I (Wife) earn more than you (Husband): Will that also invite violence from you?

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Abstract

Socioeconomic dependence of women on men, places them at the particular risk of experiencing violence. Explaining the reasons behind violence against women is an incredibly complex attempt because it receives social sanctity as well as justification from women themselves. This article attempts to outline the factors that determine the violence against women in India adopting multilevel approach. Two rival economic hypotheses account for the incidence of domestic violence against women: The Household Bargaining Model (HBM) and Male Backlash Model (MBM) are employed to understand the predictors of violence against women. Data from NFHS-5 were used for the analysis purpose. Descriptive analysis and cross-tabulation were used to present the descriptive results. Further, multilevel logistic regression was used to explain the covariates of violence against women. More than half of the women (54%) earn less than their partners, whereas nearly 19 percent and 27 percent of the women earned the same as their partner and more than their partner, respectively. Women who are earning either higher or lower than their husbands were more likely to experience violence in any form than those women who earn same as their husbands. Women's relative income to their husbands is critical in explaining violence against them. Women who earn, either less or more than their partners, were more likely to experience violence against them. There is a need to understand and explore this paradox.

Keywords: Violence against women; Household Bargaining Model; Male Backlash Model; Spousal violence; NFHS-5.

Introduction

Despite many interventions from governments around the world, violence against women remains an issue worldwide. The need to address the issue of violence against women is arguably important and urgent. Violence against women is a social issue that compromises women's human rights. Violence against women finds its root in predefined social and cultural factors that foster a sense of dominance among men. The preponderance of the violence against women has been traversed by many social researchers in all parts of the world as a growing human rights and public health concern (Ellsberg et al., 2001; Heise et al., 1994).

Emerging literature in development studies argues that socioeconomic dependence on men places women at particular risk of experiencing violence (Anderson, 2005; Mathews & Abrahams, 2001; Young & Li, 2010). Violence is often supported by gender norms that place women in a social position that is subordinate to men (Garciá-Moreno, 2002). In Indian traditional setup is a male prerogative, where women justify violence against them (Mukherjee & Joshi, 2021). Violence against wives in India is profoundly embedded in patriarchy, hierarchy, and in multigenerational families, and in such environments, female obedience and modesty are controlled through abusive

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behavior and it is accepted not only by men but also by women (Jejeebhoy et al., 2017).

In this context, culture influences women's attitudes regarding violence in India. Physical and economic exploitation or women as a result of violence against them can be seen on large scale. Still, it's hard to imagine the emotional and psychological assault a woman undergoes in the name of maintaining the family's prestige (Stephens & Eaton, 2020). Often condoned in societies worldwide, violence against women is still sustained by patriarchal ideologies and is hard to overcome (Leonardsson & San Sebastian, 2017). Krishnaraj (2007) aptly remarks that violence as a coercive instrument to uphold cultural honor codes may be visible or invisible (Krishnaraj, 2007). A substantial amount of literature on risk factors for violence are related to power differentials and power imbalances between a husband and a wife and how these power differentials can lead to violence (Blanc, 2001; Yllö, 1998). Studies have highlighted the importance of women's employment and higher income in substantially reducing marital violence (Srinivasan & Bedi, 2007). The exposure reduction theory in criminology suggests that conditions that contribute to shortening the time a woman in a violent relationship is in contact with the abusive partner decrease the risk of violence (Dugan et al., 2003). Thus, the exposure reduction effect may occur to the extent that increased economic opportunities for the woman would decrease the couple's time together. Existing economic investigation on violence against women is predominately based on marital bargaining models. These bargaining models envisage that violence against women could be reduced by increasing women's economic opportunities (Aizer, 2010). It is not easy to explain violence against women through a single theory; based on the context, women with better economic opportunities may suffer more or less violence. A study noticed that husbands exert violence on women with more financial resources to extract a monetary transfer (Bloch & Rao, 2002).

Violence against women is an incredibly complex issue, and explaining the reasons for such violence can be a cumbersome endeavor. There are various propositions, ranging from biological and genetic theories to those which attribute the violence against women to poverty and other social issues (Ghadially, 2007; Kelkar, 1992; Raj, 1991). Understanding the causes of violence against women may include unequal relations between men and women, male superiority within the cultural norms, early marriage, and accepted battering by wife (Haylock et al., 2016; Rollero et al., 2019; Seff et al., 2020; Vyas & Jansen, 2018). In this article, we have focused on two economic hypotheses. This present study examines the relationship between violence and women's economic activity, socio/demographic, and partner's characteristics. Here two rival economic hypotheses: the Household Bargaining Model (HBM) and Male Backlash Model (MBM), which account for the incidence of domestic violence against women, are employed for a better understanding of the predictors of violence against women (Caridad Bueno & Henderson, 2017). The HBM proposes that when women have more resources, potential, and income-generating activities, they can avert violence against them as they are in a position to bargain (Borraz & Munyo, 2020). Therefore, when HBM is used to explain violence against women, increased economic opportunities for women are associated with a decreased likelihood of domestic violence. It follows that domestic violence is more likely to occur when women have fewer economic

resources. In a study, Borraz & Munyo (2020), evidently concluded that reducing gender income gap significantly reduces violence against women (Borraz & Munyo, 2020). In contrast, the MBM argues that men use violence when they feel disempowered or sense that the gender hierarchy is destabilized in the household, for instance, in a situation where the wife is employed while the husband is unemployed. It follows that domestic violence is more likely to occur when women have more economic resources than their husbands.

This study aims examining the prevalence of different forms of violence in India and its states and also examines violence against women by different socio-economic statuses. This study explored the various predictor of violence against women. Based on the economic predictors of violence two economic models, HBM and MBM is used to explain violence against women.

Propositions from HBM and MBM Models

In assessing the correlates of violence against women in India, and testing which model—HBM or the MBM—best accounts for violence against women, we advance the following propositions, which situate the competing models within the context of economic, socio/demographic, and social variables. The HBM speculates that the availability of economic opportunities to women improves their wellbeing in the household. Therefore, the HBM proposes that income-generating activities among women will lead the way throughout in reducing the violence against them. Moreover, improvements in education level and availability of work opportunities strengthen a woman's bargaining position; we call this the narrow version of the HBM (Caridad Bueno & Henderson, 2017). The relative income positions of the couple are the gist of the MBM. According to MBM, when wives earn a relatively higher income than their partners, they are at a higher risk of experiencing violence. Also, in a broader version of the MBM, it is suggested that women's economic independence allows them to exit from a marriage characterized by violence.

Material & methods

Data

This study utilized data from the fifth round of the National Family Health Survey 2019-21 (NFHS-V). NFHS is the Indian version of Demographic and Health Survey (DHS) data. In the women's questionnaire, a section of household relation (module-11) was added, including the questions of different types of violence by the husband and other household members. Prevalence of different types of violence are used to analyze using respondent of module-11. The NFHS V administered the module on violence to only one eligible woman from each selected household. Sample of 63,851 currently married women are respondent of household relation module. There are only 20,764 sample of women, who responded on their earning level as compared to their husband. In NFHS-V, information about characteristics of husband is selected only in state module. So, the total sample selected for multilevel modelling is 16,929.

***Independent variables*:** Our analysis focuses on three sets of independent variables, (a) Women's individual characteristics, (b) Household characteristics of the women, and (c) Partner's characteristics. Women's characteristics includes their economic performance and other inviduals characteristics which plays an important role in determining violence. Indicators related to economic performance are women's working status, women's earnings compared

to partner (Relative income), earning money for their own use. Other individual characteristics considered includes women education, and number of children. The household characteristics of women includes type of place of residence, religion, wealth index, and the household structure type are considered. The partner's characteristics includes: alcohol consumption, husband's education and husband's occupation are considered as independent variables.

Dependent variables: In this present study, three variables on type of violence were created; Physical, Emotional, and Sexual violence. A combined variable named 'Any Violence' was formed by aggregating the above three categories of violence against women. 'Any violence' signifies that woman had faced any form of violence, either physical, emotional, or sexual violence. The domestic violence module used questions constructed from the Conflict Tactics Scale (Straus, 1990) to measure physical and sexual violence. The indices of physical, emotional, and sexual violence were created by utilizing information from set of questions. The Cronbach's alpha reliability of physical, emotional, and sexual violence indices was 0.76, 0.67, and 0.72, respectively.

Statistical analysis

The study uses descriptive statistics, multilevel logistic regression. Bi-variate is used to analyze the prevalence of different types of violence among women with different socio-economic background characteristics (N=63,851); however, for multilevel logistic regression analyses, only respondent of module-11 is considered. As the data on husband education and occupation are available only for subsample at the state level, we also considered it in multilevel analysis (N=16,929).

In order to quantify the amount of heterogeneity that exists in the occurrence of different types of violence and any violence across a variety of geographical levels, multilevel modelling was utilized. Our data had four levels of hierarchical structure with individuals at first level, PSUs at second level, districts at third level and states/union territories at fourth level.

Results

Firstly, Figure 1 depicts the relative earnings of women in comparison to their husbands. More than half of the women (54 %) earn less than their partners, whereas nearly 19 percent and 27 percent of the women earned the same as their partner and more than their partner, respectively.

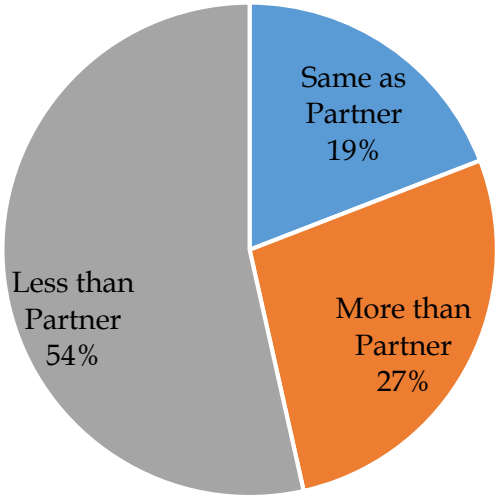

Figure 1 Earning of women in comparison to their partner.

Table 1 shows the prevalence of different forms of violence and any form of violence by background characteristics of married women of age group 15-49 years. Higher prevalence of all three different forms of violence is faced by women those who are working. A lower proportion of women, who have money for their use, face violence than women who do not have money for their own use. Women who are earning same as their partner face less violence than women who are earning more or less than their partner. Very typically, a higher proportion of women who are earning more than their partner are facing emotional (18.8%) and sexual violence (7.8%).

Table 1 Prevalence of different types of violence and any form of violence by background characteristics, NFHS-V (2019-21)

Background Characteristics	Physical	Emotional	Sexual	Any
Women characteristics				
Working Status				
Not Working	25.22	11.06	4.82	28.20
Working	34.92	17.13	7.32	38.22
Money of own use				
No	29.17	13.77	6.02	32.46
Yes	28.04	12.63	5.40	30.97
Earning				
Same as partner	29.52	11.88	5.62	31.75
More than Partner	34.37	18.78	7.81	37.52
Less than partner	35.71	16.70	6.53	39.12
Education level of women				
No education	36.49	16.42	7.59	39.54
Primary	33.04	14.76	7.03	36.24
Secondary	25.85	12.18	4.87	29.01
Higher	15.03	7.31	2.70	17.82
Occupational status of women				
Not working	25.22	11.06	4.82	28.20
Salaried employee	23.53	12.29	4.25	26.78
Agriculture worker	38.63	18.67	8.01	41.95
Skilled and unskilled worker	35.10	17.26	7.80	38.42
Husband characteristics				
Husband consumes alcohol				
No	21.93	9.44	3.52	24.95
Yes	48.45	24.28	12.18	51.74
Husband education				
No education	37.98	18.62	8.33	41.35
Primary	34.52	16.05	7.44	37.94
Secondary	26.94	11.94	5.09	29.97
Higher	16.77	7.78	2.76	19.38
Husband occupational status				
Salaried employee	21.41	10.65	4.29	24.55
Agriculture worker	32.60	15.14	6.50	35.91
Skilled and unskilled worker	29.00	12.89	5.75	31.91
Household characteristics				
Place of residence				
Rural	30.44	13.93	6.25	27.47
Urban	24.49	11.46	4.46	33.58
Household wealth Index				
Poor	35.95	16.53	8.07	39.26
Middle	29.51	13.18	5.35	32.48
Rich	19.17	9.29	3.33	22.15
Total	**29.67**	**13.3**	**6.64**	**31.64**

Education act as an important tool in reducing violence and it is observed that with increase in the level of education, prevalence of all form of violence declines. Domestic violence prevalence is highest among women working as agricultural workers, followed by women working as skilled and unskilled workers. The lowest prevalence of violence is observed among women who are employed as salaried employees. When prevalence of violence is observed with the characteristics of husband, a higher proportion of women whose husband consume alcohol faces violence of all forms. Every second and fourth women, whose husband consume alcohol, faces physical and emotional violence, respectively. With increasing level of education of husband, prevalence of violence of all its form declines. Those women whose husband working as agricultural worker faces highest violence of all forms and faces lowest violence whose husband employed as salaried employees. Among the characteristics of household, it is observed that, a higher proportion of women faces violence in rural household than in urban households. Every third women in rural household face physical violence. Household's wealth index was another critical factor where a higher proportion of women from poor households face violence. Table 2 displays the result of multilevel regression. In previous studies also, the importance of the relationship between being economic distress and intimate partner violence has been established (Benson et al., 2003; Macmillan & Gartner, 1999; Schuler et al., 1996; Schwartz, 1988). Women who earn more than their partner are more likely to face emotional and sexual violence, 1.5 and 1.6 times more than women earning same as their partner. However, women earning more than their partner are 1.14 times and those who are earning less than partner are 1.22 times more likely to face physical violence than those who are earning same as their partner. Overall, if women earn either less or more than their partner, they are 1.2 times more likely to face any form of violence against them. All three types of violence are more prominent when women earn more than their husband, thus promoting the MBM hypothesis, where males resort to violence against women when the values of patriarchal setup, as perceived by men, seems to be disturbed by the women. The hypothesis of MBM, which says that men put women in a crisis by employing violence against them when they feel disempowered, is critical in this context when women are earning more than their partners. It is clear from the result that women earning more than their partners are more likely to experience a backlash effect when a husband commits spousal violence to express his antipathy toward female independence (Chin, 2012).

At the same time, those women who earn nearly equal to their husbands are better positioned to avoid violence against them than those who earn less than their husbands, thus promoting the HBM model. The hypothesis of HBM suggests that women having more resources to bargain for better outcomes in the household, thus limiting the violence against them, is getting supported when women are earning the same as a partner compared to less than a partner.

With the increasing number of children, women are more likely to experience physical violence; researchers worldwide have agreed on this notion and showed that the odds of experiencing violence increase with the number of children a woman has (Ellsberg et al., 2000; Martin et al., 1999).

Partner's characteristics are also imperative to understand the dynamics of violence against women. Three variables in the partner's characteristics, namely alcohol consumption, husband's education, and husband occupation, were taken for analysis. Alcohol consumption by husbands is one of the critical factors in deciding the violence against women. Women whose husbands consume alcohol are 3.3 times more likely to face any form of violence than women whose husbands do not drink alcohol. Similarly, the odds of facing physical, emotional, and sexual violence among women whose husband drink alcohol were 3.5, 2.90, 4.0 respectively.

The increasing education of husbands is negatively associated with any form of violence. The level of the husband's education plays an imperative role in understanding the violence against women (Malhotra & Mather, 1997).

Table 2 Odds Ratios of Multilevel regression by different types of violence, India, NFHS-V (2019-21).

Background Variables	Reference cat.	Physical	Emotional	Sexual	Any
Individual characteristics					
Earning					
More than partner	Same as partner	1.14**(0.07)	1.53***(0.12)	1.63***(0.19)	1.16**(0.07)
Less than partner		1.22***(0.07)	1.25***(0.09)	1.13(0.12)	1.20***(0.07)
Money of own use					
Yes	No	0.97(0.04)	0.88**(0.05)	1.03(0.08)	0.97(0.04)
Women education					
Primary	No education	0.87**(0.06)	0.95(0.08)	0.81*(0.10)	0.89*(0.06)
Secondary		0.81***(0.05)	1.07(0.08)	1.02(0.11)	0.86**(0.05)
Higher		0.55***(0.06)	0.80(0.12)	0.63**(0.14)	0.60***(0.07)
Women Occupation					
Salaried employee	Not working	0.64(0.23)	0.94(0.43)	0.89(0.57)	0.73(0.26)
Agricultural Worker		0.82(0.30)	1.23(0.55)	1.05(0.66)	0.95(0.33)
Skilled &unskilled worker		0.75(0.27)	1.10(0.49)	1.11(0.69)	0.85(0.30)
Number of children					
One child	No children	1.51***(0.16)	1.48***(0.19)	1.22(0.24)	1.54***(0.16)
Two children		1.57***(0.15)	1.26*(0.15)	1.24(0.22)	1.56***(0.15)
Three and more		1.75***(0.17)	1.32**(0.16)	1.18(0.21)	1.75***(0.17)
Partner's characteristics					
Alcohol consumption					
Yes	No	3.47***(0.16)	2.90***(0.16)	4.03***(0.34)	3.26***(0.15)
Husband education					
Primary	No education	1.03(0.07)	1.06(0.09)	1.09(0.13)	1.05(0.07)
Secondary		0.99(0.06)	0.88*(0.07)	0.86(0.09)	0.95(0.06)
Higher		0.76***(0.08)	0.59***(0.08)	0.79(0.15)	0.69***(0.07)
Husband Occupation					
Agriculture worker	Salaried employee	1.24***(0.11)	0.93(0.10)	0.80(0.12)	1.15*(0.10)
Skilled &unskilled worker		1.17*(0.09)	0.95(0.09)	0.73**(0.10)	1.13(0.09)
Household characteristics					
Place of residence					
Rural	Urban	0.89(0.06)	0.95(0.08)	1.02(0.13)	0.92(0.06)
Religion					
Muslim	Hindu	1.13(0.12)	1.23*(0.14)	1.53***(0.25)	1.10(0.11)
Others		0.80**(0.08)	0.75**(0.09)	1.02(0.16)	0.82**(0.08)
Wealth Index					
Middle	Poor	0.88**(0.05)	0.94(0.06)	0.81**(0.08)	0.91*(0.05)
Rich		0.79***(0.06)	0.83**(0.08)	0.69**(0.10)	0.91***(0.06)
Household Type					
Joint Family	Nuclear	0.88***(0.04)	0.88**(0.05)	0.90(0.07)	0.89***(0.04)
Number of women					**16,929**

Note: ****p ≤ 0.01. **p ≤ 0.05. *p ≤ 0.10; Standard error are in parenthesis.*

As comparison salaried employee husband, wives of agricultural worker and skilled and unskilled workers are more likely to face the physical violence, whereas they are less likely to feel the sexual violence.

Household characteristics are also essential to understand the dynamics of violence against women. Four variables in the household's characteristics, namely area of household, Religion, wealth status and household type, were taken for analysis. Muslim women were 1.2 times and 1.5 times more likely to experience emotional and sexual violence, respectively, than Hindu women. Increasing wealth was negatively associated with the onset of violence against women.

Women from rich and middle wealth quintile were less likely to face any form of violence than women from poor household. However, the wealth index is not necessarily a causal factor; it has generally been assumed in the literature that women from the poor quintiles are at increased risk of domestic violence (Djamba & Kimuna, 2008; Kimuna & Djamba, 2008).

Table 3 shows the summary result of the fitting of the HBM and MBM for economic variables. Using logistic regression analysis, we found support for Household Bargaining Model (HBM) when the dependent variable is aggregate violence (Physical, Emotional, and Sexual Violence) for most economic variables, except when the women earn more than their partners, where MBM was supported. Among those women, who are either earning the same as their partner or earning less than their partner, the HBM model predicts their bargaining capabilities in reducing the likelihood of physical, emotional, and sexual violence. When women earn more than their partners, they face higher violence, as predicted by the HBM model.

Discussion

Violence runs along the lines of power in the patriarchal setup where the family acts as a central axis, and the sexual division of labor is the principle that governs the violence against women (Pinnewala, 2009). As a cultural norm, patriarchal ideologies subjugate women and restrict them to the home and Man's superiority complex causes sadistic wife beating (Dutt, 2018).The study reiterated that when women challenge the set pattern of power relationships by earning more income than their partners, they become subject to violence. It is evident from previous studies that women are both the objects of desire and control (Thapan, 1995), and when women challenge this patriarchal setup, they often face violence.

In this article, we have the independent variables as, individual characteristics variables, partner's characteristics variables and household characteristics variables to better understand the covariates of violence against women. Education is one of the

Table 3 Summary of Significant Variables' Support for Contending Models.

Economic Variables	Physical violence	Emotional violence	Sexual violence	Any violence
Same as partner	HBM	HBM	HBM	HBM
More than partner	MBM	MBM	MBM	MBM
Less than partner	HBM	HBM	HBM	HBM
Money of own use	HBM	HBM	HBM	HBM
Working	HBM	HBM	HBM	HBM

crucial interventions that will undoubtedly lower violence against women. The result indicates that with a higher level of education among women, the chances of facing any form of violence decrease. It is also well understood and entrenched in this study that increasing the wealth index at household level negatively correlates with violence against women. Keeping the education and wealth index factor aside, what is more critical in understanding violence against women is women's relative income with their husbands. The relative income of women with their husbands paved the way for testing the hypothesis of MBM and HBM. It is explored in the study that women's relative income also decides the violence against them. If women are working and earn a lower wage than their husbands, they are not dependent on their husbands for their every economic expense; they are in a bargain situation where they can avert the onset of violence against them compared to women who do not earn. This phenomenon is the hypothesis of the Household Bargaining Model (HBM). When women earning less than their husbands, she does not harm the social position of men, which leads to a reduction in violence, most prominently physical and emotional.

When women earn same as their husbands, they are better positioned to avert the risk of violence against them than those earning more than their husbands (Aizer, 2010). Aizer (2010) believes that a decrease in the male-female wage gap reduces the likelihood of violence against women is minimum, which is consistent with the premises of the Household Bargaining Model (Aizer, 2010). When women earn more than their husbands, they resort to violence against their wives to show their supremacy over their wives. This phenomenon is the hypothesis of the Male Backlash Model (MBM). In the study, we have noticed that women who earn more than their husbands are more likely to face violence against them. The nature of violence changes with the higher earnings of women and the higher prevalence of emotional and sexual violence. The household bargaining model explains the physical violence, whereas the male-backlash model better explains the sexual violence (Caridad Bueno & Henderson, 2017). Heath (2014) concluded that women with low bargaining power endure an increased risk of domestic violence entering the labor force market as husbands seek to counteract their increased bargaining power (Heath, 2014). Furthermore, Biswas (2017) concluded that a higher category of jobs does not protect women from violence against them, and husbands having a comparatively better job reduces spousal violence (Biswas, 2017). In partner's characteristics covariates, rising husband's education negatively relates to the onset of violence against women. The onset of physical violence is minimal in comparison to other violence among household having Salaried employee husband. In contrast, alcohol consumption among husbands positively correlates with violence against women.

The violence against women may not be reported entirely, and the situation may be worse than what has been predicted in this research article. The prevalence of violence against women and the extent of its under-reporting is neither well understood nor sufficiently challenged in the Indian context. Violence against women is often tolerated and justified by men and women, which may be one reason for the under-reporting of violence against women. Moreover, further studies shall be carried out to strongly confirm the findings from this study.

Conclusion

The present study examines the several determinants of domestic violence of which interestingly, place of residence and occupation of the women did not show any significant relationship with violence whereas education of the women reduces violence against them. The article tried to test two hypotheses, namely, HBM and MBM pertaining to the relationship between educational and economic status of the women and domestic violence against women. When HBM grossly observes that women with better education and income gain bargaining power within the household that reduces their chance of facing violence, the principles of MBM emphasized the deep-rooted existence of patriarchy where better earning may reduce the social position of their husband. Thus, to assert their superior position in women's life domestic violence is one expression. Uniquely, the article reveals that except earning, in all other achievement women are strengthening their bargaining position in the household.

Conflict of Interest

The author declares that there is no conflict of interest.

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References

Aizer, A. (2010). The gender wage gap and domestic violence. American Economic Review, 100(4), 1847–1859. https://doi.org/10.1257/aer.100.4.1847

Anderson, K.L. (2005). Theorizing Gender in Intimate Partner Violence Research. Sex Roles 52, 853–865. https://doi.org/10.1007/s11199-005-4204-x

Benson, M. L., Fox, G. L., DeMaris, A., & Van Wyk, J. (2003). Neighborhood Disadvantage, Individual Economic Distress and Violence Against Women in Intimate Relationships. In Journal of Quantitative Criminology (Vol. 19, Issue 3, pp. 207–235). Springer. https://doi.org/10.1023/A:1024930208331

Biswas, C. S. (2017). Spousal violence against working women in India. Journal of Family Violence, 32(1), 55–67.

Bloch, F., & Rao, V. (2002). Terror as a bargaining instrument: A case study of dowry violence in rural India. American Economic Review, 92(4), 1029–1043.

Borraz, F., & Munyo, I. (2020). Conditional cash transfers, women's income and domestic violence. International Review of Applied Economics, 34(1), 115–125. https://doi.org/10.1080/02692171.2019.1649641

Caridad Bueno, C., & Henderson, E. A. (2017). Bargaining or Backlash? Evidence on Intimate Partner Violence from the Dominican Republic. Feminist Economics, 23(4), 90–116. https://doi.org/10.1080/13545701.2017.1292360

Chin, Y.-M. (2012). Male backlash, bargaining, or exposure reduction?: Women's working status and physical spousal violence in India. Journal of Population Economics, 25(1), 175–200.

Djamba, Y. K., & Kimuna, S. R. (2008). Intimate Partner Violence among Married Women in Kenya. Journal of Asian and African Studies, 43(4), 457–469. https://doi.org/10.1177/0021909608091976

Dugan, L., Nagin, D. S., & Rosenfeld, R. (2003). Exposure reduction or retaliation? The effects of domestic violence resources on intimate-partner homicide. Law & Society Review, 37(1), 169–198.

Dutt, A. (2018). Locating patriarchy in violence against women in India: Social, legal and alternative responses. PEOPLE: International Journal of Social Sciences, 4(2), 212–228.

Elizabeth, V. (2000). Patterns and trends of domestic violence in India: An examination of court records. National Law School of India University, 18.

Ellsberg, M., Heise, L., Pena, R., Agurto, S., & Winkvist, A. (2001). Researching domestic violence against women: Methodological and ethical

considerations. Studies in Family Planning, 32(1), 1–16.

Ellsberg, M., Peña, R., Herrera, A., Liljestrand, J., & Winkvist, A. (2000). Candies in hell: Women's experiences of violence in Nicaragua. Social Science and Medicine, 51(11), 1595–1610. https://doi.org/10.1016/S0277-9536(00)00056-3

Garcia-Moreno, C. (2002). Violence against women: consolidating a public health agenda. Engendering International Health: The Challenge of Equity. MIT Press, Cambridge.

Ghadially, R. (2007). Urban women in contemporary India: A reader. Sage.

Haylock, L., Cornelius, R., Malunga, A., & Mbandazayo, K. (2016). Shifting negative social norms rooted in unequal gender and power relationships to prevent violence against women and girls. Gender and Development, 24(2), 231–244. https://doi.org/10.1080/13552074.2016.1194020

Heath, R. (2014). Women's access to labor market opportunities, control of household resources, and domestic violence: Evidence from Bangladesh. World Development, 57, 32–46.

Heise, L. L., Pitanguy, J., & Germain, A. (1994). Violence against women: The hidden health burden. World Bank Discussion Papers, 255.

Jaswal, S. (1999). Health records and domestic violence in Thane District, Maharashtra: A summary report. Mumbai, India: Department of Medical and Psychiatric Social Work, Tata Institute of Social Science.

Jejeebhoy, S. J., & Santhya, K. (2018). Preventing violence against women and girls in Bihar: Challenges for implementation and evaluation. Reproductive Health Matters, 26(52), 92–108. https://doi.org/10.1080/09688080.2018.1470430

Jejeebhoy, S. J., Zavier, A. J., Santhya, K. G., Acharya, R., Pandey, N., Singh, S. K., Saxena, K., Gogoi, A., Joshi, M., & Ojha, S. (2017). Modifying behaviours and notions of masculinity: Effect of a programme led by locally elected representatives.

Kelkar, G. (1992). Violence against women: Perspectives and strategies in India. Indian Institute of Advanced Study.

Kimuna, S. R., & Djamba, Y. K. (2008). Gender based violence: Correlates of physical and sexual wife abuse in Kenya. Journal of Family Violence, 23(5), 333–342.

Krishnaraj, M. (2007). Understanding Violence against Women. Economic and Political Weekly, 42(44). https://www.epw.in/journal/2007/44/review-womens-studies-review-issues-specials/understanding-violence-against-women

Leonardsson, M., & San Sebastian, M. (2017). Prevalence and predictors of help-seeking for women exposed to spousal violence in India–a cross-sectional study. BMC Women's Health, 17(1), 1–15.

Macmillan, R., & Gartner, R. (1999). When She Brings Home the Bacon: Labor-Force Participation and the Risk of Spousal Violence against Women. Journal of Marriage and the Family, 61(4), 947. https://doi.org/10.2307/354015

Malhotra, A., & Mather, M. (1997). Do schooling and work empower women in developing countries? Gender and domestic decisions in Sri Lanka. Sociological Forum, 12(4), 599–630.

Martin, S. L., Tsui, A. O., Maitra, K., & Marinshaw, R. (1999). Domestic Violence in Northern India. American Journal of Epidemiology, 150(4), 417–426. https://doi.org/10.1093/oxfordjournals.aje.a010021

Mathews, S., & Abrahams, N. (2001). Combining stories and numbers: an analysis of the impact of the Domestic Violence Act (No. 116 of 1998) on women. Gender Advocacy Programme, MRC. Retrieved from http://www.mrc.ac.za/gender/domesticviolence.pdf

Mukherjee, R., & Joshi, R. K. (2021). Controlling behavior and intimate partner violence: A cross-sectional study in an urban area of Delhi, India. Journal of Interpersonal Violence, 36(19–20), NP10831–NP10842.

Pinnewala, P. (2009). Good Women, Martyrs, and Survivors: A Theoretical Framework for South Asian Women's Responses to Partner Violence. Violence Against Women, 15(1), 81–105. https://doi.org/10.1177/1077801208328005

Raj, M. K. (1991). Women and violence: A country report. Research Centre for Women's Studies, SNDT Women's University.

Rollero, C., Bergagna, E., & Tartaglia, S. (2019). What is Violence? The Role of Sexism and Social Dominance Orientation in Recognizing Violence Against Women. Journal of Interpersonal Violence, 36(21-22), NP11349-NP11366 https://doi.org/10.1177/0886260519888525

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 and Medicine, 43(12), 1729–1742. https://doi.org/10.1016/S0277-9536(96)00068-8

Schwartz, M. D. (1988). Ain't got no class: Universal risk theories of battering. Contemporary Crises, 12(4), 373–392. https://doi.org/10.1007/BF00808168

Seff, I., Williams, A., Hussain, F., Landis, D., Poulton, C., Falb, K., & Stark, L. (2020). Forced Sex and Early Marriage: Understanding the Linkages and Norms in a Humanitarian Setting. Violence Against Women, 26(8), 787–802. https://doi.org/10.1177/1077801219845523

Srinivasan, S., & Bedi, A. S. (2007). Domestic violence and dowry: Evidence from a South Indian village. World Development, 35(5), 857–880.

Stephens, D., & Eaton, A. (2020). Cultural Factors Influencing Young Adult Indian Women's Beliefs about Disclosing Domestic Violence Victimization. Journal of Social Issues, 76(2), 416–446.

Thapan, M. (1995). Images of the Body and Sexuality in Women's Narratives on Oppression in the Home. Economic and Political Weekly, WS72–WS80.

Visaria, L. (1999). Violence against women in India: Evidence from rural Gujarat. In Domestic violence in India (Vol. 1, pp. 9–37).

Vyas, S., & Jansen, H. A. F. M. (2018). Unequal power relations and partner violence against women in Tanzania: A cross-sectional analysis. BMC Women's Health, 18(1), 1–12. https://doi.org/10.1186/s12905-018-0675-0

World Health Organization. (2005). WHO multi-country study on women's health and domestic violence against women: Initial results on prevalence, health outcomes and women's responses. World Health Organization. https://apps.who.int/iris/handle/10665/43309

Yount, K.M., Li, L.(2010). Domestic Violence Against Married Women in Egypt. Sex Roles 63,332–347. https://doi.org/10.1007/s11199-010-9793-3

Annexure

Table A.1 Model fitness showing the influence of community characteristics at different levels on different types of violence, India, NFHS V (2019-21).

Parameter	Physical	Emotional	Sexual	Any
Variance PSU level	1.03	1.12	1.99	0.99
VPC PSU level	0.20	0.23	0.33	0.20
Variance district level	0.24	0.26	0.33	0.23
VPC district level	0.05	0.05	0.05	0.05
State-level variance	0.5	0.22	0.32	0.44
VPC state level	0.10	0.05	0.05	0.09
Number of women				**16,929**
Number of PSU				**6,823**
Number of Districts				**707**
Number of states				**36**

Note: PSU: primary sampling unit; VPC: variance partition coefficient.

Details of multilevel model

To decompose the variation in the prevalence of different form of violence, we specified a series of four-level random intercept logistic models for the probability of an individual 'i' in PSU 'j', district 'k' and state 'l' to face violence ($Y_{ijkl} = 1$) as

$$Logit(\pi_{ijkl}) = \beta_0 + BX'_{ijlk} + (f_{0l} + v_{0kl} + u_{0jkl})$$

This model estimated the log-odds (π_{ijkl}) adjusted for a vector (X'_{ijkl}) of the above-mentioned independent variables measured at the individual level. The parameter β_0 represented the log-odds of prevalence of violence for individuals belonging to the categorical variables' reference category. The random effect inside the brackets was interpreted as a residual differential for the state l (f_{0l}), district k (v_{0kl}) and PSU j (u_{0jkl}). All three residual were assumed to be independent and normally distributed with mean 0 and variance $\sigma^2 f_0$, $\sigma^2 v_0$ and $\sigma^2 u_0$. This variance quantified between states ($\sigma^2 f_0$), between district ($\sigma^2 v_0$) and between PSU ($\sigma^2 u_0$) respectively, in the log-odds of women facing violence for all background characteristics. For binary outcome, the variance at the lowest level could not be obtained directly from the model. The remaining variance was assumed to simplify the function of the binomial distribution. Based on the variance estimate of random effects, the proportional of variation in the log-odds of violence attributable to each level, also known as variance partition coefficient (VPC), was calculated. For example, the proportion of total variation in facing violence (in log-odds scale) attributable to an individual level could be obtained by dividing the between-individual variation by the total variation. Total variation was calculated using the latent variable method approach and treated the between-individual variation as having a standard logistic distribution variance approximated as $\pi 2/3 = 3.29$. Hence, VPC for any level z could be calculated using the following formula

$$VPC_z = \frac{\sigma_z^2}{(\sigma_{f0}^2 + \sigma_{v0}^2 + \sigma_{u0}^2 + 3.29)}$$

It is allowed evaluating the changes in variance estimate and proportion of variation attributable to the high levels when only one geographical level was considered at a time.