Original Article

Are pregnant women also vulnerable to domestic violence? A community based enquiry for prevalence and predictors of domestic violence among pregnant women

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Abstract

Aim: To generate local evidence to fill up the knowledge gap about the domestic violence faced by the antenatal females. **Objectives:** To screen for domestic violence in antenatal females. To explore association, if any, with socio-demographic and pregnancy related attributes among antenatal females of an urbanized village of Delhi. **Materials and Methods:** Socio demographic details and pregnancy related attributes and HITS (Hurt, Insult, Threaten, Scream) questionnaire for screening domestic violence was used on 165 pregnant females in a community based setting. **Results:** 23% of pregnant women were screened positive for domestic violence. Physical hurt was present among 60% of victims of domestic violence. The predictors for domestic violence among pregnant women as derived from logistic regression were – educational status of head of the family/husband, substance abuse by husband and history of previous abortions. **Conclusion and Recommendations:** More emphasis should be given on well being of the pregnant women who are victims of domestic violence. The policy makers and program managers should integrate social welfare schemes with the RCH program and all levels of health care functionaries should be sensitized about dealing with victims of domestic violence. Laws should be implemented effectively against perpetrators of domestic violence and more importantly females should be made aware of such laws and should be motivated to report it to the legal authorities and not to take up violence for granted.

Keywords: Domestic violence, HITS scale, pregnancy

Introduction

Violence against women has been considered as a "hidden" health burden. Be it the Vedic age or the 21ᵗʰ century, women in India have perhaps never experienced equal rights and freedom compared to their male counterparts. The subordinate status of women combined with socio-cultural norms that are inclined towards patriarchy and male preference can be considered to be important factors precipitating and validating the domestic violence. As Freedman has written, violence by husbands against wives should not be seen as a breakdown in the social order rather than an affirmation to patriarchal social order.

The United Nations defines domestic violence (DV) against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life." DV has been recognized as an important public health

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problem and more so during pregnancy as it threatens the health and safety of both the mother and the fetus. Prevalence of DV in India has been reported to be 37%[1] with a variation across states due to the difference in the overall socio-economic development and women's status in society. Among women of reproductive age, gender violence accounts for more deaths and disability than malaria, cancer, traffic injuries, or war put together (WHO 2000). Serious consequences like miscarriage, stillbirth, preterm labor, birth injury and death, low birth weight baby as well as increased risk of infant and under-5 death have been associated with domestic violence. DV puts the health and safety of two potential victims at risk. Domestic violence is an all-pervasive, serious social pathology with major public health implications.

India's National Family Health Survey (NFHS-3),[2] carried out in 29 states during 2005-2006, found that a substantial proportion of married women were physically or sexually abused by their husbands at some time in their lives. The survey indicated that, nationwide, 37.2% of women "experienced violence" after marriage. The summary of National Family Health Survey-III was that almost two out of five ever married women in India are subject to spousal violence. NFHS-4 2015-16 shows a decline with 31.1%[3] women ever married experiencing spousal physical or sexual violence. It also states that 3.9%[3] of ever married women have experienced violence during any pregnancy.

Aim

- To generate local evidence to fill up the knowledge gap about the domestic violence faced by the antenatal females.

Objectives

- To screen for domestic violence in antenatal females
- To explore association, if any, with socio-demographic and pregnancy related attributes among antenatal females of an urbanized village of Delhi.

Materials and Methods

Study design

A cross-sectional, community based, descriptive enquiry done between December 2013 to February 2015.

Study area

The study was conducted in the urbanized village of Ghazipur, which is located in the Vishwas Nagar Assembly constituency of East Delhi. Ghazipur is the field practice area of the Department of Community Medicine, University College of Medical Science (UCMS) and Guru Teg Bahadur Hospital (GTBH), Delhi.

Sample size

Published data reports of NFHS 3 showed prevalence *(p)* of domestic violence among women in India to be 17–37% across different states. Minimal sample size "*n*" for random sample at 95% confidence level (CL) with finite universe of 484 and respective absolute precision ("*d*") or 'worst possible result' as 5 and 9 was computed to be (*Epi Info 7*) 150. Therefore, the study proposed to cover a total of 150 + 15 (10% of 150) = 165 Antenatal Females.

Sampling procedure

Enumeration of the pregnant women was done in Ghazipur to construct the sampling frame. From this sampling frame of 360 pregnant women, 165 (sample size) were randomly selected by "MS Excel" generated random numbers.

Inclusion criteria

1. Antenatal females who gave consent to participate in the study AND
2. Residing in the village (Ghazipur) for a period of 6 months or more.

Exclusion criteria

1. Study subjects who needed immediate medical attention AND/OR
2. Subject with chronic mental illness AND/OR
3. Subject unable or unfit to comprehend – making administration of instruments used for the study unfeasible.

Data collection

Ethical clearance was obtained from the Institutional Review Board of the University College of Medical Science and Guru TegBahadur Hospital prior to conducting the study. The subjects selected for the study were contacted by the investigator personally at their respective residence. The subjects were interviewed by the researcher in privacy. To begin with, a good rapport was built with the study subjects. The aim and purpose of the study was explained to all the subjects and a written informed consent was taken, at the same time the respondents were motivated to provide accurate information. Sufficient time was spent with each subject to extract the right information especially with regards to information on certain sensitive issues relating to domestic violence. If the subjects were unavailable at their houses, they were visited again at an interval of one week at least three times before labelling them as non-responders. The information collected was kept confidential.

Tools

Tool A

A semi open-ended, pre-tested questionnaire was used. The questionnaire consisted of socio-demographic details of the subject and pregnancy-related attributes. Various factors associated with domestic violence was accounted for. The modified Kuppuswamy Scale using CPI (IW) for September 2013 was used for evaluating the socio economic status.

Tool B

Hurt, Insult, Threaten, Scream (HITS)[4] questionnaire for screening domestic/intimate partner violence. Hurt, Insult,

Threaten, Scream (HITS)[4] questionnaire for screening domestic/intimate partner violence was used. It has been widely used by Family Medical Practitioners—in Clinics and in the Community as well. It has a good internal reliability (Cronbach's Alpha) of 0.79, patient's comfort scale of 0.97 and clinician's comfort scale of 0.95.[5] The result obtained is similar with self-administered and medical staff interview.

Statistical analysis

Appropriate simple descriptive tabulations and tests of significance like Chi-square test were used. For identifying determinants, univariate odds-ratio estimation was followed by derivation of models, through logistic regression to find out the predictors of domestic violence among antenatal females. Independent variables were selected by univariate method (Chi square test) having *P* value <0.25. Variables which were found to be collinear and variables having small frequencies were not entered in the regression model. Backward stepwise Likelihood Ratio (LR) was used to find the significant predictors of domestic violence among pregnant women. The criteria for entering and removing the independent variables from the backward stepwise model was *P* < 0.05. In the final model, all possible interactions having biological plausibility were checked. Hosmer-Lemeshow goodness of fit test was applied to test the model fitting.

Results

SOCIO-demographic characteristics

Majority (60%) of the females were between the age group of 21–25 years. Mean age of the females was 23.8 years (Mean ± SD = 23.8 ± 3.8 years). One-fourth (25.5%) of pregnant females were Illiterate and none of them had any Professional degree. Most of them (~75%) have received some form of formal education. Almost half of them (52.1%) belonged to Upper Lower socio-economic class, 37% belonged to Lower Middle class, 9.7% belonged to Upper Middle class and only 1.2% belonged to Upper class as per the modified Kuppuswamy Scale, 2012. Alcohol consumption was most common substance to be abused by the husbands of the pregnant females (39.3%) closely followed by taking tobacco (35.7%) either in form of bidi/cigarette or tobacco chewing. Charas/Ganja/Gul was used by 3 (1.8%) of the husbands. Only about 6% of the pregnant females were found to be having substance abuse either in form of tobacco chewing/bidi or using Gul.

Obstetric History Depicted in Table 1
Domestic violence/intimate partner violence of the respondents

As depicted in Figure 1, 23% of pregnant females were screened positive for Domestic Violence by using HITS scale.

Figure 2 and Table 2 depicts that 34 (20.6%) of the pregnant females had history of DV only by their husbands, 18 (10.9%)
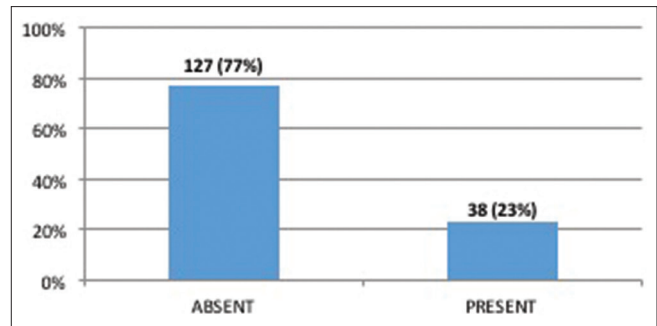

Figure 1: Prevalence of Domestic Violence among pregnant females (n = 165)
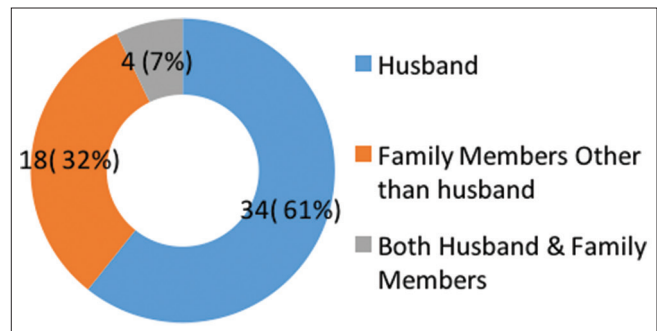

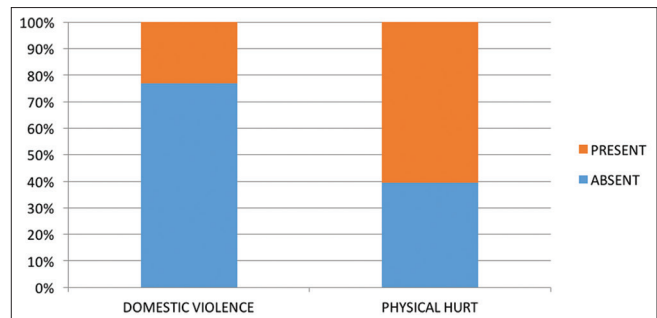**Figure 2:** Domestic Violence by Husbands and other family members

Figure 3: Presence of Physical Hurt by the Intimate Partner

had history of DV by family members other than husband and 4 (2.4%) had suffered DV by both husband and family members.

Figure 3 is depicting presence of Physical Hurt by the Intimate Partner. Domestic Violence was not seen in 77% of the pregnant females and among the rest 23% (n = 30) among whom Domestic Violence was present, history of Physical Hurt was present in almost 60% (n = 18) of them.

Predictors of domestic violence among pregnant females in Ghazipur (Delhi)

To find out the predictors of Domestic Violence among pregnant females of Ghazipur (Delhi), a multivariate logistic regression was applied taking "Domestic violence among pregnant females" as the dependent variable. Independent variables were selected by univariate method (Chi Square test) having *P* < 0.25. Backward stepwise Likelihood Ratio (LR) was used to find the

significant predictors of Domestic Violence among pregnant females. Domestic Violence by intimate partner and family members were collinear so only domestic violence by intimate partner was entered. In the final model all possible interactions having biological plausibility were checked. Hosmer-Lemeshow goodness of fit test was applied ($P = 0.418$). Nagelkerke R-square was 0.150 implying that 15% of Domestic Violence among pregnant females could be explained by this model. This model could correctly classify 76.4% of the cases; 97.6% in whom Domestic Violence was absent and 5.3% in whom Domestic Violence was present.

Finally, the following independent variable was found to be significant that is –

Educational Status of Head of the family (HOF)/Husband, history of substance abuse in husband and history of previous abortions.

Table 3 given below shows the predictors of Domestic Violence:
- It was found that pregnant females whose Head of the family was Illiterate the odds of facing Domestic Violence was 2.4 times that of families whose head was literate but though it was not found to be statistically significant ($P = 0.065$).
- History of substance abuse in husband also increased the odds of females facing Domestic Violence by 3.2 times.
- It was found that antenatal females who had history of previous abortions, Domestic Violence was 2.794 times more in them.

Discussion

Domestic violence among antenatal females

HITS scale was used to assess domestic violence among pregnant women in the present study. The prevalence of Domestic Violence was found to be 23%. The prevalence found in our study is what had been anticipated by us as suggested by a review study of Indian states which showed the prevalence of DV during pregnancy to be ranging from 21-28%.[6] However, findings from NFHS-3 and NFHS-4 indicates an overall prevalence of domestic violence to be 37% and 33% for India and 16.5% and 30% for Delhi respectively. The finding in our study reflects a higher prevalence as compared to NFHS-3 data for Delhi and almost similar to NFHS-4. This can be because of recruitments of subjects from a single urbanized village which is still in a transition phase and is yet to adopt the fully urbanized milieu. The wide range of prevalence of DV is due to the differences in cultures and different types of screening tools used. Despite ensuring confidentiality and conducting interviews in isolation, the fear of marital discord and spoiling their relationship with the in laws if they disclose about DV was inevitable.

The history of physical hurt as found in our study was present in almost 60% of the women who were screened positive for DV. Studies have shown that the rate of verbal abuse decreases

Table 1: Obstetric characteristics of pregnant women (*n*=165)

		n, Percentage (%)
Trimester	First	43 (26.1)
	Second	80 (48.5)
	Third	42 (25.5)
Gravida	Primigravida	54 (32.7%)
	Multigravida	105 (63.6%)
	Grandmultigravida**	6 (3.6%)
Parity	Nullipara	48 (29.1%)
	Unipara	67 (40.6%)
	Multipara	50 (30.3%)
Abortions	Yes	38 (23%)
	1 Abortion	29 (17.6%)
	>1 Abortion	9 (5.5%)
Living Children	None	73 (44.2%)
	1	64 (38.8%)
	>1	28 (17%)
H/O Caesarean Section in previous pregnancy	YES	10 (6.1%)
	NO	155 (93.9%)

*Grandmultigravida is women who has been pregnant for more than 5 times

Table 2: Domestic Violence by family members other than husband (*n*=30)

Family Member	Frequency (%)
Father In Law	9 (30)
Mother In Law	16 (53.3)
Sister In Law	5 (16.67)

Table 3: Predictors of Domestic Violence among pregnant females (*n*=165)

Predictor variables		B	SE	Adjusted OR (95% CI)	*P*
Educational Status (HOF)	Illiterate	0.872	0.472	2.391 (0.947-6.037)	0.065
	Literate			1#	
Substance Abuse (Husband)	Present	1.149	0.426	3.156 (1.368-7.280)	0.007**
	Absent			1#	
History of previous abortions	Present	1.027	0.440	2.794 (1.180-6.631)	0.019**
	Absent			1#	

#Reference category, Nagelkerke R^2 0.150. **Statistically Significant ($P<0.05$)

modestly during pregnancy but physical and sexual abuse continues relatively unchanged.[6] Pregnancy may increase the risk of violence and the chances of multiple sites of injury and injury on abdomen is greater and the consequences are devastating for the mother as well as the child. Verbal abuse such as scolding and teasing is often neglected by women so they don't report it even on probing them to come up with it. Moreover in Indian society women are expected to be submissive so they do not realize psychological abuse most of the time and keep on tolerating it. Disclosure of violence especially physical and sexual violence is inhibited by fears of escalating abuse, feelings of shame and embarrassment, concern about confidentiality, fear of police involvement and denial.[7] Studies which have shown that DV decreased in pregnancy also pointed out that women tried to protect themselves from DV by repeatedly getting pregnant.

As our study is a cross sectional study no cause and effect relationships could be established and the associations observed in the regression analyses could be the function of some prior common cause. The association between women's education and domestic violence is a controversial matter. No significant association has been found in our study between women's education and DV probably due to the fact that most of them belonged to same educational status of receiving few years of education. Studies done in rural Bangladesh showed that the odds of DV were reduced only for women who had at least six years of education.[8] The same study pointed out that there is variation between the qualitative data that women's education would lead to higher status and security through increased economic participation appears less realistic in light of the quantitative results. Education alone cannot be a protective factor for the women as various other social norms of marriage and family values play more crucial role in determining women's respect in her family. Increase in husband's educational level shows a negative association with prevalence of violence but it has less effect on lowering the prevalence of violence than do increase in women's own education.[9]

Substance abuse is often studied in association with DV as risk factors or coping mechanisms. Alcohol use has been linked to victimization and perpetration of DV. Some studies report drinking as a coping mechanism for dealing with DV while others posit drinking as a risk factor for victimization,[10] Substance use (by the perpetrator, the victim or both) is involved in as many as 92% of reported episodes of domestic violence.[11] The most frequently abused substance was alcohol and it was present in almost 40% of the male partners of the pregnant female. Alcohol frequently acts as a disinhibitor, facilitating violence. Stimulants such as cocaine, crack cocaine and amphetamines are also frequently involved in episodes of domestic violence by reducing impulse control and increasing paranoid feelings. As per NFHS-3 women whose husbands drink alcohol have significantly higher rates of violence than women whose husbands do not drink at all.

Recommendations

- More community based studies needs to be undertaken to address those hidden cases of Domestic Violence who fear to report to the concerned authorities about the abuse to which they have been a prey to for a long time. There is a need to increase the database of similar bigger epidemiological studies to be conducted in different social and cultural settings in India
- Our study provided a quantitative descriptive enquiry but some sensitive issues on Domestic Violence can be picked up only by qualitative study such as in depth interviews or Focus Group Discussion (FGD). Qualitative studies would be more appropriate to bring out the actual determinants of Domestic Violence
- Repeated probing on several occasions can build up the rapport and gain the confidence of the victim to disclose about domestic violence and so antenatal care visits is an ideal option as there are multiple chances of contact with the health care delivery system
- Family physicians should screen for domestic violence and it should be incorporated in the normal course of history taking for the overall mental health well being of the patients
- Laws should be implemented effectively against perpetrators of domestic violence and more importantly females should be made aware of such laws and should be motivated to report it to the legal authorities and not to take up violence for granted. The deep rooted issue of domestic violence needs a major transformation in the socio cultural milieu to curb it. Women empowerment can facilitate appropriate responses to domestic violence and prevent the dreadful consequences associated with it. Women should be made aware about the available social and legal interventions to deal with domestic violence by organising regular IEC activities.

Conflicts of interest

There are no conflicts of interest.

References

1. Garg S, Singh R. Gender-violence and health care: How health system can step in. Indian J Public Health 2013;57:4-7.
2. Fact Sheet: National Family Health Survey NFHSIII 2005-06. Delhi: Ministry of Health and Family Welfare, Government of India.
3. Fact Sheet: National Family Health Survey NFHSIV 2015-16. Delhi: Ministry of Health and Family Welfare, Government of India.
4. Sherin K, Sinacore JM, Li XQ. HITS: A short domestic violence screening tool for use in a family practice setting. Fam Med 1998;30:508-12.
5. Chen P, Rovi S, Washington J, Jacobs A, Vega M, Pan KY, *et al.* Randomized comparison of 3 methods to screen for domestic violence in family practice. Ann Fam Med 2007;5:430-5.
6. Peedicayil A, Sadowshi LS, Jeyaseelan L, Shankar V, Jain D, Suresh S, *et al.* Spousal physical violence against women during pregnancy. BJOG 2004;3:682-87.
7. Karmaliani R, Irfan F, Bann CM, McClure EM, Moss N, Pasha O, *et al.* Domestic violence prior to and during pregnancy among Pakistani women. Acta Obstet Gynecol Scand 2008;87:1194-201.
8. Bates LM, Schuler SR, Islam F, Islam K. Socioeconomic factors and processes associated with domestic violence in rural Bangladesh. Int Fam Plan Perspect 2004;30:190-9.
9. Khosla AH, Dua D, Devi L, Sud SS. Domestic violence in pregnancy in NorthIndian women. Indian J Med Sci 2005;59:195-9.
10. Shneyderman Y, Kiely M. Intimate partner violence during pregnancy: Victim or perpetrator? Does it make a difference? BJOG 2013;120:1375-85.
11. Brookoff D, O'Brien KK, Cook CS, Thompson TD, Williams C. Characteristics of participants in domestic violence. Assessment at the scene of domestic assault. JAMA 1997;277:1369-73.