

DOMESTIC VIOLENCE DURING PREGNANCY AND ITS RISK FACTORS AMONG PREGNANT WOMEN ATTENDING A TERTIARY CARE HOSPITAL IN PUDUCHERRY, INDIA

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ABSTRACT

BACKGROUND

Domestic violence is largely an unaddressed public health problem globally, which can have a detrimental impact on the health of the mother and baby. It is a reflection of neglected and deprioritized health care of women during pregnancy. We wanted to determine the prevalence of domestic violence during pregnancy and the possible risk factors associated with it among the pregnant attending an antenatal clinic in a tertiary care hospital.

METHODS

A facility based longitudinal study was conducted among 233 pregnant women attending the Out Patient Department of Obstetrics and Gynecology. A pre-validated standard questionnaire (abuse assessment screen) was used to screen the pregnant women for domestic violence and a semi-structured proforma to collect the socio-demographic characteristics was also used. Confidentiality was maintained for the data collected. Data was analysed using SPSS Version 20.

RESULTS

Mean age of the pregnant women was 25.02±4.01 years. The prevalence of domestic violence during the first trimester of pregnancy assessed using Abuse Assessment Screen (AAS) questionnaire was found to be 35.62%. In the univariate analysis, the significant factors associated with domestic violence during pregnancy were- different social class, poor social support, gender preference and husband's alcohol addiction. However, logistic regression analysis revealed that husband's alcohol addiction (aOR 2.59, 95% CI 1.36-4.95), poor social support during pregnancy (aOR 3.42, 95% CI 1.64-7.13) and gender preference (aOR 3.90, 95% CI 2.12-7.16) were the statistically significant factors.

CONCLUSIONS

Domestic violence during pregnancy is a public health problem due to its high prevalence. Most of the risk factors are easily preventable by strict implementation of acts to prevent domestic violence against women. The study also recommends a routine screening for domestic violence during pregnancy in the antenatal clinic.

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BACKGROUND

Domestic violence is largely an unaddressed major public health problem globally.¹ Its prevalence varies widely and substantial number of women worldwide experience some form of violence at the hands of their partners.² In India the prevalence of domestic violence vary widely from 20-60%.³ The occurrence of domestic violence in pregnancy and its

detrimental effects on the health of the mother and baby has gained more attention towards it in recent years. It has been mentioned more often than diabetes, hypertension or any other complications occurring during pregnancy.

The reported prevalence of violence during pregnancy ranges from 0.9% to 20%.⁴⁻⁸ A Population based study in eastern India⁹ experienced similar results. A study based on original NFHS 2 follow-up survey experienced prevalence rates of 23%.¹⁰ Hospital based studies conducted in India¹¹⁻¹⁴ have identified highest prevalence of around 28% in north India.¹² SAFE research team conducted a population based, cross sectional household survey and showed a prevalence of about 13% in Chennai city.¹⁵

In India, pregnant women retain their privileged public position. But will this decrease the prevalence of violence during pregnancy? This is supported by Castro¹⁶ who showed that domestic violence decreases during pregnancy. However, whether pregnancy is risk or protective factor

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against violence is inconclusive. Khosla¹² showed that both husband and other family members are almost equal culprits. American College of Obstetricians and Gynaecologists recommended routine screening for all women and developed guidelines for screening.¹⁷ We do not routinely screen pregnant women for any partner violence unless there is a strong clinical suspicion.

Aims and Objectives

This study was conducted to find out the prevalence of domestic violence during pregnancy, main perpetrator and possible risk factors associated with domestic violence in this part of the country so that we can develop guidelines and formulate strategies and effective interventional programmes to address this issue in pregnant women.

METHODS

The present study was a facility based longitudinal study conducted in the outpatient department of department of Obstetrics & Gynaecology in a tertiary care hospital in Pondicherry. The sample size was calculated based on the estimate of domestic violence prevalence during pregnancy.¹¹ The study will include minimum of 216 pregnant mothers considering the proportion of domestic violence as 28% with $\alpha = 5\%$, $\beta = 20\%$ & error of margin = 6%. Finally, a sample size of 233 was taken in the study (216 + 5% of sample size to overcome the loss to follow up bias). Convenience sampling was followed to select the eligible pregnant women. All pregnant mothers in their first trimester who were attending antenatal clinic in this hospital were included in the study. Those pregnant mothers who were not willing to participate were excluded from the study. Pregnant women who were attending antenatal clinic during the first 3 months of the study period were explained about our study. Written consent was obtained for the participation in the study at their free will. They were informed about the confidentiality and freedom to withdraw at any time from the study. The participants were asked to fill up standard questionnaire (abuse assessment screen)¹⁷ in their own language (Tamil) or English whichever they feel comfortable with. If there was any assistance required, or for illiterate women, investigators would be attending them. Once enrolled, this screening for abuse alone was repeated in every trimester (3rd, 5th & 9th month). Details about demographic data, social factors, marital status etc., given in the proforma was obtained to find out possible risk factors. Any social support was assessed by asking whether the pregnant mother was having any place to stay for at least a month or so in emergency. Study was continued till the desired three screening schedules.

Statistical Analysis

The data was entered in Microsoft Excel and analyzed using Epi Info & SPSS version 20. Categorical variables were expressed using frequency and percentage. Continuous variables were represented using mean and standard deviation. The association between categorical variables was assessed using Fisher’s exact test or Chi-square test,

wherever appropriate. Multivariate logistic regression was used to identify potential risk factors and calculate adjusted odd’s ratio.

RESULTS

Demographic Variables	Frequency	Percentage	
Residence	Rural	82	35.2
	Urban	151	64.8
Religion	Hindu	198	85.0
	Muslim	29	12.4
	Christian	6	2.6
Education	Illiterate	5	2.1
	Primary School	2	0.9
	Middle School	20	8.6
	High School	74	31.8
	Higher Secondary	77	33.0
	Graduates	51	21.9
	Post Graduates	4	1.7
Marital Status	Married	232	99.6
	Separated	1	0.4
Arranged Marriage	Yes	172	73.8
	No	61	26.2
Love Marriage	Yes	61	26.2
	No	172	73.8
Love Marriage Acceptance (n=61)	Yes	40	65.6
	No	21	34.4
Family Type	Nuclear	98	42.1
	Joint	135	57.9
Employment Status	Working	44	18.9
	Not Working	189	81.1

Table 1. Demographic Profile of Study Participants (n=233)

A total of 233 pregnant women participated in this study. Mean age of the study participants was 25.02+4.01 years. The prevalence of domestic violence during pregnancy assessed using Abuse Assessment Screen (AAS) questionnaire of the study subjects was found to be 35.62% (83 out of 233 pregnant women) during the first trimester.

The socio-demographic characteristics of pregnant women has been shown in Table 1. About 2/3rd of the pregnant women were from urban area while the rest 1/3rd mothers were from rural area. Majority (85%) of the pregnant women belong to Hindu religion whereas 12% and 3% belong to Muslim and Christian respectively. Approximately 12% of the pregnant women were either illiterate or educated only up to middle school. Almost all (99.6%) pregnant women were married. 3/4th of the

marriages were arranged marriage and 1/4th were love marriages. About 57% of the pregnant women were living

in a joint family while 42% were living in a nuclear family. Majority (81%) of the pregnant women were not working.

Variables		Abuse		Odds Ratio (95%, CI)	Chi Square	p Value
		Yes, n (%)	No, n (%)			
Residence	Urban	31 (37.8)	51 (62.2)	1.157 (0.662 to 2.0229)	0.263	0.608
	Rural	52 (34.4)	99 (65.6)			
Religion	Hindu	73 (36.9)	125 (63.1)	1		
	Muslim	8 (27.6)	21 (72.4)	1.533(0.646 to 3.637)	0.964	0.617
	Christian	2 (33.3)	4 (66.7)	0.584 (0.081 to 4.235)		
Age Group	< = 25 Yrs.	45 (33.1)	91 (66.9)	0.768 (0.447 to 1.320)	0.915	0.339
	> 25 Yrs.	38 (39.2)	59 (60.8)			
Education	Illiterate	0 (0.0)	5 (100.0)	0.158 (0.009 to 2.901)	2.827	0.164#
	Literate	83 (36.4)	145 (63.6)			
Family Type	Nuclear	35 (35.7)	63 (64.3)	1.007 (0.585 to 1.733)	0.001	0.980
	Joint	48 (35.6)	87 (64.4)			
Social Class	Same Class	60 (32.3)	126 (67.7)	0.497 (0.260 to 0.951)	4.551	0.033*
	Different Class	23 (48.9)	24 (51.1)			
Social Support	Poor	27 (58.7)	19 (41.3)	3.3242 (1.709 to 6.465)	13.306	0.000*
	Good	56 (29.9)	131 (70.1)			
Gender Preference	Yes	50 (51.6)	47 (48.5)	3.320 (1.899 to 5.806)	18.376	0.000*
	No	33 (24.3)	103 (75.7)			
Smoking Habit of Husband	Yes	15 (50.0)	15 (50.0)	1.985 (0.917 to 4.300)	3.104	0.078
	No	68 (33.5)	135 (66.5)			
Husbands Alcohol Addiction	Yes	33 (50.0)	33 (50.0)	2.340 (1.303 to 4.201)	8.300	0.004*
	No	50 (29.9)	117 (70.1)			
Marriage Type	Arranged Marriage	59 (34.3)	113 (65.7)	0.805 (0.441 to 1.470)	0.499	0.480
	Love Marriage	24 (39.3)	37 (60.7)			
Employment of Wife	Working	21 (47.7)	23 (52.3)	1.871 (0.962 to 3.637)	3.406	0.063
	Not Working	62 (32.8)	127 (67.2)			

Table 2. Association of Factors Influencing Domestic Violence During Pregnancy (n=233)

Fishers Exact test, * statistically significant.

The factors associated with domestic violence during pregnancy has been shown in Table 2. Though majority of the pregnant women were from urban area, almost equal proportion of domestic violence during pregnancy from these areas. Pregnant women were prone for domestic violence irrespective of the religion despite the majority being Hindu community. There was no significant difference in the age group for domestic violence but there was a minor vulnerability for the age group above 25 years. Education of the mother and family type did not appear to significantly influence the domestic violence during pregnancy. When the social classes of the pregnant mother were different, there was a statistically significant risk for the mother to undergo domestic violence. Poor social support during pregnancy also significantly influenced the risk for domestic violence. Whenever there was a gender preference either for a male or female, there was a significant risk for domestic violence. Husbands smoking history also influenced the domestic violence with high proportion of smokers causing abuse, though it was not statistically proved. Although working women were more prone for abuse, it was not supported by statistical significance. In the univariate analysis, the significant factors associated with domestic violence during

pregnancy were different social class, poor social support, gender preference and husband’s alcohol addiction.

Factors Associated with Abuse		Adjusted Odd's ratio	95%, CI	P Value
Husband Alcohol Addiction	Yes	2.590	1.355 to 4.953	0.004*
	No	Reference		
Social Class	Same	Reference		0.104
	Different	0.555	0.272 to 1.129	
Support Social	Good	Reference		0.001*
	Poor	3.420	1.641 to 7.128	
Gender Preference	Yes	3.897	2.122 to 7.155	0.000*
	No	Reference		

Table 3. Logistic Regression Analysis of Significant Factors Influencing Abuse During Pregnancy

* Statistically Significant.

In Table 3, the four significant variables from univariate analysis ($p < 0.05$) in Table 2 was considered for binary logistic regression analysis. However, on using logistic regression analysis, only three risk factors were identified as statistically significant risk factors. These were husband's alcohol addiction (aOR 2.59, 95% CI 1.36-4.95), poor social support during pregnancy (aOR 3.42, 95% CI 1.64-7.13) and gender preference (aOR 3.90, 95% CI 2.12-7.16), as presented in Table 3.

DISCUSSION

Violence against women is prevalent widely in the world. In a multi-country study by WHO on women health and domestic violence, around 15-71% of women are experiencing some form of violence at the hands of their partners.² Pregnancy makes them further vulnerable due to the changes during pregnancy, economic and social dependence in view of their unborn child. Hence pregnancy is not a bar for violence, and it is appalling to know that India is second highest in prevalence of intimate partner violence during pregnancy (28%)¹⁸ in different clinical studies around the world. Hospital based studies¹¹⁻¹⁴ and Population based studies^{9,19} from India showed considerable number of women experienced some type of domestic violence during their pregnancy. In our study we found the prevalence of domestic violence during pregnancy is similar to these studies that is around 35.62%.

Violence can be physical, sexual or emotional. Though majority of the studies concentrates on physical abuse as it is detrimental for women and unborn child but sexual and emotional considered to give similar effect. No conclusive evidence in the literature whether pregnancy is a protective or risk factor for violence during pregnancy. Monika et al²⁰ in their study found that there is increased prevalence of sexual violence during pregnancy. This could be because of the low sexual activity of the women during pregnancy. Das et al²¹ reported as increased or remained same during pregnancy. Purwar¹¹ in his study noted the violence is increased in index pregnancy in 8.3% of the women. Study from rural Maharashtra by D Jain²² reported high prevalence and pregnancy is not protecting them from abuse.

In contrast our study showed pregnancy remained as protective factor since our mothers were AAS screen negative in their second and third trimesters. However, our measurement was only screening and did not measure any individual acts of physical, sexual or emotional violence similarly Study conducted in Pakistan²³ reported fall in prevalence of violence during pregnancy.

Husband is the main perpetrator in our study. Similar report was given by Monika et al.²⁰ other perpetrator such as mother in-law, sister-in-law and father-in-law were also reported. In a cross-sectional study done at Nagpur¹¹ the perpetrator of the abuse was the intimate partner (husband) in 48.2%, the husband's mother in 61.3%, and the husband's sister in 22.6%. Most often the abuse was by more than one person. In Singh et al¹⁴ study the husband was the main perpetrator (47.4%); other family members were responsible in 31%.

Though there was no significant difference in the age group in domestic violence but there was minor vulnerability for the age group of above 25 years. In contrast Sushmita et al hypothesized that the odds of IPV during maternity would decrease with rising woman's age. The present data demonstrated that residence, religion, type of family did not have any effect on the violence during pregnancy. Contrast to this other studies⁹ reported living in urban area found to be a risk factor. Higher-level of education and family income found to be protective factors in the present study. Furthermore, women who had love marriage did not show any increased risk in our study. Contrary to this other studies²⁰ reported this as a risk factor for violence during pregnancy. Alcohol consumption has strong and persistent correlation with violence during pregnancy in ours as well as in other studies.^{9,20} Male child preference is rampant in Indian communities and pressurizing women for male child noticed commonly among who faced violence during pregnancy.⁹ In our study also gender preference is one of the risk factor but this was for either for male or female. Every woman needs physical, emotional support during pregnancy. Incidence of violence is more in women who did not have support during pregnancy and similar report was given by Monika et al.²⁰ In our study we identified husband's alcohol addiction, poor social support during pregnancy and gender preference as statistically significant risk factors.

CONCLUSIONS

The present study emphasizes on these potential risk factors for domestic violence during pregnancy namely, husband's alcohol addiction, poor social support during pregnancy and gender preference. The study also recommends strict implementation of 'Protection of Women from Domestic Violence Act, 2005' since the prevalence of domestic violence is higher which is also preventable in this part of the country.

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