



Munich Personal RePEc Archive

Women labour force participation and domestic violence: Evidence from India

Sohini Paul

National Council of Applied Economic Research

27. March 2014

Online at <http://mpra.ub.uni-muenchen.de/55311/>

MPRA Paper No. 55311, posted 14. April 2014 16:51 UTC

Women labour force participation and domestic violence: Evidence from India

Sohini Paul¹

National Council of Applied Economic Research

New Delhi, India

¹ Fellow; National Council of Applied Economic Research; Parishila Bhawan; 11, IP Estate; New Delhi -110002, India. Phone: +91-9811756066, 91-11-234-52685; Fax: 91-11-2337-0164; Contact email: spaul@ncaer.org. I am grateful to the discussant and participants at the 46th Canadian Economics Association Annual Meeting, Calgary, Canada for their valuable comments.

Abstract

Domestic violence is recognised as a serious violation of women's basic rights. Conventional economic models of domestic violence suggest that higher participation by women in the labour force leads to a decrease in domestic violence. In this paper, we study the relationship between women employment and domestic violence in India. We used a nationally representative database, National Family Health Survey Data III (2005–06), for our analysis. We found that employed women are more exposed to intimate partner violence. We argue that the higher emotional cost of men through the violation of traditional gender norm leads to increased domestic violence.

Keywords: *Gender; Domestic Violence; Labour force participation; India*

JEL classification: J16; K14; K36; J21

1. Introduction

‘Violence against women is a manifestation of historically unequal power relations between men and women, which have led to domination over and discrimination against women by men and to the prevention of the full advancement of women.’ⁱ

The aim of our paper is to study the association between participation by the women labour force and intimate partner violence (IPV) in India. IPV refers to violence caused by the husband or an intimate partner and is one of the most common forms of domestic violence all over the world, especially in developing countries. It hinders women from exercising freedom of choice and also controls their participation in the development process of society. As a result, the full potential of women cannot be realised (ICRW, 1999, 2000, 2002), which imposes a significant cost on society. However, violence is present in every country, crossing the boundaries of widely different cultures, classes, education levels, income levels, castes, ethnicities and age groups; the only variation may come from the trend of violence across different groups of women across countries. Even though all societies prescribe violence against women, it is sanctioned incongruously under the umbrella of cultural practices and norms. Surprisingly, the most common form of violence, i.e., within the four walls of the home, is often ignored by the law enforcement machinery and the state. As a result, the incidence of domestic violence is quite alarming all over the world. Approximately 20 to 50 percent of women in a country are victims of physical violence at the hands of an intimate partner or other family members (WHO, 1996). India, even as a fast growing economy, is no exception to the high incidence of domestic violence against women.

We find several instances of domestic violence against women in India. According to a nationwide survey, 52 per cent of women have suffered from at least one incident of physical or psychological assault in their lifetime (ICRW, 2000). The National Family Health Survey III (NFHS III) conducted in 2005–06 (IIPS and Macro International, 2007) reports that 37 percent of women respondents have experienced physical or sexual assault.

The economic empowerment of women appears to be one solution to the problem of domestic violence. This approach is seen in traditional optimistic models predicting that participation in the labour force decreases the incidence of abuse. In contrast, recent pessimistic models argue that husbands become more violent if the wife's income goes up in order to counteract her bargaining power in the family.

Against this backdrop, we attempt to analyse whether working women are less or more exposed to domestic violence in India. We use the ecological framework of violence developed by Heise (1998) as the theoretical framework for our analysis. The data is taken from the National Family Health Survey III (NFHS III) conducted in 2005–06. This nationally representative survey dataset has detailed information on domestic violence, both physical as well as psychological, along with information on socio-economic characteristics.

This paper's findings have significant implications for policy formulation. We document that employment, the most popular form of gender empowerment advocated in the effort to ease the abuse of women, increases rather than decreases domestic violence in India. We present it with the following caveat: there may be endogeneity in the causal relationship. However, the association between women labour force participation and domestic violence brings out an important insight. Men turn cruel because the emotional costs become higher due to deviation from the traditional household rules. Our findings support the expressive 'male backlash' theories emphasised by

sociologists (Macmillan and Gartner, 1999), namely, an important motivation for men is to restore their self-image of dominance in the household to which they may feel entitled because of traditional cultural norms.

The paper is organised as follows: Section 2 covers the relevant research literature and Section 3 describes the theoretical framework. We discuss the data and present the main summary statistics in Section 4. Section 5 discusses methodology. The results are presented in Section 6 and Section 7 concludes.

2. Literature Review

Theorists argue that male dominance is the foundation of domestic violence. Women are exposed to marital violence due to the unequal share of power. Therefore, it is hypothesised that empowerment gained through employment would result in decreased domestic violence. However, the empirical findings do not always support this conjecture. One stream of literature established that participation in the labour force generates economic resources for a woman, and thus leads to higher bargaining power at home and lower prevalence of marital violence. Kim *et al.* (2007) in a study on rural South Africa using both qualitative and quantitative analysis asserted that economic empowerment leads to lower rates of IPV. Bowlus and Seitz (2006) also found a negative relationship between women employment and violence across all the provinces of Canada.

We find similar evidence in India. For example, in Karnataka, the increased income of a woman through employment reduces the probability of lifetime violence (Rao, 1997). In another study, Panda and Agarwal (2005) established that there is a significant reduction in domestic violence for women in Kerala who are employed in regular jobs. However, in Uttar Pradesh and Tamil Nadu there

was no such statistically significant evidence of a reduction in domestic violence associated with wage employment (Jejeebhoy, 1998).

In contrast, another stream of literature argues that the income generation activities of women hurt the male ego; males then become more violent to restore their bargaining power at home. Gelles (1976) in his pioneering work on studying the relationship between women's income and domestic violence has shown that women with fewer economic resources are less likely to be exposed to an abusive relationship. A recent survey (Vyas and Watts, 2008) in developing countries that studied the association between exposure to domestic violence and participation in income-generating activities has pointed out that involvement in such activities leads to higher lifetime experience of physical assault; for short-term violence, they found that of 22 cases, there was a protective association in five cases, greater risk in six cases and for the rest there was no association. Using a randomised control trial in rural Ethiopia, Hjort and Villanger (2011) found that there is a 13 percent increase in physical abuse when a woman gets employed, while the increase in emotional violence is 34 percent. In India, Eswaran and Malhotra (2011), using data from the second round of the National Family Health Survey, showed that women who work away from home are more exposed to spousal violence.

To the best of our knowledge, none of the studies so far has used a theoretical foundation to explore the relationship between women labour force participation and domestic violence. Heise (1998) has provided a sound theoretical explanation for 'why individual men become violent and why women as a class are so often their target' (p. 263). She has developed an ecological model of violence that uses a multidimensional approach. According to this model, domestic violence is the result of the interplay between personal, situational and socio-cultural factors. In this paper, we attempt to answer whether working women are more (less) exposed to spousal violence against the backdrop of the ecological framework of violence.

3. Theoretical framework

We have adopted the ecological model of violence (Heise 1998) in the Indian context. The model was first propounded by Belsky (1980) in the milieu of child abuse and neglect. The basic notion of ecological model of violence is to offer an integrated approach to theory building from the perspective of women abuse. It is a nested framework that unambiguously underlines the interaction of several factors that can be categorised into four broad groups: individual factors and factors related to the micro system (situational factors), exo-system and macro-system.

The core of the model (Figure 1) considers individual characteristics that make people vulnerable to violence. Around this layer are characteristics linked with the situation or a close relationship with partners as well as other family members and their role in determining the degree of a woman's susceptibility to violence. The third layer consists of factors related to the exo-system or the community in which an individual lives; it ranges from the physical environment to social exclusion (or inclusion). The fourth or outer layer of the model epitomises the society to which an individual belongs and the persistent impact of that society in terms of norms and values along with the legislative and policy framework.

Figure 1 is here

3.1 Individual factors

Individual or ontogenic factors reflect the personality of an individual. These factors are crucial since they determine the response system of an individual to the micro-system and to exo-system stressors. The age of a woman, her physical location, i.e., whether she is from a rural or an urban area, and her religion, social group and educational attainment have shown an association with spousal abuse.

Some studies have shown a decreasing risk of violence with the increasing age of the husband/ wife (Kim and Cho, 1992; Schuler *et al.*, 1996), while others did not find any association (Jejeebhoy and Cook, 1997). There is also an inverse relationship between higher caste and exposure to domestic violence (Hoffman *et al.*, 1994; Jejeebhoy and Cook, 1997). Level of education is another important factor; as a woman's level of education goes up, the prevalence of domestic violence decreases (Acharya *et al.*, 2012; Jejeebhoy, 1995).

Several empirical studies have established the importance of intergenerational transmission of domestic violence (Martin *et al.*, 2002; Straus and Gelles, 1990). Hotaling and Sugarman (1986) have found that of 42 risk markers, witnessing marital violence as a child is the consistent determinant of spousal violence. They indicated that if a young boy experiences violence between his parents during childhood, he is more likely to end up in an abusive spousal relationship. If a boy observes his father beating his mother, he becomes an aggressive partner. From a women's perspective, if a young girl witnesses the same incident, she turns to easy surrender towards violence in adulthood (Sabrawal *et al.*, 2013).

3.2 Micro system (situational) factors

Situational factors denote interactions in which a person is directly involved with others and the subjective meanings of those interactions. To be specific, for a woman who is a victim of spousal violence, the most striking micro-system feature is the family, which is usually the site and context for the most abusive occurrences. Some important factors in this category are male dominance in the family, the use of alcohol, the type of family structure and the presence of girl children.

Male dominance in a family: Violent husbands tend to take most of the decisions at home, from family finances to the physical mobility of the wife (Frieze and Browne, 1989; Straus *et al.*, 1980).

The empirical evidence suggests that men raised in patriarchal families are more violent towards their partners than those raised in egalitarian homes (Koss and Dinero, 1989; Malamuth *et al.*, 1995). Moreover, the association between patriarchal family structure and violence may be partially fuelled by macro-level (societal) norms that accept male dominance in a family (Yllo and Straus, 1990).

Use of alcohol: There is a strong association between physical and sexual violence and the man's alcohol consumption. Several studies establish that the use of alcohol functions as a situational factor that increases the likelihood of violence because it decreases reticence, clouds the judgement and weakens the individual's ability to understand a signal (Abbey, Ross and McDuffie, 1995; Babu and Kar, 2010; Dalal *et al.*, 2011; Hindin *et al.*, 2008; Kimuna *et al.*, 2013; Rao, 1997).

Family structure: In India, the extended family plays an important role in domestic violence. Fernandez (1997), using 15 case studies of domestic violence in Mumbai, has shown that extended family members, especially the mother-in-law, play a significant role in domestic violence.

Presence of girl children: In east and south Asian countries, there is a strong preference for sons, which results in high female child mortality. The common perception is that parents gain very little from raising daughters, mainly because they have to pay a large dowry at her marriage as evidenced in India (Dasgupta *et al.*, 2003). Interestingly, the mother is held solely responsible for giving birth to a girl child when biological evidence is opposite and, in turn, she becomes more exposed to domestic violence. The relevant literature from Bangladesh and India indicates the crucial role of living sons as a protection against IPV for women (Rao, 1997; Schuler *et al.*, 1996).

3.3 *Exo-system factors*

The exo-system denotes the 'social structures both formal and informal that impinge on the immediate settings in which a person is found and thereby influence, delimit or determine what goes on there' (Belsky, 1980). Exo-system factors are often derivative of changes taking place in the larger social setting. Unemployment and economic status have a significant influence on violence.

Unemployment: Unemployment among men is consistently linked to spousal violence (Stark *et al.*, 1981; Straus *et al.*, 1980). Although it may be difficult to infer whether being without a job itself increases the likelihood of wife battering without controlling for related factors such as income, education, social status and couple dynamics, the rate of unemployment has turned out to be a predictive factor of violence (O'Campo *et al.*, 1995). We find similar evidence from India (Panda and Agarwal, 2005).

Economic status: Economic status is also closely linked to IPV. Research in various settings has found that domestic violence is closely associated with poverty (Allen and Straus, 1980; Ellsberg *et al.*, 1999; Hoffman *et al.*, 1994; Martin *et al.*, 1999). There is evidence that men beat women when they lack other resources to control (Goode, 1970). Another stream of literature suggests that poverty and IPV are closely associated through stress factors (Gelles, 1974). Another argument is that poverty and unemployment debar men from achieving 'successful' manhood, especially in societies where men are considered to be the breadwinner of the family (Bourgois, 1996). Women become victims of domestic violence when men cannot control them patriarchally by providing economic support. Poverty is found to be a serious risk factor for wife abuse in India as well (Martin *et al.*, 1999; Panda and Agarwal, 2005).

3.4 Macro-system Factors

Macro-system factors are a diverse set of cultural values and beliefs that infuse the other three layers of social ecology. These factors influence aspects and structures lower down in the system. Male

supremacy as explained by Heise (1998) is one of the most prominent macro-level factors that may influence or control the organisation of power in community institutions; at the same time, they exercise control over the distribution of decision-making authority in intimate relationships. Other important macro-level factors are the notion of masculinity associated with dominance, toughness and honour (Counts *et al.*, 1992; Sanday 1981), rigid gender roles (Lisak and Roth, 1988; Malamuth, 1986; McConahay and McConahay, 1977; Muehlenhard and Linton, 1987), sense of male entitlement or ownership over women (Dobash and Dobash, 1979; Schechter 1982) and approval of the physical chastisement of women. We observe cultural approval of physical punishment of women in several traditional societies under certain circumstances. These circumstances follow clear cultural rules about the right of hitting, the target of hitting and the degree as well as intensity of physical reprimand. Several cultures tolerate the spanking of women if they disobey their male counterparts (Counts *et al.* 1992). Physical or emotional punishment for a just cause seems to be a man's right to control women. Men in India also have admitted that physical force against wives may be used if they do not abide by the rules laid down by their elders or husbands (Narayana, 1996).

In this paper, we follow the ecological framework based on Heise (1998) as a heuristic tool to find out whether working women are more/less exposed to domestic violence in India.

4. Data Description

For the analysis, we used a nationally representative community-based survey database: the National Family Health Survey III (NFHS III) conducted in 2005–06. The information comes from 29 states that consist of 99 percent of the population of India. This survey covers a sample of 109,041 households and 124,385 women in the age group of 15–49. We have considered only those respondents who answered questions related to domestic violence for analysis. Therefore, the working sample size becomes 69,704.

4.1 Sample profile

The summary statistics of the working sample are given in Table 1. We used national women's weight to tabulate the summary statistics as well as the analysis. The average age of the women respondents is 31 years, and the majority of the women fall in the age group of 30–39. The average age of first marriage is 18. On average, women are married for 10–14 years, and most couples have two children.

Table 1 is here

More than two-third of the sample lives in rural areas and one-third lives in an urban locality. It is interesting to observe that even though the majority of the women are from rural India, the household structure is nuclear in most of the families (57%), which reflects the transition from a joint to the nuclear family in Indian society. Following the pattern of religious mix in Indian society, the majority of the women are Hindu (82 percent), and 13 percent are Muslims, followed by Christians, Sikhs and Buddhists/ Neo-Buddhists. In terms of caste, 20 percent of the women respondents belong to scheduled castes, 9 percent to scheduled tribes, and 40 percent to other backward classes. One-third does not belong to any of these three groups.

One of the most important indicators of human capital in a society is the educational attainment of its members. The majority of women surveyed cannot read or write. However, the proportion of

illiterate women in rural areas is double that of women in urban areas. Apart from the illiterate women, the average number of years of schooling is 5 to 9 for women, irrespective of their place of residence.

The economic status of a household is measured through the wealth index, which is an indicator of the living standard and is consistent with measures of income and expenditure (Rutstein, 1999)ⁱⁱ. In NFHS III, housing characteristics and household asset data are used to construct the index. A weight or factor score is assigned to each household asset using Principal Component Analysis (PCA). Then, the resulting factor scores are standardised in relation to a normal distribution with mean zero and standard deviation of 1 (Gwatkin *et al*, 2000). Each household is assigned a score for each asset. Next, the scores are added for each household. Finally, respondents are ranked by the type of the household they live in. The entire sample is divided into quintiles, i.e., through five groups of individuals with an equal number of members in each group. In urban areas, 46 percent of the population belongs to the highest wealth quintile in contrast to only 7 percent in rural areas, and the distribution of population in different quintiles of the Wealth Index varies widely across the states of India.

One important indicator of gender empowerment is active participation in the labour force. However, the persistence of the empowering effect of employment may finally depend on the type of occupation, the continuity of work force participation and whether they can earn money from employment. The NFHS III asked women respondents a series of questions about their labour force participation. Women were asked whether they had done any work in the seven days preceding the survey; to avoid underreporting, information on participation in informal work in the past seven days was also collected. If a respondent was found to be unemployed, she was asked if she had been employed at any time in the 12 months preceding the survey. Information was also collected on the

category of occupation and the type of payment they received if they had been employed. In the sample, 45 percent women were currently employed in the age group of 15–49, while the proportion was 52 percent and 30 percent in rural and urban India, respectively.

The occupational distribution of the respondents is given in Table 2. The majority of working women are either associated with agriculture or work as skilled or unskilled manual labour since two-third of women respondents belong to rural India. In urban areas, women are also involved with the services sector, doing professional, technical and managerial jobs along with clerical and sales work.

Table 2 is here

The spouse of a woman respondent plays a significant role as a major agent of domestic violence. Table 3 reports the characteristics of these spouses: their educational attainment, employment status, occupation and alcohol consumption. The majority of the men have not completed secondary education. A small proportion of women reported that their husband was not employed, their occupation varies across the rural-urban set-up and 34 percent of the females claimed that their spouses consume alcohol.

Table 3 is here

4.2 Domestic violence and cultural construct

Married women face domestic violence, physically as well as emotionally, and the husband is the main perpetrator of violence. The NFHS III has collected information on violence under two

categories: (i) lifetime violence: whether the interviewee has suffered any kind of abuse at least once in their lifetime and (ii) violence in the short run: whether a female has been exposed to violence in the past year. In the sample, 37 percent of the women reported that they had experienced physical violence in different forms at least once in their lifetime. Since the different types of violence are not mutually exclusive, one woman may report multiple forms of violence.

The most common form of physical violence is slapping; 35 percent of women reported that their husband had slapped them on at least one occasion. Other forms of violence include twisting her arm or pulling her hair (16 percent), pushing, shaking or throwing something at her (14 percent), punching her with his fist or with something that could hurt her (11 percent) and kicking, dragging or beating her (12 percent) at least once in their lifetime. In 2 percent of the cases, partners can be ruthless enough to try to choke or burn her. Men have threatened or attacked their wives with a knife, gun or another weapon in one percent of the cases.

In terms of emotional violence, 16 percent of the women have experienced emotional violence at least once in their life. Partners humiliate her in front of others by saying or doing something in 13 percent of the cases and 8 percent of the women complain that the husband insulted her and made her feel bad. Male counterparts can go to extremes by threatening to harm her or someone close to her, which is reported in 5 percent of the cases for long-run violence.

Women frequently bear with multiple forms of domestic violence, but there is the issue of under-reporting such violence because of the social stigma. Below, we discuss how different layers of cultural construct in a society influence domestic violence using descriptive statistics. We describe the correlates under four different categories using the ecological framework of violence: personal history, micro-system, exo-system and macro-system. The summary statistics are given in Table 4.

Table 4 is here

Personal history and domestic violence

This category includes the woman's age, education, religion, social group, place of residence, employment status and witnessing childhood violence. Women in the age group of 25–39 are the worst sufferers of domestic violence. The proportion of women who endure physical as well as emotional violence increases as they grow older, but it recedes once they reach middle age when they may have become mature enough to avoid triggering factors that invite violence. We also cannot deny the possibility of under-reporting. Rural women are more vulnerable to violence than urban women; lack of education may be a reason for timidity and the high incidence of violence, since education gives a woman the confidence to become strong and resist violence. It is evident from Table 4 that the higher the level of education, the lower is the prevalence of physical as well as emotional attack.

Among the religions, Buddhist and neo-Buddhist women are the worst sufferers of domestic violence; in India, they are converted 'dalits' who changed their religion to escape from the caste-based society in the nineteenth and twentieth centuries. Jain women suffer the least violence. Women from different religions not only differ in terms of domestic violence, but also on other correlates, such as education and occupation. We observe the highest level of illiteracy among Muslim women (45 percent), while a significant proportion of Hindu women pursue education after the secondary level. Of the Muslim women, 73 percent are not in the labour force, as against 57 percent of Hindu women. The proportion of working women is the highest among Sikh women (49 percent).

In terms of social group, the prevalence of domestic violence is the highest among scheduled caste (SC) women. The situation is slightly better for women belonging to the 'other' category that includes the forward caste. There is also significant variation in educational attainment among different social groups. On average, the level of education is significantly lower for Scheduled Tribe women (65 percent are illiterate), while 27 percent women in the 'other' category remain uneducated. However, 59 percent of ST women participate in the labour force, mainly in unskilled jobs.

A common conjecture is that the economic empowerment of women may reduce the likelihood of domestic violence, and regular employment could be considered as an indicator of economic empowerment. However, the spouse may become more violent to restore his control over the family if his wife becomes economically independent, in which case the incidence of violence would become more frequent. We observe the dominance of the latter situation in our sample. Women associated with the service sector and agriculture suffer the most.

One-fifth of women respondents reported witnessing their fathers physically assaulting mothers in childhood. The likelihood of tolerating violence at home, specifically IPV, increases if a woman sees her mother being beaten by her father in childhood. They start adopting the 'surrender attitude' to violence as a gender social norm and begin to consider it 'women's fate'. There is also a high probability that such women become passive in protesting against violence, as they have already lost their self-esteem.

Micro system factors and domestic-violence

Micro-system factors take into account the alcoholism of the husband, the presence of girl children, marital control behaviour exercised by the husband, women's participation in household decision-

making and the household structure. We found that alcoholic husbands torture their wives more often than non-drinkers. Giving birth to a girl child is considered a curse in developing countries where girls are indicators of a higher burden to their parents and the mother is held responsible for not being able to give birth to a son; our sample indicates that a mother with a higher number of girl children suffers worse physical violence.

Marital control behaviour includes six different control behaviours: whether the husband is jealous or angry if his wife talks to other men, frequently accuses her of being unfaithful, does not permit her to meet her female friends, tries to limit her contact with her family, insists on knowing where she is and does not trust her with money. We find a positive association between the prevalence of domestic violence and the number of marital control behaviours exercised by partners. The occurrence of violence is higher by eight-fold for women whose husband applies five or six of such control behaviours as against women whose husbands do not exercise any control. We also considered four different categories in women's participation in household decision-making: on one's own healthcare, on major household purchases, on purchases for daily household needs and on visits to one's family and relatives. It appears that women who participate less in decision-making become more exposed to violence. Family structure also plays a crucial role in determining domestic violence. With the breakdown of the traditional joint family, women in nuclear families become more susceptible to violence.

Exo-system factors and domestic violence

The economic and employment status of the spouse are two important exo-system factors in the ecological framework of violence. Unemployed men invoke violence more often even though they constitute only 2 percent of the sample. Moreover, it is evident from Table 4 that poverty and domestic violence are positively related.

Macro-system factors and domestic violence

In this category, we considered the approval of physical chastisement of woman as one determinant of domestic violence. The indicator is constructed from gender role attitudes that consider agreement with seven different reasons for justifying wife beating. These reasons include whether the wife goes out without telling her husband, whether she neglects the house or children, whether she argues with her husband, whether she refuses to have sex with her husband, whether she cooks the food properly, whether the husband suspects her of being unfaithful and whether she shows disrespect to her in laws. Women who believe that wife beating is justified for a higher number of reasons are more exposed to violence than women who consider that wife beating is not justified or is justified for a lower number of reasons.

5. Methodology

The analysis was designed to examine whether labour force participation of women increases (decreases) the probability of domestic violence at home against the backdrop of the ecological framework of violence. We use a logistic regression framework to answer the question, controlling for the factors described above. Our main variable of interest, namely, the employment status of a woman, is a categorical variable; it takes the value 1 if a woman is employed and 0 otherwise. The dependent variable is whether or not a woman is exposed to domestic violence. We conducted the analysis for physical and emotional violence in the long run as well as in the short run. The research question was studied for four different scenarios long-term physical violence, long-term psychological (emotional) violence, short-run physical violence and short-run emotional violence. The dependent variables in the four cases are the following:

Long-term physical violence =1 if physical violence was ever experienced; 0 otherwise

Long-term psychological violence =1 if emotional violence was ever experienced; 0 otherwise

Short-term physical violence =1 if physical violence was experienced in the past 12 months; 0 otherwise

Short-term psychological violence =1 if emotional violence was experienced in the past 12 months; 0 otherwise

We controlled for four different sets of correlates—personal history, micro-, exo- and macro-system factors—in each of the four models. The first set includes respondent's age, residence, religion, caste, social group, education, employment status, occupation and witnessing violence as a child. Micro-system factors take into account alcohol consumption by the husband, presence of girl children, marital control behaviour displayed by the husband, women's participation in decision-making at home and family structure. Exo-system correlates consist of husband's employment and the family's economic status and the macro-system factor is the number of reasons for which wife beating is justified. To check the robustness of the model, we conducted the analysis for four different specifications. Under Model 1, we controlled only for personal characteristics, while Model 2 considers personal history and micro-system characteristics. Model 3 attempts to answer the question after controlling for personal history, micro- and exo-system characteristics. Model 4 is the full model that takes into account factors from four different sets of cultural constructs.

6. Results

Table 5 reports the result of the logistic model for short-run and long-run physical violence and short-run and long-run emotional violence. The beta coefficients and the odds ratio of the logistic model are given.

Table 5 is here

In the short run, married working women are more exposed to physical violence than women who do not participate in the labour market; the beta co-efficient is positive and significant under four model specifications. Log odds are also high for employed women compared to unemployed women in the direction of greater domestic violence. The results were similar for physical violence in the long run; although the magnitude of the beta co-efficient decreases from Model 1 to Model 4, it is positive and significant in all the cases. The log odds ratio is also greater than 1 for employed women, indicating that women suffer more when they opt for employment. There is a positive and statistically significant beta co-efficient for both short-run as well as long-run emotional violence, controlling for individual characteristics, micro-, exo- and macro-system factors. The odds ratio is also high for employed women suffering from emotional violence in comparison to homemakers. The result is robust.

We found that domestic violence increases significantly when women join the labour force in India. Finding the underlying mechanism for the increase in abuse is important for both theory as well as policy. Following expressive models, husband's marginal utility from violence increases with the wife's improved economic standing (Aizer, 2010). The violence "supply curve" of a woman living within the institution of marriage tends to shift upward when she finds a job. Similarly, the violence "demand curve" of a husband also shifts up with the wife's employment if the husband's marginal utility from violence increases with his wife's economic standing. As a result, the couple's contract curve, which consists of feasible bargaining solutions in the violence/consumption space, may shift up. As a result, violence increases.

Why does the marginal utility derived from violence for Indian men go up if the wife gets employment? We assume that there is an emotional cost for men that is attached to the violation of the perceived traditional gender role and violence symbolises an outburst of emotional cost. The economic independence of women goes against the conventional gender norm. Therefore, participation in the labour force with the possibility of economic freedom for women may lead to domestic violence. In Table 6, we have analysed the effect of women's economic empowerment on domestic violence. We considered three variables to represent the economic independence of women: positive income difference between wife and husband, women having money for their own use and an unemployed husband of a working woman. We examined the effect of each of the three variables on exposure to IPV separately. We ran a logit model for the sample of employed women, controlling for all individual-level characteristics. We found that women who earn more than their spouse suffer more from IPV than women whose income is approximately the same as her husband's. Money for a woman's own use may act as a shield against violence in the short run, but in the long run the impact reverses and money no longer saves her from domestic violence. We also found that unemployed husbands of employed wives are more abusive than their employed counterparts. These outcomes are consistent with the fact that improvement in the relative economic status of a woman incurs emotional costs to men and leads to domestic violence.

Table 6 is here

We come to the conclusion that participation in the labour market increases the likelihood of domestic violence in the form of physical as well as emotional brutality in both the short run as well as the long run. We find that when women go out to work, it hurts the masculine ego of her husband and he becomes violent in order to retain control over his wife. However, there is a caveat: There may be endogeneity in the relationship between women labour force participation and domestic violence. If a woman is employed, it may hurt the male ego of the spouse, and to restore the dominance the spouse may frequently invoke violence. On the other hand, if the probability of violence increases, it affects the participation of a woman in the labour market due to her anxiety about further violence. Thus, there is the possibility of reverse causality, and the classical assumption of orthogonality may break down. We refrain from inferring a causal relationship, i.e., from asserting that labour market participation has a positive impact on domestic violence. Instead, we rephrase our findings to say that there is a positive association between the labour market participation of women and the likelihood of domestic violence.

7. Conclusion

Domestic violence signifies a grim violation of women's rights and enforces a considerable cost on society. In this paper, we attempted to study the relationship between female employment and domestic violence in India using data from the National Family Health Survey. Domestic violence and women labour force participation are found to be positively associated. We estimated a significant increase in physical assault and a considerable increase in emotional abuse when a woman is employed, but there may be endogeneity in the relationship.

The results do not support the traditional optimistic model that labour force participation is a hopeful route to empower women and, in turn, decrease the prevalence of domestic violence. Rather, our models reflect that men care about their role in the household deviating from the roles prescribed by

traditional norms. Violence here is seen as a way to restore the preferred order at home. We argue that the marginal utility that a husband derives from violence tends to increase when he is *disempowered* by his wife's employment. Employed women who earn more than their husbands, or those who have unemployed husbands or those who have money for their own use are more exposed to IPV. Husbands turn to violence presumably for emotional reasons.

We conclude that participation in the labour force by a woman does not act as a shield against domestic violence against the backdrop of a cultural construct of a traditional and developing society such as India. Nevertheless, this does not mean that women cannot be empowered through employment. It is possible that gender norms may respond slowly to female employment. The long-term impact of female employment on domestic violence may differ from the detrimental effect we observe here. The change in attitude may take longer than expected. The evidence presented here does not suggest that female employment should not be encouraged. Rather, we propose that gender sensitisation programmes should be encouraged along with female employment programmes in a developing country such as India. Reporting violence is another serious concern; this could be addressed through awareness programmes about women's rights.

The tragedy of domestic violence does not affect only the individual, but also hinders the development goals of the country as a whole. The country's development goals cannot be achieved until the scenario for women improves. In India, the Anti-Domestic Violence Law enacted in 2006 as a preventive measure is not fully functional. Although all-women police stations, family counselling cells, initiatives and support from different NGOs have been promised, these are less than sufficient. Women in need do not always have information about available rescue measures. Further, even when they are aware of the option, they may not approach the authorities and groups due to the social stigma. Strong initiatives need to be adopted to deal with such a grim scenario

References

- Abbey, A., Ross, L.T., & McDuffie, D. (1995). Alcohol's role in sexual assault. In R. R. Watson (ed.), *Drug and alcohol abuse reviews, Vol. 5: Addictive behaviors in women* (pp. 97–123). Totowa, N.J.: Humana.
- Acharya, R., Sabarwal, S. & Jejeebhoy, S. (2012). Women's empowerment and forced sex within marriage in India. *Economic & Political Weekly*, 47(2), 65–69.
- Allen, C. M. & Straus, M. S. (1980). Resources, power and husband-wife violence. In M. A. Straus & G. T. Hotaling (eds.), *The social cause of husband-wife violence*. Minneapolis: University of Minnesota Press.
- Aizer, A. (2010). The gender wage gap and domestic violence. *American Economic Review*, 100 (4), 1847–59.
- Belsky, J. (1980). Child maltreatment: An ecological integration. *American Psychologist*; 35, 320–335.
- Bowlus, A. J. & Seitz, S. (2006). Domestic violence, employment and divorce. *International Economic Review*; 47(4), 1113–49.
- Bourgois, P. (1996). *In search of respect: Selling crack in El Barrio*. Cambridge: Cambridge University Press.
- Counts, D., Brown, J., & Campbell, J. (1992). *Sanctions and sanctuary: Cultural perspectives on the beating of wives*. Boulder, CO: Westview Press.

- Dalal, K. (2011). Does economic empowerment protect women from intimate partner violence? *Journal of Injury and Violence Research*, 3(1), 35–44.
- Dasgupta, M., Zhenghua, J., Bohua, L., Zhenming, X., Chung, W., & Hwa-ok, B. (2003). Why is son preference so persistent in East and South Asia? A cross-country study of China, India and the Republic of Korea. *The Journal of Development Studies*, 40 (2), 153–187.
- Dobash, R E. & Dobash, R. P. (1979). *Violence against wives*. New York: Free Press.
- Ellsberg, M. C., Pea, R., Herrera, A., Liljestrand, J., & Winkvist, A. (1999). Wife abuse among women of childbearing age in Nicaragua. *American Journal of Public Health*, 89, 241–244.
- Frieze, I. & Browne, A. (1989). Violence in marriage. In L. Ohlin & M. Taruy (eds.), *Family violence* (pp. 163–218). Chicago: University of Chicago Press.
- Eswaran, M. & Malhotra, N. (2011). Domestic violence and women's autonomy in developing countries: Theory and evidence. *Canadian Journal of Economics*, 44(4), 1222–63.
- Fernandez, M. (1997). Domestic violence by extended family members in India: Interplay of gender and generation. *Journal of Interpersonal Violence*, 12 (3), 433–55.
- Gelles, R. J. (1974). *The violent home*. Beverley Hills, CA: Sage.
- Gelles, R. (1976). Abused wives: Why do they stay? *Journal of the Marriage and the Family*, 38(4), 659–68.
- Goode, W. J. (1970). Force and violence in the family. *Journal of Marriage and the Family*, 33, 624–636.

Gwatkin, D. R., Rutstein, S., Johnson, K., Pandey, R. P., & Wagstaff, A. (2000). Socio-economic differences in health, nutrition, and population in Ghana. Working Paper, HNP/Poverty Thematic Group, The World Bank.

Heise, L. (1998). Violence against women: an integrated, ecological framework. *Violence Against Women*, 4, 262–290.

Hjort, J. & Villanger, E. (2011). Backlash: Female employment and domestic violence. Working Paper, University of California, Berkeley.

Hoffman, K., Demo, D.H., & Edwards, J.N. (1994). Physical wife abuse in a non-Western society: An integrated theoretical approach. *Journal of Marriage and the Family*, 56, 131–46.

Hotaling, G. T. & Sugarman, D. B. (1986). An analysis of risk markers in husband to wife violence: The current state of knowledge. *Violence and Victims*, 1, 101–24.

ICRW (1999). Domestic violence in India: A summary report of three studies. International Center for Research on Women, Washington, D.C.

ICRW (2000). Domestic violence in India. a summary report of a multi-site household survey. International Center for Research on Women, Washington, D.C.

ICRW(2002). Men, masculinity and domestic violence in India. International Center for Research on Women, Washington, D.C.

IIPS and Macro International (2007). National Family Health Survey (NFHS-3), 2005-06, India.

Jejeebhoy, S. J. (1995). *Women's education, autonomy and reproductive behaviour: Experience from developing countries*. New York: Oxford University Press.

Jejeebhoy, S. J. (1998). Wife-beating in rural India: A husband's right? *Economic and Political Weekly*, 33(15), 855–862.

Jejeebhoy, S.J. & Cook, R.J. (1997). State accountability for wife-beating: The Indian challenge. *Lancet*, 349, S110–12.

Kim, K. I. and Cho, Y. G. (1992). Epidemiological survey of spousal abuse in Korea, In Viano, E. C (ed), *Intimate violence: Interdisciplinary perspective* (pp 277-82). Washington, DC: Hemisphere Press

Kim, J. C., Watts, C. H., Hargreaves, J. R., Ndhlovu, L. X., Phetla, G., Morison, L.A., Busza, J., Porter, J.D., & Pronyk, P. (2007). Understanding the impact of a microfinance-based intervention on women's empowerment and the reduction of intimate partner violence in South Africa, *American Journal of Public Health*, 97, 1794–1802.

Kimuna, S. R., Djamba, Y. K., Ciciurkaite, G., & Cherukuri, S. (2013). Domestic Violence in India: Insights from the 2005-2006 National Family Health Survey. *Journal of Interpersonal Violence*, 28(4): 773-807.

Koss, M. P. & Dinero, T. E. (1989). Discriminant analysis of risk factors for sexual victimization among a national sample of college women. *Journal of Consulting and Clinical Psychology, 57*, 242–50.

Lisak, D. & Roth, S. (1988). Motivational factors in non-incarcerated sexually aggressive men. *Journal of Personality and Social Psychology, 55*, 795–802.

Macmillan, R. & Gartner, R. (1999). When she brings home the bacon: Labour force participation and the risk of spousal violence against women. *Journal of Marriage and the Family, 61*(4), 947–958.

Malamuth, N.M. (1986). Predictors of naturalistic sexual aggression. *Journal of Personality and Social Psychology, 50*, 953–962.

Malamuth, N. M., Linz, D., Heavey, C. L., Barnes, G., & Acker, M. (1995). Using the confluence model of sexual aggression to predict men's conflict with women: A ten year follow up study. *Journal of Personality and Social Psychology, 69*, 353-369.

Martin, S.L., Moracco, K.E., Tsui, A.O., Maitra, K., & Marinshaw, R. (1999). Domestic violence in Northern India. *International Journal of Epidemiology, 150* (4), 417-26.

Martin, S.L., Moracco, K.E., Garro, J., Tsui, A.O., Kupper, L. L., Chase, J. L., & Campbell, J.C. (2002). Domestic violence across generations: Findings from Northern India. *International Journal of Epidemiology, 31*, 560–72.

McConahay, S. A. & McConahay, J. B. (1977). Sexual permissiveness, sex-role rigidity, and violence across cultures. *Journal of Social Issues*, 33, 134–143.

Muehlenhard, C. L. & Linton, M. A. (1987). Date rape and sexual aggression in dating situations: Incidence and risk factors. *Journal of Counseling Psychology*, 34, 186–196.

Narayana, G. (1996, June). Family violence, sex and reproductive health behavior among men in Uttar Pradesh, India. Paper presented at the National Council for International Health Conference, Crystal City, Virginia.

O'Campo, P., Gielen, A.C., Faden, R.R., Xue, X., Kass, N., & Wang, M.C. (1995). Violence by male partners against women during the childbearing years: A contextual analysis. *American Journal of Public Health*, 85 (8.1), 1092–1097.

Panda, P. & Agarwal, B. (2005). Marital violence, human development and women's property status in India. *World Development*, 33(5), 823–850.

Rao, V. (1997). Wife-beating in rural south India: A qualitative and econometric analysis. *Social Science and Medicine*, 44(8), 1169–1180.

Rutstein, S. O. (1999). Effects of preceding birth intervals on neonatal, infant and under-five years mortality and nutritional status in developing countries: Evidence from the demographic and health surveys. *International Journal of Gynaecology and Obstetrics*, 89(Suppl 1), S7–S24.

Sabrawal, S., Santhya, K. G., & Jejeebhoy, S. J. (2013). Determinants of marital violence: Findings from a prospective study of rural women in India. *Economic and Political Weekly*, 48(16), 41–45.

Sanday, P. R. (1981). The socio-cultural context of rape: A cross cultural study. *Journal of Social Issues*, 37(4), 5–27.

Schechter, S. (1982). *Women and male violence*. Boston: South End.

Schuler, S. R., Hashemi, S. M., Riley, A. P., & Akhter, S. (1996). Credit programs, patriarchy and men's violence against women in rural Bangladesh, *Social Science & Medicine* 43(12), 1729–42.

Stark, E., Flitcraft, A., Zuckerman, D., Grey, A., Robinson, J., & Frazier, W. (1981). *Wife abuse in the medical setting: An introduction for health personnel*. Washington, D.C.: Office of Domestic Violence.

Straus, M. & Gelles, R. (1990). *Physical violence in American families*. New Brunswick: Transaction Press.

Straus, M., Gelles, R. J. & Steinmetz, S. K. (1980). *Behind closed doors: Violence in the American family*. New York.

Vyas, S. & Watts, C. (2008). How does economic empowerment affect women's risk of intimate partner violence in low and middle income countries? A systematic review of published evidence. *Journal of International Development*, 21 (5), 577-602.

Yllo, K. A. & Straus, M. A. (1990). Patriarchy and violence against wives: The impact of structural and normative factors. In M. A. Straw & R. J. Gelles (eds.), *Physical violence in American families:*

Risk factors and adaptations to violence in 8,145 families (pp. 383–399). New Brunswick, N.J.: Transaction Press.

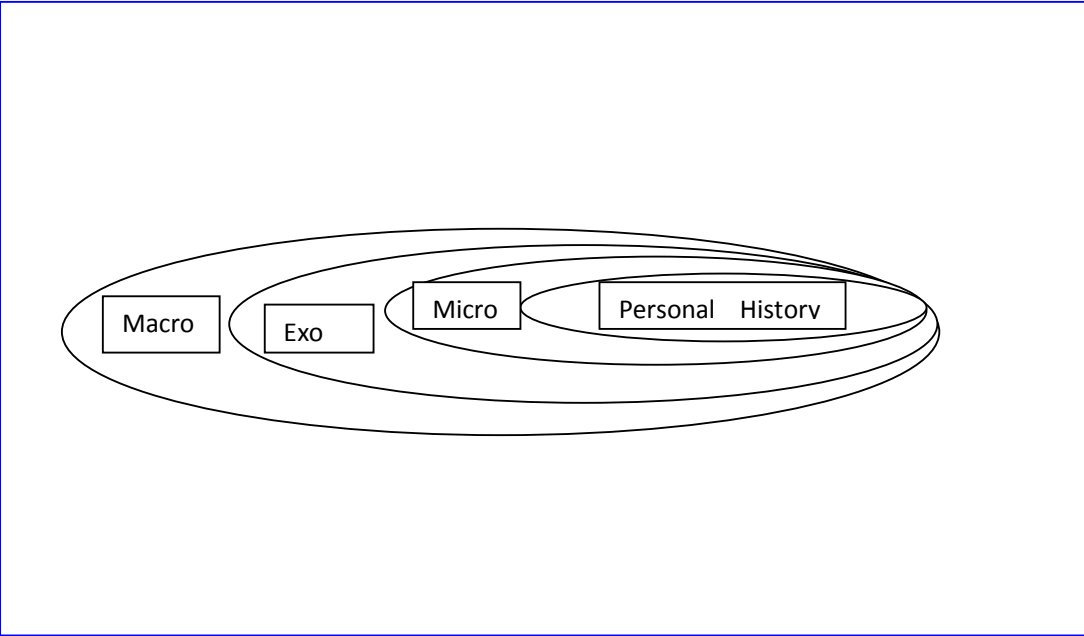
Notes

ⁱ The United Nations Declaration on the Elimination of Violence against Women, General Assembly Resolution, December 1993.

ⁱⁱ The categories of housing characteristics and assets include household electrification; type of windows; drinking water source; type of toilet facility; type of flooring; material of exterior walls; type of roofing; cooking fuel; house ownership; number of household members per sleeping room; ownership of a bank or post-office account; and ownership of a mattress, a pressure cooker, a chair, a cot/bed, a table, an electric fan, a radio/transistor, a black and white television, a colour television, a sewing machine, a mobile telephone, any other telephone, a computer, a refrigerator, a watch or clock, a bicycle, a motorcycle or scooter, an animal-drawn cart, a car, a water pump, a thresher and a tractor.

Figures and Tables

Figure 1: Ecological Framework of Violence



Source: Heise (1998).

Table 1. Profile of Respondents in the Sample

Background Characteristics	Proportion (in percent)
Age	
15–19	6.07
20–24	16.79
25–29	21.54
30–39	35.69
40–49	19.91
Residence	
Rural	68.91
Urban	31.09
Education	
No education	48.31
<5 years completed	8.61
5–7 years completed	6.7
8–9 years completed	27.06

10–11 years completed	3.46
12 or more years completed	5.85
Employment status	
Not employed	54.53
Employed	45.47
Marital status	
Currently married	94.01
Married, <i>gauna</i> not performed	0.51
Widowed	3.75
Divorced/separated/deserted	1.72
Household structure*	
Nuclear	56.96
Non-nuclear	39.14
Religion**	
Hindu	81.71
Muslim	12.7
Christian	2.43

Sikh	1.56
Buddhist/Neo-Buddhist	0.83
Jain	0.28
Other	0.38
Caste/Tribe***	
SC	20.02
ST	8.86
OBC	40.16
Other	30.4
Wealth Index	
Lowest	20.79
Second	20.46
Middle	20
Fourth	19.5
Highest	19.25

Source: Author's calculation. Note: *: The rest are not de jure resident; **: The rest have not reported religion; ***: The rest have not reported cast.

Table 2. Occupational distribution of Women Respondents

Occupation	Rural	Urban	Total
	(in percent)	(in percent)	(in percent)
Professional, Technical, Managerial	2.43	15.88	5.21
Clerical	0.75	4.35	1.5
Sales	2.54	9.35	3.95
Agricultural employee	73.51	12.67	60.92
Services	3.14	22.95	7.24
Skilled and Unskilled manual	17.61	34.79	21.17

Source: Author's calculation.

Table 3: Husband's profile

Education	Rural	Urban	Total
	(in percent)	(in percent)	(in percent)
No education	34.2	15.02	28.23
Incomplete primary	18.27	12.38	16.44
Incomplete secondary	38.82	47.61	41.55
Complete secondary	1.74	2.48	1.97
Higher education	6.16	21.88	11.05

Employment status			
Not employed	1.81	1.82	1.81
Employed	98.09	98.05	98.11
Occupation			
Professional, Technical, Managerial	4.23	12.96	6.95
Clerical	2.48	7.84	4.14
Sales	8.86	20.28	12.41
Agricultural employee	44.83	5.99	32.75
Services	4.28	8.19	5.5
Skilled and Unskilled manual	35.21	44.71	38.17
Alcohol Consumption			
No	65.01	67.6	65.82
Yes	34.99	32.4	34.18

Source: Author's calculation.

Table 4. Domestic violence and socio-economic correlates

	Long-run violence	Current violence
--	--------------------------	-------------------------

Individual characteristics	(in percent)		(in percent)	
	Emotional Violence	Physical violence	Emotional Violence	Physical violence
Age				
15–19	13.16	34.73	2.04	26.41
20–24	14.50	39.72	1.94	27.84
25–29	16.06	41.99	2.02	26.87
30–39	16.59	41.74	2.00	23.00
40–49	16.54	38.84	1.60	16.22
Residence				
Rural	17.10	43.30	1.98	25.77
Urban	13.33	34.15	1.79	18.48
Education				
No education	19.37	48.82	2.28	29.18
<5 years complete	18.91	45.95	2.77	27.09
5–7 years complete	15.53	41.26	1.93	24.09
8–9 years complete	12.20	31.78	1.45	17.64

10–11 years complete	7.32	21.30	0.84	9.82
12 or more years complete	5.84	13.84	0.40	5.83
Religion				
Hindu	15.99	40.33	1.90	23.01
Muslim	16.14	43.78	2.27	28.46
Christian	13.12	33.30	1.06	20.15
Sikh	11.58	29.74	1.10	16.67
Buddhist/Neo-Buddhist	23.98	46.58	2.73	19.96
Jain	7.63	17.66	0.00	8.31
Other	19.58	47.24	2.21	29.57
Caste/Tribe				
SC	19.31	49.08	2.76	28.66
ST	20.57	46.83	2.52	29.35
OBC	15.76	40.64	1.71	22.94
Other	12.71	32.80	1.43	18.94
Employment (past 12 months)				
Not employed	12.67	35.77	1.47	21.34

Employed	19.84	46.04	2.47	26.09
Occupation				
Professional, Technical, Managerial	9.20	22.38	0.91	9.68
Clerical	13.38	21.59	2.91	6.95
Sales	18.34	39.52	1.20	20.05
Agricultural employee	20.67	48.34	2.31	27.98
Services	22.51	48.70	4.20	25.49
Skilled and Unskilled manual	19.94	47.46	2.91	27.47
Witnessed violence as a child				
Yes	28.37	63.72	3.37	3.94
No	17.92	33.09	1.58	1.88
Micro-system characteristics				
Husband consumes alcohol				
Does not drink	11.80	32.91	1.10	17.85
Drinks/never gets drunk	18.08	51.27	1.07	26.69

Gets drunk sometimes	20.28	51.14	2.46	32.50
Gets drunk very often	37.79	70.02	8.05	46.74
No of girl children				
Nil	14.36	34.82	1.71	20.82
1 to 2	15.86	40.81	1.96	23.71
More than 2	19.12	50.11	2.17	27.98
No of marital control behaviours displayed by husband				
Nil	7.55	29.15	0.37	14.05
1 to 2	20.36	50.19	1.40	30.91
3 to 4	37.20	66.17	6.76	46.35
5 to 6	68.15	81.83	24.27	61.67
No of decisions in which women participate				
Nil	17.77	41.27	2.44	21.80
1 to 2	15.74	42.12	2.12	26.76

3 to 4	15.22	39.31	1.60	22.73
Household structure				
Nuclear	16.88	43.46	2.00	25.46
Non-nuclear	14.59	36.54	1.69	20.62
Exo System Factors				
Husband's employment status				
Not employed	22.63	42.02	4.33	23.70
Employed	15.79	40.43	1.87	23.50
Wealth Index				
Lowest	20.87	51.61	2.57	32.5
Second	20.03	49.29	2.61	30.41
Lowest	16.73	42.77	2.12	24.86
Fourth	13.01	35.88	1.52	18.99
Highest	8.38	21.21	0.72	9.6
Macro system factors				
No of reasons for which wife beating is justified				

Employment	0.17	1.19	0.10	1.10	0.05	1.04	0.04	1.03
Status	(0.02)***	(0.02)***	(0.02)***	(0.02)***	(0.02)**	(0.03)**	(0.02)**	(0.02)**
N	64386	64386	63515	63515	63337	63337	61259	61259
Long-run								
physical violence								
Employment	0.20	1.23	0.14	1.15	0.1	1.1	0.09	1.08
Status	(0.02)***	(0.02)***	(0.02)***	(0.02)***	(0.02)***	(0.02)***	(0.02)***	(0.02)***
N	67106	67106	65985	65985	65798	65798	63619	63619
Short-run								
emotional violence								
Employment	0.41	1.19	0.26	1.1	0.23	1.05	0.21	1.02
Status	(0.06)***	(0.02)***	(0.06)***	(0.03)***	(0.07)***	(0.02)***	(0.09)***	(0.03)***
N	64386	64386	63515	63515	63337	63337	61259	61259
Long-run								

emotional violence								
Employment	0.31	1.37	0.26	1.29	0.23	1.23	0.21	1.2
Status	(0.03)***	(0.03)***	(0.02)***	(0.03)***	(0.03)***	(0.03)***	(0.03)***	(0.04)***
N	66843	66843	65958	65958	65771	65771	63594	63594
Personal history	Y	Y	Y	Y	Y	Y	Y	Y
Micro-system factors	N	N	Y	Y	Y	Y	Y	Y
Exo-system factors	N	N	N	N	Y	Y	Y	Y
Macro-system factors	N	N	N	N	N	N	Y	Y

Source: Author's calculation. Note: Standard errors are reported in parentheses. *:p<0.10; **: p<0.05 ; ***:p<0.01. Detailed estimation table will be provided upon request.

Table 6: Reasons for IPV against employed women

	Short-run physical violence	Long-run physical violence	Short-run emotional violence	Long-run emotional violence
--	------------------------------------	-----------------------------------	-------------------------------------	------------------------------------

	Beta co- eff	odds	Beta co- eff	odds	Beta co- eff	odds	Beta co- eff	odds
Income difference								
Earning more than husband	0.26 (0.06)*	1.29 (0.07)*	0.10 (0.05)**	1.11 (0.06)**	0.76 (0.13)*	1.29 (0.07)*	0.38 (0.06)*	1.46 (0.09)*
N	26696	26696	28535	28535	26696	26696	28400	28400
Own money								
Money kept for her own use	-0.04 (0.03)*	0.96 (0.03)*	0.05 (0.02)*	1.05 (0.03)*	-0.04 (0.07)*	0.96 (0.07)*	0.07 (0.03)*	1.07 (0.03)*
N	26696	26696	28535	28535	26336	26336	28400	28400
Employment status of husband								

Employed husband	-0.19	0.82	-0.2	0.82	-0.82	0.44	-0.44	0.64
	(0.09)*	(0.08)*	(0.08)*	(0.07)*	(0.18)*	(0.08)*	(0.09)*	(0.06)*
N	26635	26635	28461	28461	26276	26276	28332	28332

Source: Author's calculation. Note: Standard errors are reported in parentheses. *:p<0.10; **: p<0.05 ; ***:p<0.01. Detailed estimation table will be provided upon request.