

The independent variable for the study was the labor force participation of married women. The outcome variable for the study was “experience of any form of violence ever” among currently married working women in their first union aged 15–49. The DHS measures intimate partner violence based on the responses to the following categories of questions, as shown in Table 1.

The primary outcome variable is whether a woman reported having experienced a particular act of violence perpetrated by her husband. DHS “domestic violence” modules collect comprehensive self-reported information on women’s experiences of emotional, physical, and sexual violence from family members and spouses. These indicators are taken as separate dependent variables to assess the level of exposure to IPV. If a woman answered “yes” to any of the questions, it was considered that she had experienced an act of violence. Then she was asked about the frequency of the act in the 12 months preceding the survey. A positive answer in any of the variables would be considered an act of violence. The questions included a wide range of violent acts and gave women several opportunities to disclose any violent experience, minimizing uncertainty about what constitutes violence.

Table 1

Measurement of Outcome Variables

Forms of violence	Measurements (Questions asked to women if their husbands ever did any of the following)
Emotional violence (three questions)	<ul style="list-style-type: none"> • say or do something to humiliate you in front of others • threaten to hurt or harm you or someone close to you • insult you or make you feel bad about yourself

Table 1 (continued)

Forms of violence	Measurements (Questions asked to women if their husbands ever did any of the following)
Less severe physical violence (four questions)	<ul style="list-style-type: none"> • push you, shake you, or throw something at you • slap you • twist your arm or pull your hair • punch you with his fist or with something that could hurt you
Severe physical violence (three questions)	<ul style="list-style-type: none"> • kick you, drag you, or beat you up • try to choke you or burn you on purpose • threaten or attack you with a knife, gun, or any other weapon
Sexual violence (three questions)	<ul style="list-style-type: none"> • physically force you to have sexual intercourse with him even when you did not want to • physical force you to perform sexual acts you did not want to • force you with threats or in any other way to perform sexual acts you did not want to

A woman who did not experience any of the above was given a score of 0, and a woman who said she had experienced such abuse was given a score of 1.

Operationalization of Variables and Measures

The study has 28 variables based on research hypotheses and existing literature on IPV. An explanation of recoded variables for this study has been given below.

Variables

PEWA

Women’s inherited assets, or PEWA, are gifts from parents to their daughters to ensure their daughters have sufficient money after marriage for financial autonomy (Pradhan, Meinzen-Dick, & Theis, 2019). The gifts could be in cash, income, business, savings, or livestock.

Women have more robust property rights over their inherited asset (PEWA) than over joint property. Women enjoy exclusive rights over such gifts (PEWA), and the general understanding is that no one else should take them away (Pradhan, Meinzen-Dick, & Theis, 2019).

Religion

This was coded as Hindu and Others. Hinduism is Nepal's largest religion (Nepali, Ghale, & Hachhethu, 2018). For the study, women claiming to follow the Hindu faith were coded as 1. Non-Hindus, consisting of Buddhists, Kirat, Muslims, Christian, and others, were coded 0.

Household Wealth Index

DHS assigns scores to households based on the number and kinds of consumer goods they own, such as a bicycle, radio, television, motorcycle, and also housing features, such as the source of drinking water, flooring materials, access to electricity, cooking fuel, and toilet facilities in the house. Principal component analysis was used to derive the scores. Each household is assigned a score based on their ownership of consumer goods and housing features and then dividing the distribution into five equal categories, each category representing 20% of the population. This study retained the wealth categories according to DHS classification.

Cohort Effect

Length of Marriage

The married working women were divided into cohorts by the duration of their marriage on the date they responded to the survey. Modernization theory (Inglehart, 1971) says attitudes towards gender become increasingly egalitarian as society moves towards industrialization and modernization, with the younger generations displaying more egalitarian values than the older generations. Women's literacy rates and workforce participation in Nepal have increased

dramatically (Sijapati, 2014; Dhakal, 2018), and the fertility rates have declined by half since the 1990s (Shakya & Gubhaju, 2016), indicating Nepal's stride towards modernization.

To understand comparative violence levels among women of different generations and to account for the recall error to which the DHS data on violence could be subjected, the married women were divided into three cohorts by the duration of their marriage as of the date of the interview. Cohort 1 included women who had been married from 0 – 10 years, Cohort 2 included women who had been married from 11-20 years, and Cohort 3 included women who had been married for more than 20 years.

Number of Sons

The DHS dataset has two variables for measuring a woman's total number of sons; V202 measures sons at home, and V204 measures sons elsewhere. For this study, a new variable Total Sons, was created by adding the numbers in the two variables.

Husband's Working Status

The husband's working status was created as "Husband Status" by coding 0 if the husband was not working and 1 if the husband was working in any of the occupational categories specified by DHS.

Assets

Land and house ownership by women were divided into four categories. For the study, the categories were retained, but their order was changed to reflect the ascending power distribution over the woman's asset ownership. Women who did not own any assets were given 0, women who owned assets with their husbands were given 1, women who owned assets both jointly and alone were given 2, and women who owned assets alone were given 3.

Agricultural Work

Nepal is predominantly agricultural (Allendorf, 2007), and most Nepali women are involved in agriculture (Food and Agriculture Organization of the United Nations, 2019). Therefore, agricultural work on a woman's own property was considered an occupational category. This category includes women who work on farms they own or the family farm but are not paid directly for their labor. Working on one's own farm involves time away from household activities. The women working on their own farms may not be paid in cash, but they contribute to household expenses by bringing in produce from the farm, selling the produce in the market for cash, or doing some combination of the two. Analyzing women who work in unpaid non-household activities will shed light on the prospect of violence for unpaid labor.

Occupational Ranking

The occupational ranking was based on the International Labor Organization (ILO) classification of occupations (ILO, 2012). The DHS categorizes occupations in broad groups as defined by ILO, and the ranking in this study was based on the ranking provided by ILO (2012). Table 2 shows the set of explanatory variables as used for multivariate analyses.

Table 2

Measurement of Explanatory Variables used for Multivariate Analysis

Macro Variable	Label	Measurement (in the survey)	Recorded for the study
SECOREG	Ecological zone	Categorical 1- Mountain 2- Hills 3- Terai	
V025	Type of place of residence	Categorical 0 - Rural 1 - Urban	

Table 2 (continued)

Macro Variable	Label	Measurement (in the survey)	Recoded for the study
V130	Religion	Categorical Hindu - 1 Buddhists – 2 Muslim – 3 Kirat – 4 Christian – 5 Others - 6	0 – Others 1 – Hindu
V190	Wealth Index Combined	Ordinal 1 – Poorest 2 – Poorer 3 – Middle 4 – Richer 5 - Richest	
Cohort Effect (New variable)	Cohort by marriage duration	Categorical 1 – Married for 0-10 years 2 - Married from 11 to 20 years 3 – Married for over 20 years	
Meso Variable	Label	Measurement	
V730	Husband's age	Continuous	
V715	Husband's education	Continuous	
Husband Status (New variable created from V705)	Husband's employment status	0 – Not employed 1 - Employed	
V705	Husband's occupation (grouped)	Categorical 0 – Did not work 1 – Professional/technical/managerial 2 – Clerical 3 – Sales/Services 4 – Agricultural – self-employed 5 – Agricultural employee 6 – Household and domestic 7 – Services 8 – Skilled manual 9 – Unskilled manual 96 – Others 99998 – Don't know	(Recoded according to prestige score by ILO) 0 – Does not work 1 – Agricultural self-employed 2 – Unskilled manual 3 – Skilled manual 4 – Clerical 5 – Sales/Services 6 –Professional/Technical/Managerial Missing data - 99
V218	Number of living children	Continuous	
Total Sons (New variable)	Number of sons at home (V202) + sons elsewhere (V204)	Continuous	
V137	Number of children 5 and under in household (de jure)	Continuous	
V136	Number of household members (listed)	Continuous	
D113	Husband drinks alcohol	Categorical 0 – No 1 - Yes	

Table 2 (continued)

Meso Variable	Label	Measurement	
D121	Respondent's father ever beat her mother	Categorical 0 – No 1 – Yes	
S709A	Marriage has been registered	Categorical 0 – No 1 - Yes	
S930AB	Knowledge of land/property registered	Categorical 0 – No 1 - Yes	
SD30AD	Ever experienced: Threatened with divorce by husband or in-laws	Categorical 0 – No 1 - Yes	
D101A	Husband jealous if respondent talks to other men	Categorical 0 – No 1 – Yes 2 – Don't know	
D101B	Husband accuses respondent of unfaithfulness	Categorical 0 – No 1 - Yes	
D129	Respondent afraid of the husband most of the time, sometimes, or never	Categorical 0 – Never afraid 1 – Most of the time afraid 2 – Sometimes afraid	0 – Never afraid 1 – Sometimes afraid, Most of the time afraid
S924B	Who decides how your inherited asset (PEWA) is used	Categorical 1 – Respondent alone 2 – Respondent and husband 3 – Respondent and other person 4 – Husband alone 5 – Someone else 6 - Other	(Order rearranged according to independence and power afforded by decision-making status) 1 – Someone else/other 2 – Husband alone 3 – Husband and respondent 4 – Respondent alone
Micro Variables	Label	Measurement	Recoded
V012	Respondent's current age (self- reported at the time of the survey)	Continuous	
V133	Education completed in single years	Continuous	
V169A	Owens a mobile phone	Categorical No 0- Yes	
V170	Has an account in a bank or other financial institutions	Categorical 0- No 1- Yes	

Table 2 (continued)

Micro Variables	Label	Measurement	Recoded
V745A	Owens a house alone or jointly	Categorical 0 – Does not own 1 – Alone only 2 – Jointly only 3 – Both alone and jointly	(Order rearranged according to independence and power afforded by ownership status to women) 0 – Does not own 1 – Jointly only 2 – Both alone and jointly 3 – Alone only
V745B	Owens land alone or jointly	Categorical 0 – Does not own 1 – Alone only 2 – Jointly only 3 – Both alone and jointly	(Order rearranged according to independence and power afforded by ownership status to women) 0 – Does not own 1 – Jointly only 2 – Both alone and jointly 3 – Alone only

Note: Options from Variables V705 (husband occupational rank) and S924B (who decides how the inherited asset, PEWA, is used) were dropped when those options did not record any cases.

Statistical Analysis

The first analysis shows the demographic difference between the working and the non-working married women at the macro, meso, and micro levels. It was followed by a bivariate analysis to check for significant differences in the experience of violence related to the working status of married women. After that, the analysis focused on working married women. A bivariate analysis was done to check whether there were significant differences in violence experiences by the occupational rank of working married women. A bivariate analysis was run to test for married working women's experience of violence against their background characteristics and to check for significant associations. A bivariate analysis was done on household wealth and women's occupational rank to study the association between the wealth index and occupational choices.

The next analysis involved controlling macro, meso, and micro variables at each stage of the hierarchical regression to assess the relationship between labor force participation of women and the likelihood of violence. The last analysis was probit regression of IPV on labor force participation for each of the three cohorts, separated by their duration of marriage at the time of

the survey, to address the issue of endogeneity between women's labor force participation status and IPV.

The data for hierarchical regression were analyzed using SPSS 28.0. The explanatory variables were organized according to the Person-In-Environment (PIE) concept and divided into macro, meso, and micro variables that had support in the literature. Model 1 consisted of broad demographic characteristics (control variables) in the multiple hierarchical regression analysis. Model 2 consisted of Model 1 factors and household and husband-related variables. Model 3 consisted of Model 1, Model 2, and respondent-related characteristics. Model 4 comprised Models 1, 2, and 3 and the respondent's occupational status. A p-value of $<.005$ was considered statistically significant. Adjusted Odd Ratio (OR), 95% Confidence Intervals (CIs), and p-value were reported in the analysis. The sample data in the 2016 NDHS were non-proportional to the population size. To ensure the results were representative of the population, sampling weights provided by the survey were used for multivariate analyses to adjust for the multistage sampling procedure in the DHS. The final analysis was probit regression for the three cohorts, which tested for endogeneity. The data for probit regression were analyzed using STATA 17. The demographic information of the cohorts was provided before running the probit regression.

Assumption Testing for Regression Analysis

The independent variables selected in this study had eight continuous variables. The presence of these continuous variables could cause a violation of regression analysis. The outcome variable is dichotomous; working women's IPV experience is measured as "experienced violence" = 1 and "did not experience violence" = 0.

Before conducting the analysis, three of the five assumptions underlying linear regression were tested. They are 1) no paired data (independent variables), 2) no multicollinearity, and 3)

absence of significant outliers. The first assumption of no paired data was satisfied, as there were no paired data in the study (such as before and after observation). The second assumption was the absence of a highly significant level of correlations among variables.

Two tests for “no collinearity” were conducted. First, Pearson’s Correlation for the eight variables was obtained. Tables 3 and 4 show the correlation matrix for the continuous variables. None of the correlations except the correlation between the husband’s age and the respondent’s age was significant at above .7. The suggested upper limit for VIF required to satisfy “no collinearity” was 5.0. There was no collinearity, as all the VIF values were less than 5.

Variance proportions for each of the eight independent variables were examined across rows. A variance of two or more values across any row violates the assumption of collinearity. The Variance Proportion for respondent age and husband age was above or equal to .90. These two variables are highly correlated, which was also obtained during the correlation analysis of all continuous independent variables. These results suggested removing at least one of the two collinear variables. The husband’s age was dropped from subsequent analysis of data.

A third assumption was that the data did not have too many outliers. To detect outliers, the Mahalanobis distance test was used. After obtaining the Mahalanobis distances, a chi-square test was used to detect significant outliers. Chi-square value less than .001 associated with each of the Mahalanobis distance of data points (cases) suggests an outlier. No data points had a value of $<.001$. The assumption of few or “no outlier” was satisfied. After satisfying the assumptions test for regression, the hierarchical logistic regression was run to test for factors associated with the experience of violence among currently married working women in their first union.

Table 3. Correlation Among Continuous Control Variables

	Husband's age	Husband's education	Number of living children	Re_TotalSons	Number of children 5 and under in household	Number of household members	Respondent/s current age	Respondent's education
Husband's age	1	-.224**	.533**	.445**	-.335**	-.096**	.874**	-.371**
Husband's education	-.224**	1	-.374**	-.258**	-.049*	-.061**	-.213**	.600**
Number of living children	.533**	-.374**	1	.655**	.070**	.265**	.581**	-.525**
Re_TotalSons	.445**	-.258**	.655**	1	-.021	.128**1	.479**	-.406**
Number of children 5 and under in household	-.335**	-.049*	.070**	-.021	1	.398**	-.378**	.066*
Number of household members	-.096**	-.061**	.265**	.128**	.398**	1	-.083**	-.071**
Respondent's current age	.874**	-.213**	.581**	.479**	-.378**	-.083**	1	-.420**
Respondent's education	-.371**	.600**	-.525**	-.406**	.066**	-.071**	-.420**	1

Table 4*Collinearity Statistics for Regression*

Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	Collinearity Statistics	
						Tolerance	VIF
Constant	.439	.053		8.242	<.001		
Husband's age	-.002	.002	-.043	-1.055	.292	.231	4.329
Husband's education	-.021	.003	-.191	-7.765	<.001	.621	1.611
Number of living children	-.006	.009	-.021	-.653	.514	.360	2.781
Re TotalSons	.010	.012	.021	.806	.420	.553	1.810
Number of children 5 and under	.003	.013	.005	.228	.819	.664	1.507
Number of household members	-.005	.004	-.025	-1.133	.257	.767	1.304
Respondent's age	.002	.002	.036	.822	.411	.193	5.175
Respondent's education	-.008	.003	-.080	-2.926	.003	.508	1.969

Table 5. Collinearity Diagnostics

Collinearity Diagnostics											
Variance Proportions											
Dimension	Eigenvalue	Condition Index	(Constant)	Husband's age	Husband's education	Number of living children	Re_TotalSons	Number of children 5 and under	Number of household members	Respondent's age	Respondent's education
1	6.935	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.909	2.762	.00	.00	.03	.02	.04	.01	.00	.00	.13
3	.628	3.323	.00	.00	.01	.00	.00	.53	.01	.00	.01
4	.182	6.165	.01	.00	.00	.00	.64	.02	.09	.00	.19
5	.126	7.407	.00	.00	.81	.02	.01	.05	.04	.00	.57
6	.114	7.807	.01	.01	.02	.00	.07	.23	.72	.01	.00
7	.080	9.318	.02	.01	.09	.85	.24	.01	.02	.00	.05
8	.018	19.905	.94	.16	.02	.09	.00	.13	.13	.05	.03
9	.007	30.977	.03	.82	.01	.02	.00	.03	.00	.93	.01

Assumption Testing for Probit Regression

Previous studies (Bhattacharya, 2015; Fajardo-Gonzalez, 2020) have suggested the possibility that women participate in the labor force as a refuge from domestic violence. In order to address the likelihood of a reciprocal relationship between the amount of labor force participation and intimate partner violence at the empirical level, it was necessary to test for the presence of an endogenous relationship between labor force participation and IPV. The problem with endogeneity is that a reciprocal relationship might violate the regression assumption. For this reason, it was important to use two-stage least squares regression, which requires using an instrument for an independent variable for the outcome variable, IPV.

The Empowerment Index was used as an instrumental variable because multiple studies have shown labor force participation to be strongly correlated with women's empowerment (Anderson & Eswaran, 2009; Iversen & Rosenbluth, 2006; Kabeer & Mahmud, 2004). The Empowerment Index in DHS is compiled by adding responses to questions related to women's level of participation in household decision-making and justification for wife-beating. For household decision-making, women were asked for their level of participation in decisions regarding their own health, large household purchases, and visits to family or relatives. For wife-beating justification, women are asked if the beating is justified in cases such as burning food, arguing with the husband, going out without informing the husband, neglecting children, and refusing to have sexual intercourse with the husband. The composite score of the two broad indicators provides the Empowerment Index for women in the DHS dataset.

To run Nevey's two-step for the instrument variable probit regression, it was important to satisfy three assumptions. The first assumption was for weak Instrumental Variable, that is, estimators that are less likely to yield the true value of the effect of the endogenous variable on

the outcome variable, IPV. Because weak instrumental variables are biased, assessing whether the instruments selected in this study are strong and reliable enough to solve the endogeneity problem is necessary. One approach to assessing the weakness of the instrument is considering the magnitude of the F-statistics for the instrument variable, i.e., the Empowerment Index. F-statistics for the three cohorts 1, 2, and 3 were significant at 33.11, 31.56, and 24.07, respectively, which was greater than the recommended value of 10 (Faria & Montesinos, 2009). It shows that the instrumental variable is greatly correlated with the independent variable and that there is a strong relationship between empowerment and women's labor force participation.

The Wald test was significant, which meant that the outcome variable was not affecting the instrumental variable. It satisfied the second assumption of the relationship between the independent and instrumental variables. The third assumption of over-identification was not tested in this study because of using a single instrumental variable, i.e., the Empowerment Index.

Once these assumptions were satisfied, the analysis of women's occupational ranking on the odds of IPV was conducted by controlling for highly significant explanatory variables. Nine variables showed significant correlation in the unweighted data and had the highest odds of violence in the hierarchical regression. These were selected as control variables for probit regression analysis. In the analysis, the instrumented variable was women's labor force participation ranking, and the outcome variable was the likelihood of IPV.

The following equation explains the analysis:

IPV equation for probit regression

$$(IPV)_{ij} = \alpha_0 + \alpha_1 (\text{controls})_{ij} + \alpha_2 (LFP)_{ij} + \varepsilon_{1ij}$$

$$\text{Corr} (LFP, \varepsilon_{1ij}) \neq 0$$

$$(LFP)_{ij} = \beta_0 + \beta_1 (\text{controls})_{ij} + \beta_2 (\text{instrument})_{ij} + \varepsilon_{2ij} \dots \dots \dots (\text{equation 1})$$

'Instrument affects' (LFP) ij

It does not affect IPV directly; It is not affected by other factors

i.e. corr (instrument, ε_{2ij}) = 0

We run equation 1 and generate predicted values for (LFP) ij .

i.e. $(\widehat{LFP})_{ij} = \beta_0 + \beta_1 (\text{controls})_{ij} + \beta_2 (\text{instrument})_{ij}$

Stage 2

Run equation 1

$(LFP)_{ij} = (\widehat{LFP})_{ij} + \varepsilon_{2ij}$

$(IPV)_{ij} = \alpha_0 + \alpha_1 (\text{controls})_{ij} + \alpha_2 (LFP)_{ij} + \varepsilon_{1ij}$

i.e. $(IPV)_{ij} = \alpha_0 + \alpha_1 (\text{controls})_{ij} + \alpha_2 [(\widehat{LFP})_{ij} + \varepsilon_{2ij}] + \varepsilon_{1ij}$

$(IPV)_{ij} = \alpha_0 + \alpha_1 (\text{controls})_{ij} + \alpha_2 (\widehat{LFP})_{ij} + (\varepsilon_{2ij} + \varepsilon_{1ij})$

$(IPV)_{ij} = \alpha_0 + \alpha_1 (\text{controls})_{ij} + \alpha_2 (\widehat{LFP})_{ij} + \varepsilon_{3ij}$

ij – binary dependent variable, where i represents the married, working woman and j represents the experience of violence

α_0 – intercept

α_1 – the coefficient for control variables

α_2 – the coefficient for labor

ε_1 – error term

β_0 – intercept

β_1 – the coefficient for instrumental variables

LFP – labor force participation

$(\widehat{LFP})_{ij}$ – predicted values for labor (LFP) ij

CHAPTER 5: RESULTS

Demography of the Study Population

Table 6 represents the socio-demographic background of the working and non-working women participating in the DHS survey. The working women were mostly from the Hill areas, while the majority of the non-working women were from the Terai. The women in the Domestic Violence Module mostly represented the urban population, with over 60% of women from working and non-working categories residing in urban areas. Three-fourths of the non-working women (73.4%) belonged to the middle or upper class, but half of the working women (50.1%) came from poorer families. Almost half (49.1%) of the non-working women had been married for 10 years or less, while the percentage was almost evenly distributed for working women. The spouses of the working women were more than twice as likely to be working in agriculture (25.3%) compared to the spouses of non-working women (12.4%). Most working women (51%) had an account in a bank or other financial institutes, whereas over one-third (38.5%) of the non-working women had an account. There was a similarity across other macro, meso, and micro variables between the non-working and working married women.

Table 6

Descriptive Analysis of Non-Working and Working Married Women

	Macro variables	
	N (%)	
	Non-working married women	Working married women
Ecological zone		
Mountain	58 (5.6%)	214 (8.5%)
Hill	330 (31.7%)	1321 (52.4%)
Terai	653 (62.7%)	986 (39.1%)
Place of residence		
Rural	343 (32.9%)	997 (39.5%)

Table 6 (continued)

	Non-working married women	Working married women
Urban	698 (67.1%)	1524 (60.5%)
Total wealth index		
Poorest	137 (13.2%)	646 (25.6%)
Poorer	138 (13.3%)	618 (24.5%)
Middle	220 (21.1%)	512 (20.3%)
Richer	289 (27.8%)	426 (12.7%)
Richest	257 (24.7%)	319 (12.7%)
Religion		
Hindu	893 (85.8%)	2251 (89.3%)
Buddhist	44 (4.2%)	110 (4.4%)
Muslim	72 (6.9%)	60 (2.4%)
Kirat	9 (0.9%)	35 (1.4%)
Christian	23 (2.2%)	65 (2.6%)
Cohort		
Married for 0-10 years	511 (49.1%)	936 (37.1%)
Married for 11-20 years	266 (25.6%)	791 (31.4%)
Married for 20 years or more	264 (25.4%)	794 (31.5%)
Meso variables		
	Non-working married women	Working married women
Mean age of the Husband	M = 34.54, SD = 9.28	M = 36, SD = 9.20
Husband Education	M = 7.14, SD = 3.71	M = 6.65, SD = 3.8
Mean Household members		
Number of household members	M = 4.95, SD = 2.33	M = 4.70, SD = 2.10
Number of children 5 and under	M = .81, SD = .89	M = .63, SD = .79
Number of living children	M = 2.1, SD = 1.44	M = 2.37, SD = 1.5
Number of total sons	M = 1.12, SD = .95	M = 1.23, SD = .93
Husband drinks alcohol		
Yes	420 (40.3%)	1232 (48.9%)
No	621 (59.7%)	1289 (51.1%)
Respondent's father ever beat the mother		
Yes	129 (12.4%)	356 (14.1%)
No	897 (86.2%)	2120 (84.1%)
Don't know	15 (1.4%)	45 (1.8%)
Husband working status		
Not working	58 (5.6%)	57 (2.2%)
Working	983 (94.4%)	2464 (97.8%)
Husband Occupation		
Not Working/Don't know	60 (5.8%)	90 (3.6%)
Agricultural self-employed	129 (12.4%)	639 (25.3%)
Unskilled manual	176 (16.9%)	427 (16.9%)

Table 6 (continued)

	Non-working married women	Working married women
Skilled manual	191 (18.3%)	412 (16.3%)
Clerical	106 (10.2%)	166 (6.6%)
Sales/Services	295 (28.3%)	631 (25%)
Professional/Technical/Managerial	84 (8.1%)	156 (6.2%)
Marriage has been registered		
No	300 (28.8%)	537 (21.3%)
Yes	741 (71.2%)	1984 (78.7%)
Knowledge of land/property registered		
No	93 (8.9%)	153 (6.1%)
Yes	926 (89%)	2336 (92.7%)
No land/property	22 (2.1%)	32 (1.3%)
Ever experienced: Threatened with divorce by husband or in-laws		
No	996 (95.7%)	2373 (94.1%)
Yes	45 (4.3%)	148 (5.9%)
Husband jealous if respondent talks to other men		
No	789 (75.8%)	1993 (79.1%)
Yes	251 (24.1%)	524 (20.8%)
Don't know	1 (.1%)	4 (.2%)
Husband accuses respondent of unfaithfulness		
No	995 (95.6%)	2357 (93.5%)
Yes	45 (4.3%)	164 (6.5%)
Don't know	1 (.1%)	
Respondent afraid of the husband		
Never	486 (46.7%)	1171 (46.4%)
Sometimes	490 (47.1%)	1177 (46.7%)
Most of the time	65 (6.2%)	173 (6.9%)
Who decides how your inherited asset (PEWA) is used?		
Respondent alone	149 (14.3%)	414 (16.4%)
Respondent and husband/partner	60 (5.8%)	108 (4.3%)
Husband/partner alone	60 (5.8%)	67 (2.7)
Someone else	116 (11.1%)	405 (16.1%)
Micro variables		
Mean age of the Respondent	M = 30.5, SD = 8.37	M = 32.03, SD = 8.16
Respondent education	M = 4.85, SD = 4.40	M = 4.24, SD = 4.28
Owns a mobile phone		
No	248 (23.8%)	574 (22.8%)
Yes	793 (76.2%)	1947 (77.2%)

Table 6 (continued)

	Non-working married women	Working married women
Has an account in a bank or other financial institution		
No	640 (61.5%)	1235 (49%)
Yes	401 (38.5%)	1286 (51%)
House ownership	939 (90.2%)	2327 (92.3%)
Does not own	13 (1.2%)	12 (.5%)
Jointly only	9 (.9%)	13 (.5%)
Both jointly and alone	80 (7.7%)	169 (6.7%)
Alone only		
Land ownership	899 (86.4%)	2188 (86.8%)
Does not own	11 (1.1)	16 (.6%)
Jointly only	6 (.6%)	4 (.2%)
Both alone and jointly	125 (12%)	313 (12.4%)
Alone only		
Respondent's Occupation		
Agricultural self-employed		1840 (73%)
Unskilled manual		87 (3.5%)
Skilled manual		101 (4%)
Clerical		38 (1.5%)
Sales/Services		322 (12.8%)
Professional/Technical/Managerial		133 (5.3%)

Relationship Between IPV and the Study Variables

Prevalence of Various Forms of Violence by the Working Status of Women

The experience of all forms of violence was higher among working married women than among non-working married women. This difference was significant for all forms of emotional violence and some forms of severe and less severe physical violence. The difference was insignificant in the experiences of sexual violence by working status. In general, working women reported higher levels of violence than non-working women for all measures of violence except for two sexual violence measures, for which the percentage of violence reported was similar. The difference in the experience of emotional and severe physical between working and non-working women was significant at $p < .01$, and the difference in the experience of less severe physical violence was significant at $p < .05$. The experience of violence among working women was

significantly higher than the experience of non-working married women; so, a bivariate analysis was conducted to see if there was a difference based on the occupational status of working women.

Table 7

Bivariate Analysis of Various Forms of Violence Experienced by Women Dependent on Their Working Status

	Working women	Non-Working women	χ^2 - Value	<i>p</i> - Value
	N (%)	N (%)		
Emotional Violence				
Ever been humiliated by husband/partner	194 (7.7%)	49 (4.7%)	10.351	**
Ever been threatened with harm by husband/partner	124 (4.9%)	33 (3.2%)	5.347	*
Ever been insulted or made to feel bad by husband/partner	223 (8.8%)	63 (6.1%)	7.788	**
Experienced any emotional violence	325 (12.9%)	(90) 8.6%	12.905	**
Less severe physical violence				
Ever been pushed, shook, or had something thrown by husband/partner	294 (11.7%)	86 (8.3%)	8.941	**
Ever been slapped by husband/partner	482 (19.1%)	174 (16.7%)	2.836	
Ever been punched with a fist or hit by something harmful by husband/partner	193 (7.7%)	64 (6.1%)	2.502	
Ever had arm twisted or hair pulled by husband/partner	238 (9.4%)	67 (6.4%)	7.180	*
Experienced any less severe violence by husband/partner	188 (21.5%)	543 (18.1%)	5.469	*
Severe physical violence				
Ever been kicked or dragged by husband/partner	234 (9.3%)	68 (6.5%)	7.180	**
Ever been strangled or burnt by husband/partner	79 (3.1%)	25 (2.4%)	1.393	
Ever been threatened with knife/gun or other weapons by husband/partner	55 (2.2%)	14 (1.3%)	2.716	
Experienced any severe violence by husband/partner	251 (10%)	70 (6.7%)	9.386	**
Sexual violence				
Ever been physically forced into unwanted sex by husband/partner	168 (6.7%)	58 (5.6%)	1.480	
Ever been forced into other unwanted sexual acts by husband/partner	70 (2.8%)	30 (2.9%)	0.30	

Table 7 (continued)

Sexual Violence	Working women	Non-Working women	χ^2 - Value	<i>p</i> - Value
Ever been physically forced to perform sexual acts respondent didn't want to	89 (3.5%)	37 (3.6%)	.001	
Experienced any sexual violence	184 (7.3%)	63 (6.1%)	1.775	
Experienced any sexual violence by husband/partner	7.3%	6.1%		

Note: Number, %: Percentage, *p*-value<.005 *, *p*-value<.001 **

Differences in Experience of Violence by Women's Occupational Status

The bivariate analysis of the difference in spousal abuse experienced by the occupational status of working women showed that women performing unskilled manual labor reported the highest levels of all forms of violence. Women in professional or managerial positions reported the lowest level of IPV in all categories. The difference in the experience of all forms of spousal abuse by women based on occupational status was significant at $p < .001$. The most vulnerable occupation for violence was unskilled manual labor, followed by agricultural self-employed, skilled manual, clerical, and professional ranks. The higher the occupational status of the working women, the lower the percentage of women who reported violence in all categories, except for unskilled labor who reported a higher percentage of violence compared to women from the self-employed agricultural category.

Table 8

Bivariate Analysis of Experience of Various Forms of Violence by Occupation of Working Women

Occupational categories	Emotional violence ever	Less severe physical violence ever	Severe physical violence ever	Sexual violence ever
Chi-square, <i>p</i> -value	(56.877) **	(38.341) **	(36.206) **	(39.571) **
Agricultural self-employed	236 (12.8 %)	404(22%)	184 (10%)	121 (6.6%)
Unskilled manual	33 (37.9 %)	38 (43.7%)	23 (26.4%)	18 (20.7%)
Skilled manual	13 (12.9%)	23 (22.8%)	12 (11.9%)	12 (11.9%)
Clerical	4 (10.5%)	8 (21.1%)	4 (10.5%)	7 (18.4%)
Sales/Services	30 (9.3%)	56 (17.4%)	24 (7.5%)	23 (7.1%)
Professional/Technical/Managerial	9 (6.8%)	14 (10.5%)	4 (3%)	3 (2.3%)

Note: *p* – Value * < .05 ** < .01.

Intimate Partner Violence Experience of Working Women by Background Characteristics

At the macro level, the experience of married working women who faced violence and those who did not was significantly associated with the ecological zone, wealth index, and the length of the marriage. At the meso level, husband’s education, husband’s occupation, number of living children, the total number of sons, husband’s alcohol habits, abusive father, knowledge of land/property registered, the threat of divorce from husband or in-laws, husband’s jealousy when respondent talking to other men, husband’s accusation of unfaithfulness, and respondent displaying fear of husband were significantly associated with violence in the marital relationship. At the micro level, respondents’ age, education, and mobile phone ownership were significantly associated with violence, and having an account in a bank or other financial institutions was also associated with spousal abuse. The highest chi-squares values reported were for the husband’s alcohol habits, the threat of divorce, husband’s accusation of unfaithfulness, husband’s jealousy when respondent talks to other men, and respondent’s fear of the husband. The husband’s personal characteristics displayed the strongest relationship with working women’s experience of violence among measured variables.

Table 9

Bivariate Analysis of Experience of Intimate Partner Violence of Working Women by Background Characteristics

Variable	Category	Number	Percentage	Chi-square	<i>p</i> -value
Macro Variables					
Ecological zone				60.78	**
	Mountain	37	17.3%		
	Hill	242	18.3%		
	Terai	312	31.6%		

Table 9 (continued)

Variable	Category	Number	Percentage	Chi-square	p-value
Type of place of residence				.028	
	Rural	232	23.3%		
	Urban	359	23.6%		
Religion				1.039	
	Others	70	25.9%		
	Hindu	521	23.1%		
Total wealth index				21.871	**
	Poorest	142	22%		
	Poorer	146	23.6%		
	Middle	149	29.1%		
	Richer	105	24.6%		
	Richest	49	15.4%		
Cohort				30.521	**
	Married from 0-10 years	164	(17.5%)		
	Married from 11- 20 years	203	(25.7%)		
	Married for more than 20 years	224	(28.2%)		
Meso Variables					
Husband/partner's total number of years of education		6.40 (3.822)		.868	**
Husband working status				.013	
	Not working	13	22.8%		
	Working	578	23.5%		
Husband/partner occupation				35.680	**
	Agricultural self-employed	149	23.3%		
	Unskilled labor	140	32.8%		
	Skilled labor	96	23.3%		
	Clerical	42	25.3%		
	Sales	125	19.8%		
	Professional/Technical	21	13.5%		
Number of living children		2.37 (1.46)		1.165	**
Total Sons		1.23 (.93)		1.230	**
Number of children 5 and under in the household		.63 (.79)		.994	
Number of household members		4.70 (2.095)		.992	
Husband/partner drinks alcohol				143.073	**
	No	175	13.6%		
	Yes	416	33.8%		
Respondent's father ever beat her mother				63.537	**
	No	435	20.5%		
	Yes	139	39%		
	Don't know				

Table 9 (continued)

Variable	Category	Number	Percentage	Chi-square	p-value
Marriage has been registered				.667	
	No	133	24.8%		
	Yes	458	23.1%		
Knowledge of land/property registered				10.140	**
	No	33	21.6%		
	Yes	543	23.2%		
	No land/property	15	46.9%		
Who decides how your inherited asset (PEWA) is used				6.384	
	Someone else, Other	125	26.5%		
	Husband/partner alone	26	24.1%		
	Respondent and husband/partner	80	19.3%		
	Respondent alone	360	23.6%		
Ever experienced: Threatened with divorce by husband or in-laws				186.59	**
	No	488	20.6%		
	Yes	103	69.6%		
Husband jealous if respondent talks to other men				315.07	**
	No	314	15.8%		
	Yes	276	52.7%		
	Don't know	1	25%		
Husband accuses of unfaithfulness				265.98	**
	No	467	19.8%		
	Yes	124	75.6%		
Respondent afraid of the husband				336.64	**
	Never	135	11.5%		
	Sometimes	331	28.1%		
	Most of the time	125	72.3%		
Micro Variables					
Respondent's current age		32.03 (8.155)		1.021	**
Respondent's education		4.24 (4.284)		.894	**
Owns a mobile phone				55.48	**
	No	201	35%		
	Yes	390	20%		
Has an account in a bank or other financial institutions				4.88	*
	No	313	25.3%		
	Yes	278	21.6%		
House ownership				5.18	
	Does not own	557	23.9%		
	Jointly only	3	25%		
	Both jointly and alone	1	7.7%		
	Alone only	30	17.8%		
Land ownership				3.13	
	Does not own	525	24%		
	Jointly only	4	25%		
	Both jointly and alone	1	25%		
	Alone only	61	19.5%		

Table 9 (continued)

Variable	Category	Number	Percentage	Chi-square	p-value
Respondent Occupation				41.137	**
	Agricultural labor	431	23.4%		
	Unskilled manual	41	47.1%		
	Skilled manual	27	26.7%		
	Clerical	12	31.6%		
	Sales/Service	64	19.9%		
	Professional/Technical/Managerial	16	12%		

Notes: Number, %: Percentage, X^2 : Chi-square, * reflects statistically significant association in chi-square test at $<.05$, ** reflects statistically significant association in chi-square test at $<.001$, Continuous variables represented in M (SD). M: Mean, SD: Standard Deviation.

Wealth Index and Occupational Ranking of Working Women

Table 10 shows working women's occupational rank and household wealth distribution.

Women in the poorest households were self-employed, working in agriculture (92.1%).

Agricultural self-employed was the major category for working women at all levels, except in the richest households, but as the Wealth Index increased, the involvement in agricultural self-employment came down. The richest households had the highest number of women working in sales and professional categories, with a combined percentage of 62.3%. The association between the household Wealth Index and women's occupations was significant.

Table 10

Bivariate Analysis of Working Women and Household Wealth

Wealth Index	Agricultural self-employed	Unskilled manual	Skilled manual	Clerical	Sales	Professional
$X^2[2521]: 778.133, p<.001$						
Poorest	595 (92.1%)	21 (3.3%)	3 (0.5%)	0 (0%)	20 (3.1%)	7 (1.1%)
Poorer	541 (87.5%)	18 (2.9%)	10 (1.6%)	7 (1.1%)	28 (4.5%)	14 (2.3%)
Middle	390 (76.2%)	21 (4.1%)	22 (4.3%)	8 (1.6%)	55 (10.7%)	16 (3.1%)
Richer	243 (57%)	18 (4.2%)	36 (8.5%)	13 (3.1%)	90 (21.1%)	26 (6.1%)
Richest	71 (22.3%)	9 (2.8%)	30 (9.4%)	10 (3.1%)	129 (40.4%)	70 (21.9%)

Note: Number, %: Percentage, X^2 : Chi-square, * reflects statistically significant association in chi-square test at $<.05$, ** reflects statistically significant association in chi-square test at $<.001$.

Factors Associated with Violence among Married Working Women

Table 11

Factors Associated with Experience of IPV Among Currently Married Working Women in Their First Union in Nepal, 2016 NDHS (n = 2521)

Ever experienced IPV; Adjusted OR (95% CI), <i>p</i> -value					
Variables	Categories	Model 1	Model 2	Model 3	Model 4
Nagelkerke's R Square		.066**	.393**	.409**	.410**
Classification percentage		75.6%	82.5%	83%	82.9%
Macro Variables					
	Mountain	1	1	1	1
	Hill	1.244 (1.243-1.244)**	.922 (.921-.922)**	1.016 (1.015-1.016)**	1.030 (1.029-1.030)**
Ecological zone	Terai	2.533 (2.532-2.534)**	1.383 (1.382-1.384) **	1.398 (1.398-1.400) **	1.429 (1.429-1.431) **
Type of place or residence	Rural	1	1	1	1
	Urban	1.015(1.014-1.015)**	.908 (.908-.909) **	.927 (.927-.927) **	.924 (.924-.924) **
Religion	Other religions	1	1	1	1
	Hindu	.854 (.854-.854) **	.789 (.789-.790) **	.811 (.811-.811) **	.816 (.815-.816) **
Wealth Index combined	Poorest	1	1	1	1
	Poorer	.822 (.822-.822) **	1.081 (1.080-1.081) **	1.184 (1.183-1.184) **	1.179 (1.179-1.180) **
	Middle	.848 (.848-.848)**	1.223 (1.222-1.223)**	1.423 (1.422-1.423)**	1.389 (1.388-1.3898)**
	Richer	.756 (.755-.756)**	1.384 (1.384-1.3850)**	1.699 (1.699-1.700)**	1.601 (1.600-1.602)**

Table 11 (continued)

Variables	Categories	Model 1	Model 2	Model 3	Model 4
	Richest	.478 (.478-.478)**	1.261 (1.261-1.262)**	1.635 (1.634-1.636)**	1.437 (1.436-1.438)**
Cohort	Married from 0-10 years	1	1	1	1
	Married from 11-20 years	1.610 (1.610-1.610)**	1.619 (1.619-1.620)**	1.682 (1.681-1.683)**	1.666 (1.665-1.667)**
	Married for more than 20 years	1.855 (1.854-1.855)**	2.054 (2.053-2.054)**	1.971 (1.970-1.973)**	1.968 (1.967-1.969)**
Meso Variables					
Husband's education	Continuous		.901 (.901-.901)**	.919 (.919 - .919)**	.920 (.920-.920)**
Husband's working status	Not working	1	1	1	1
	Working		.427 (.426 - .427)**	.496 (.495-.497)**	.511 (.510-.511)**
Husband occupation	Not working	1	1	1	1
	Agricultural self-employed		1.590 (1.588-1.592)**	1.478 (1.476-1.480)**	1.478 (1.477-1.480)**
	Unskilled labor		2.126 (2.124-2.129)**	2.034 (2.032-2.037)**	1.994 (1.991-1.996)**
	Skilled labor		1.437 (1.435 - 1.439)**	1.365 (1.363-1.366)**	1.336 (1.335-1.338)**
	Clerical		1.825 (1.823- 1.827)**	1.803 (1.801-1.806)**	1.753 (1.750-1.755)**
	Sales/Service		1.852 (1.850- 1.855)**	1.870 (1.868-1.872)**	1.778 (1.776-1.780)**
	Professional/ Technical/Managerial		1.714 (1.712 - 1.716)**	1.642 (1.640-1.644)**	1.493 (1.491-1.495)**
Number of living children	Continuous		.932 (.931-.932)**	.920 (.920-.920)**	.922 (.922-.922)**
Total number of sons	Continuous		1.134 (1.133-1.134)**	1.117 (1.117-1.117)**	1.120 (1.120-1.120)**
Number of children 5 and under in the household	Continuous		1.088 (1.088- 1.089)**	1.067 (1.067-.1.067)**	1.065 (1.065-1.065)**
Number of household members	Continuous		.977 (.976 - .977)**	.958 (.958-.958)**	.957 (.957-.957)**

Table 11 (continued)

Variables	Categories	Model 1	Model 2	Model 3	Model 4
Husband drinks alcohol	No	1	1	1	1
	Yes		2.963 (2.962-2.963)**	3.012 (3.012-3.012)**	3.016 (3.015-3.017)**
Respondent's father beat her mother	No		1	1	1
	Yes		1.985 (1.984-1.985)**	2.039 (2.039-2.040)**	2.027 (2.026-2.028)**
	Don't know		1.778 (1.776-1.779)**	1.848 (1.847-1.850)**	1.857 (1.856-1.859)**
Marriage has been registered	No		1	1	1
	Yes		1.020 (1.020-1.020)**	1.119 (1.119-1.119)**	1.120 (1.119-1.120)**
Knowledge of land property registered	No		1	1	1
	Yes		1.260 (1.259-1.260)**	1.355 (1.354-1.355)**	1.373 (1.372-1.374)**
	No property		1.800 (1.798-1.801)**	1.990 (1.988-1.992)**	1.953 (1.951-1.955)**
Ever experienced: Threatened with divorce by husband or in-laws	No		1	1	1
	Yes		5.919 (5.916-5.921)**	6.716 (6.713-6.719)**	6.713 (6.710-6.716)**
Husband jealous if respondent talks to other men	No		1	1	1
	Yes		2.986 (2.985-2.987)**	2.947 (2.946-2.948)**	2.933 (2.932-2.933)**
	Don't know		7.195 (7.153-7.236)**	6.884 (6.844-6.925)**	6.989 (6.949-7.029)**
Husband accuses respondent of unfaithfulness	No		1	1	1
	Yes		2.989 (2.988-2.991)**	3.212 (3.211-3.214)**	3.207 (3.205-3.208)**
Respondent afraid of the husband never or sometimes/most of the time	Never		1	1	1

Table 11 (continued)

	Sometimes/most of the time	2.733 (2.732 - 2.734)**	2.726 (2.726-2.727)**	2.730 (2.730-2.731)**
Who decides how your inherited asset (PEWA) is used	Someone else/other	1	1	1
	Husband alone	1.295 (1.294-1.295)**	1.247 (1.246-1.248)**	1.255 (1.254-1.256)**
	Respondent and husband	.754 (.754-.754)**	.827 (.827-.827)**	.818 (.818-.819)**
	Respondent alone	1.050 (1.050-1.050)**	1.156 (1.156-1.156)**	1.151 (1.151-1.151)**
Micro Variables				
Respondent's current age	Continuous		1.00 (1.00-1.00)**	.999 (.999-.999)**
Education in single years	Continuous		.981 (.981-.981)**	.977 (.977-.977)**
Owns a mobile phone	No		1	1
	Yes		.582 (.582-.582)**	.585 (.584-.585)**
Has an account in a bank or other financial institution	No		1	1
	Yes		.733 (.733-.733)**	.722 (.722-.722)**
House ownership	Does not own		1	1
	Jointly own		2.554 (2.549-2.558)**	2.786 (2.781-2.791)**
	Both jointly and alone		.130 (.130-.130)**	.132 (.132-.132)**
	Alone only		.725 (.724 - .725)**	.727 (.726-.727)**
Land ownership	Does not own		1	1
	Jointly only		.806 (.805-.808)**	.768 (.767-.769)**
	Both jointly and alone		3.197 (3.191-3.204)**	3.138 (3.132-3.145)**
	Alone only		.765 (.764-.765)**	.769 (.769-.769)**
Respondent occupation				1.64 (1.064-1.064)**

Note: p- value <.05 *, p-value<.001 **, 1 – base variable.

Table 11 shows the composite logistic regression analysis of factors associated with spousal abuse experienced by currently married working women in their first union. Model 1 shows that all variables included in the macro level were significantly associated with IPV experienced by these women, such as the ecological zones, place of residence, religion, total wealth index, and the duration of the marriage. In Model 2, when meso level variables were added, all the significant variables in Model 1 stayed significant, and all the meso level variables were significantly associated with violence in the marriage. In Model 3, with the inclusion of micro-level variables associated with the working woman's characteristics and possessions, all the macro and meso level variables remained significant, and the micro-level variables were significantly associated with marital violence. In Model 4, when the respondent's occupational status was included, all the macro, meso, and micro variables remained significant, and the respondent's occupational status was significantly associated with at least a one-time experience of violence.

Although all the variables were significantly associated with violence, the odds ratio was not uniform, and some variables displayed high odds compared to others. Husband's occupation as unskilled labor (AOR:1.994, CI: 1.991-1.996), husband's alcohol habits (AOR:3.061, CI: 3.015-3.017), respondent's exposure to parental violence (AOR:2.027, CI: 2.026-2.028), experience of threat of divorce by husband or in-laws (AOR:6.713, CI: 6.710-6.716), husband being jealous when respondent talks to other men (AOR:2.933, CI: 2.932-2.933), husband accusing respondent of unfaithfulness (AOR:3.207, CI: 3.205-3.208), respondent being afraid of the husband sometimes or most of the time (AOR:2.730, CI:2.730-2.731), jointly owning a house (2.786, CI:2.781-2.791), having no household property (AOR:1.953, CI:1.951-1.955), owning

land both jointly and alone (AOR:3.183, CI:3.132-3.145) were highly associated with risk of experiencing violence for working women.

The Nagelkerke R square for the hierarchical regression increased with the inclusion of every subsequent model. The first model, which included the macro variables, explained 6.6% of the variance in IPV, and including the meso variables in the second model increased the variance explained to 39.3%. There were marginal increases in the IPV variance after the micro variables, and the occupational status was included in the third and fourth models. In the final model of the hierarchical regression, the total variance of IPV that the macro, meso, and micro variables and the occupational status of married working women explained was 41%.

Demography of the Cohorts

Table 12

Demography of Cohorts 1, 2, and 3

	Cohort 1 (N=936)	Cohort 2 (N=791)	Cohort 3 (N=794)
Respondent age	24.23(4.31)	32.05 (3.72)	41.22 (4.3)
Respondent education (in single years)	6.87 (3.86)	3.57 (3.907)	1.80 (3.316)
Owens a mobile phone	793 (84.7%)	650 (82.2%)	504 (63.5%)
Has a bank account	424 (45.3%)	451 (57%)	411 (51.8%)
Owens a house alone	24 (2.6%)	59 (7.5%)	86 (10.8%)
Owens land alone	47 (5%)	111 (14%)	155 (19.6%)
*Wealth index combined	2.65 (1.36)	2.69 (1.39)	2.65 (1.30)
Number of household members	4.72 (1.93)	4.87 (1.98)	4.52 (2.35)
**Respondent occupational rank	2.05 (1.76)	1.96 (1.68)	1.76 (1.55)
Husband drinks alcohol	426 (45.5%)	411 (52%)	395 (49.7%)
Ever threatened with divorce	55 (5.9%)	55 (7%)	38 (4.8%)

Notes: Scale – M(SD), Categorical – N (%), where M=Mean, SD= Standard Deviation, N=Total number, %=percentage,*Wealth index calculated on a scale of 1-5 where 1=poorest and 5=richest, **Respondent occupational rank follows the ILO standard on the ranking of occupations with agricultural self-employed at the lowest rank and technical/managerial/professional at the highest rank.

The younger cohorts were better educated and in better occupational positions than their elders. The younger cohorts experienced fewer violence incidences than the older cohorts, which may be attributed to the duration of the marriage. The women in Cohort 3 and Cohort 2 have been married longer than women in Cohort 1 and have had more exposure to conflicts and Opportunities for violence. A higher percentage of women in older cohorts maintained sole ownership of assets, such as land and house. The husband-related factors were similar across cohorts, with marginal differences among variables related to violence, such as the threat of divorce, accusation of unfaithfulness, and fear of the husband.

Probit Instrument Variable Analysis for Cohort 1: Effect of LFP on IPV

Table 13

First Stage Regression

Source	SS	df	MS
Model	767.654691	10	76.7654691
Residual	2144.56646	925	2.32184793
Total	2912.22115	935	3.11467503

Number of observations = 936
 F(10,925) = 33.11
 Prob > F = 0.0000
 R-squared = 0.2636
 Adj R-squared = 0.2556
 Root MSE = 1.5226

Re-Woman Occupation	Coefficient	Std. err.	t	P> t	95% confidence interval	
Empowerment Index	-.0246162	.0243202	-1.01	0.312	-.0723453	.023113
Total wealth index	.6157022	.0376325	16.36	0.000	.5418472	.6895572
Husband education	.0141154	.0085133	1.66	0.098	-.0025922	.030823
Number of household members	-.0275657	.0260267	-1.06	0.290	-.0786439	.0235126
Ever experienced: Threatened with divorce by husband or in-laws	-.0062392	.2193752	0.03	0.977	-.4242916	.43677
Husband drinks alcohol	-.1575609	.1026274	-1.54	0.125	-.3589705	.0438487
Husband jealous if respondent talks to other men	.1794146	.0997935	1.80	0.073	-.0164334	.3752625
Husband accuses respondent of unfaithfulness	-.1588917	.228021	-0.70	0.486	-.6063903	.2886059
Respondent afraid of the husband most of the time, sometimes, or never	-.1773731	.1013732	-1.75	0.081	-.3763212	.021575
Owens a mobile phone	.1685536	.14334773	1.17	0.240	-.1130252	.4501323

cons	.4656067	.226472	2.06	0.040	.0211482	.9100652
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Note: Two step probit endogenous regressors, Number of obs = 936, Wal chi2(10) = 128.69, Prob > chi2 = 0.0000

	Coefficient	Std. err.	z	P> z	95% confidence interval	
Re-Woman_Occupation	-.8602415	1.382429	-0.62	0.534	-3.569753	1.84927
Total wealth index	.6232138	.8503397	0.73	0.464	-1.043421	2.289849
Husband education	-.0802919	.0282909	-2.84	0.005	-.1357411	-.0248426
Number of household members	-.0122367	.051623	-0.24	0.813	-.1134159	.0889425
Ever experienced: Threatened with divorce by husband or in-laws	1.136409	.2803242	4.05	0.000	.5869842	1.685835
Husband drinks alcohol	.5039545	.2649725	1.90	0.057	-.015382	1.023291
Husband jealous if respondent talks to other men	.4786548	.2785264	1.72	0.086	-.0672469	1.024556
Husband accuses respondent of unfaithfulness	.7551533	.3627499	2.08	0.037	.0441765	1.46613
Respondent afraid of the husband most of the time, sometimes, or never	.49771	.2857102	1.74	0.082	-.0622717	1.057692
Owns a mobile phone	-.2779307	.3019655	-0.92	0.357	-.8697723	.3139109
cons	-.9033861	.6612043	-1.37	0.172	-2.199323	.3925505

Note: Wald test of exogeneity: chi2(1) = 0.71, Prob>chi2 = 0.4006, Instrumented: Re_Woman occupation.

The F- value obtained from the IV probit regression yielded an F-statistic $[F,(10,936)]=33.1, p<.001$. A statistic above 10 indicates a strong association between the independent variable, women’s occupational ranking, and the instrument. This suggests that the first stage regression involved during the two-step probit estimation meets the assumption that the Women’s Empowerment Index is not a weak instrument. However, its ability to predict the endogenous variable in this analysis, women’s occupational ranking, was insignificant. Its effect was -.024, which was not significant at the $p<.05$ level. The probit model, on the whole, yielded a poor fit as indicated by the Wald chi2(9) value of 122.62 ($p<.05$). In general, even though the instrument was not weak in the first stage, the instrument did not have a significant effect on the independent variable, resulting in a poor fit. This calls into question the ability of the regression model with the instruments to yield predicted values of “women’s occupational ranking” with insignificant correlations with the error term.

In the second stage, the predicted value of the independent variable (the instrumented variable) showed an insignificant relationship with the outcome, IPV. The effect of the key independent variable “women’s occupational ranking” is -.805. The Wald test of exogeneity was not significant for Cohort1 (women married from 0-10 years), implying the instrument was a poor fit for this group. Therefore, this instrument could not rule out the presence of endogeneity.

Probit Instrument Variable Analysis for Cohort 2: Effect of LFP on IPV

Table 14

First Stage Regression

Source	SS	df	MS
Model	644.114201	10	64.4114201
Residual	1591.82259	780	2.84079819
Total	2235.93679	790	2.83029973

Number of observations = 791
F(10,780) = 31.56
Prob > F = 0.0000
R-squared = 0.2881
Adj R-squared = 0.2798
Root MSME = 1.4286

Re-Woman Occupation	Coefficient	Std. err.	t	P> t	95% confidence interval	
Empowerment Index	-.0256518	.0202938	-1.26	0.207	-.0654888	.0141853
Total wealth index	.6028182	.0381277	15.81	0.000	.5279731	.6776633
Husband education	.0174035	.0077171	2.26	0.024	.0022547	.0325523
Number of household members	-.0387487	.0261942	-1.48	0.139	-.0901681	.0126707
Ever experienced: Threatened with divorce by husband or in-laws	-.1913114	.2044109	-0.94	0.350	-.592572	.2099493
Husband drinks alcohol	.031627	.1019913	0.31	0.757	-.1685831	.231837
Husband jealous if respondent talks to other men	.025937	.0956178	0.27	0.786	-.1617257	.2136716
Husband accuses respondent of unfaithfulness	-.1568276	.2292936	-0.68	0.494	-.6069333	.2932781
Respondent afraid of the husband most of the time, sometimes, or never	-.2349117	.1055434	-2.23	0.026	-.4420944	.027729
Owns a mobile phone	.0495059	.1380564	0.36	0.720	-.2215002	.320512
Cons	.5513512	.2278488	2.42	0.016	-.1040816	.9986207

Notes: Two step probit endogenous regressors, Number of obs = 791, Wal chi2(10) = 47.22, Prob > chi2 = 0.0000.

	Coefficient	Std. err.	z	P> z	95% confidence interval	
Re-Woman_Occupation	-2.107069	1.833535	-1.15	0.250	-5.700731	1.486592
Total wealth index	1.297479	1.112214	1.17	0.243	-.8824193	3.477378

Husband education	.0228566	.0378971	0.60	0.546	-.0514204	.0971336
Number of household members	-.1476434	.0906373	-1.63	0.103	-.3252893	.0300025
Ever experienced: Threatened with divorce by husband or in-laws	.8686155	.5875674	1.48	0.139	-.2829954	2.020226
Husband drinks alcohol	.6241822	.2470069	2.53	0.012	.1400575	1.108307
Husband jealous if respondent talks to other men	.5825007	.2244601	2.60	0.009	.142567	1.022434
Husband accuses respondent of unfaithfulness	.6234329	.5175748	1.01	0.313	-.5869915	1.833857
Respondent afraid of the husband most of the time, sometimes, or never	.2011064	.4979671	0.40	0.686	-.7748911	1.177104
Owns a mobile phone	-.3067495	.3305224	-0.93	0.353	-.9545614	.3410625
Cons	.0001253	1.026011	0.00	1.000	-2.010819	2.01107

Notes: Wald test of exogeneity: $\chi^2(1) = 6.50$, $\text{Prob} > \chi^2 = 0.0108$, Instrumented: Re_Woman_occupation.

The F-value obtained from the IV probit regression yielded an F-statistic $[F,(10,780)]=31.56$, $p < .001$. The statistic above 10 indicated a strong association between women's occupational ranking and the independent variable. This met the assumption that the "Women's Empowerment Index" is not a weak instrument. However, its ability to predict the endogenous variable in this analysis, women's occupational ranking, was insignificant. Its effect was $-.025$, which was not significant at the $p < .05$ level. The probit model, on the whole, yielded a poor fit as indicated by the Wald $\chi^2(9)$ value of 47.22 ($p < .05$). The instrument was not weak in the first stage, but it did not have a significant effect on the independent variable.

In the second stage, the predicted value of the independent variable (the instrumented variable) showed an insignificant relationship with the outcome, IPV. The effect of the key independent variable 'women's occupational ranking' is -2.10 . The Wald test of exogeneity was significant for Cohort 2 (women married from 11-20 years), implying the instrument was a good fit for this group. The significance of the Wald test of exogeneity indicates endogeneity, but there was an insignificant relationship between the instrument and the outcome variable. As a result, this instrument cannot rule out the absence of endogeneity.

Probit Instrumental Variable Analysis for Cohort 3: Effect of LFP on IPV

Table 15

First Stage Regression

Source	SS	df	MS
Model	452.114084	10	45.2114084
Residual	1470.84435	783	1.87847299
Total	1922.95844	793	2.42491606

Number of observations = 794
F(10,783) = 24.07
Prob > F = 0.0000
R-squared = 0.2351
Adj R-squared = 0.2253
Root MSME = 1.3706

Re-Woman Occupation	Coefficient	Std. err.	t	P> t	95% confidence interval	
Empowerment Index	-.0455641	.0183679	-2.48	0.013	-.08116203	.0095079
Total wealth index	.4956995	.039923	12.42	0.000	.4173307	.5740684
Husband education	.0228154	.0098979	2.31	0.021	.0033859	.042245
Number of household members	-.0233758	.0213785	-1.09	0.275	-.0653418	.0185901
Ever experienced: Threatened with divorce by husband or in-laws	-.1556204	.2328876	0.67	0.504	-.3015376	.6127783
Husband drinks alcohol	.1723756	.0995307	1.73	0.084	-.0230021	.3677551
Husband jealous if respondent talks to other men	-.036277	.1435873	-0.25	0.801	-.3181386	.2455845
Husband accuses respondent of unfaithfulness	.0240327	.2155497	0.11	0.911	-.399091	.4471564
Respondent afraid of the husband most of the time, sometimes, or never	-.0793509	.1002145	-0.79	0.429	-.2760718	.11737
Owns a mobile phone	.2940279	.1084648	2.71	0.007	.0811117	.5069442
Cons	.2922908	.1872593	1.56	0.119	-.0752989	.6598805

Notes: Two step probit endogenous regressors, Number of obs = 794, Wal chi2(9) = 154.96, Prob > chi2 = 0.0000

	Coefficient	Std. err.	z	P> z	95% confidence interval	
Re-Woman_Occupation	-.5012837	.4783132	-1.05	0.295	-1.43876	.4361929
Total wealth index	.3552747	.2390271	1.49	0.137	-.1132097	.8237592
Husband education	-.0370182	.0204351	-1.81	0.070	-.0770703	.0030339
Number of household members	-.0293892	.0284647	-1.03	0.302	-.085179	.0264005
Ever experienced: Threatened with divorce by husband or in-laws	1.076653	.2841568	3.79	0.000	.5197155	1.63359
Husband drinks alcohol	.6673706	.1431499	4.66	0.000	.3868019	.9479393
Husband jealous if respondent talks to other men	.725077	.1600696	4.53	0.000	.4113463	1.038808

Husband accuses respondent of unfaithfulness	.9611075	.2637346	3.64	0.000	.441972	1.478018
Respondent afraid of the husband most of the time, sometimes, or never	.4781986	.1281274	3.73	0.000	.2270735	.7293237
Owns a mobile phone	-.1130979	.1967626	-0.57	0.565	-.4987456	.2725498
Cons	-1.217606	.249354	-4.88	0.000	-1.706331	-.7288813

Note: Wald test of exogeneity: $\chi^2(1) = 1.35$, $\text{Prob} > \chi^2 = 0.2456$, Instrumented: Re_Woman_occupation

The F- value obtained from the IV probit regression yielded an F-statistic $[F, (10, 783)] = 24.07$, $p < .001$, suggesting a strong association between the independent variable, women’s occupational ranking, and the instrument. The first stage regression met the assumption that the Women’s Empowerment Index is not a weak instrument. Its ability to predict the endogenous variable in this analysis was low at $-.045$, but it was significant at the $p < .05$ level. The probit model, on the whole, yielded a poor fit as indicated by Wald $\chi^2(9)$ value of 154.96 ($p < .05$). Even though the instrument was not weak in the first stage, and it had a significant effect on the independent variable, the result was a poor fit.

In the second stage, the predicted value of the independent variable (the instrumented variable) showed an insignificant relationship with the outcome, IPV. The effect of the key independent variable “women’s occupational ranking” was $-.501$. The Wald test of exogeneity was insignificant for Cohort 3 (women married for over 20 years), implying the instrument was a poor fit for this group. The presence of endogeneity could not be ruled out with this instrument.

The probit regression results could not rule out the presence of endogeneity for all three cohorts. The Women’s Empowerment Index provided by DHS was inadequate for the occupational ranking of married working women. Future research should include a more robust instrument or use multiple instruments to predict the outcome accurately. Because Cohort 2

showed a possible presence of endogeneity, logistic regression was run for Cohort 1 and Cohort 3 combined.

Logistic Regression for Cohort 1 and Cohort 3 Combined

Table 16

Logistic Regression for Cohort 1 and Cohort 3 Combined

Cohort 1 and Cohort 3	Exp (B)	Sig.	Lower	Upper
Household wealth index	1.229	**	1.229	1.229
Husband education	.874	**	.874	.874
Number of household members	.982	**	.982	.982
Husband's alcohol habits	3.346	**	3.345	3.347
Ever been threatened with divorce	5.639	**	5.636	5.642
Husband jealous if respondent talks to other men	2.334	**	2.334	2.335
Husband accuses respondent of unfaithfulness	4.184	**	4.182	4.187
Respondent afraid of the husband	2.688	**	2.687	2.689
Owens a mobile phone	.466	**	.466	.466
*Respondent occupational rank	1.025	**	1.025	1.025

Note: Nagelkerke R square - .375, Classification table – 82.9%, *Respondent occupational rank follows the ILO standard on the ranking of occupations with agricultural self-employed at the lowest rank and technical/managerial/professional at the highest rank.

Summary

The likelihood that married working women from Cohort 1 and Cohort 3 would experience marital violence increased significantly with higher household wealth. Husbands' higher education and women's ownership of mobile phones were protective against violence.

The highest risks of violence came from husband-related factors, such as the husband's alcohol habits, the husband's tendency to be jealous when the respondent talked to other men, the accusation of unfaithfulness, and the respondent's fear of her husband. Women's occupational rank was positively related to the likelihood of violence, with women from higher occupational status facing a marginally higher chance of violence than women from lower occupational ranks. Women's empowerment indicators, such as higher occupational rank, were associated with a higher risk of violence, but the highest odds for working women were associated with husband-related factors.

CHAPTER 6: DISCUSSION, IMPLICATIONS, AND CONCLUSION

Findings

The study looked at currently married working women in Nepal and explored the risk and protective factors for intimate partner violence (IPV). Working women in Nepal are understudied, and this research could contribute significantly to our understanding of this population because the results are based on nationally representative data. The research reported here also is important because all forms of partner violence (emotional, physical, and sexual) measures were considered.

The study's results must be interpreted against the social and economic context at the time of data collection. DHS conducted the majority of its fieldwork in 2016, just over a year after two major earthquakes (April 25, 2015, and May 12, 2015) and several minor earthquakes hit Nepal, causing death, disease, infrastructure and property destruction, and displacement (Adhikari, Mishra, & Raut, 2016). Because of this, DHS advises that some indicators should be interpreted with caution because of the massive changes in social and economic scenarios after the earthquake. The country's economy was severely hit, and all sectors showed a downward trend (Shakya, 2016), resulting in job losses and a further increase in poverty. Women faced greater financial hardship than men (Shakya, 2016), and many women likely lost jobs or were under-employed at the time of the survey.

In this study, 23.1% of the working women reported they had experienced some form of violence during marriage. This number appears to be much less than findings from previous studies on IPV in Nepal (Dhungel et al., 2017; Hawkes et al., 2013; Rana, 1997; Puri, Tamang, & Shah, 2011). The actual prevalence of all forms of violence could be much higher since women tend to under-report violence because of social and cultural norms that discuss marital

issues, particularly sex (Oyediran & Feyisetan, 2017). Domestic violence is a sensitive subject, and sexual violence is taboo in Nepal (Puri, Tamang, & Shah, 2017).

Gross under-reporting of violence in interviews by women has been reported in previous studies (Schuler, Hashemi, Riley, & Akhtar, 1996) because women may consider violence to be a sensitive issue associated with prestige (Ahmed, 2005). Women may not have shared their experiences because they are ashamed of being abused or because they want to protect the image of their husbands in front of the interviewers. Women who discuss private family problems outside the home are seen as tarnishing the family honor and violating the sacrosanct space of the home (Chand & Owen, 2001). This likely will result in difficulty collecting accurate data (Polit & Hungler, 1999).

The major difference between the working and the non-working women in the Domestic Violence Module was that the non-working women were from the relatively younger cohort who belonged mostly to middle or upper-class households. Their husbands likely were involved in skilled and professional occupations. This compares to working women who belonged to relatively older cohorts and mostly came from poorer families. The non-working women's husband was more likely to be working in agriculture. Almost two-thirds of the women from working and non-working groups came from urban areas, and the majority followed the Hindu faith. A higher percentage of working women had an account in a bank or other financial institutions than non-working women.

The highest form of violence prevalence among the working and non-working women was "less severe physical violence," experienced by 21% of the working women and 18.1% of the non-working women. The difference between the two groups for less severe violence in marriage was significant ($p < .005$), with most women reporting slapping as the most common

form. The least reported form of violence was sexual violence, which was reported by 7.3% of working women and 6.1% of non-working women, but the difference between the two groups was insignificant. The difference in the prevalence of emotional and severe physical violence for working and non-working women was significant at $p < .001$.

The bivariate analysis showed that the differences in the kinds of violence faced by working women of various occupations were significant at $p < .001$ for all forms. Unskilled manual labor reported the highest prevalence of all forms of violence, and women in the professional/technical/managerial positions reported the lowest prevalence of all forms of violence. At the macro level, women from the Terai zone reported the highest prevalence of IPV (31.6%), while women from the mountain zone reported the lowest prevalence (17.3%), and this difference was significant ($p < .005$). The wealth index was significantly associated with violence ($p < .005$). The highest prevalence of violence was reported by women in the middle category (29.1%), followed by richer (24.6%) and poorer (23.6%) households. The richest category reported the least prevalence of violence (15.4%). The marital duration of a working woman was significant ($p < .005$). Women married for more than 20 years reported a 28.25% prevalence rate, and women married for fewer than 10 years reported 17.5%.

At the meso level, the husband's education and occupation were significantly associated with decreased violence against married working women. Women whose husbands were unskilled manual laborers reported the highest prevalence of violence at 32.8%, and women whose husbands were working at professional/technical/managerial levels (13.5%) reported the least violence. The total number of sons was significantly associated with violence ($p < .005$). Husband's alcohol habits, respondent witnessing parental violence, respondent's knowledge of land/property registered, respondent, experiencing the threat of divorce, husband's tendency to

be jealous when wife talks to other men, husband accusing respondent of unfaithfulness, respondent expressing fear of the husband were significantly associated with violence among currently married working women.

At the micro level, respondents' current age, education, ownership of a mobile phone, and an account in a bank or other financial institutions were associated with a decrease in violence. The lowest odds of facing violence were experienced by young Hindu working women from urban mountains with high levels of education and occupation, who did not witness parental violence and whose husbands were well educated, working in skilled occupations, did not drink, and had a trusting nature.

The hierarchical regression showed that, in the last model, all variables were significant predictors of violence. This, however, could be substantially different with variables associated with the husband's nature predicting the highest odds of spousal abuse for working women. In the last model, protective factors were: hailing from the mountain, living in urban areas, being of Hindu faith, husband's higher education, husband's employed status, a greater number of living children, greater number of household members, joint decision-making on women's inherited assets, woman's higher education, a woman owning a mobile phone, a woman having an account in a bank or other financial institution, single or part ownership of the house, and joint or single ownership of land. Risk factors for violence were husband's mistrustful nature, husband working as an unskilled laborer, husband's alcohol habits, respondent witnessing parental violence, having no household property, husband making decisions on women's inherited assets, joint ownership of household, and part and single ownership of land.

Previous research has shown poverty as a predictor of violence (Atteraya, Gnawali, & Song, 2014), and the results of this study confirm that having no household property and

husband and wife working as unskilled laborers were predictive of violence. Working as unskilled labor could indicate that the family did not own a farm or possess household property. Women working as unskilled laborers reported the highest prevalence of all forms of spousal abuse, and men who were working as unskilled laborers were more likely than others to inflict violence on their working wives. Goode (1971) argued that individuals lacking a means of power, such as income or education, were likelier to use violence to achieve dominance within a marriage.

Most survey data collection happened after the Nepal earthquake when the economy took a severe downward trend. The insecure nature of unskilled labor for both the respondent and the husband could have triggered violence against women working as unskilled labor compared to women in other professions. The nature of unskilled labor means jobs are not secure, and income could be tied to the economic condition of the location. Higher levels of income loss due to an economic downturn were associated with violence (Rayhan & Akter, 2021). Professionals, women in sales, clerical, and skilled labor positions are more likely to have stable jobs, and the agricultural self-employed have their farms to work on. This discrepancy in the nature of work could be predictive of violence. Employed women with employed spouses had significantly lower odds of facing violence than employed women with unemployed spouses.

Factors predictive of violence were women's education, owning a mobile phone, having a bank account, owning a house alone or in part, owning land alone or jointly with a spouse, and making joint decisions with spouses about utilizing woman's inherited assets. These variables indicate women's empowerment, and the results show a positive relationship between women's empowerment and protection against violence. Compared to women who do not own immovable assets, owning a house and owning land alone or jointly with the spouse were significantly

associated with violence. When women owned a house or land alone, the ownership was protective, but when they owned assets jointly, or both jointly and alone, there was increased violence. In this context, women's sole property ownership was a significant protective factor against violence.

Previous studies found a significant association between asset ownership and empowerment among Nepali women (Pandey, 2003). The land and house could be a part of a woman's inherited asset (PEWA) that she received from her maternal family or bought with her own money. A woman typically has exclusive rights over her inherited assets (PEWA), and when the husband makes sole decisions over its use, it indicates that he is a controlling spouse. When joint decisions were made on the woman's inherited asset (PEWA), it was a protective factor, but when the husband made all decisions regarding those assets, the women faced higher odds of abuse. This could explain to a certain extent why joint assets led to higher chances of violence.

Modernization theory (Inglehart, 1976) says the younger generation is more likely to be egalitarian in its attitudes towards gender. The last model of the hierarchical regression showed that, compared to women in Cohort 1 (women married for less than 10 years), Cohort 2 (women married from 11-20 years) had 1.6 times the odds of facing violence, and Cohort 3 (women married for over 20 years) had 1.9 times the odds of facing violence. This shows that the level of violence faced by younger women was less than the level of violence faced by the older generations, confirming more egalitarian attitudes among the younger generation.

The husband's domination of the relationship, measured through the threat of divorce, charges of unfaithfulness, displaying jealousy when women talk to other men, respondent fear of the husband, and husband controlling women's inherited assets, showed significantly higher

odds of violence. These factors, combined with the husband's alcohol habits, signified the highest odds of violence against women.

A higher number of household members was marginally protective against violence. The average number of household members for working women was 4.70 (SD 2.10), and the mean number of living children was 2.37 (SD 1.5). The numbers indicate smaller family units with fewer children in the household. The fertility rates in Nepal have declined by half in two decades, from 5.1 in 1991 to 2.6 in 2011 (Shakya & Gubhaju, 2016). The number of children per woman in urban areas is 1.6 and 2.8 in rural areas (Shakya & Gubhaju, 2016).

Previous studies have shown that more children are related to higher violence risks (Sambisa et al., 2011). Being childless could be a risk factor for women (Wang et al., 2022) and having many children. Since the average number of children per household in the study was fewer than 3, the presence of more living children could have been a protective factor. The average household size was 4.7 in this study, indicating smaller families. Previous studies have shown that the presence of a household member other than the spouse could be a protective factor for women in Nepal (Nwokolo et al., 2020). This study shows marginal protection for women against violence as the household size increases.

The average number of sons per household was 1.23 (SD .93). Sons are typically desired in patrilineal societies to carry the family legacy (Gupta et al., 2003), and sons may ensure some level of security for the mother's position in the household. The study results show that more sons may not necessarily mean more protection from violence for working women. Patrilineal inheritance is the primary means of gaining rights to land in Nepal (Allendorf, 2007), and, as property is assumed to be equally divided among all the sons in patriarchal cultures (Gupta et al., 2003), more sons could relate to an increased division of property, producing conflict in the

house, which, in turn, could lead to stress and violence. Despite changes in the law that give property rights to daughters, men mainly control and inherit the joint property of their household (Pradhan, Meinzen-Dick, & Theis, 2019). The study results show that having many sons may marginally increase the risk of violence against working women.

Alcohol consumption by the husband has been strongly associated with violence in previous research (Parekh et al., 2021). This study confirmed these findings. Women whose husbands consumed alcohol had almost three times the odds of facing violence than women whose husbands did not drink alcohol. Previous research also has shown household wealth to be associated with decreased risk of spousal abuse (Abramsky et al., 2011) or to have no association with violence (Tu & Lou, 2017). However, this study shows that belonging to wealthier households could mean marginally higher odds of facing violence, although women from the richest households faced less risk than women from middle or richer groups. The bivariate analysis between household wealth and working women's occupational rank showed that almost two-thirds of the working women from the richest household category worked in higher occupational ranks, such as sales and professional jobs requiring comparatively advanced education. Women from the richer, middle, and poorer households were less involved in higher occupational ranks at below 30%, 15%, and 10%, respectively. The results show that women's education, occupational rank, and household wealth index influence IPV.

The study could not assess endogeneity between women's labor force participation and experience of IPV. The results must be understood against the inadequacy of the instrument used, which is the Empowerment Index of women provided by DHS. The results showed that the instrument was not weak, but its ability to predict the outcome was low. The Wald test of exogeneity showed the Empowerment Index did not have adequate power to stand in for

women's labor force participation. Two inferences can be drawn from the results. First, the low ability of the instrument to first predict the outcome means there was endogeneity that the tests could not accurately assess. Second, there is no endogeneity, and women in Nepal are working to fill family needs because they are empowered enough to choose to work.

This is the first study using national data that researched the possibility of reverse causality, or the chances of women participating in the labor force to escape violence at home. The results indicate that reverse causality may not significantly affect women's choice to participate in the labor force. In the probit regression for all the cohorts, total household wealth, husband's education, threat of divorce, husband's alcohol habits, and accusations of unfaithfulness were consistently significant. These traits must be further explored for their ability to predict violence in marriage for working women.

Previous research has shown IPV to function more as a husband's controlling behavior than women's empowerment indicators in Nepal (Dalal, Wang, & Svanstrom, 2014). This study confirms that, for working women, the most significant risk of violence was related to the husband's nature and habits. A working woman is more likely to venture outside the home and interact with unrelated men for employment-related matters than a non-working woman, which could be why working women face significantly higher rates of all forms of violence. Women empowerment indicators, such as sole ownership of property, higher education, and possession of mobile phones and bank accounts, were protective, while the husband's controlling behavior and alcohol habits were the factors most likely to result in spousal abuse.

One of the fundamental beliefs of feminist theory is that the likelihood of violence can be reduced considerably through greater gender equality and redistribution of power at the societal level (Yick, 2001). Policies have been adapted to encourage women to pursue education

and work opportunities to overcome economic and cultural barriers. Evidence shows that, even as women have moved into the workforce, men's powers have been largely upheld (Tichenor, 2005) and not redistributed as previously assumed. The findings of this study confirm that, even as some indicators of a working woman's empowerment have protected her against violence, she remains vulnerable to her husband's controlling behavior.

As for occupational ranking, women in the highest status category, including those in professional, technical, or managerial positions, reported the least experience of violence. This was followed by women in sales/services and women in the agricultural sector. Women working on own farms are likely viewed with less suspicion because their interaction with unrelated men and outsiders is more limited than for women working as unskilled labor, skilled labor, clerical, or sales personnel. The operative freedom of movement and interaction with unrelated persons inherent in women's occupations could be important indicators of spousal abuse.

Previous studies have shown that women working from home faced less violence than women working for unrelated employers (Bhattacharya, 2015; Eswaran & Malhotra, 2011). The risk was lessened if the occupations required comparatively advanced education or training. Women doing unskilled labor face the greatest likelihood of violence, as they had to do odd jobs and change co-workers and work location based on job availability and access. In conjunction with the erratic nature of the unskilled professions, the husband's nature and habits, the highest risk factors for violence ensured that these women workers would be the most affected by IPV. Being highly educated or working within a controlled environment, such as her own farm, was likely to be protective for a working woman.

The study's results indicate that feminist theory and modernity theory explain the likelihood that Nepali women will face domestic violence. The women in the survey displayed

many features of modernity; working women from every subsequent generation were better educated, in higher labor positions, and had fewer children than the preceding cohort of women. The risk of violence lowered as the younger and better-educated women joined the labor force. However, husband-related factors, such as the husband's alcohol habits, an accusation of unfaithfulness, tendency to get jealous when the respondent talked to other men, threats of divorce, and respondent showing fear of the husband, remained similar across cohorts.

The study results show that women's characteristics displayed significant changes across cohorts without accompanying changes in husband-related factors. Even though the young cohort experienced less violence than the older cohorts, the result must be seen in the context of marital duration and the more time the husband has had to inflict violence. A longer marriage could mean more opportunities to inflict violence. The study tested for any kind of violence at any time during the relationship, so it is likely that, with more years of marriage, the working women from the younger cohort could face violence much like the women from the older cohort.

Feminist theory sees domestic violence as gender violence where the man abuses the woman because of a power differential caused by institutionalized power structures that favor men. The expression of a patriarchal culture is produced by men's control and dominance over women. The results of the study show that feminist theory applies to married working women of Nepal. While the women contributed to household consumption in cash or any kind, their labor force participation did not deter the husbands from inflicting violence. The husband-related risk factors were uniform across the cohorts, and women's likelihood of facing violence remained more a function of their husband's characteristics than of women's empowerment factors, such as occupational rank.

Nepal has made dramatic improvements in the Gender Gap Index because of the political empowerment of women, which has impacted women's education and employment opportunities (Nguyen et al., 2020). Women's empowerment in this study can be assessed through sole ownership of assets, lower fertility rates, smaller households, and participation in the workforce. Previous studies have found that raising women's economic opportunities alone was not enough to protect them against violence within the household (Dhanraj & Mahambre, 2022; Sato, Shimamura, & Lastarria-Cornhiel, 2021). This study confirms that overcoming entrenched patriarchal ideologies and structures requires changes in men's and women's attitudes towards violence. Joint decision-making with the husband was a protective factor; therefore, it should be a priority to include men in initiatives to fight against discrimination and violence.

Policies that have targeted women exclusively sometimes fail to achieve their goals and have increased their chances of experiencing domestic violence (Ferris et al., 2018). It would be practical to involve men in women's empowerment policies, as the husband's involvement could be crucial in changing attitudes towards the wife's operative freedom (Collett & Gale, 2009). A woman's low participation in household decision-making is associated with a higher risk of experiencing violence (Allendorf, 2007; Kim, Atteraya, & Yoo, 2019).

Empowering women to make joint decisions at home could effectively build better spousal relationships (Dalal, Wang, & Svanstrom, 2014), eventually leading to lower rates of IPV. A higher level of education for men and women was a significant predictor of reduced IPV, and policies should be formulated to encourage advanced education. Sole asset ownership by a woman protected her from violence, as did a higher occupational rank. Because occupational rank is directly associated with education, women's education should be prioritized.

Limitations of the Study

This research makes important contributions to the study of working women in Nepal. However, some limitations must be considered. First, the data for the study are at least five years old and were collected a year after massive earthquakes hit Nepal, resulting in enormous changes in the country's socio-economic structure. This could have affected some variables related to occupation and property ownership. Moreover, there are estimates that up to two million people were internally displaced because of the earthquake (Adhikari, Mishra, & Raut, 2016), which could have affected the sampling of working women.

Second, the current study is a secondary analysis of an already existing data set, and the findings were limited to those variables included in the original survey. The dataset was based on the voluntary sharing of information with interviewers, and although such research provides a strong apparatus to obtain data in a country with low education, there is a risk of response bias. Some respondents may distort responses by giving answers consistent with existing social values (Polit & Hungler, 1999). Such bias could affect the actual findings from this population, especially on sensitive subjects like intimate partner violence.

Third, because the domestic violence module was administered only to women, data on reported violence between couples are unavailable.

Fourth, the study was cross-sectional, and a time-based relationship between the variables and the outcomes could not be established.

Fifth, there appears to be a pattern to the systemic missing data wherein women chose not to respond to questions that could affect the husband's status. A variable that compared income earned by the respondent and the spouse had close to 60% missing data because women chose not to respond. Participants who were unsure about the husband's income had an option of

checking “Don’t Know.” Even if both partners were in the agricultural sector, the woman could have compared her contribution to household consumption, through produce or from the sale of produce in the market, with that of her husband. The missing response affected a comparison of work statuses between the respondent and the husband, which influenced the inferences of the study. The women appeared to make a conscious decision to protect the husband's reputation because, as the head of the family, he has a certain dignity that the women did not want to sully by stating that he earned less than the wife.

Sixth, domestic violence is a normative experience, and quantitative data may not be adequate to fully explain the prevalence, form, intensity, or suffering of working women. A variable related to women’s fear of their spouses did not elaborate on the reason for their concern. It could be because of past violent experiences or the husband’s inherent characteristics, but this was not explained. This missing information affects the results because past behavior could significantly predict future actions. The literature says that if a woman is unlikely or unable to escape or resist an attack, she is likely to be more fearful (Killias & Clerici, 2000). However, there were no follow-ups to this question, so the reason could not be accurately ascertained. Fear of husbands can be significantly associated with violence, and this culture of fear could explain why men retain control over women.

Strengths of the Study

This study was the first to focus specifically on the likelihood that working women will face domestic violence using a nationally representative sample and a pre-tested well-designed questionnaire executed by well-trained interviewers who talked to the women in person. In a country where the literacy rates for women are low, in-person interviews may be the most effective data collection method. This study was unique because it included a large sample of

working women across Nepal who represented all socioeconomic classes. The women were interviewed in their own homes in person; therefore, the interviewers had access to a variety of women and could observe the household and surroundings to match the demographic responses of the women.

Moreover, this is the first study to research endogeneity or reverse causality between women's labor force participation and IPV. The results displayed insufficient evidence for the absence of endogeneity for women married for fewer than 10 years and women married for more than 20 years. For women married from 10-20 years, evidence points toward the presence of endogeneity. In all groups of women, some variables showed a consistent presence in causes of IPV. The presence of endogeneity resulting from a weak instrument across all three cohorts limits the ability to determine a significant effect of labor force participation status on IPV. This result should be interpreted with caution because the probit regression showed that the instrumental variable was insufficient to predict the outcome.

Implications for Future Research

The study highlighted several important associations between working women and the likelihood of facing domestic violence. However, more is needed. It would be important to conduct qualitative studies among working women to capture the layered understanding and experiences of IPV. Studies should be done on men to get an insight into their use of violence on women and the socio-cultural understanding they use to justify IPV.

The study's results indicate a significant difference between the marital abuse of women according to occupational ranks. The experience of educated working women in the professional category would likely be different from the experience of a woman with low education working on the farm. Researching women from different occupational categories separately is more likely

to give an accurate understanding of each occupation's risk and protective factors, which could help develop appropriate interventions for abused women.

The high participation of women in the labor force in Nepal and the high levels of IPV that working women face point to a need for nationally representative surveys like DHS to allow for more questions in the Domestic Violence Module, especially those related to women's working status. Including further questions for working women to understand their risk of violence will help researchers and policymakers frame better interventions. Interviewers should persistently seek to fill in missing answers to the extent feasible for better analysis and outcomes. Talking about intimate partner violence can be a humiliating experience for many women; future research should be done among the literate population through online surveys or mailed questionnaires to elicit factual answers.

Future research should look for appropriate instrumental variables to measure labor participation and violence outcomes. This study found that the Empowerment Index on DHS was not a sufficient instrumental variable for labor force participation. Questions formulated to measure empowerment should be regularly revised to ensure the changing trends in gender equations are adequately reflected and captured in these indexes. Future research should look into the risk and protective factors from the lived experience of the working woman and consider her perspective on policies that might open up employment opportunities. Longitudinal studies should be conducted among working women to assess how risk patterns change with shifts in the family dynamic and work status.

Implications for Policy

The results from this study show the presence of multiple factors that influence the risk of IPV for working women. The multi-dimensional nature of risk factors shows the need for wide-

ranging interventions for working women and their husbands. The macro, meso, and micro variables showed significant relationships with IPV against working women, but the odds of violence were different among variables, with variables related to husband's nature and alcohol habits showing the highest odds of violence. Policymakers should be cautious against "one-size-fits-all" interventions that may increase women's risk of violence instead of helping them avoid it. The study showed that women's empowerment could be a protective factor against violence, but it was not enough if the husband did not cooperate. It would be important to engage men in the process of women's empowerment so that there is a consensus on access and control over economic opportunities and household decision-making. Male batterer interventions should be introduced and popularized, giving abusers access to behavior-changing programs.

The study showed that men working as unskilled labor were likelier to inflict violence than men of other professions, while women working as unskilled labor had the highest possibility of facing violence. The unstable nature of the job, along with low wages, could trigger violence at home. For women working as unskilled labor, the uncertainty of their work and economic standing could dissuade them from leaving a violent relationship. Policies should be enacted to provide basic security to people working in unstable jobs and ample training opportunities to move towards skilled jobs.

The result of the study showed that higher educational levels for men and women were protective against violence. National policies should strongly emphasize educational achievement for all to counter the problem of IPV. The study showed that alcohol consumption of husbands was significantly associated with violence against working women. Through visual media, programs to raise awareness about the risk of alcohol consumption should be made at the local and national levels to widen the reach to people without literacy. Awareness should be

raised about the Domestic Violence Act, along with ensuring the Act is implemented at the ground level so that abused women will have the confidence to report IPV to authorities and get justice.

Implications for Social Work

The rising number of women joining the workforce is likely to increase challenges for women and their families as the patriarchal structure is contested and the power dynamic in the relationship is rebalanced. These challenges could affect the well-being of the working women and their families in the short and long-term through heightened conflict at home, IPV, and negative physical and mental health outcomes. Social workers should be aware of the risk factors that apply specifically to working women so that appropriate interventions for the women and the children can be devised. The risk factors for working women compound when the women have low education, come from a poor background, have young children and work in unstable jobs. Social workers should be aware of comprehensive programs that address the multitude of needs faced by working women struggling with IPV.

The study showed that the employed women were likely to be from poorer backgrounds than non-working women. It indicates that poor working women have no choice but to continue working even at the risk of violence. To lessen the challenges of working women, social workers should advocate for safer workplaces for women along with opportunities for advancement through training or education. Social workers could advocate for introducing gender equality studies in school and conducting programs at all educational institutes and workplaces to raise awareness of the Domestic Violence Act. Partnering with local governments to conduct workshops for men and women on the Domestic Violence Act and enforcing the Act through timely arrests and swift decisions could encourage working women to speak out and seek help.

Conclusion

The study found that almost one-fourth of the working women had faced violence from their partners. The majority reported “less severe physical violence,” such as slapping, as the most frequent form of abuse. Women witnessing parental violence, husband’s suspicious nature, husband’s alcohol consumption, and women fearing their husbands were significantly associated with IPV. Women’s empowerment indicators, such as sole asset ownership, higher levels of education, owning mobile phones, having a bank account, and joint household decision-making, were protective against violence. The most powerful factors leading to spousal abuse were husband-related factors. The inference from the study is that husband-related factors are more significant in women’s experience of violence than women’s empowerment factors.

Entrenched patriarchal ideologies and socio-cultural norms related to women’s roles and responsibilities in the household and outside and the acceptance of violence by men and women lie beneath the pervasive experience of violence by working women. As women’s participation in the labor force grows, there is likely to be greater conflict in the relationship as the power dynamic between the spouses readjusts to create a more equitable balance. A commitment to reducing incidents of IPV against working women requires a strong push toward awareness of gender equality from a young age. Violence interventions should engage men and women and be implemented at the ground level through the cooperation of local and national agencies.

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APPENDIX A

Description of Studies on Female Labor Force Participation and Intimate Partner Violence

Country	Authors	Year	Results
India	Dhanraj & Mahambre	2022	Women in paid work are more likely to accept violence and marital control behaviors. IPV is higher among urban women in paid work whose husbands are unemployed.
India	Sato, Shimamura, Lastarria-Cornhiel	2020	Women's participation in self-help groups initially reduces tension, but conflicts arise in the medium term when they access credit.
Nepal	Shai et al.	2020	Women's economic participation led to improved gender attitudes and significantly less physical violence and controlling behavior from the husband.
Nepal	John	2020	Women's work status influences violence; women's paid work participation is not necessarily protective against violence; underlying gender hierarchies increase violence.
Nepal	Nwokolo et al.	2020	Behavioral expectations of masculinity and femininity protect IPV practice through concepts of male dignity and female tolerance.
Nepal	Clark et al.	2019	Wife employment, income stress, poor marital communication, husband drunkenness, exposure to IPV as a child, and gender inequitable expectations were associated with IPV.
Nepal	Grossman & Thompson	2017	Working women in the public sphere are aware of social risks by being publicly visible even as they enjoy disposable income and purchasing power.
India	Ghosh, Singh, & Chigateri	2017	Women face challenges balancing paid and unpaid work due to lack of employment opportunities, lack of assets, and prevailing gender norms.
Nepal	Dhungel, Dhungel, Dhital & Stock	2017	Women's economic dependence on their spouses is a risk factor for IPV.
India	Raj et al.	2017	Women's income generation and having their own money did not predict IPV over time.
Pakistan	Jamal, H.	2017	The employment of women is a significant protective factor against IPV.
India	Biswas, C.S.	2016	All kinds of IPV are higher among working women, and IPV is more likely among women in higher-level jobs compared to mid-level jobs.
Pakistan	Zakar, Zakar, & Abbas	2016	Women's unemployment increased the likelihood of physical violence, and employment status was not a predictor of psychological and sexual violence.

Description of Studies on Female Labor Force Participation and Intimate Partner Violence (continued)

Country	Authors	Year	Results
India	Dasgupta et al.	2015	A significant association was found between domestic violence and alcohol abuse by the husband, husband's education, per capita income, and occupation of the women.
Bangladesh	Murshi, Akincigil, & Zippay	2015	Microfinance participation is associated with a higher risk of violence for women with relatively better economic status but not for the poor.
India	Amaral et al	2015	Increased female labor force participation increased total gender-based violence.
India	Dasgupta et al.	2015	Domestic violence was more likely among women who were homemakers.
India	Bhattacharya, H.	2015	Experience of physical violence is significantly associated with women working away from home, for cash, and year-round.
Bangladesh	Heath, R.	2014	Women with low autonomy who work for pay are more likely to face violence, and women who earn more than their husbands are more likely to face violence.
India	Bhattacharya & Bhattacharya	2014	Increased financial independence may decrease spousal violence.
India	Weitzman, A	2014	Women in a marriage where both partners are employed face a higher risk of violence, and if the woman is the only spouse employed, then the risk of violence increases further.
India	Paul, S.	2014	Employed women are exposed to violence, women who earn more than their husbands suffer more violence, and unemployed husbands of employed wives are more violent than employed husbands.
Bangladesh	Bajracharya & Amin	2013	Violence among poor women is more likely because of poverty and is not associated with microfinance.
India	Kimuna et al.	2013	Working women whose husbands were unemployed and women who held inegalitarian views had higher chances of violence
Pakistan	Zakar, Zakar, & Kramer	2013	“Idea wife” perception docile, submissive wife strong among men, men not against women’s employment but not willing to loosen patriarchal control, women’s main role seen to reproduce and mothering.
Nepal	Khatri & Pandey	2013	The low status of women, illiteracy, economic dependence, and patriarchal ideology is mostly responsible for violence against women/
India	Chibber et al.	2012	Women’s contribution to household income increases the chances of IPV, but if she is solely responsible for all expenses, it can be a protective factor.

Description of Studies on Female Labor Force Participation and Intimate Partner Violence (continued)

Country	Authors	Year	Results
Bangladesh	Sambisa et al.	2011	All measures of income-generating activities not associated with spousal violence but inequalitarian views among women increased their risk of violence.
India	Lake & Munshi	2011	An increase in female income increases the probability of marital violence, but the relationship is observed only among former slave castes and not other sub-castes.
India	Dalal K.	2011	Working women were more likely to be abused than their non-working peers, and women who ear more than their husbands faced more violence.
India	Eswaran & Malhotra	2011	Working women were more likely to face violence, but women who work for unrelated employers face greater violence than self-employed women or women working from home.
India	Bhattacharya, Bedi, & Chachhi	2011	Women engaged in paid work were less likely to be victims of violence.
India	Chin, Y.M.	2011	Female employment reduces violence through exposure reduction, with no convincing evidence of employment's bargaining effect.
India	Dalal & Lindqvist	2010	Working women are proportionally more exposed to violence.
India	Krishanan et al.	2010	Unemployed women who became employed later had higher chances of violence. Changes in spousal employment risk are associated with subsequent changes in violence risk.