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Women Reporting Intimate Partner Violence in India: Associations with PTSD and Depressive Symptoms

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Abstract

Background—Intimate Partner Violence (IPV) is prevalent worldwide and often has mental health sequelae.

Objectives—To describe the prevalence and the nature of PTSD symptoms among Indian women reporting IPV, (b) to study the relationship between symptoms of PTSD and depression, and (c) to examine the relationship between sexual coercion and PTSD symptoms.

Methods—Consecutive women ($n = 105$) presenting to an adult psychiatry outpatient unit of National Institute of Mental Health and Neuro Sciences in South India were recruited. These women were assessed for IPV, sexual coercion, PTSD symptoms, and depression.

Results—Fifty-nine women (56%) reported a history of IPV, of whom 41 (70%) also reported sexual coercion. Among women reporting IPV, seven (14%) exceeded cut-off scores for PTSD and twelve (20%) exceeded cut-off scores for sub-threshold PTSD. The majority of those reporting IPV exceeded cut-off scores for a depressive disorder. Compared to women without a history of IPV, women reporting IPV had higher scores on PTSD and depression. Severity of violence and sexual coercion correlated positively ($r = 0.39$) with PTSD severity.

Conclusions—The findings highlight the importance of screening women for IPV and its sequelae, in mental health settings.

Keywords

Intimate Partner Violence; Post Traumatic Stress Disorder; Depression; Women; India

Introduction

Intimate partner violence (IPV) refers to physical, sexual, or psychological harm by a current or former partner or spouse (Saltzman et al. 2002). IPV is currently better appreciated as a public health problem with numerous studies in developed countries documenting the prevalence, antecedents, and consequences of IPV.

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The lifetime *prevalence* of IPV ranged from 15% to 71%. For IPV in the past year, estimates ranged from a low of 4% in Japan to a high of 54% in Ethiopia (World Health Organization 2005). Estimates from the developing world are also now appearing. For example, studies from India consistently indicate a relatively high prevalence of IPV. Kumar et al (2005) reported that 40% of the 9938 Indian women they studied reported IPV in their marriage. Varma et al (2007) found that physical violence was reported by 14% of pregnant women in the past year, psychological abuse by 15%, and sexual coercion by 9%. One-half of these women also reported ongoing abuse during pregnancy. IPV however, is often underreported and variations across countries are likely to be influenced by culture and attitudes towards violence against women.

The *antecedents* of IPV have also been explored in a variety of studies. Many studies suggest that IPV is associated with lower socioeconomic status (e.g., Bangdiwala et al. 2004), and problem drinking by the male spouse (e.g., Jewkes et al. 2002; Jeyaseelan et al. 2004, 2007; Mc Cauley et al. 1995; Varma et al. 2007; White and Chen 2002). Few studies of the antecedents of IPV among Indian women have been reported.

The *mental health consequences* of IPV have also received research attention. Several authors have investigated the relationship between IPV and PTSD. For example, Scheffer and Renck (2008) found that 12 out of 14 women reporting IPV had symptoms of PTSD. Findings from two Spanish studies showed that women suffering from IPV ($n = 75$) had a significantly higher rate of PTSD symptomatology as compared to control women ($n = 52$). In addition, IPV severity was correlated with the intensity of PTSD symptoms, and psychological abuse was the strongest predictor of PTSD (Pico-Alfonso 2005; Pico-Alfonso et al. 2006).

Recent studies provide a more nuanced investigation of the relationship between IPV and PTSD by reporting symptoms rather than syndromal PTSD. These researchers have used the concept of partial, sub-syndromal, or sub-threshold PTSD for people who report PTSD symptoms but do not necessarily meet diagnostic criteria (Mylle and Maes 2004). Sub-threshold PTSD is of clinical relevance as it has been found to be highly prevalent, associated with impaired functioning (Grubaugh et al. 2005; Jeon et al. 2007; Marshall et al. 2001; Zlotnick et al. 2002) and a predictor of later (delayed onset) PTSD (Carty et al. 2006). However, there are inconsistencies in the definition and measurement of sub-threshold PTSD and available studies have focused on victims of motor vehicle accidents and severe burn injuries (Mylle and Maes 2004) with no studies on sub-threshold PTSD among women experiencing IPV.

Depression also seems to be a common consequence of IPV. Stein and Kennedy (2001) found that major depression was highly prevalent (68%) on a lifetime basis in a small sample ($n = 44$) of female victims of IPV. Nixon et al (2004) also found high levels of major depressive disorder (54%) in women with a history of IPV ($n = 142$). Overall, the likelihood of depression and suicidality has been reported to be 3 to 5 times greater for IPV victims compared to non-victims in the United States (Golding 1999).

Although literature from western, developed nations has documented an association between IPV and mental health (both PTSD and Depression), there has been little research on the consequences of IPV from developing countries (Vizcarra et al. 2004). As noted earlier, IPV has been documented as a significant problem in India but, even there, few studies have explored the antecedents or consequences of IPV. Of these few, none have described trauma specific symptoms. Even though some researchers have questioned the validity of the construct of PTSD in non-western cultures (e.g., Summerfield 2001; Patel 2000), recent studies suggest that PTSD is a relevant clinical construct in the Indian context (Mehta et al. 2005). However, the trauma work that has been done in India has focused on natural disasters (Chadda et al. 2007; Math et al. 2008) rather than interpersonal trauma and violence.

The present study sought to extend prior work on IPV in India, and had three objectives: (a) to describe the prevalence and the nature of PTSD symptoms in a sample of adult women reporting IPV, (b) to study the relationship between symptoms of PTSD and depression, and (c) to examine the relationship between sexual coercion and PTSD symptoms.

Methods

Participants

Consecutive women presenting to a psychiatry outpatient unit of National Institute of Mental Health and Neuro Sciences in South India were recruited (2003-2005). Women were eligible if they (a) were within the age range of 18 to 49 years, (b) could read and write English or Kannada (regional language of the state where the study was conducted) (c) could comprehend the nature of the study and provide a written informed consent, and (d) were experiencing a non-psychotic mental disorder (i.e., anxiety, somatisation, depressive, and dissociative disorders). Clinical interviews were conducted by trained psychiatrists who diagnosed the patient as per ICD-10 criteria. Women with past or current history of severe mental illness (schizophrenia, bipolar disorder, recurrent or psychotic depressive disorders or personality disorders) were excluded. (Psychiatric diagnosis was made by a consultant psychiatrist based on the ICD 10.) A final sample of 105 women met the inclusion criteria and agreed to participate.

Procedures

All procedures were approved by the institutional ethics committee at the National Institute of Mental Health and Neurosciences. Women who met the inclusion criteria were approached by a trained research assistant (RA) who was fluent in English and Kannada. The RA provided an explanation of the nature and purpose of the study, including assurance of privacy and confidentiality regarding the information disclosed. In the interest of her safety each woman was briefed about the need to maintain discretion regarding disclosure of the nature of the study to others including family members. If a woman declined participation, she was given information regarding abuse prevention. If interested, women were asked to provide written informed consent. After consenting, each woman was administered a structured questionnaire in a private cubicle.

Measures

A **structured interview** was used to collect information on socio-demographic characteristics for female patients and their spouses (i.e., age, education, employment, income per month, marital status, religious background, number of people in the household). The women were also asked about their spouse's alcohol use. Subsequently, women were asked about experiences of intimate partner violence. They were asked about the frequency of abuse; whether any injuries were sustained and, if so, the type of injury sustained; identity of the perpetrator; relationship of the perpetrator; and the woman's perception of the perceived 'reason' for the abuse.

Severity of abuse was assessed by the **Index of Spouse Abuse** (ISA; Hudson and McIntosh 1981). The ISA contains 30 items that assess verbal (e.g., "My partner screams and yells at me"), emotional ("My partner has no respect for my feelings"), sexual ("My partner demands sex whether I want it or not"), and physical ("My partner punches me with his fists") aggression. This self-report scale yields two scores (range 0 to 100) for (a) severity of physical abuse score (ISA-P) and (b) severity of non-physical abuse score (ISA-NP).

Sexual coercion was assessed using the **Sexual Experiences Scale** (SES; Koss and Oros 1982). The SES is a 10-item instrument designed to identify instances of sexual aggression

and victimization. The SES assesses coercive experiences ranging from unwanted sexual play to forced penetrative sexual acts in a progressive sequence. The SES yields a single summary score; it is internally consistent ($\alpha = 0.74$), stable, and well-validated (Koss and Gidycz 1985). The SES has been used previously with south Indian women (Chandra et al. 2003). Women were rated as positive for sexual coercion if they had endorsed items 4 to 10.

Depression was assessed using the **Beck Depression Inventory** (BDI; Beck et al. 1961). The BDI is a self-report scale that evaluates 21 symptoms of depression. Individuals indicate the severity of the symptom on a 4-point scale; summary scores range from 0 to 63, with higher scores indicating more frequent and severe depressive symptoms. Beck et al (1988) have reported internal consistency estimates of 0.86 for psychiatric patients. The BDI yields a single score; higher scores indicate more depressed affect; scores ≥ 10 are suggestive of depression (Beck et al. 1988).

Post-Traumatic Symptom Checklist (PCL; [Blanchard et al. 1996] and [Weathers et al. 1993]) was used to assess symptoms of PTSD. This widely-used and validated scale assesses the 17 main symptoms of PTSD to assess re-experiencing, avoidance, psychic numbing, and hyperarousal symptoms. Each item is rated on a 5-point scale (1 = not at all to 5 = extremely). The PCL yields a single summary score that is internally consistent. A score ≥ 44 is suggestive of PTSD (Blanchard et al. 1996).

The structured interview was completed by the RA and Violence, Sexual Coercion, Depression and PTSD were assessed using self report measures. All the self report measures were translated to Kannada using the standard procedure for translation.

Data Analyses

Frequency analysis was undertaken to rank order most commonly reported symptoms of PTSD. Frequency analysis also determined socio demographic characteristics of the sample and prevalence of IPV, sexual coercion, depression and PTSD. Women with IPV were compared with those not reporting IPV on socio-demographic variables, sexual coercion, depression, PTSD using χ^2 and t tests for independent samples. The relationship between severity of violence and PTSD, controlling for depression was inferred through partial correlation. All analyses were conducted using SPSS Version 11.0.

Results

A sample of 105 women was recruited. The average age of the sample was 36 years ($SD=9.00$), and 94% were currently married. More than two-thirds of the sample either had no education (38%) or only a primary education (39%); 56% were unemployed. Two-thirds came from a rural background. Most had at least one child (86%) and were Hindu (82%) in their religious orientation. Based on ICD-10 diagnoses, 56% were diagnosed with somatoform disorder, 31% with a depressive disorder, 3% with an anxiety disorder, and 11% with other minor psychiatric disorders.

Spouse's mean age was 43 years ($SD = 10.04$). Most spouses were poorly education (29% with no education and 39% with a primary education), but were employed (64%). Household income per month ranged from less than Rs. 1000 (approximately 25 USD) (19%) to more than Rs. 3000 (27%). Alcohol abuse was present among 45% of the spouses and in 25% it was described as harmful use.

Prevalence of IPV

Fifty-nine women (56%) reported IPV: 50 women reported both physical and psychological abuse, 8 women reported only psychological abuse, and 1 woman reported only physical abuse. Mean scores for physical abuse and psychological abuse on the ISA, were 16.90 (SD=24.98) and 23.41 (SD=28.77), respectively. Among women with IPV, 41 women (70%) also reported sexual coercion with the modal perpetrator being her spouse.

Socio-demographic and Spousal Correlates of IPV

Of the socio-demographic variables, only spouse's education, alcohol abuse in spouse and harmful alcohol use differentiated those who had experienced violence and those who had not. IPV was more likely when (a) the spouse's education was lower ($\chi^2 = 9.84, p < .007$), (b) when there was alcohol use in spouse ($\chi^2 = 14.39, p < .001$), and (c) when alcohol use was described as harmful ($\chi^2 = 11.34, p < .001$).

PTSD and Depression Symptoms among Women with IPV

Of the 59 women reporting IPV, 7 women (12%) met criteria for PTSD (PCL scores > 44). Sleep difficulties, Irritability and anger, Intrusive recollections, Impaired concentration, Emotional and physical reactions to reminders, Flashbacks and distressing dreams were the most commonly reported PTSD symptoms (see Table 1). Women with IPV reported significantly more PTSD symptoms on the PCL ($M = 28.8, SD = 15.1$) compared to women without a history of IPV ($M = 19.6, SD = 10.9$), $t(df = 103) = 3.46, p < .001$.

Of the 59 women reporting IPV, 58 (99%) women met criteria for depression (i.e., BDI score > 9); ten women (19%) reported mild depression (BDI score: 10 to 18), twenty-three women (39%) reported moderate depression (BDI score: 19 to 29), and twenty-five women (42%) reported severe depression (BDI score ≥ 30). Women with IPV reported significantly more depressive symptoms on the BDI ($M = 29.1, SD = 11.2$) than did women without a history of IPV ($M = 21.1, SD = 13.7$), $t(df = 103) = 3.30, p < .001$.

Among women with IPV, a significant positive correlation was found between PTSD and severity of (a) physical abuse ($r = 0.51$) and (b) non-physical abuse ($r = 0.65$), after controlling for depression. Severity of sexual coercion and PTSD scores were also significantly correlated ($r = 0.39$). Correlations between depression and severity of (a) physical abuse ($r = .04$) (b) non-physical abuse ($r = .15$) and (c) sexual coercion ($r = .06$) were not statistically significant. However, a significant positive correlation was observed between PCL scores and BDI scores ($r = 0.50$) indicating an association between the severity of PTSD and depression.

Discussion

These findings indicate that 56% of this sample of Indian women seeking help for common mental health problems reported at least one form of intimate partner violence. Physical abuse typically involved kicking, beating and grabbing, whereas psychological abuse usually included belittling, insult, humiliation, infidelity and neglect. The prevalence rates of IPV are similar to those reported in other studies from India (Kumar et al. 2005; World Health Organization 2005).

Mean scores on Index of Spouse Abuse further document the severity of both physical and psychological violence, and suggest that the severity of psychological IPV was relatively higher. Consistent with prior research, more than two-thirds of the women with IPV in the present sample also reported sexual coercion by their spouses (Varma et al. 2007). Women with IPV tend to have spouses with less education and problem drinking, corroborating prior

findings (Jewkes et al. 2002; McCauley et al. 1995; Varma et al. 2007; White and Chen 2002). In addition, social factors, such as, poverty, lower levels of education and employment seemed to contribute and maintain victimization among these women. The women in the present study were in their mid-thirties. They had lower levels of education and over half the sample were unemployed. Thus, indicating an association between lower socioeconomic status and IPV (Viczarra et al. 2004; Bangdiwala et al. 2004).

Almost all women experiencing IPV exceeded cut-scores for depression on the BDI and a majority rated their symptoms as moderate or severe. Although most women with IPV reported PTSD symptoms, only 14% met criteria for PTSD on PCL. Several studies have found that women with IPV have mental health sequelae usually in the form of depression and PTSD (Lipsky et al. 2005; Nixon et al. 2004; Pico-Alfonso 2005; Pico-Alfonso et al. 2006; Scheffer and Renck 2008). That relatively few women meet criteria for syndromal PTSD, although a significant number report PTSD symptoms indicates that subthreshold PTSD is perhaps more common but no less incapacitating than syndromal PTSD, and women with subthreshold PTSD also seek and require professional help (Marshall et al. 2001; Grubaugh et al. 2005; Zlotnick et al. 2002).

Frequency analysis of all the PTSD symptoms rated from moderate to severe was undertaken to identify most frequently cited post traumatic symptoms by women with IPV. Findings indicated that sleep difficulties, irritability and anger, intrusive recollections, impaired concentration, emotional and physical reactions to reminders, flashbacks and distressing dreams are most commonly reported. An examination of the frequently reported symptoms indicates that while some symptoms are specific to PTSD, others are more common to psychiatric disorders in general. Both Western and Indian studies have found hyperarousal, re-experiencing and avoidance to be common (Krause et al. 2006; Mehta et al. 2005). Very few studies have examined post traumatic symptoms among women with IPV. Data such as those provided herein help to improve understanding of the relationship between IPV and PTSD, and to facilitate the design of gender- and culturally-sensitive interventions for women with IPV.

Previous studies have found that women with IPV (relative to women without IPV) reported greater severity of both depression and PTSD (Pico-Alfonso 2005; Pico-Alfonso et al. 2006). As the severity of both physical and psychological forms of IPV increases, the severity of PTSD symptoms also increases, even after controlling for depression. Women reporting sexual coercion tended to report greater post traumatic symptoms (Bennice et al. 2003; Houry et al. 2006; Pico-Alfonso 2005). Correlations between depression, and severity of physical and psychological abuse and sexual coercion were not statistically significant. This may be due to low scores on the physical and psychological abuse subscales, which is indicative of under-reporting. The moderately positive correlation found between PCL and BDI among women experiencing IPV suggests that the two measures may be measuring a common phenomenon. This explains the consistent finding in literature that depression and PTSD often co-occur in the context of IPV (Avdibegović and Sinanović 2006; Stein and Kennedy 2001). A woman scoring higher on the PTSD measure is also likely to score high on the depression scale as well.

Although it is clear that any form of violence has mental health repercussions, we know little about the pathways that lead to adverse health outcomes. Research concerning the psychological, biological, neurological, behavioral, and physiological alterations following exposure to IPV (many of which are associated with PTSD) represents a promising area of empirical discovery (Dutton et al. 2006). Few studies have examined whether different types of violence (physical, psychological, sexual) have different psychiatric manifestations or whether a specific form of IPV leads to specific PTSD symptomatology. Cognitive and affective symptoms of PTSD may be more common in psychological IPV, whereas

hyperarousal symptoms may be greater in physical and sexual IPV. Risk factors for developing complex PTSD and cultural variations in the clinical presentation of PTSD merits further research.

Conclusion

A significant number of Indian women seeking psychiatric services reported IPV. This underscores the importance of screening for IPV in mental health settings. A majority of women with IPV reported depression and some of these women also met criteria for syndromal PTSD. An even larger number of women experienced sub-threshold levels of PTSD, and deserve research attention and clinical care. Existing literature and the findings of the present study highlight the clinical relevance of sub-threshold PTSD. Further, clinical implications also include a careful assessment of PTSD symptoms in women who present with violence. Because anxiety or depression is often the presenting feature; PTSD symptoms are often missed and may contribute to chronicity and poor response. Also women who undergo IPV need special psychotherapeutic inputs and mental health settings should consider having special interventions with a multidisciplinary team to reduce the impact of violence and prevent it from worsening. Working with the spouse and children of these women is also important.

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Table 1

PTSD symptoms rated moderate to severe by women with IPV (N=59)

Rank Order	Item	Frequency	Percentage
1	Sleep Difficulty	32	54%
2	Irritability/Anger	27	46%
3	Intrusive recollections	18	31%
4	Impaired concentration	17	29%
5	Upset by reminders	15	25%
6	Physical reactions to reminders	14	24%
7	Flashbacks	13	22%
8	Distressing dreams	12	20%
9	Exaggerated startle	8	14%
10	Hypervigilance	7	13%
10	Foreshortened future	7	13%
11	Estrangement from others	6	11%
11	Psychic numbing	6	11%
11	Avoid reminders	6	11%
11	Psychogenic amnesia	6	11%
12	Avoid thoughts	4	7%
12	Anhedonia	3	5%