Original Research Article

Intimate partner violence experienced by pregnant women availing antenatal care at a rural hospital in South Karnataka

Chitra Tomy¹, Minu Rose Mani², Sr. Deepa², Sr. Ann Christy², Avita Rose Johnson²*

Department of Community Medicine, ¹Amrita Institute of Medical Sciences, Kochi, Kerala, ²St. John’s Medical College, Bangalore, Karnataka, India

Received: 17 May 2018
Accepted: 25 June 2018

*Correspondence:
Dr. Avita Rose Johnson,
E-mail: avitajohnson@gmail.com

ABSTRACT

Background: Intimate partner violence is a global phenomenon with 30% of women having faced physical or sexual violence by a partner in their lifetime. Rural women with poor access to health services and counselling, often suffer in silence. Intimate partner violence during pregnancy has a negative effect on maternal and foetal outcomes. The aims of the study were to estimate the prevalence of intimate partner violence among pregnant women availing antenatal care services in a rural area of South India in current pregnancy and in the past 12 months, and to study the various socio-demographic factors associated with intimate partner violence.

Methods: A cross sectional study was done among antenatal women availing services at a rural maternity hospital, using a questionnaire based on NFHS-3, to document physical, emotional and sexual domains of intimate partner violence.

Results: Among 150 pregnant women aged 18-29 years, the prevalence of any form of intimate partner violence was 30.7% in the past 12 months before pregnancy (physical 10.7%, sexual 2%, and emotional 26%), and 2.7% in current pregnancy. Lower educational status of husband and wife, history of alcohol consumption, tobacco usage and unplanned pregnancy were all significantly associated with increased intimate partner violence.

Conclusions: Routine antenatal care provides an opportunity to screen women for intimate partner violence, especially those with risk factors like lower level of education, unplanned pregnancy as well as alcohol and tobacco consumption by the husband, which were found to be significantly associated with intimate partner violence in our study.

Keywords: Intimate partner violence, Antenatal women, Maternity hospital

INTRODUCTION

The United Nations defines intimate partner violence as behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including physical aggression, sexual coercion, psychological abuse and controlling behaviours.¹ According to Global Health Observatory data 2010, 30% of ever partnered women globally have experienced physical or sexual violence by a partner in their lifetime.² The WHO multi-country study population based study on women’s health and domestic violence against women, found the prevalence of physical intimate partner violence in pregnancy to range between 1% in Japan city to 28% in Peru Province, with the majority of sites ranging between 4% and 12%.³ According to the National Family Health Survey 3 (NFHS 3), almost two out of five ever-married women in India are subject to spousal violence. In India the prevalence of spousal physical, emotional and sexual violence in ever married women is 35%, 15.8% and 10% respectively.⁴
Some of the most consistent factors associated with a man’s increased likelihood of committing violence against his partner(s) are: young age, low level of education, harmful use of alcohol and drugs and past history of abusing partners. Factors consistently associated with a woman’s increased likelihood of experiencing violence by her partner(s) across different settings include: young age, low level of education, exposure to violence between parents, abuse during childhood and exposure to other forms of prior abuse.²,³

Most studies on intimate partner violence during pregnancy measure physical violence during pregnancy, although sexual and emotional abuse during pregnancy are also considered as detrimental for women’s and their children’s well-being. An especially concerning form of physical violence during pregnancy is when abuse partners target a women’s abdomen, thereby not only hurting the women but also potentially jeopardizing the pregnancy. Intimate partner violence during pregnancy can lead to miscarriage, preterm birth, complications in the mother and baby, as well as mental health issues in the mother such as depression, stress, anxiety, suicidal attempts and lack of attachment to the baby after birth.⁴,⁵

Routine antenatal care in India does not typically screen for intimate partner violence, in spite of repeated opportunity for contact with the pregnant women through antenatal care and home visits by village health workers. There is also paucity of data concerning intimate partner violence in rural India. This study was conducted with the purpose of estimating the prevalence of intimate partner violence among pregnant women availing antenatal care in a rural area of South India, and to study the various associated socio-demographic factors.

METHODS

This was a cross sectional study done at a missionary-run rural maternity hospital, in Ramnagara district of Karnataka, around 50 kms from Bangalore city. With reference to NFHS-3 which reported that 10% of ever married women had experienced sexual violence by an intimate partner, we estimated that a sample size of 138 antenatal women would be required for our study, with an absolute precision of 5%. Pregnant women availing antenatal services from the outpatient clinic at the hospital from July 2015 to August 2015 were invited to participate in the study. Antenatal women currently suffering from psychiatric disorder were excluded. After obtaining written informed consent, 150 antenatal women were consecutively sampled and a face-validated, pre-tested interview schedule was administered. It consisted of 2 parts: a) socio-demographic and obstetric details b) physical, sexual and emotional domains of intimate partner violence. The questions were based on the NFHS-3, which used the modified conflict tactics scale.⁴,⁷

Intimate partner violence was measured using the following set of questions: (Does/did) your 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? (Does/did) your (last) husband ever: j) Say or do something to humiliate you in front of others? k) Threaten to hurt or harm you or someone close to you? l) Insult you or make you feel bad about yourself?

Women could respond ‘yes’ or ‘no’ to each item. A ‘yes’ response to one or more of items (a) to (g) constituted evidence of physical violence, while a ‘yes’ response to items (h) or (i) constituted evidence of sexual violence, and ‘yes’ to (j) to (l) was considered emotional violence. Questions were asked to elicit history of intimate partner violence both in the current pregnancy as well as within the last 12 months before pregnancy.

Data collected was entered in Microsoft Excel and then analysed using SPSS version 16. Socio demographic variables were described in terms of frequency, percentages, mean and standard deviation. Intimate partner violence and its association with socio demographic and obstetric variables were analysed using inferential statistics like chi-square test or fisher’s exact test as applicable. A p<0.05 was considered as statistically significant.

RESULTS

A total number of 150 antenatal women were included in the study. Socio-demographic characteristics of study participants and their husbands are presented in Table 1. The subjects ranged in age from 18-29 years (median = 22 years). Approximately half of the women and their husbands were high school graduates, but only 7 (4.7%) of the women were gainfully employed. 8(5.3%) of the husbands in the study were unemployed. Majority were Hindus, belonging to middle and upper socio economic class, and were of general caste. 34 (12%) belonged to SC/ST/OBC castes. Majority of husband’s did not consume alcohol (77.3%) and did not use tobacco (80.7%). Most participants were primi gravida and in second or third trimester. Nearly all the women received “full antenatal care” (Table 2). More than half were unplanned pregnancies.

The prevalence of any form of intimate partner violence in the last 12 months before pregnancy was 30.7% (physical 10.7%, sexual 2%, and emotional 26%), and prevalence of any form of intimate partner violence in the current pregnancy was 2.7% (physical 0.7%, sexual 2% and emotional 1.3%) (Table 3).
Factors associated with intimate partner violence in the last 12 months before pregnancy are represented in Table 4. Lower educational status among the woman or her husband was significantly associated with intimate partner violence. Significantly higher proportion of intimate partner violence was observed among women with history of abortions and unplanned pregnancy. Alcohol consumption and tobacco usage by the husband were also significantly associated with increased intimate partner violence towards women. There was no association of intimate partner violence with age, religion, caste, type of family, socioeconomic status, duration of marriage and the various obstetric factors.

Due to very small numbers, association between various risk factors and intimate partner violence during the current pregnancy was not possible.

Table 1: Socio-demographic details of study participants and their husbands.

| Variable                          | Category                        | N (%)       |
|-----------------------------------|---------------------------------|-------------|
| Age of the subjects (in years)    | ≤19                             | 17 (11.3)   |
|                                  | 20-24                           | 104 (69.3)  |
|                                  | ≥25                             | 29 (19.3)   |
| Age of the husband (in years)     | 21-24                           | 20 (13.3)   |
|                                  | 25-29                           | 76 (50.7)   |
|                                  | ≥30                             | 54 (36.0)   |
| Type of family                    | Nuclear                         | 26 (17.3)   |
|                                  | Joint                           | 124 (82.7)  |
| Socio-economic class (Modified BG Prasad scale) | Lower and lower middle class | 11 (7.3)   |
|                                  | Middle, upper middle and upper class | 139 (92.7) |
| Age of subject at marriage (in years) | ≤18                             | 33 (22.0)   |
|                                  | ≥18                             | 117 (78.0)  |
| Duration of marriage (in years)   | ≤2                              | 91 (60.7)   |
|                                  | ≥2                              | 59 (39.3)   |

N=150

Table 2: Obstetric details of the study participants.

| Variable                          | Category                        | N (%)       |
|-----------------------------------|---------------------------------|-------------|
| Gravida                           | 1                               | 87 (58.0)   |
|                                  | 2                               | 39 (26.0)   |
|                                  | ≥3                              | 24 (16.0)   |
| No. of living children            | 0                               | 98 (65.3)   |
|                                  | 1                               | 46 (30.7)   |
|                                  | 2                               | 6 (4.0)     |
| Current Gestational age           | 1st Trimester                   | 16 (10.7)   |
|                                  | 2nd Trimester                   | 60 (40.0)   |
|                                  | 3rd Trimester                   | 74 (49.3)   |
| Received Full Antenatal care *    | Yes                             | 144 (96.0)  |
|                                  | No                              | 6 (4.0)     |

N=150 *Full ANC = early registration of pregnancy + minimum 4 antenatal visits + 2 doses of tetanus toxoid or booster + minimum 100 Iron and folic acid tablets.

Table 3: Prevalence of intimate partner violence.

| Variables                                      | in the last 12 months before pregnancy N (%) | during the current pregnancy N (%) |
|------------------------------------------------|---------------------------------------------|-----------------------------------|
| Any form of intimate partner violence          | 46(30.7)                                    | 4(2.7)                            |
| Physical                                       | 16(10.7)                                    | 1(0.7)                            |
| Sexual                                         | 3(2.0)                                      | 3(2.0)                            |
| Emotional                                      | 39(26.0)                                    | 2(1.3)                            |

N=150

Table 4: Factors associated with intimate partner violence in the last 12 months before pregnancy.

| Variable                                      | Category       | Experienced Intimate partner violence (n=46) (%) | P value   |
|-----------------------------------------------|----------------|-----------------------------------------------|-----------|
| Subject’s Education                           | Illiterate     | 2 (100.0)                                     | 0.011 b   |
|                                               | Upto High School | 28 (37.3)                                   |           |
|                                               | Higher         | 16 (21.9)                                     |           |
| Husband’s Education                           | Illiterate     | 2 (66.7)                                      | 0.043 b   |
|                                               | Upto High School | 31 (36.5)                                   |           |
|                                               | Higher         | 13 (21.0)                                     |           |
| Abortion                                      | Spontaneous    | 14 (53.8)                                     | 0.011 b   |
|                                               | MTP            | 3 (42.9)                                      |           |
|                                               | No abortion    | 29 (24.8)                                     |           |
| Unplanned pregnancy                          | Yes            | 31 (38.3)                                     | 0.029 a   |
|                                               | No             | 15 (21.7)                                     |           |
| Alcohol consumption by husband                | Yes            | 16 (47.1)                                     | 0.018 a   |
|                                               | No             | 30 (25.9)                                     |           |
| Tobacco Usage by husband                      | Yes            | 16 (55.2)                                     | 0.001 a   |
|                                               | No             | 30 (24.8)                                     |           |

N=150 a – Chi square value b – Fisher’s exact
DISCUSSION

In the present study done among 150 antenatal women availing services from a rural maternity hospital in South Karnataka, it was revealed that 30.7% of women experienced some form of intimate partner violence in past 12 months before pregnancy, which was higher than the Karnataka state average of 21.1%. The prevalence of spousal physical, emotional and sexual violence in the present study was 10.7%, 26% and 2% respectively in ever married women, while that in Karnataka was 19.5%, 8.1% and 4% respectively. The higher prevalence of intimate partner violence in our study may be because of the willingness of the women to report the violence to the doctor during antenatal care, as opposed to an unknown person conducting an official survey.

What is equally worrying is that nearly 3% of women experienced intimate partner violence during pregnancy (physical 0.7%, sexual 2% and emotional 1.3%). This small proportion translates into large actual numbers, when extrapolated to the millions of pregnant women in India. This has far-reaching public health consequences in terms of maternal and fetal outcomes, as there is evidence to link intimate partner violence with miscarriage, preterm birth and maternal depression. A study in Rwanda showed the prevalence rates of physical, emotional and sexual violence during pregnancy to be 10.2%, 17.0% and 9.7% respectively. This was much higher than the finding in our study and could possibly be explained by the socio-cultural differences and levels of education between the two populations.

It was found in our study, that women with lower education status were more likely to have experienced intimate partner violence than women with higher education. According to NFHS-3, nearly half of ever-married women with no education and nearly half of women whose husbands had no education experienced spousal violence. Similar findings were also found in studies done outside India. Lower educational status of women and its association with higher intimate partner violence may be because of lack of women’s empowerment, lack of job opportunities, and lack of financial independence. Similarly women with higher levels of education were found to be less likely to experience sexual violence during pregnancy.

Factors related to husband which influence the intimate partner violence in our study were lower educational status, alcohol abuse and tobacco usage. These findings are similar to a study done among pregnant women in Chandigarh in 2004. Regular alcohol intake, low educational level and substance abuse among husbands were also the main risk factors for violence during pregnancy according to other community based studies in India. Alcoholism may lead to reduced self-control which in turn may lead to violence against partners. Women married to men who get drunk frequently are more than twice as likely to experience violence as women whose husbands do not drink alcohol at all. Excessive drinking by the partners can exacerbate financial problems, childcare problems and other family stressors leading to an unhappy, stressful partnership that increases the risk of conflict and violence. In the United States, smoking has been found to be associated with intimate partner violence. This was similarly found in the present study.

The present study also showed that those with spontaneous abortion and terminated pregnancies experienced more partner violence compared to those without abortions. In population based surveys on intimate partner violence, ever-pregnant women who had experienced physical or sexual violence by the partner, were significantly more likely to report having had at least one induced abortion than women who had never experienced partner violence.

Our study showed that women with unintended or unplanned pregnancy experienced more violence compared to women with planned pregnancy. This was also found in a study based on NFHS 3 data that showed that the chances of reporting most recent pregnancy as unintended was higher for those who experienced intimate partner violence.

Obstetrician–gynaecologists are in a unique position to assess and provide support for women who experience intimate partner violence because of the nature of the patient–physician relationship and the many opportunities for intervention that occur during the course of pregnancy, family planning, annual examinations, and other women’s health visits. The U.S. Department of Health and Human Services has recommended that screening for intimate partner violence and counselling should be a core part of women’s antenatal and postnatal care. In India too, an opportunistic screening of pregnant women by doctors and nurses at institutional care level and by ANM and ASHA at community level can be included in routine maternal health care. Existing referral pathways may be used for counselling and prevention of further partner violence. Therefore, sensitization of health personnel and raising the index of suspicion of partner violence should be the first step towards tackling this issue.

CONCLUSION

Among the pregnant women availing antenatal care in a rural hospital, the prevalence of any form of intimate partner violence in past 12 months before pregnancy was 30.7% (physical 10.7%, sexual 2%, and emotional 26%), and the prevalence of any form of intimate partner violence in the current pregnancy was 2.7% (physical 0.7%, sexual 2% and emotional 1.3%). Factors associated with intimate partner violence were lower level of education among women and their spouse, unplanned pregnancy as well as alcohol consumption and tobacco usage by the husband. Medical personnel and health...
workers at the community level are in an advantageous position to screen pregnant women for intimate partner violence due to frequent contacts throughout the course of pregnancy and therefore this must be included in routine antenatal care.

**Funding:** No funding sources

**Conflict of interest:** None declared

**Ethical approval:** The study was approved by the Institutional Ethics Committee

**REFERENCES**

1. WHO Media Centre. WHO Violence against women. WHO. 2016. Available at: http://www.who.int/mediacentre/factsheets/fs239/en/. Accessed on 7 September 2017.

2. WHO (World Health Organization). Lead poisoning and health. World Health Organization; 2015. Available at: http://www.who.int/gho/women_and_health/violence/en/ Accessed on 11 September 2017.

3. García-moreno C, Jansen H, Ellisberg M, Heise L, Watts C. WHO Multi-country Study on Women’s Health and Domestic Violence against Women. WHO World Heal Libr Catalogue. 2005;19.

4. National Family Health Survey (NFHS-3). International Institute for Population Sciences and Ministry of Health an Family Welfare, Government of India. 2007;1:493–524.

5. World Health Organization, London School of Hygiene and Tropical Medicine. Preventing intimate partner and sexual violence against women: taking action and generating evidence. Inj Prev. 2010;16(5):1–102.

6. Shidhaye P, Giri P, O’Reilly R, Beale B, Gillies D, Kiely M, et al. Information sheet Intimate partner violence during pregnancy. PLoS One. 2014;9(1):183–97.

7. Rurangirwa AA, Mogren I, Ntaganira J, Krantz G. Intimate partner violence among pregnant women in Rwanda, its associated risk factors and relationship to ANC services attendance: a population-based study. BMJ Open. 2017;7(2):e013155.

8. Das S, Bapat U, Shah More N, Alcock G, Joshi W, Pantvaidya S, et al. Intimate partner violence against women during and after pregnancy: a cross-sectional study in Mumbai slums. BMC Public Health. 2013;13(1):817.

9. Straus MA. Measuring Intrafamily Conflict and Violence: the Conflict Tactic Scales. J Marriage Fam. 1979;41(1):75.

10. Ntaganira J, Muula AS, Masaisa F, Dusabeyezu F, Siziya S, Rudatsikira E. Intimate partner violence among pregnant women in Rwanda. BMC Womens Health. 2008;8(1):17.

11. Babu BV, Kar SK. Abuse against women in pregnancy: a population-based study from Eastern India. WHO South-East Asia J Public Heal. 2012;1(2):133–43.

12. Sayed Ahmed W, Ibrahim ZM, Elhameed SA, Hagras AM. Intimate partner violence among Egyptian pregnant women: Incidence, risk factors and adverse maternal and fetal outcomes. J Matern Neonatal Med. 2014;27(2):201–2.

13. Abdollahi F, Abhari FR, Delavar MA, Charati JY. Physical violence against pregnant women by an intimate partner, and adverse pregnancy outcomes in Mazandaran Province, Iran. J Family Community Med. 2015;22(1):13–8.

14. Khosla AH, Dua D, Devi L, Sud SS. Domestic violence in pregnancy in North Indian women. Indian J Med Sci. 2005;59(5):195–9.

15. Peedicayil A, Sadowski LS, Jeyaseelan L, Shankar V, Jain D, Suresh S, et al. Spousal physical violence against women during pregnancy. Vol. 111, BJOG: An International Journal of Obstetrics and Gynaecology. Blackwell Science Ltd; 2004: 682–687.

16. Begum S, Donta B, Nair S, Prakasham CP. Socio-demographic factors associated with domestic violence in urban slums, Mumbai, Maharashtra, India. Indian J Med Res. 2015;141:783–8.

17. World Health Organization. Intimate partner violence fact sheet. Int J Trauma Nurs. 2012;6(2):66–8.

18. Cigarette Smoking among Intimate Partner Violence Perpetrators and Victims: Findings from the National Epidemiologic Survey on Alcohol and Related Conditions. The American journal on addictions / American Academy of Psychiatrists in Alcoholism and Addictions. 2014;23(5):493-501.

19. Yoshikawa K, Agrawal NR, Poudel KC, Jimba M. A lifetime experience of violence and adverse reproductive outcomes: Findings from population surveys in India. Biosci Trends. 2012 Jun 1 [cited 2017;6(3):115–21.

20. Shabnam S, Mukherjee a. Spousal violence and unintended pregnancy in India: Evidence from NFHS- 3. Indian J Res Reports Med Sci. 2013;3(3):1–8.

21. Committee O. ACOG Committee opinion. Obstetrics and Gynecology. American College of Obstetricians and Gynecologists; 2004. Available at: https://www.acog.org/Resources-And-Publications/ Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Intimate-Partner-Violence. Accessed on 3 April 2018.

**Cite this article as:** Tomy C, Mani MR, Sr. Deepa, Sr. Christy A, Johnson AR. Intimate partner violence experienced by pregnant women availing antenatal care at a rural hospital in South Karnataka. Int J Community Med Public Health 2018;5:3548-52.