

## Research Article

# Intimate partner violence against women during pregnancy in Tripura: a hospital based study

Himadri Bhattacharjya\*, Durba Deb

Department of Community Medicine, Agartala Government Medical College, Agartala-799006, Tripura, India

**Received:** 19 September 2013

**Accepted:** 16 October 2013

**\*Correspondence:**

Dr. Himadri Bhattacharjya,

E-mail: hbhattacharjya@rediffmail.com

© 2014 Bhattacharjya H et al. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ABSTRACT

**Background:** Intimate partner violence is increasing day by day and has become a matter of public health concern.

**Methods:** To estimate the prevalence of intimate partner violence during pregnancy, to find out the pattern of violence and its determinants, a hospital based cross-sectional study was conducted among 1005 women admitted in the maternity wards of Agartala Government Medical College and Mohanpur Community Health Centre using multistage sampling and structured interview schedule during 20<sup>th</sup> November 2009 to 19<sup>th</sup> November 2010. Descriptive statistics, chi-square test and binary logistic regression analysis were used.

**Results:** Mean age of the study women was 23.21 ( $\pm$  4.229). Prevalence of physical assault during pregnancy was 23.8 %, verbal abuse 40.6 %, forced intercourse 21.2 %. Violence was faced by 43.2 % women before pregnancy, and in 29.5 % cases, it continued during pregnancy also. 37.815 % violence occurred without any reason; 34.873 % due to financial matters, 12.605 % due to family affairs, 6.302 % for not giving birth to son, 8.403 % due to household work and suspicion of infidelity. Violence was more prevalent among Christian, daily labours (n = 31, 75.6%), illiterate and rural women. Women faced more violence from addicted husbands (n = 239, 26.3%) and in families where decision makers were illiterate (n = 201, 47.2%).

**Conclusions:** Improving literacy, eliminating addiction and marriage of women with men of lesser age difference may help in minimizing intimate partner violence in Tripura.

**Keywords:** Spousal-violence, Domestic-violence, Women, Pregnancy

### INTRODUCTION

Intimate partner violence is the most common form of violence against women. Though it was under reported, during the last decade, violence against women has emerged as a focus of international attention and is considered as a form of violation of human rights and gender discrimination.<sup>1-3</sup> Violence against women is defined as “any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to a woman, including

threats of such acts, coercion or arbitrary deprivations of liberty, whether occurring in public or private life”.<sup>4</sup> It is not certain whether pregnancy has got either protective or aggravating effect up on domestic violence but studies indicate that the problem of violence against women during pregnancy is not less. Studies indicate that prevalence of violence during pregnancy may be more than the conditions for which pregnant women are routinely screened like pregnancy-induced hypertension, gestational diabetes, or placenta praevia. The challenge is to convert the growing recognition of gender-based

violence as “a serious human rights abuse” as well as “an important public health problem that concerns all sectors” into action and services. In India 34% of all women age 15-49 have experienced violence at any time since the age of 15.<sup>5</sup> Forty-eight percent of married women have experienced spousal violence that was either physical or sexual. The percentage of women aged 15 to 49 who have experienced different forms of violence in India are Physical violence 26.9%, Sexual violence 1.8%, Physical and sexual violence 6.7%, Physical or sexual violence 35.4%. In Tripura the percentage of women facing different forms of domestic violence are 28.9%, 2.5%, 13.2%, & 44.7% respectively.<sup>6</sup> Tripura is a North-Eastern state of India which differs from rest of the nation regarding geography, ethnicity, culture, beliefs, literacy, socio-economic condition etc. Hence the prevalence of violence against women during pregnancy, its pattern, determinants etc. may also differ from rest of the nation. Therefore the present study was designed to reveal the prevalence of violence against women during pregnancy, its pattern and determinants among women admitted in the maternity wards of different hospitals in Tripura.

### Objectives

1. To estimate the prevalence of intimate partner violence against pregnant women attending hospitals in Tripura.
2. To reveal the pattern of intimate partner violence against pregnant women.
3. To study the determinants of violence against women during pregnancy.

### METHODS

A hospital based cross-sectional study was conducted among 1005 women admitted in the maternity wards of Agartala Government Medical College and Mohanpur Community Health Centre during 20<sup>th</sup> November 2009 to 19<sup>th</sup> November 2010.

Minimum sample size requirement for this study was determined by the formula  $N = (t^2 \times p \times q) \div L^2$ . It was 969 women. ‘N’ = sample size. ‘t’ = 1.96 (standard value at 95% confidence). ‘p’ = prevalence of any form of violence against women in Tripura = 46.6%.<sup>7</sup> ‘q’ = (1 - p) = 53.4. ‘L’ = allowable error, which was taken as 10% of ‘p’ in this study. Multiplication factor of 2 for design effect and 10% increment for compensating probable non-response were used. But during the study period we could enrol 1046 women in total.

Multistage sampling technique was followed. Out of four districts of Tripura (total number of districts during study period) West Tripura District was chosen by simple random sampling. Out of 06 hospitals and 24 Primary and Community Health Centres in West Tripura District, one from each category namely Agartala Government

Medical College Hospital and Mohanpur CHC was chosen by simple random sampling. Previous five years data showed that the number of maternity patients admitted in Agartala Government Medical College Hospital was approximately 10 times than that of Mohanpur CHC. Hence Probability Proportionate method was followed to choose total 1046 women from Agartala Government Medical College Hospital and Mohanpur CHC. All 41 women, who were excluded, belonged to Agartala Government Medical College Hospital only.

Eighteen women denied participation in this study; 12 women were considered physically unfit to make a valid statement and 11 women could not be contacted for interview due to some reason in spite of best effort. Thus 41 women were excluded from this study. Finally 1005 women were enrolled in this study.

Intimate partner violence against women was defined as “the range of sexually, psychologically and physically coercive acts used against adult and adolescent women by current or former male intimate partners”.

For collecting data maternity wards of Agartala Government Medical College and Mohanpur CHC were visited on alternate days to approach the admitted women one by one. Before approaching a woman, opinion of the ward sister regarding her fitness both physical and mental were sought. At first the admitted women were explained about the study including the merits and demerits of participating in it. Then they were invited for participating in it. After getting the informed written consent, face to face interview was conducted in presence of the ward sister and the data were recorded in a pretested structured interview schedule. During this process no relatives or attendants of the women were allowed to remain present and interviews were conducted confidentially. Women were enrolled consecutively till the end of the study period.

Data management and statistical analysis was performed in computer using Statistical Package for the Social Sciences (SPSS) software for Windows (SPSS Inc, Chicago, Illinois, USA) version 15.0. Chi-square test with Yates’ correction and logistic regression analysis was applied to assess the significance of study findings and  $p < 0.05$  was considered statistically significant. Informed written consent was obtained from each and every participant and the interviews were conducted confidentially. The recorded data were dealt with confidentiality and were used for research purpose only.

### RESULTS

Out of 1046 women approached, 1005 got enrolled in this study giving a response rate of 96.08%. Mean (SD) age of the study women was 23.21 ( $\pm$  4.229) year. Prevalence of physical assault during pregnancy was found to be

23.8%. Among these, 37.81% happened without any specific reason, financial matter was involved in 12.60%, family affairs in 12.60%, 6.30 % cases for not giving birth to a son, household work and infertility & suspicion of infidelity was involved in 8.40 % cases. Majority (91.3%) of the study women said that their husbands knew them as faithful wives, 2.7% said that they were known as unfaithful to their husbands but 6.0 % refused to make any comment.

Physical assault during pregnancy was highest among the Christians. It was faced mostly by the daily labour women (n = 31, 75.6%) and was also committed by daily labour husbands (n = 136, 63.6%). The office-going women faced least number of assaults. Higher educated women were facing lesser incidences of physical assaults (Secondary educated = 19, 5.8% and Graduate & Above = 1, 0.7%). Wives of the illiterate husbands were facing more number of physical assaults during pregnancy (n = 114, 71.3%). Pregnant women were getting assaulted mostly in families where the decision makers were illiterate (n = 201, 47.2%). Expectedly addicted husbands were assaulting their wives more (n = 239, 26.3%). Prevalence of getting verbally abused during pregnancy was found to be 40.6%. Hindu women were the least abused during pregnancy (n = 365, 39.3%).

During pregnancy 21.2% women were bound to have sexual intercourse against their will. It was lowest among the Muslims (n = 9, 19.6%). Daily labourers were mostly forcing their wives during pregnancy for intercourse (n = 128, 59.8%), whereas the office workers were doing the least (n = 1, 0.6%). Among the study subjects, 19.8% women got hurt in their private parts. Mostly the daily labourers used to hurt their wives in their private parts during pregnancy (n = 120, 56.1%).

Among the study subjects, 43.7% women felt that their freedom of self-control was restricted during pregnancy, 56.2% felt it was not and 0.1% refused to ventilate their feeling. Restriction of self-control during pregnancy was more prevalent among the Christians (n = 15, 65.2%), daily labourers (n = 31, 75.6%), illiterates (n = 84, 84.8%), rural women (n = 368, 50.7%), younger women (n = 357, 47.7%), joint families (n = 364, 48.9%), marriages fixed by guardians (n = 412, 44.5%) and where age difference with the husbands were higher.

Out of the total, 43.2% women have faced some sort of violence before getting pregnant also. 29.5% women were experiencing violence of the same magnitude as it was happening during their pre-pregnant state. Getting abused during pregnancy was more among women who experienced the same during the pre-pregnant state also (n = 405, 93.3%). Most of the women, who encountered physical assaults in the pre-pregnant state, continued the same even when they became pregnant also (n = 238, 54.8%).

Table 1 shows that majority of the study women were from rural areas (72.2%), Hindu by religion (92.3%) and belonged to general category (36.6%). 88.9% of the study women were house wives & 43.6% were primary educated. Majority of the husbands were cultivators (24.8%) and were primary educated (33.5%).

**Table 1: Socio-demographic profile of the study women.**

		Number (%)
Caste	S C	265 (26.4)
	S T	151 (15.0)
	O B C	221(22.0)
	General	368 (36.6)
Residence	Rural	726 (72.2)
	Urban	279 (27.8)
Religion	Hindu	928 (92.3)
	Muslim	46 (4.6)
	Buddhist	4 (.4)
	Christian	23 (2.3)
	Others	4 (.4)
Occupation of Women	Daily Labourer	41 (4.1)
	House Wife	893 (88.9)
	Office-worker	32 (3.2)
	Others	39 (3.9)
Occupation of Husband	Daily Labourer	214 (21.3)
	Business	186 (18.5)
	Office-worker	171(17.0)
	Skilled Labourer	185 (18.4)
	Farmer	249 (24.8)
Education of Women	Illiterate	99 (9.9)
	Primary	438 (43.6)
	Secondary	328 (32.6)
	Graduate & above	140 (13.9)
Education of Husband	Illiterate	160 (15.9)
	Primary	337 (33.5)
	Secondary	331 (32.9)
	Graduate & above	177 (17.6)
Education of the decision makers	Illiterate	426 (42.4)
	Primary	281 (28.0)
	Secondary	174 (17.3)
	Graduate & above	124 (12.3)

**Table 2: Bi-variate analysis of physical assaults encountered by women during pregnancy.**

Variables	Physical assault during pregnancy		Significance	
	Assaulted number (%)	Not assaulted number (%)		
Age (yr)	16 - 25	187 (25.0)	562 (75.0)	$\chi^2 = 2.280$ $p = 0.131$
	≥ 26	52 (20.3)	204 (79.7)	
Residence	Urban	24 (8.6)	255 (91.4)	$\chi^2 = 49.093$ $p = 0.000$
	Rural	215 (29.6)	511 (70.4)	
Caste	SC	63 (23.3)	207 (76.7)	$\chi^2 = 98.118$ $p = 0.000$
	ST	83 (54.2)	70 (45.8)	
	OBC	37 (17.0)	181 (83.0)	
	GENERAL	56 (15.4)	308 (84.6)	
Family type	Nuclear	45 (17.2)	216 (82.8)	$\chi^2 = 8.319$ $p = 0.004$
	Joint	194 (26.1)	550 (73.9)	
Marriage type	Arranged by guardians	230 (24.9)	695 (75.1)	$\chi^2 = 7.530$ $p = 0.006$
	Love marriage	9 (11.3)	71 (88.8)	
Sex of children	Predominantly sons	109 (23.0)	365 (77.0)	$\chi^2 = 0.342$ $p = 0.843$
	Predominantly daughters	114 (24.6)	349 (75.4)	
	Equal number of sons and daughters	16 (23.9)	51 (76.1)	

**Table 3: Bi-variate analysis of women getting abused during pregnancy.**

Variables	Getting abused during pregnancy		Significance	
	Abused number (%)	Not abused number, (%)		
Husband's addiction	Addicted	400 (44.1)	508 (55.9)	$\chi^2 = 46.589$ $p = 0.000$
	Non-addicted	8 (8.2)	89 (91.8)	
Residence	Urban	66 (23.7)	213 (76.3)	$\chi^2 = 45.964$ $p = 0.000$
	Rural	342 (47.1)	384 (52.9)	
Caste	SC	116 (43.0)	154 (57.0)	$\chi^2 = 51.068$ $p = 0.000$
	ST	99 (64.7)	54 (35.3)	
	OBC	75 (34.4)	143 (65.6)	
	GENERAL	118 (32.4)	246 (67.6)	
Husband's Occupation	Labourer	172 (80.4)	42 (19.6)	$\chi^2 = 238.898$ $P = 0.000$
	Business	47 (25.3)	139 (74.7)	
	Office-worker	13 (7.6)	158 (92.4)	

	Skilled labour	66 (35.7)	119 (64.3)	
	Farmer	110 (44.2)	139 (55.8)	
<b>Marriage type</b>	Arranged by guardians	384 (41.5)	541 (58.5)	$\chi^2 = 4.047$ $p = 0.044$
	Love marriage	24 (30.0)	56 (70.0)	
<b>Husband's literacy</b>	Illiterate	140 (87.5)	20 (12.5)	$\chi^2 = 274.390$ $p = 0.000$
	Primary	170 (50.4)	167 (49.6)	
	Secondary	87 (26.3)	244 (73.7)	
	Graduate & Above	11 (6.2)	166 (93.8)	

**Table 4: Result of binary logistic regression analysis.**

Continuous variables		Odds ratio (95% C. I.)	p - value
<b>Age of women</b>		1.041 (0.983 – 1.101)	0.167
<b>Age difference with husband</b>		1.124 (1.027 – 1.230)	0.011
Categorical variables		Odds ratio (95% C. I.)	p - value
<b>Residence of women</b>	Rural	2.373 (1.388 – 4.056)	0.002
	Urban	1	
<b>Occupation of women</b>	Daily labourer	1.698 (0.675 – 4.272)	0.261
	Other	1	
<b>Occupation of Husband</b>	Daily labourer	4.998 (3.275 – 7.627)	0.000
	Other	1	
<b>Women's literacy</b>	Illiterate	1.627 (0.787 – 3.365)	0.189
	Literate	1	
<b>Husband's literacy</b>	Illiterate	4.613 (2.580 – 8.249)	0.000
	Literate	1	
<b>Religion</b>	Christian	1.699 (0.548 – 5.265)	0.358
	Others	1	
<b>Type of family</b>	Joint family	1.461 (0.871 – 2.452)	0.151
	Nuclear family	1	
<b>Type of marriage</b>	Arranged marriage	1.845 (0.794 – 4.290)	0.155
	Love marriage	1	

Table 2: Bi-variate analysis of physical assaults during pregnancy shows that prevalence of physical assaults during pregnancy was significantly higher among tribal ( $p = 0.000$ ), rural women ( $p = 0.000$ ), joint families ( $p = 0.004$ ) and in arranged marriages ( $p = 0.006$ ).

Table 3: Bi-variate analysis of women getting abused during pregnancy shows that women, whose husbands were addicted ( $p = 0.000$ ), illiterate ( $p = 0.000$ ), labourer ( $p = 0.000$ ), tribal ( $p = 0.000$ ) and from rural areas ( $p = 0.000$ ) got abused in significantly higher amount.



Table 4: Logistic regression analysis shows that higher age difference with husband (OR = 1.124, 95% CI = 1.027 - 1.230, p = 0.011); rural residence (OR = 2.373, 95% CI = 1.388 - 4.056, p = 0.002), husband being daily labourer (OR = 4.998, 95% CI = 3.275 - 7.627, p = 0.000) and husband being illiterate (OR = 4.613, 95% CI = 2.580 - 8.249, p = 0.000) were the significant risk factors for a women to experience physical violence during pregnancy.

## DISCUSSION

The prevalence of physical violence during pregnancy in this study was found to be 23.8% whereas Lorraine Halinka Malcoe et al. 2004<sup>8</sup> found it to be 39.1% and Bontha V Bab and Shantanu K Kar, 2009<sup>9</sup> found overall prevalence of physical violence in Eastern India to be 16%. In a study done by S.Mitra, 2006<sup>10</sup> found that husband's son preference increases the risk of physical assault. In another study Amos O. Oyedokun, 2007<sup>11</sup> found that wives were assaulted for not cooking (31.94%) and burning the food (29.21%). This difference may be attributable to women's position of subordination, docility in respect to male dominance in these study areas.

In our study prevalence of physical assault during pregnancy was more (25%) among younger women, similarly, Eliette Valladares Cardoza, 2005<sup>12</sup> also found the mean age of the pregnant victims of violence to be 22.2 (± SD 5.4). Like us, Heidi Bart Johnston and Ruchira Tabassum Naved, 2008<sup>13</sup> also found more prevalence of physical assaults among rural women. Bates LM et al 2004<sup>14</sup> detected that daily labourers were committing more physical assaults, which supports our finding. Like us, Chandrasekaran Varalakshmi et al. 2007<sup>15</sup> also have seen spousal violence to occur commonly in the joint families.

Like us, Muhajarine N and D'Arcy C 1999,<sup>16</sup> Purwar MB et al 1999,<sup>17</sup> Faruqi N 1996,<sup>18</sup> Karaoglu L et al.<sup>19</sup> and Bohn DK, Tebben JG and Campbell JC 2004,<sup>20</sup> also observed that illiteracy of the study women has predisposed them to physical assaults during pregnancy. Abraham Peedicayil et al. 2004<sup>21</sup> have found that low literacy of husband has increased the assaults of pregnant wives, which is at par with our finding. Like ours, S. Mitra, 2006<sup>10</sup> has found that husband's substance addiction has caused more intimate partner violence.

Ellsberg et al. 2000<sup>22</sup> reported that 33% of beatings in Nicaragua were commonly accompanied by forced sex. Deepthi Varma et al. 2007<sup>23</sup> also reported sexual coercion involving forces during pregnancy. Like us, Lisa M. Bates et al. 2004<sup>14</sup> also found the spousal violence to get worsen during pregnancy. Similar with us, M. Faramarzi et.al, 2005<sup>24</sup> had detected rural residence (OR = 1.97, 95% CI: 1.14 to 3.41) as a powerful predictor of spousal violence.

Thus it is concluded that, illiteracy, addiction, higher age difference with husband etc. are identified as important determinants for facing spousal violence by a woman during pregnancy. Therefore improving literacy, eliminating addiction and getting married with men of lesser age difference may help in minimizing the problem of intimate partner violence in Tripura.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the institutional ethics committee*

## REFERENCES

1. Violence related to gender and sexuality. WHO. Progress in Reproductive Health Research. WHO, Geneva WHO. 2005;67:7.
2. Intimate partner violence most common form of abuse against women worldwide. WHO. WHO Report: Geneva WHO. 2006;2:45.
3. Pallitto CC & O Campo P. Community level effects of gender inequality on intimate partner violence and unintended pregnancy in Colombia. Testing the feminist perspective. *Social Science and Medicine* 2005;60:2205-16.
4. McCloskey LA, Williams C & Larsen U. Gender inequality and intimate partner violence among women in Moshi, Tanzania. *International Family Planning Perspectives* 2005;31(3):124-30.
5. Sharma P. Domestic Violence and Women. In: *Women, Marriage, Family, Violence and Divorce*. Jaipur: Mangal Deep Publications; 1997: 82-101.
6. Bewley C. Coping with domestic violence during pregnancy. *Nursing Standard* 1994;8:31-34.
7. International Institute for Population Sciences (IIPS) and Macro International. *National Family Health Survey (NFHS-3) 2005-06 Mumbai: IIPS India.* 2007;1:519.
8. Lorraine Halinka Malcoe, Bonnie M Duran, Juliann M. Montgomery. Socioeconomic disparities in intimate partner violence against Native American women: a cross-sectional study. *BMC Medicine* 2004;2:20.
9. Bontha V Babu and Shantanu K Kar. Domestic violence against women in eastern India: a population-based study on prevalence and related issues. *BMC Public Health* 2009;9:129.
10. S. Mitra. Domestic Violence along with its Sociocultural Determinants Among Pregnant Women Attending MCH Clinic of a Subdivisional Hospital in West Bengal. *Indian Journal of Community Medicine* 2006;31(4):10-2.
11. Amos O. Oyedokun. Women as Perpetuators of Domestic Violence in Nigeria: Evidence from Nigeria Demographic and Health Survey 2003. *European Journal of Social Sciences* 2007;5(3):7-21.
12. Eliette Valladares Cardoza. Psychosocial Factors and Child Outcomes in Nicaragua. Umea University Medical Dissertations. Sweden: Umea; 2005: 976.

13. Heidi Bart Johnston and Ruchira Tabassum Naved. Spousal Violence in Bangladesh: A Call for a Public-health Response. *J Health Popul Nutr* 2008;26(3):366-77.
14. Lisa M. Bates, Sidney Ruth Schuler, Farzana Islam and Md. Khairul Islam. Socioeconomic factors and processes associated with domestic violence in rural Bangladesh. *International Family Planning Perspectives* 2004;30(4):190-9.
15. Chandrasekaran Varalakshmi, Krupp Karl, George Ruja and Madhivanan Purnima. Determinants of domestic violence among women attending an Human Immunodeficiency Virus voluntary counseling and testing center in Bangalore, India. *Indian Journal of Medical Sciences* 2007;61(5):253-62.
16. Muhajarine N and D'Arcy C. Physical abuse during pregnancy: prevalence and risk factors. *Canadian Medical Association Journal* 1999;160(7):1007-11.
17. Purwar MB. Survey of physical abuse during pregnancy, Government Medical College and Hospital, Nagpur, India. *Journal of Obstetrics and Gynecological Research* 1999;65(3):195-201.
18. Faruqi N. The women's group report on women speaking about domestic violence. Poster presented at the Third Annual National Symposium, Aga Khan University, Karachi, Pakistan 1996 Sept.;16:21-2.
19. Leyla Karaoglu, Osman Celbis, Cihan Ercan, Mehtap Ilgar, Erkan Pehlivan, Gulsen Gunes, Metin F. Gencl and Mucahit Egri1. Physical, emotional and sexual violence during pregnancy in Malatya, Turkey. *European Journal of Public Health* 2006;16(2):149-56.
20. Bohn DK, Tebben JG and Campbell JC. Influences of income, education, age, and ethnicity on physical abuse before and during pregnancy. *Journal of Obstetrics, Gynecology and Neonatal Nursing* 2004;33(5):561-71.
21. Abraham Peedicayil, Laura S Sadowski, Lakshman Jeyaseelan, Viswanathan Shankar, Dipty Jain, Saradha Suresh, Shrikant I Bangdiwala. *BJOG* 2004;111(7):682-7.
22. Ellsberg MC, Pena R, Herrera A, Liljestrand J, Winkvist A. Candies in hell: women's experience of violence in Nicaragua. *Soc Sci Med* 2000;51:1595-1610.
23. Deepthi Varma, Prabha S. Chandra, Tinku Thomas. Intimate Partner Violence and Sexual Coercion among Pregnant Women in India: Relationship with Depression and Post-Traumatic Stress Disorder *J Affect Disord* 2007;102(1-3):227-35.
24. Faramarzi M, Esmailzadeh S, and Mosavi S. Prevalence and determinants of intimate partner violence in Babol City, Islamic Republic of Iran. *East Mediterr Health J.* 2005; 11: 870–879.

DOI: 10.5455/2320-6012.ijrms20140217

**Cite this article as:** Bhattacharjya H, Deb D. Intimate partner violence against women during pregnancy in Tripura - a hospital based study. *Int J Res Med Sci* 2014;2:84-90.