Original Article

Reciprocate and nonreciprocate spousal violence: A cross-sectional study in Haryana, India

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Abstract

Background: Prevention of intimate partner violence is an important public health goal owing to its negative psychological and physical health consequence. **Objectives:** Estimate the prevalence of reciprocate and nonreciprocate violence, severity of injuries, and related risk factors. **Materials and Methods:** The present study was a community-based cross-sectional study using multistage random sampling in which a total of 880 currently married women in the age group 15–49 years were interviewed using modified conflict tactics scale. Logistic regression was used to identify factors associated with both the types of domestic violence. **Results:** Total prevalence for spousal violence was 33.2% (283), out of which 14.84% (42) were reciprocally violent. Alcoholic husband [Adjusted Odds Ratio (AOR): 3.262, $P = 0.001$], late year of marriage (>2 years) [AOR: 0.359, $P = 0.001$], low education of the participants [AOR: 1.443, $P = 0.033$], and low socioeconomic class [AOR: 0.562, $P = 0.004$] are the risk factors for nonreciprocate domestic violence. Alcoholic husband [AOR: 4.372, $P = 0.001$] and nuclear family [AOR: 3.115, $P = 0.001$] were found as significant risk factors for reciprocate domestic violence. Women indulging in reciprocate violence were associated with more severe injuries than nonreciprocate violence. **Conclusion:** This study depicts that every third female has experienced spousal violence and also highlights the existence of reciprocate violence in India. Alcoholism, low education of husbands, and living in nuclear family are the important determinants for reciprocate violence. Also, reciprocate violence is associated with severe injuries.

Keywords: Injuries, intimate partner violence, nonreciprocate domestic violence, reciprocate domestic violence, risk factors, spouse violence

Introduction

Intimate partner violence (IPV) is a major public health problem because of its high prevalence and immediate and long-term physical and psychological consequences. According to National Family Health Survey-4 (NFHS-4), prevalence of ever-experienced physical, sexual, or emotional spousal violence in India and Haryana is 33 and 34%, respectively.[1] IPV is associated with a number of negative psychological and physical health consequences, including posttraumatic stress disorder, depression, physical injury, reproductive health problems, irritable bowel syndrome, and chronic pain.[2-4] The first point of contact to detect and help victims of spousal violence is physicians at primary healthcare level. In patients at primary care level, the prevalence of domestic violence has been documented to be 18%.[5]

Much national and regional research conducted have documented the prevalence and risk factors of IPV.[1,6] But, for the prevention of spousal violence it is also very important to recognize whether perpetration of spousal violence is reciprocate or nonreciprocate. Almost no data are available for reciprocal violence even though in reciprocate violence chances of injuries, violence, and its severity are higher than in nonreciprocate violence.[7]

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So, the present study was conducted to know the prevalence of reciprocate and nonreciprocate violence, severity of injuries, and related risk factors.

Materials and Methods

The study was completed over a period of 2 years (January 2011 to December 2012). Ethics clearance was taken from the Institutional Ethics Committee.

Study population

This was a community-based cross-sectional study. The rural and urban household was taken as study unit. All the study participants were married women, aged 15–49 years. We have taken only women because women are at high risk of violence and also suffer exacerbated consequences as compared with men, especially in reproductive age.[8,9]

Sample size

The sample size was calculated by taking the prevalence (p) of spousal violence in married women to be 28% in Haryana, design effect 1.5, and relative precision (d) 13% at 95% confidence level.[5] By applying formula $n = 1.5\times (z)^2 p(1-p)/d^2$, sample size was calculated to be 877. Taking 10% nonresponse rate, final sample size comes out to be 965. Considering population proportion sampling for rural and urban areas (70:30), 674 females from rural and 291 from urban area were considered for the study.

Study sample

A list of blocks/community health centers (CHCs) and villages of Haryana was obtained from deputy civil surgeons office. The inclusion criteria were: (a) married women of age 15–49 years and (b) permanent resident of the area after marriage; and the exclusion criteria were: (a) who refused to give consent and (b) could not be contacted on three consecutive visits to their households.

We used random sampling at every level. Both rural and urban areas of Rohtak were taken. One CHC was randomly selected out of five CHCs. Among the selected CHCs, seven villages were randomly selected. Out of eight urban health centers, three randomly selected centers formed the urban study area. From each selected village/urban health centers, 100 households were selected. For keeping the information confidential, in case of two or more eligible married women, the youngest married woman was interviewed. Informed written consent was taken from all the participants.

All interviews were done face-to-face by the primary investigator. In the entire survey, privacy was maintained. Great care was taken to establish rapport with the participants before interview by telling them the purpose of the study, taking only one member from one household, and assuring them the full confidentiality of their responses.

Study tools

We used a standardized pre-tested, semi-structured questionnaire. The questionnaire contains seven items for measuring physical violence, two items for sexual violence, and three items for emotional violence and also had key sociodemographic variables. If answer to any item of violence was "yes" at any time after marriage, then it is considered as spousal violence.

Physical, sexual, emotional violence was measured by using NFHS-3 domestic violence questionnaire, which is based on modified Conflict Tactics Scale (CTS).[5] CTS has excellent ($\alpha = 0.86$) internal consistency, reliability, high sensitivity, and construct validity for measuring spousal violence.[10] Socioeconomic status was calculated by using Uday Pareek scale for rural area and by modified Kuppuswami scale for urban area.[11,12]

In the present study, the terms reciprocal and nonreciprocal indicate that spousal violence is perpetrated by both partners (reciprocal) or one partner only (nonreciprocal) after marriage. However, reciprocate violence does not indicate that the type of violence (physical, sexual, and emotional), its severity, and frequency are the same between both spouses.

To determine the prevalence of reciprocate and nonreciprocate violence, first the partners were assessed for the presence or absence of spousal violence. Second, those with spousal violence present were further assessed for the presence of reciprocate violence. Injuries were divided into three categories: (1) cuts, bruises, or aches; (2) eye injuries, sprains, dislocations, and burns; and (3) deep wounds, broken bones, broken teeth, or any other serious injury. Categories 2 and 3 were taken as severe injuries.

Statistical analysis

The data obtained were analyzed by IBM SPSS for Windows version 20 (IBM Corp., Armonk, NY, USA). Prevalence of reciprocate and nonreciprocate violence was calculated. Chi-square test was applied and crude odds ratios with 95% confidence intervals were calculated to find association between the various variables and violence. Factors that were found to be statistically significant (P-value < 0.05) were entered into binary logistic regression analysis to find the determinants of IPV and adjusted odds ratios were also obtained.

Results

Out of selected 965 women, 880 females (631 from rural and 249 from urban) were contacted and interviewed. In 45 women, privacy could not be maintained and 40 women could not be contacted. The mean age of the females was 32.21 ± 7.58 years and husbands was 36.31 ± 6.97 years. The minimum age of the females was 16 years and maximum age was 49 years. Out of 880 women, 341 (38.75%) women were either illiterate or had received primary education. In comparison to women, 558 (63.5%) husbands had studied till high school or above. The

main occupation of the husband (238, 27.04%) was laborer or engaged in caste occupation.

The total prevalence for spousal violence was 283 (33.2%), out of which 42 (14.84%) were reciprocally violent. In nonreciprocal violent relationships, only women were the victim.

In binary logistic regression [Table 1], among all sociodemographic factors, nonreciprocate domestic violence experience was associated with alcoholic husband ($P = 0.001$), more than 2 years duration of marriage ($P = 0.001$), less education of the participant ($P = 0.033$), and low socioeconomic class ($P = 0.004$).

Reciprocate domestic violence was found to be associated with alcoholic husband ($P = 0.001$), nuclear family ($P = 0.003$), and less education of the husband ($P = 0.033$) [Table 2].

Table 3 shows that in reciprocate violence chances of suffering women from severe injuries are significantly more than nonreciprocate violence (only women suffered from injuries during violence). In the present study, 46 (20%) of the study

Table 1: Correlates of nonreciprocate domestic violence among currently married women (*n*=880)

Characteristics	Number	Number with nonreciprocate domestic violence	Unadjusted odds ratio	Adjusted odds ratio	*P*
Alcohol					
Alcoholic	246	115 (46.7%)	3.539 (2.577-4.862)	3.262 (2.336-4.556)	0.001
Nonalcoholic	634	126 (19.9%)	Reference		
occupation of husband					
Laborer/caste occupation	238	89 (37.4%)	1.926 (1.399-2.650)	1.337 (0.940-1.901)	0.106
Other occupation	642	152 (23.7%)	Reference		
Total children					
<5	628	160 (25.5%)	0.722 (0.524-0.993)	1.093 (0.762-1.567)	0.629
>5	252	81 (32.1)	Reference		
Native place of women					
Haryana	721	188 (26.1%)	0.705 (0.488-1.021)	0.599 (0.401-0.895)	0.102
Out of Haryana	159	53 (33.3%)	Reference		
Duration of marriage					
<2 years	118	14 (11.9%)	0.317 (0.178-0.566)	0.359 (0.195-0.662)	0.001
>2 years	762	227 (29.8%)	Reference		
Education of wife					
Primary or lesser	341	115 (33.7%)	1.668 (1.235-2.252)	1.443 (1.030-2.020)	0.033
More than primary education	339	126 (23.4%)	Reference		
Occupation of wife					
Not working	478	148 (31.07%)	1.490 (1.101-2.016)	1.265 (0.883-1.814)	0.200
Working	402	93 (23.1%)	Reference		
Socioeconomic class					
Classes 1 and 2	334	60 (18.01)	0.442 (0.317-0.615	0.562 (0.762-1.567)	0.004
Classes 3-5	546	181 (33.2%)	Reference		

Table 2: Correlates of reciprocate domestic violence among currently married women (*n*=880)

Characteristics	Number	Number with reciprocate domestic violence	Unadjusted odds ratio	Adjusted odds ratio	*P*
Alcohol					
Alcoholic	246	26 (10.6%)	4.565 (2.403-8.670)	4.372 (2.237-8.544)	0.001
Nonalcoholic	634	16 (2.5%)	Reference		
Occupation of husband					
Laborer/caste occupation	238	21 (8.8%)	2.862 (1.533-5.343)	1.710 (0.871-3.356)	0.119
Other occupation	642	21 (3.3%)	Reference		
Total children					
<5	628	24 (3.8%)	0.517 (0.275-0.969)	1.093 (0.762-1.567)	0.629
>5	252	18 (7.1%)	Reference		
Type of family					
Nuclear	377	25 (6.6%)	2.030 (1.080-3.817)	3.115 (1.464-6.627)	0.003
Joint	503	17 (3.4%)	Reference		
Education of husband					
Less than primary	112	13 (11.6%)	3.337 (1.679-6.633)	1.443 (1.030-2.020)	0.033
At least primary education	766	29 (3.8%)	Reference		

Table 3: Severity to injuries in relation to type of violence (*n*=283)*

Severity of injuries	Reciprocate violence	Nonreciprocate	*P* value
Severe	36 (85.71)	60 (24.90)	χ^2=59.0207, df=1, *P*<0.001
Nonsevere	6 (14.29)	181 (75.10)	
Total	42 (100)	241 (100)	

*The values in parentheses indicate percentage

subjects had visited a doctor for their injuries, and this included all the subjects with reciprocate violence.

Discussion

The present study shows that reciprocal violence was not as common as nonreciprocal violence in India. Owing to the dearth of studies regarding reciprocate and nonreciprocate IPV, we have limited studies for our discussion. Norris *et al.* (northern Tanzania) found lesser prevalence (11%) of reciprocate violence than the present study (14.84%). The difference was because Norris considered only physical violence and the participants were male, but the present study was conducted among females and three types of violence were considered.[13]

Whitaker *et al.* analyzed the data on young US adults (*n* = 11,370) aged 18–28 years and found prevalence of IPV was 24%, out of which half (49.7%) were reciprocally violent.[7] In nonreciprocally violent relationships, women were the perpetrators in more than 70% of the cases.[7] But in the present study spousal violence was higher (33.2%), out of which only 14.84% were reciprocally violent. In nonreciprocally violent relationships, women were the victims in all cases. This difference might be due to the culture difference and also because Indian women are more dependent on men than Western countries. Reciprocal IPV would be more serious than nonreciprocal IPV because reciprocal IPV would indicate that both partners are engaging in the escalation of conflict.

In the present study, lesser education of the participants as well as of husbands was found to be a risk factor for nonreciprocate and reciprocate violence, respectively. Our results are similar to NFHS-4 (2015–2016), Kamat *et al.* (Goa, 2008–2009), George *et al.* (Puducherry; South India, 2015), and Singh and Shukla (NFHS-3).[1,14-16] This might be because education can change the way of thinking. Alcoholic husband was a risk factor in both types of domestic violence. This finding is also supported by Kamat *et al.*, Mahapatro *et al.* (six zones of India), Chibber *et al.* (Mysore city, 2005–2006), and Hamel (US, Canada, and the UK; 2012), who also found that alcohol was a risk factor for domestic violence.[14,17-19] This could be because alcohol impairs judgment, increases disinhibition, paranoia, and aggression, which ultimately leads to the perpetration of domestic violence.

Late year of marriage (>2 years) and low socioeconomic class were found to be significant risk factors for nonreciprocate violence. Our results are consistent with Kamat *et al.* and Saffari *et al.*, respectively.[14,20] For reciprocate violence, nuclear family was the risk factor. The likely cause of this is that in India, joint family acts as a buffer in situations of social stress such as unemployment, etc. The present study shows that chances of suffering from severe injuries are significantly more in reciprocate violence than nonreciprocate violence. Our results are consistent with Whitaker *et al.* and Norris *et al.*[7,13] This can be explained by the fact that in reciprocate violence, the heat of aggression and arguments are greater because both partners are actively involved and the conflict escalates even further.

In the present study, 46 (20%) of the study subjects had visited a doctor for their injuries (details of injuries and characteristics of violence are discussed elsewhere).[21] Gucek *et al.* also reported similar results.[5] This depicts that women who experience partner violence are likely to seek health services, and there is an opportunity to address/detect the problem at primary health care level. Awareness about social and legal options will enhance the physicians' ability to help victims of domestic violence. Good communication skills will help tremendously to establish good rapport with domestic violence victims. Presence of pamphlets pertaining to domestic violence in waiting areas will enhance revelation/divulgence of abuse.

Conclusion

This study depicts that every third female has experienced spousal violence and also highlights the existence of reciprocate violence in India. Alcoholism, low education of husbands, and living in nuclear family are the important determinants for reciprocate violence. Also, reciprocate violence is associated with severe injuries.

Recommendations

To combat IPV a multifaceted approach is needed. Primary health care (including physicians, psychologists, multipurpose health workers, Accredited Social Health Activist (ASHA's)) can play an important role by routine screening, counseling, and enhancing awareness regarding this issue. The newly established health and wellness centers also provide a unique opportunity to address this problem. Education (particularly at school level) to enhance mutual respect among spouses can address this problem at its roots. The family can also help by resolving the conflict at the earliest stage taking in view the rights of both spouses.

Limitations

Although CTS is a reliable tool for measuring IPV, but chances of recall bias and underreporting by participants cannot be ruled out.

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Conflicts of interest

There are no conflicts of interest.

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