

Spousal violence and unintended pregnancy in India: Evidence from NFHS- 3

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ABSTRACT

Background: There is a growing recognition that intimate partner violence increases women's risk of unintended pregnancies, the relationship between these two has not been adequately explored in Indian context.

Aim: To examine the association between spousal violence and unintended pregnancy using the dataset of 3rd NFHS-3 conducted in India in 2005-06.

Methods: The sample consists of ever-married women aged 15-49 years who had given live birth(s) in five years preceding the survey or who were pregnant during the time of interview. With the help of multivariate logistic regressions, the net impact of spousal violence on unintended pregnancy has been analyzed.

Results: Compared with those who never experienced violence, the chances of reporting the most recent pregnancy as unintended was higher for those who experienced only physical violence (OR 1.18, $p < .001$), only sexual violence (OR 1.36, $p < .005$) and both physical and sexual violence (OR 1.32, $p < .001$).

Conclusion: The association between spousal violence and unintended pregnancy has been noted. However, further probe is required to establish the causal relation between them, if any.

Key words: intimate partner violence, unintended pregnancy, NFHS-3

INTRODUCTION

Violence against women (VAW) by their own husbands/intimate male partners takes place in every country transcending economic, social, religious and cultural boundaries.¹ Partner abuse can take various forms including physical violence such as slaps, kicks, beatings; sexual violence in the form of coerced sex or forced participation in degrading sexual acts; and psychological violence such as constant belittling, intimidation and humiliation.² Intimate partner violence (IPV) has serious reproductive health consequences on women.^{1,3} It accounts for a substantial but largely unrecognized proportion of maternal mortality.⁴ Studies have shown that women suffering from chronic pelvic pain are consistently more likely to have a history of physical and sexual abuse by their partners than the women who did not have such history.⁵ Partner violence is also found to be associated with sexually transmitted diseases including HIV/AIDS.⁶⁻⁸ Empirical findings suggest that violence before and during pregnancy is linked with delayed entry into prenatal care, low birth weight babies, increased likelihood of smoking, drinking and using drugs by women, preterm labour, miscarriages, and delivery complications.⁹⁻¹⁶

A number of recent studies particularly from the developing countries have revealed that intimate partner violence is a significant risk factor of unintended pregnancies,¹⁷⁻²³ which itself is a leading cause of unsafe abortion²⁴ and late entry into ante-natal care.^{25,26} But in India, study exploring the relationship between IPV and unintended pregnancy is particularly limited. Therefore, the objective of this study is to examine the association between IPV and unintended pregnancy using a nationally representative sample of Indian women. Further the association between unintended pregnancy and the background characteristics of women (such as age, level of education, religion etc.) has also been analyzed. As in India, 93% of all domestic violence against women was committed by their husbands, therefore, in the present study the terms "domestic violence", "intimate partner violence," and "spousal violence" have been used interchangeably.²⁷

MATERIALS AND METHODS

Data of third National Family Health Survey (NFHS-3) has been used for present study. The data was

collected in 2005-2006 covering 29 states of India. Using multi-stage probability sampling, NFHS-3 collected information on fertility desire, HIV-related knowledge, domestic violence and women's empowerment, important aspects of nutrition, and reproductive health and health care from 124,385 women (both married and unmarried) of reproductive age group (15-49 years). However, as in Indian society childbirth usually occurs within wedlock, this study is restricted to ever married women aged 15-49 years who had given live birth(s) in five years preceding the survey or who were currently pregnant during the time of interview. There are total 39355 ever-married women of age 15-49, who satisfy the conditions. Among them the information regarding domestic violence and other background characteristics of women used in our study is available from 30444 women and it constitutes the sample of the study.

To identify unintended pregnancies women were asked – 'At the time you became pregnant, did you want to become pregnant, did you want to wait until later, or did you not want to become pregnant at all?' Women who stated that they wanted to wait until later were categorized as having had a mistimed pregnancy. Those who replied that they did not want to become pregnant at all were recognized as having had an unwanted pregnancy. Finally, the responses of mistimed pregnancies and unwanted pregnancies are merged together to figure out total unintended/unplanned pregnancies. It is important to mention that in a situation where a woman had live births in 5 years preceding the survey and was also currently pregnant, then her pregnancy intention for the current pregnancy is considered for this study. So it is clear that only 'the most recent pregnancy' of the sample women has been taken into account.

Women's experience of spousal violence is measured by asking them the following set of questions: Does/did your (last) husband ever do any of the following things to you: (a) Slap you? (b) Twist your arm or pull your hair? (c) Push you, shake you or throw something at you? (d) Punch you with his fist or with something that could hurt you? (e) Kick you, drag you or beat you up? (f) Try to choke you or burn

you on purpose? (g) Threaten or attack you with a knife, gun, or any other weapon? (h) Physically force you to have sexual intercourse with him even when you did not want to? (i) Force you to perform any sexual acts you did not want to? Women could answer 'yes' or 'no' to each item; If a woman said 'yes' to one or more of these items, she is considered as having experienced spousal violence ever. Items (a)-(g) are counted as acts of physical violence and items (h)-(i) are considered as act of sexual violence. The variable 'women's experience of spousal violence' is categorized as 'never experienced violence', 'only physical', 'only sexual' and 'both physical and sexual'.

'Pregnancy intention of women' is the dependent variable in the current analysis. It is a dichotomous variable as it is categorized as 'intended' (coded as '0') and 'unintended' (coded as '1'). The key independent variable is women's experience of spousal violence. On the basis of literature survey, a set of explanatory variables affecting unintended pregnancy have been incorporated in our analysis. The reasons for selecting these variables have also been pointed out in the following section.

Among demographic and fertility related variables, we have included age of women (15-19, 20-29, 30-49 years), number of children born (none, 1-2, 3-4, more than 4 children) and ever use of any contraceptive methods (no/yes). In India more than half of women married before the legal minimum age of 18 years.²⁷ As after marriage, birth of a child is eagerly awaited in most of the families, therefore, unintended pregnancy is supposed to be lower among younger married women having no child. Use or non-use of contraceptives certainly has an effect on unintended pregnancy as proper use of contraceptives helps to reduce the problem of unintended pregnancy. In this study socio-economic variables encompass women's highest level of education (no education, primary, secondary or higher), religion (Hindu, Muslim, others), caste/tribe (SC/ST or non SC/ST), marital control by husband (no control, lower control, higher control), type of place of residence (urban/rural), women's current work status (not

working/working) and wealth index (poorest, poorer, middle, richer, richest). Level of education of women is an important factor affecting unintended pregnancy because educated women are supposed to enjoy greater autonomy and have better knowledge of contraception than uneducated women. Women from wealthy families are more likely to be educated and have better access to health facilities; so their chances of facing unintended pregnancy will probably be lower than women from poor families. Work status of women can affect unintended pregnancy as economic independence enhances women's autonomy. The level of marital control by husband can be used as an important proxy for women's decision making power of fertility regulation. In NFHS-3 a woman was asked about the controlling behaviour of her current or most recent husband in six situations (e.g., if he is/was jealous or angry when she talk/talked to other men etc.). For each case the answer could be 'yes' (coded as 1) or 'no' (coded as 0). Based on the information of six control issues marital control index has been created. 3-6 control issues faced by a woman indicates higher marital control by husbands, range 1-2 shows lower control and 0 indicates no control. Religion may affect pregnancy intention of women through norms related to the use of contraception/fertility control. In India Scheduled Caste (SC) and Scheduled Tribe (ST) population are considered as backward classes with lesser opportunities to education and income. Therefore, the level of unintended pregnancy may vary between SC/ST and non SC/ST people. Place of residence can have an impact on unintended pregnancy as the culture, economy and social infrastructure differs vehemently between rural and urban India. Finally, the regional factor has been included in this study considering the combining effects of geographical location, cultural setting and socio-economic characteristics on women's power to fertility control. In the present analysis India is divided into five regions, namely, northern, eastern, north-eastern, western and southern. The states of Jammu and Kashmir, Himachal Pradesh, Punjab, Haryana, Uttaranchal, Delhi, Rajasthan, Uttar Pradesh and Madhya Pradesh constitute the northern region. Eastern region comprises of Bihar,

West Bengal, Orissa, Jharkhand and Chhattisgarh. Eight states constitute the north-eastern region, namely, Sikkim, Assam, Meghalaya, Manipur, Mizoram, Nagaland, Tripura and Arunachal Pradesh. The western region includes Maharashtra, Gujarat and Goa. The states of Andhra Pradesh, Karnataka, Tamil Nadu and Kerala form the southern region.

Cross tabulations and Pearson's Chi-square test have been used to obtain a preliminary idea of the association between unintended pregnancy and various covariates. To identify the net impact of spousal violence on the pregnancy intention of women, multivariate logistic regression analysis has been applied and the results are depicted as adjusted odds ratio (OR) with 95% Confidence Intervals (CI). All the statistical analyses were done using SPSS for Windows, version 16.0.

RESULTS

In India unintended pregnancy and spousal violence both are common. Around one fourth (23.2 %) of women in our sample reported their most recent pregnancy as unintended. On the other hand 38.4 % women reported that they faced either physical or sexual violence at least once in their life by their current or most recent husband. Those who ever experienced physical or sexual violence, 27.4 % faced only physical violence, 2.5 % reported only sexual abuse and 8.6 % experienced both types of violence.

To understand the association between unintended pregnancy and spousal violence first bivariate analysis has been carried out (Table1). It is clear from the analysis that the percentages of women who reported their most recent pregnancy as unintended, is lowest among women who have never experienced spousal violence (19.8%) and highest among those who experienced both physical and sexual violence (33.3%). Table 1 also show that except caste all other covariates are significantly associated with unintended pregnancy. Here we have considered the level of significance up to 5%. The bivariate association reveals that with increasing age and the number of

children of women, the chances of unintended pregnancy also rises. Ever users of contraceptives reported higher unintended pregnancy (26.6%) than never users (18.9%). Women's level of education and wealth quintiles are negatively associated with unintended pregnancy. Further unintended pregnancy is slightly higher among rural women (23.7%) than urban (21.9%) and among non-working women (23.6%) than working women (22.5%). The percentage of women who reported unintended pregnancy goes up with increasing marital control by their husband. Larger proportion of Muslim women (28.6%) faces the problem of unintended pregnancy than Hindu women (22.4%). The prevalence of unintended pregnancy is relatively lower in western (15.2%) and southern India (17.6%) compared to northern (27.2%) and eastern part (25.3%) of India.

The bivariate analysis showed that spousal violence is significantly associated with unintended pregnancy. Then multivariate logistic regression model has been used to examine the net impact of spousal violence on unintended pregnancy. Table 2 presents the adjusted odds ratio predicting the probability of a woman reporting the most recent pregnancy as unintended. Odds ratios greater than one indicate a positive relationship between the independent variables and the probability of experiencing unintended pregnancy and odds ratio less than one indicate a negative relationship. In multivariate logistic regression only those variables which are found significant in bivariate analysis are added as control.

From the above model it is evident that after covariate adjustment, compared to those who have never experienced violence, the chances of reporting the most recent pregnancy as unintended is higher for those who have experienced only physical violence (OR 1.18, $p < 0.001$), only sexual violence (OR 1.36, $p < 0.005$) and both physical and sexual violence (OR 1.32, $p < 0.001$). Women in higher age group are significantly less likely to experience unintended recent pregnancy than the women in age group 15-19 years. Women with more number of children are found to report higher unintended

Table 1: Percentage of ever married women^a who reported their most recent pregnancy as unintended by selected background characteristics

Background characteristics	Total women (n)	% of women with unintended pregnancy	P Value
Ever experienced spousal violence			
No	20326	19.8	<0.001
Only physical	7405	27.4	
Only sexual	560	27.1	
Both physical & sexual	2153	33.3	
Age of women			
15-19 years	1839	17.1	<0.001
20-29 years	19423	21.0	
30-49 years	9182	31.4	
Number of children born			
None	1335	12.5	<0.001
1-2	16108	15.9	
3-4	8520	27.5	
More than 4	4481	43.3	
Ever used any method of contraceptives			
No	12197	18.9	<0.001
Yes	18247	26.6	
Women's highest level of education			
No education	11839	25.1	<0.001
Primary	4321	24.0	
Secondary or higher	14284	20.8	
Religion			
Hindu	21403	22.4	<0.001
Muslim	4650	28.6	
Other	14284	18.3	
Caste/Tribe			
SC/ST	10268	22.7	0.216
Non SC/ST	18977	23.4	
Marital control by husband			
No control	18300	21	<0.001
Lower control	8963	26.3	
Higher control	3307	28.2	
Type of place of residence			
Urban	12237	21.9	0.001
Rural	18207	23.7	
Women's current work status			
Not working	21303	23.6	0.049
Working	9141	22.5	
Wealth index			
Poorest	5423	24.2	<0.001
Poorer	5425	26.1	
Middle	6137	25.2	
Richer	6719	21.5	
Richest	6740	17.8	
Regions in India			
Northern	10611	27.2	<0.001
Eastern	5598	25.3	
North-eastern	6073	21.1	
Western	3462	15.2	
Southern	4700	17.6	

Source: Computed from unit level data of NFHS-3

pregnancy than women with no children. The present analysis also shows that those who ever used any method of contraceptives are more likely to suffer from unintended pregnancy (OR 1.35, $p < 0.001$) than their counterparts. Further, educated women are significantly more likely to experience unintended pregnancy than the uneducated women. Controlling for other variables, working women and women from the richest wealth quintile are significantly less probable to face unintended pregnancy than non working women and women from the poorest wealth quintile respectively. Muslim women are more likely to suffer from unintended pregnancy than Hindu women (OR 1.20, $p < 0.001$). As marital control by husband increases, the chances of unintended pregnancy also increase significantly. Rural women are significantly less likely to experience unintended pregnancy (OR 0.90, $p < .005$) than women residing in urban area. Our analysis shows that women from western and southern India are significantly less prone to unintended recent pregnancy compared to north Indian women. However, the relationship is not significant for other regions.

DISCUSSION

Despite severe underreporting the present study finds that in India the prevalence of spousal violence is quite high and women who have experienced spousal physical or sexual violence or both are in increased risk of experiencing unintended pregnancy. This result is analogous with the previous study conducted among Indian women.^{22, 23, 28} Unintended pregnancy may result directly if women are forced to have sex or cannot practice contraception or ask their husband to use condom for the fear of getting beaten.^{1,29} Looking from the other end, unintended pregnancy can also be a greater risk factor for violence. A pregnancy may be seen as menacing by man if he does not want it and it can fuel violence.³⁰ Also, financial worries and reduced physical and emotional availability of women during pregnancy can be viewed as a cause of IPV.³¹ Therefore, whether pregnancy is the cause or consequence of spousal violence or both remains inconclusive and needs further research.

Table 2: Adjusted odds ratio and 95% confidence interval for unintended pregnancy

Background characteristics	Odds ratio	95% CI	P value
Ever experienced spousal violence			
No [®]			
Only physical	1.18	1.10-1.26	<0.001
Only sexual	1.36	1.12-1.66	0.002
Both physical and sexual	1.32	1.18-1.47	<0.001
Age of women			
15-19 years [®]			
20-29 years	0.83	0.73-0.95	0.007
30-49 years	0.73	0.63-0.85	<0.001
Number of children born			
None [®]			
1-2	1.31	1.10-1.56	0.003
3-4	2.54	2.12-3.06	<0.001
More than 4	5.19	4.26-6.32	<0.001
Ever used any method of contraceptives			
No [®]			
Yes	1.35	1.27-1.44	<0.001
Women's highest level of education			
No education [®]			
Primary	1.36	1.24-1.48	<0.001
Secondary or higher	1.45	1.34-1.57	<0.001
Religion			
Hindu [®]			
Muslim	1.20	1.11-1.29	<0.001
Other	1.25	1.14-1.37	<0.001
Marital control by husband			
No control [®]			
Lower control	1.20	1.12-1.27	<0.001
Higher control	1.35	1.23-1.48	<0.001
Type of place of residence			
Urban [®]			
Rural	0.90	0.84-0.96	0.002
Women's current work status			
Not working [®]			
Working	0.83	0.78-0.89	<0.001
Wealth index			
Poorest [®]			
Poorer	1.10	1.00-1.20	0.047
Middle	1.10	1.00-1.21	0.047
Richer	0.96	0.86-1.07	0.421
Richest	0.78	0.69-0.89	<0.001
Regions in India			
Northern [®]			
Eastern	0.97	0.90-1.05	0.467
North-eastern	1.01	0.92-1.10	0.847
Western	0.63	0.57-0.70	<0.001
Southern	0.88	0.80-0.96	0.005

Note: CI = Confidence Interval [®] = reference category

In bivariate relationship the lowest unintended pregnancy is found among the youngest women (15-19 years), but in the logistic regression analysis, this age group showed the highest risk of experiencing unintended pregnancy. It may be because when the number of children is controlled for, young women already with a child (children) were found to prefer not to have had the last pregnancy compared to the older ones. The present analysis shows that, those who ever used any method of contraceptives are more likely to suffer from unintended pregnancy than who never used contraceptives. A number of studies from the developing countries hold the similar findings.^{23, 32, 33} Actually the result is not unexpected. Many women never used contraceptives because they desired for children. On the other hand those who used contraceptives were trying to regulate or prevent birth. Some of them may have used it inconsistently or discontinued it because of lack of awareness or resistance/violence from husbands.

After covariate adjustment it is seen that educated women are significantly more likely to face unintended pregnancy than the women with no education. Rural women are also less likely to experience unintended pregnancy than urban women. It is because the desired family size of educated and urban women is expected to be smaller than the uneducated and rural women. Due to greater consciousness, the frequency of reporting unintended pregnancy is also higher in case of educated women. Muslim and women from 'Other' religious categories are significantly more likely to report their recent pregnancy as unintended which may be due to various socio-economic factors needing further exploration. Marital control by husband is positively linked with women's experience of unintended pregnancy. In Indian society a woman is viewed as subordinate to her husband.³⁴ More control of man means lesser control of women in sexual decision making and contraceptive use causing higher chances of unintended pregnancy.

Our study finds that working women are significantly less likely to experience unintended pregnancy than

the non-working women. It implies earning women has greater say in reproductive decision making. Further, women from wealthy family are less likely to face unintended pregnancy than women from poor family. The problem of unintended pregnancy is not similar throughout the country because the socio-economic conditions vary from region to region. For example, the female autonomy is remarkably low in north India than compared to south.³⁴ Government initiatives to combat reproductive health problems of women also vary among the states.

CONCLUSION

Some limitations should be considered when interpreting the results of this study. Exposure to spousal violence is based on self reporting, and is therefore subject to recall bias as well as non-disclosure. Pregnancy intendedness is a complex concept and the measurement of unintended pregnancy is complicated by the issue of post-birth rationalization. Further, this analysis does not account for pregnancies that are terminated early by induced abortion. Because pregnancies that end in abortions are generally unintended, therefore, their exclusion in calculating pregnancy intention is likely to cause underestimation of the rates of unintended pregnancy. Finally, because of cross sectional nature of data it is not possible to assume the causal relationship between spousal violence and women's experience of unintended pregnancy. However, the findings from the present study suggest that unintended pregnancy is significantly associated with spousal violence. Therefore, prevention of spousal/intimate partner violence may help to reduce the incidence of unintended pregnancy. It is important to adopt a holistic approach that must involve reproductive health care and violence prevention programme together to enhance women's power of fertility regulation.

AUTHORS NOTE

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