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A cross sectional hospital-based study of intimate partner violence and psychiatric comorbidity in pregnancy

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Summary

Purpose: To assess Intimate partner violence and psychiatric co-morbidities in pregnant women.

Methods: Hundred and twenty consecutive patients who were pregnant attending the Ante natal clinic between 18-45 years were included in study. They were administered a semi structured proforma to collect socio demographic details, Intimate Partner Violence (IPV) was assessed by WHO violence against women instrument. Psychiatric diagnosis was made according to Diagnostic and Statistical Manual-5 criteria (DSM-5), anxiety was assessed using Hamilton Anxiety Rating scale (HAM-A), depression was assessed using Hamilton Depression Rating Scale (HAM-D).

Results: About 15% of the patients had psychiatric comorbidities and 35% of the patients had history of intimate partner violence. Eighteen (42.85%) of the 42 had psychological violence and 24(57.15%) had physical sexual violence. When we compared the females, who did not have IPV (group 1) and who had IPV (group 2) – suicidal ideas, MTPs more than one, stress, depressive disorder and anxiety disorder was more in group 2 and this difference was statistically significant. Substance abuse was observed more in group 2 spouses than group 1 spouses and was statistically significant.

Conclusion: A significant number of pregnant women reported IPV. This emphasizes the importance of screening for IPV in these women. It is observed that women with IPV had higher psychiatric comorbidity and may require psychotherapeutic intervention.

pregnancy, intimate partner violence, risk factors, psychiatric comorbidity

INTRODUCTION

Pregnancy and childbirth are major milestones in the lives of many couples and their families. The transition to parenthood brings joy as well as new challenges to couple relationships [1,2]. Pregnancy can be a time of particular vulnerability to Intimate Partner Violence (IPV) because of changes in physical, emotional, social and economic demands and needs. This vulnerable period, however, is not limited to the time between conception and birth. Researchers have clearly demonstrated that the risk factors for IPV associated with pregnancy encompass the timeframe of one year before conception until one year after childbirth [3-7].

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The World Health Organization (WHO) defines IPV as "any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in the relationship, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviors [8].

IPV is a significant public health problem in our society, affecting women disproportionately. It has a substantial impact on a woman's physical and mental health. Most researchers and caregivers agree that perinatal care is an ideal 'window of opportunity' to address IPV, for it is often the only moment in the lives of many couples when there is regular contact with health care providers [9,10]. IPV during pregnancy can lead to negative consequences for both the mother and foetus. The effects of IPV on maternal and neonatal outcomes are multifaceted and largely preventable. During pregnancy, there are many opportunities within the current health care system for screening and early intervention during routine prenatal care or during episodic care in a hospital setting. Although IPV is recognized as a worldwide public health issue, its prevalence is considered to be underestimated because cases are likely underreported, suggesting that there might be unmeasured IPV [11].

Advocating screening for IPV in pregnant women will help health workers to take corrective intervention steps to reduce the adverse effects of IPV on obstetric outcome. There is paucity of literature regarding IPV during pregnancy in Indian population. With this background the present study was done to find out the prevalence of IPV and associated psychiatric comorbiditiesin pregnant women.

MATERIALS AND METHODS

This was a hospital based cross-sectional study, conducted in "The Oxford Medical College, Hospital and Research Centre" (T.O.M.C.H&R.C) conducted in the year 2016 for a duration of 3 months. Hundred and twenty consecutive pregnant women attending the ante natal clinic of department of OBG in the age group of 18 years to 45 years were included. Written informed consent was taken from all cases. Participants were assured of confidentiality terms regarding their personal information. Participation in the study was voluntary, and the spouses of pregnant women were not present at the time of interviews. They were administered a semi structured proforma to collect socio demographic details, IPV was assessed by WHO violence against women instrument. Psychiatric diagnosis was done according to Diagnostic and Statistical Manual-5 criteria (DSM-5), anxiety was assessed using Hamilton Anxiety Rating scale (HAM-A), depression was assessed using Hamilton Depression Rating Scale (HAM-D). Collection of socio-demographic details and pregnancy details were carried out by a Gynecologist; interviewing the subject for IPV, making the psychiatric diagnosis according to DSM-5, and application of HAM-A and HAM-D were done by a Psychiatrist. The women with IPV and sbjects having psychiatric comorbidity were given the option of psychiatric help. The study was approved by the ethical committee of the institute T.O.M.C.H & R.C.

MEASUREMENTS

Hamilton rating scale for Anxiety (HAM-A): HAM-A has been one of the instruments most frequently used to evaluate anxiety. The HAM-A contains of 14 items. Each item is rated on a 0 to 4 scale with a final item which rates behaviour at interview. Score above 14 is considered as clinical anxiety present. Score below-14 no anxiety, 14-17 mild anxiety,18-24 moderate anxiety, 25-30 severe anxiety [12].

Hamilton depression rating scale (HAM-D): HAM –D is a scale to evaluate depression. It has 21 items. Score norm: 7 and below may be considered as normal, 8 – 13 is mild depression,14 – 18 is moderate depression, 19 – 22 is severe depression, 23 and above is very severe depression [13].

The WHO Violence Against Women Instrument: This was developed for use in the WHO Multi-country Study on Women's Health and Domestic Violence against Women. The questions used in this study, questions 703–706 from section 7 of the WHO study questionnaire, were incorporated. These questions on partner violence explore aspects of controlling behaviours,

emotional abuse, physical violence, and sexual violence (703-706). For the ease of communication, in this study, controlling behaviours and emotional abuse were clubbed as psychological violence, and physical and sexual violence were clubbed together [14].

Statistical Analysis

Results were analysed using descriptive and inferential statistical methods. A chi square test was used for categorical data, and Student t test were used for continuous data. Logistic regression was used to assess the association.

Results

The mean age of the women visiting antenatal clinic was 25.22±4.93 years, most of the subjects were literate and 8.3% had no education. Most of them were homemakers, belonged to joint family. About 38.3% had duration of marriage between 2-5years. The average age of the husband was 31.16±5.75

About 15% of the women had psychiatric comorbidities and 35% of the patients had history of intimate partner violence (Table 1). Eighteen (42.85%) of the 42 had psychological violence and 24 (57.15%) had physical and sexual violence. Ten patients had daily abusive encounter with the spouse, and in 32 the abuse had started within one year of marriage.

Table 1. Demographic details of pregnant females

Variables		N=120
Age		25.22±4.93
Education	Nil	10(8.3%)
	Primary	11(9.2%)
	High school	73(60.8)
	graduate	26(21.7)
Place	Rural	81(67.5)
	Urban	39(32.5)
Occupation	House wife	101(84.2)
	working	19(15.8)
Duration of marriage	<1year	27(22.5)
	2-5 years	46(38.3)
	6-10years	33(27.5)
	>10years	14(11.7)
Type of marriage	Arranged	111(92.5)
	love	9(7.5)
SES	Low	40(33.3)
	Middle	80(66.7)
	High	0
Type of family	Joint	82(68.3)
	nuclear	38(31.7)
Physical illness	Anaemia	21
	Hypothyroidism	18
	Hypertension	8
	Other illness	3
	Nil	70
Age of menarche		12.76±1.27

MTP	0 1 2 3	106(88.3) 8(6.7) 4(3.3) 2(1.5)
Number of coitus	<3/week >3 /week Rare	75(62.5) 30(25) 15(12.5)
Suicidal ideas	Nil present	109(90.8) 11(9.2)
Stress	Nil present	92(76.7) 28(23.3)
Husband age		31.166±5.75
HAM D		9.6±5.33
HAM A		10.25±3.95
IPV	Nil present	78(65) 42(35)
Husband education	Nil Primary High school graduate	11(9.2) 5(4.2) 64(53.3) 40(33.2)
Substance abuse in husband	Nil present	90(75) 30(25)

Numbers in parenthesis are in percentages

When we compared the females, who did not have IPV (Group 1) and who had IPV (Group 2) suicidal ideas, Medical termination of pregnancy (MTP) more than one, stress, depressive disorder and anxiety disorder was more in group 2 and this difference was statistically significant (Table 2). HAM-D and HAM-A scores were higher in group 2 than in the other group and this difference was statistically significant.

Table 2. Type of IPV

IPV	N=42
Psychological violence Physical+sexual violence	18(43%) 24(57%)
Frequency Daily Weekly Monthly	 10(23.8) 18(42.9) 14(33.3)
After how many years of marriage Immediately <1 year of marriage >1 year of marriage	 18(42.9) 14(33.3) 10(23.8)
Age of first encounter	17.73±7.864
How many days back was last encounter of IPV	10.920±3.21
Figures in parenthesis are in percentages	

Substance abuse was observed more in group 2 spouses than group 1 spouses and was statistically significant (Table 3). The odds of IPV was more with suicidal ideas (OR=10.36, p<0.05), multiple MTPs (OR=2.041, p<0.05), alcohol use in husband (OR=76.00, p<0.05), extramarital affair in husband OR=1.264, p<0.05).

Table 3 Comparison of IPV and Non IPV pregnant patients

Variables		IPV absent N=78 (Group 1)	IPV present N=42 (Group 1)	Statistical analysis
Age		25.15±4.93	26.35±4.97	T=0.215 P=0.830
Education	Nil Primary High school graduate	2 4 55 17	8 7 18 9	X2=16.3 P=0.001
Place	Rural Urban	46 32	35 7	X2=7.84 P=0.007
Occupation	House wife working	66 12	35 7	X2=0.34 P=0.854
Duration of marriage	<1year 2-5 years 6-10years >10years	18 31 20 9	9 15 13 5	X2=0.432 P=0.934
Type of marriage	Arranged love	72 6	39 3	X2=0.12 P=0.913
SES	Low Middle high	29 49	11 31	X2=1.484 P=0.223
Type of family	Joint nuclear	50 28	32 10	X2=1.843 P=0.175
Physical illness	Anaemia Hypothyroidism Hypertension Other illness Nil	1 7 6 3 61	0 11 2 0 29	X2=8.205 P=0.084
Age of menarche		12.74	12.78	T=1.73 P=0.863
MTP	0 1 2 3	70 8 0 0	36 0 4 2	X2=15.501 P=0.001*
Number of coitus	<3/week >3 /week Rare	51 19 8	24 11 7	X2=1.231 P=0.54

Suicidal ideas	Nil Present	76 2	33 9	X2=11.668 P=0.001*
Stress	Nil Present	70 8	22 20	X2=21.304 P<0.001*
Husband age		30.57±6.33	32.26±4.33	T=1.539 P=0.127
HAM D		7.51±3.13	13.47±6.344	T=6.897 P<0.005*
HAM A		9.29±2.53	12.19±5.22	T=4.219 P=0.008*
Psychiatric diagnoses	Nil Depression Anxiety	76(97.4%) 2(3.6%) 0	26(62%) 15(36%) 1(2%)	X2=27.089 P<0.001*
Husband education	Nil Primary High school graduate	5 2 45 26	6 3 19 14	X2=5.919 P=0.205
Substance abuse in husband	Nil Present	76(97%) 2(3%)	14(33%) 28(67%)	X2=59.82 P<0.001*
Relationship outside marriage	Nil Present	59(%) 19(26%)	23(55%) 19(45%)	X2=5.49 P=0.019*

*significant p<0.05

DISCUSSION

In our study 42 (35%) pregnant women reported of IPV, out of which 43% had psychological violence and 57% had physical and sexual violence. A wide range of prevalence rates, from 3% to 30% of IPV around the time of pregnancy, has been reported. Most studies focus mainly on physical and/or sexual partner violence, while psychological violence remains difficult to delineate and measure. Although the exact prevalence of IPV around the time of pregnancy remains unclear, it is evident that it affects a substantial group of women [3,15,16].

In India, the figures of IPV during pregnancy have ranged from 13% to 28%, depending on the sample studied and nature of the perpetrator [17,18,19]. Purwar et al reported physical violence in 22% of women attending an antenatal clinic in central India. [19] The prevalence rates have varied across studies, due to varying definitions of violence, non-uniform methodologies, sampling, differences in the form of culture, education, socio-economic status [17].

In our subjects multipleMTP was more in IPV group than in non IPV group. A plausible reason may be that women in abusive relationships may have low autonomy over their sexual lives and therefore can have more unwanted pregnancies, which in turn may increase the number of pregnancy terminations [20]. IPV may increase the likelihood of unintended pregnancy by affecting pre-conception and post-conception desire for pregnancy, pregnancy preparations and adaptations to pregnancy and, therefore, may lead to a higher rate of terminations [21,22]. Another possible explanation could be that in an abusive relationship, the husband may not want the child and directly forces his wife to terminate the pregnancy or indirectly may create situations which in turn influence the woman to take decision to terminate [23].

In our subjects who were having more than primary education had less encounter of IPV than who were illiterate or only primary education. Similar findings have been observed in Saltzman et al. in which women with less than 12 years of education were 4.7 times more like-

ly to experience violence during pregnancy than women with more than 12 years of education [4]. In a Canadian study, Stewart and Cecutti found that women failing to complete high school were at an increased risk for violence during pregnancy compared to those who had completed high school [24].

Subjects in IPV group were more rural area than in urban area similar to the findings of observed in China [25]. Women living in rural areas may be more likely than those in urban areas to have limited access to both health care and social services, which in turn may increase their risk of victimization [26].

Alcohol use in spouse was observed more in IPV group compared to non IPV group and also association was found between IPV and alcohol use in spouses in IPV during pregnancy. Number of studies have documented that a relationship exists between spouse alcohol use and the risk for experiencing violence during pregnancy, few studies have investigated how heavy drinking by the male partner relates to the risk of perpetrating violence against a pregnant partner [27,28]. Muhajarine and D'Arcy found that women who had a partner with a drinking problem were more than 3 times as likely to be abused during pregnancy compared to women whose partner did not have a drinking problem [29]. It is seen that conflict escalates into violence more readily when alcohol has been consumed as it is a psychopharmacological dis-inhibitor. Alcohol reduces self-control and affects cognitive and physical functioning which may compromise an individual's ability to resolve relationship conflicts without resorting to violence [30]. Alcohol consumption increases the occurrence and severity of domestic violence and is a strong determinant of IPV [31,32].

We also observed that there were a greater number of husbands having relationship outside the marriage in IPV group than in non IPV group similar to the finding observed in study in north India [33].

Depression and Anxiety disorders were more in IPV group than in non IPV group in our study. HAM-D and HAM-A scores were also higher in women in IPV group. The difference in score was statistically significant. About 36% in IPV group had depression and 2% had anxiety disorder, similarly other studies have reported depression as the most common mental health consequence of IPV, with nearly 40% of abused women reporting depressive symptomatology. [34,35]. Other studies also reported of higher levels of depression, anxiety and stress, as well as suicide attempts in pregnant women with IPV [36,37]. Indeed, women experiencing abuse during pregnancy are 2.5 times more likely to report depressive symptomatology than their non-abused counterparts [38].

Suicidal ideas were more in the group of IPV than in another group and this was statistically significant. As depressive disorder was more in the IPV group so do the suicidal ideas in this group. It has been observed by studies that the gravest consequence of IPV during pregnancy include Homicide and Suicide [39,40].

Although it is easy to assume that IPV is causally related to subsequent depression and suicidal behaviour, evidence suggests a more complex relationship. There are three modes of association, which are possible in any combination: (1) IPV exposure causes subsequent depression and suicide attempts, (2) depression and/or suicide attempts cause subsequent IPV, and (3) there are common risk factors for both IPV and depression and suicide attempts that explain the association between them [9]. Traumatic stress is the main mechanism by which IPV might cause subsequent depression and suicide attempts. Traumatic events can lead to stress, fear, and isolation, which in turn may lead to depression and suicidal behaviour [41].

The relationship between IPV, pregnancy and depression are yet to be elucidated, few would argue that they affect each other. A causal link between IPV and clinically significant depression is likely to have direct and indirect aspects. Additional research in this area is indicated to further clarify this multifaceted relationship.

There are certain limitations in this study. Study was conducted in the Antenatal clinic in the general hospital set up, so the findings cannot be generalized to the community. We had not used any scale to assess the levels of stress or to know the specific type of stressors, we had just enquired regarding whether subject experienced any stress in their life. Query regarding use of contraception in subjects which could have influenced the outcome of the study was not asked. Pre existing medical conditions like

anaemia /diabetes mellitus/hypertension were not included as a factor as authors considered this to be outside the purview of the present study. Other psychological conditions except for alcohol use in the husband were not evaluated.

To conclude IPV and psychiatric morbidity has been observed significantly during pregnancy and antenatal care presents a unique opportunity in which health care providers can foster trusting relationships with pregnant women, thereby increasing the likelihood of IPV detection and mitigating its related negative consequences to both mother and child. Regular follow up for antenatal check-up helps the health worker to assess the risk of IPV in the women and develop appropriate plan to help her.

If exposure to partner violence is known or suspected, it is appropriate to consider a pregnancy high risk and to coordinate interventions and support services and to ensure postpartum follow-up [42].

Women who suffer IPV present to hospital with different clinical manifestation, the clinician should be trained to empathise with the patient and provide medical help. Psychological support in the form of psychotherapy, stress management, coping skill training, safety measures and group support; medical therapy for emotional disorders; and psychiatric consultation could alleviate the adverse consequences of violence and improve the quality of life of the victims. Medical social workers, counsellors and nursing staff should be aware of local NGOs, National helpline numbers and other advocacy agencies to further guide them deal with IPV.

Since violence against women is both a consequence and a cause of gender inequality, primary prevention programs that address gender inequality and tackle the root causes of violence are all essential. An integrated media campaign covering electronic, print and film media that portrays domestic violence as unacceptable is the need of the hour. Programs are required which intend to address battered women's needs, including those that focus on building self-efficacy and livelihood skills. The significance of informal and local community networks should be acknowledged in this regard. The survivors of domestic violence can be involved in program planning and implementation in order to ensure accessibility and effectiveness. Rather than spotlighting women as victims in non negotiable situations, they should be portrayed as agents capable of changing their own lives. The public health experts have a vital role to play in networking with NGOs and voluntary organizations and creation of social support networks. [43]. Protection of Women from Domestic Violence Act of 2005(PWDVA) is a law to protect women against intimate partner violence in India [44]. Under Indian law, marital rape is not a crime, The Section 375 of the Indian Penal Code (IPC) considers the forced sex in marriages as a crime only when the wife is below 15. The marital rape victims have to take recourse PWDVA. It outlaws marital rape. However, it offers only a civil remedy for the offence [45].

Future research to understand role of pregnancy on the evolution of intimate partner violence and how pregnancy influences strategies women use to deal with the violence. Intervention research on the feasibility and effectiveness of integrating an intimate partner violence intervention into antenatal care in resource-poor settings.

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