

Gender-based Violence in an Indian Resettlement Colony Threatened with Re- eviction

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ABSTRACT

Introduction: Od tribals who migrated to India during the Indo-Pakistan partition of 1947 were resettled by the Government of India in 1987 in the Bhatti Mines area near Delhi, India. However, in 1991, the area was declared a wildlife sanctuary, and the tribals were threatened with eviction a second time. We studied gender-based violence (GBV) in this community subjected to repeated displacement. **Materials and Methods:** A systematic randomized sample of 200 households was studied. The revised Conflict Tactics Scale (CTS2) questionnaire was used to identify victims of GBV. Correlation with age at marriage, education, household income, deprivation score, and alcoholism were investigated. **Results:** About 33% of women were married before the legal age for marriage – some as young as 10 years. Approximately 26% of households were multidimensionally deprived. About 50% of women reported GBV and 44% reported GBV in the preceding year. Low income and alcohol abuse were independently related to GBV. We did not find an association with underage marriage or the education of the partners. **Discussion:** GBV in the area far exceeded the national average of 30%. The relationship we found between GBV with poverty and alcoholism has been reported in studies from different parts of the world. It may be speculated that the increased GBV in this area could be the result of the hopelessness induced by repeated involuntary displacement suffered by this community. Methods to tackle the menace of GBV, even in the adverse circumstances of this community, are discussed.

KEYWORDS: *Bhatti Mines, gender-based violence, resettlement colony, urban health*

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INTRODUCTION

Gender-based violence (GBV) in India usually refers to violence against women by their intimate partners. The Demographic and Health Surveys (DHS) 2009 in India defined GBV as the physical mistreatment of women above 15 by husbands, ex-husbands, or boyfriends.^[1] The World Health Organization (WHO) employs a more expansive definition of intimate partner violence (IPV) which encompasses all “behavior within an intimate relationship that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours.”^[2]

GBV is arguably the most pervasive form of violence. One in three women worldwide experiences some kind of physical or sexual violence.^[3] Such violence

has deleterious effects on the whole family. It can result in serious physical, sexual, and mental health problems, including depression, post-traumatic stress disorder (PTSD), and substance abuse in women victims.^[4,5] The witnessing of family violence by children increases the chance that they would themselves be violent as adults.^[6,7] Even in the absence of physical violence, psychological, intimate partner violence causes severe harm.


GBV is also one of the least reported human rights abuses.^[8] In a study, about 42% of men and 52% of

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women consider husbands justified in beating their wives, and only less than 1% reported complaining to the police.^[9] The most common reasons given for non-reporting were embarrassment and a feeling that there was no use in reporting. Many victims have come to believe that violence is a normal part of the life of women.^[10] There is also a fear that reporting violence may provoke more violence.^[11] Given the stigma and fear evoked by GBV, extreme sensitivity, and ingenuity are called for to be able to ascertain the real magnitude of the problem.

In this study, we seek to ascertain the prevalence of GBV using an intimate partner Conflict Tactics Scales (CTS2), which is an internationally validated scale framed as an inquiry about spousal conflict-resolution techniques and which does not appear accusatory. According to the developers of this tool, the order of the questions relating to different types of conflict resolution is deliberately interspersed to reduce response sets.^[12] To the best of our knowledge, it has not been used previously in the community setting in India, and we wish to examine if it could improve the reporting of GBV.

We did this study in an urban resettlement colony in Delhi, India, to look at whether education, unemployment, alcoholism, and poverty are correlates of GBV. We also examined the age of the partners and whether age at marriage was related to GBV. These are some of the prominent correlates noted by others.^[2] As self-reporting of alcoholism may not be accurate, we rely on responses of the spouse using the CAGE questionnaire.^[13] We identify poverty using the United Nations Development Programme (UNDP)'s global Multidimensional Poverty Index (MPI).^[14]

To the best of our knowledge, this is the first time these innovative tools are used in this combination to evaluate this serious sociological malady.

Distinctiveness of the population studied

We did this study in the Bhatti Mines area on the outskirts of Delhi. The population we studied has many distinct characteristics. The pioneer settlers of the Bhatti Mines area are Od tribals – a nomadic group. During the partition of India and Pakistan in 1947, the Ods from Pakistan migrated to India in large numbers. They are considered indigenous civil engineers, hereditary diggers, and earth masons who build ponds, embankments, and canals. The residents were considered bona fide villagers, and they elected their representatives for the Bhatti village panchayat. They received ration cards in 1983.^[15] In 1987, some 4000 families were provided housing plots by the government – the property titles to 110 sq. m of land in the area.^[15] They built houses here at their own expense. The area had two schools,

a veterinary hospital run by the government, and an ayurvedic hospital. There were asphalted roads, regular bus services, a police post, and a community hall. However, in 1991, the government changed plans, and the area was declared a wildlife sanctuary.^[15] The State's support for infrastructure development for the community was stopped. The local borewells are now contaminated with sewage.^[16] Monkeys in New Delhi were captured and transported here^[17] and the residents were treated as encroachers under the Wildlife (Protection) Act of 1972. The migrant residents are threatened with eviction and demolition of their houses.^[15] At the same time, it is planned to develop the area as a tourist spot.^[18]

This makes the situation of these residents unique, where they are threatened with forceful displacement a second time, in this instance, being ejected from the property in which they had been rehabilitated by the government.

MATERIALS AND METHODS

The study was done between April 18 and June 17, 2022, in Bhagirath Nagar, of the Bhatti Mines area, Chhatarpur, Delhi. It covers an area of about 145 acres where red stones and sand were quarried from 1965 up to 1990. Four thousand five hundred migrant families displaced from Pakistan during the 1947 partition were resettled here in 1976. The village is made up of some 4,000 households and 25,000 people.^[15]

Women aged between 18–49 years who were ever married and willing to participate in the study were recruited.

Sample size

The MedCalc statistical package (MedCalc Statistical software version 14.8.1 (MedCalc Software bvba, Ostend Belgium: <http://www.medcalc.org>: 2014)) was used to determine the sample size needed to achieve a correlation coefficient of 0.2 with a Type 1 error of 0.05 and a Type 2 error of 0.2 (Power 80%). It was estimated that we would need at least 193 respondents. We aimed to study a sample of 200.

Sampling method

Systematic randomized sampling was done. To study 200 households in a cluster of 4000 houses, we included every 20th house. In case the house was found empty, or consent was denied, the house immediately next in the same direction was studied.

Study tools

Gender violence was identified by administering the revised CTS2.^[19] It has been used extensively as a tool to identify and measure GBV in different populations and across cultures.^[20] This instrument has been used previously in India among college students.^[21]

The questions of relevance are shown in the Box 1. Responses to any response from 1 to 7 were considered as reporting GBV, and responses from 1 to 6 were indicative of GBV in the preceding year.

The 4-item CAGE (family member report) was used to screen for alcoholism.^[13] Drinking first thing in the morning was used as the index of severe alcoholism as recommended by the authors (positive response to the eye-opener question in CAGE). The global MPI was used to measure deprivation.^[22]

Statistical analysis

The data was recorded in the Excel sheet. The data was then analyzed using IBM Statistical Package for the Social Sciences (SPSS) Version 22 for Windows (IBM Corporate, Armonk, New York, USA) after data cleaning was done. Median, range, and interquartile range are reported for nonparametric data.

A Chi-square test was performed to test associations between GBV and categorical variables: education of more than 6 years, women with an independent

source of income, alcoholism, and severe alcoholism on the CAGE questionnaire. A value of $P < 0.05$ was considered statistically significant.

MedCalc receiver operating characteristics (ROC) curves were used to examine continuous variables like family income, age, age at marriage, and a multidimensional index of deprivation. In the area under the curve (AUC), the criteria with optimal discrimination, the 95% confidence interval (CI), and P values are reported. The ROC curve of factors with significant correlation is presented.

Ethical considerations

The study was approved by the Institutional Ethics Review Board (IERB), IIMR Delhi, and all respondents provided written informed consent. We restricted our inquiry to women over 18 who could give ethical consent for participation.

RESULTS

Sociodemographic data

Data from 202 households was collected. The population characteristics are shown in Table 1.

The median age of respondents was 32 years (IQR 26–36), and that of their partners was 35 years (IQR 30–40). The mean age of women at marriage was 18 (IQR 16–20), and for men, it was 21.5 (IQR 19–23).

Around 32.5% of women were under the legal age of marriage of 18 years for women when they were married (IQR 13–16), and 42.1% of men were under the legal age of 21 at marriage (IQR 17–20).

Around 70% of respondent women and 45% of their husbands had less than 6 years of education.

Around 20.2% of families had a monthly income of less than Rs. 7400 per month, employing the \$3.1 threshold used for India.^[23] As households studied have at least

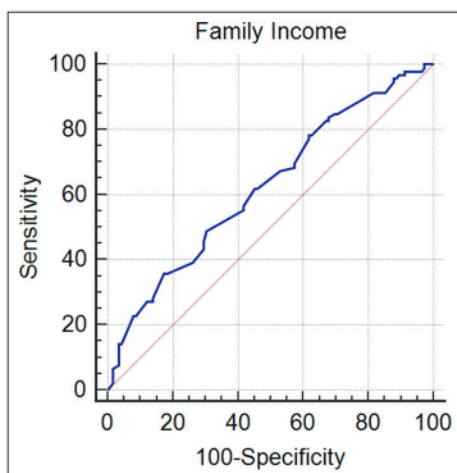


Figure 1: ROC of GBV and Family income. *Abbreviations:* ROC = receiver operating characteristics, GBV = gender-based violence

Box 1: Conflict Tactics Scale (CTS2) – Questions of relevance

CTS Q. No.	Question	Violence Type			
		GBV	Severe Physical	Psychol.	Sexual
4	My partner insulted or swore or shouted or yelled at me	✓		✓	
5	I had a sprain, bruise, or small cut, or felt pain the next day because of a fight with my partner	✓	✓		
10	My partner pushed, shoved, or slapped me	✓	✓		
12	My partner punched or kicked or beat-me-up	✓	✓		
14	My partner destroyed something belonging to me or threatened to hit me	✓	✓		
15	I went see a doctor (M.D.) or needed to see a doctor because of a fight with my partner	✓	✓		
18	My partner used force (like hitting, holding down, or using a weapon) to make me have sex	✓	✓		✓
20	My partner insisted on sex when I did not want to or insisted on sex without a condom (but did not use physical force)	✓		✓	✓

GBV=gender-based violence, Q. No.= Question number, M.D.=Doctor of Medicine

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Table 1: Population characteristics

	Respondent	Partner
Age	31.64 (32) [19–49] {26–36}	35.3 (35) [19–60] {30–40}
Mean (Median) [Range] {IQR}		
Age At Marriage	18 (18) [10–28] {16–20}	21.5 (21) [12–39] {19–23}
Mean (Median) [Range] {IQR}		
Underage Marriage	Underage marriage Women <18 Years	Underage marriage Men <21 Years
Number/ % (Median Age) [Range] {IQR}	68/32.5% (15) [10–17] {13–16}	88/42.1% (19) [12–21] {17–20}
Education <6 Years	133/69.7% {Missing data (n)=9}	93/44.7% {Missing data (n)=2}
Numbers (%) {Missing data (n) }		
Family Income in Indian Rupees	11,536.47 (11,000) [0 to 45,000] {7,500 to 14,050}	
Mean (Median) [Range] {IQR}		
Family Income<Rs. 7400 Per Month	42 (20.2%)	
Numbers (%)		
Women With Some Independent Source of Income	46 (22.1%)	
Numbers (%)		
Multidimensional Poverty		
1. Intensity of poverty	0.243	
2. Individual indicators		
a) (Uncensored raw headcount)	201	
b) (Uncensored raw headcount ratio)	67%	
3. Multidimensional poverty index	0.0639	
4. Multidimensionally deprived censored headcount ratio	26.3%	
Partner Alcoholism in Last Year		
1. Spouse reported alcoholism (CAGE questionnaire) Number (%)	58 (28.7%)	
2. Severe alcoholism Number (%)	31 (14.9%)	
Gender Based Violence (Lifetime)		
1. Any GBV Number (%)	103 (50%)	
2. Severe GBV Number (%)	64 (36%)	
3. Sexual GBV Number (%)	21 (10%)	
4. Psychological violence Number (%)	103 (50%)	
Gender-Based Violence in Last Year		
1. GBV Number (%)	92 (44%)	
2. Severe physical GBV Number (%)	59 (28.4%)	
3. Sexual GBV. Number (%)	12 (5.8%)	
4. Psychological violence Number (%)	92 (44%)	

GBV=gender-based violence, IQR=interquartile range

two members, this threshold works out to \$1.5 per person/day or less.

Around 67% of the population did not meet the minimum internationally agreed standards in indicators of basic functioning, such as being well-nourished, being educated, and drinking clean water. 26.3% of the population experienced multiple deprivations, and the intensity of the deprivation (defined as the average proportion of (weighted) deprivations they experience) was 0.0639 using the MPI.

Around 29% of women reported alcoholism in their partner on the CAGE questionnaire, and 15% reported severe alcoholism (drinking from the start of the day).

Prevalence of GBV

Around 50% of the respondents had suffered GBV, and 36% were subjected to severe physical violence. 50% reported psychological violence, and 10% were victims of sexual violence.

Around 44% of the respondents had experienced GBV in the preceding year, 28.4% suffered severe physical violence, 44% were subject to psychological violence, and 5.8% to sexual violence.

Tables 2 and 3 describe the correlates of GBV.

An ROC curve showed that GBV was not related to the age of the partners nor their age at marriage. Family

Table 2: Correlation of GBV with factors presenting as categorical variables

		GBV	No GBV	Chi-square (P)
Respondent Education	Education <6 Years	59	65	2.60
	Education >6 Years	21	39	(P=0.1)
Partner Education	Education <6 Years	47	46	2.75
	Education >6 Years	42	66	(P=0.97)
Women Independent Income	independent income	23	23	0.88
	No independent income	68	93	(P=0.35)
Partner Alcoholism	Alcoholism	50	9	55.71
	No Alcoholism	41	107	(P<0.00001)
Severe Alcoholism	Severe Alcoholism	29	3	33.45
	No Severe Alcoholism	62	113	(P<0.00001)

GBV=gender-based violence

income lower than Rs. 7500 was related to GBV in the preceding year. [Figure 1] GBV was strongly related to alcoholism, and it was more with severe alcoholism, where 91% were perpetrators of GBV.

GBV was not found to be related to the age of the couple or their age at marriage. It was not related to the multidimensional deprivation (MDI). It was not found to be related to women having an independent source of income.

Multiple regression in our study found that both low income and alcoholism were independently associated with GBV.

DISCUSSION

We found the prevalence of GBV was 50% using the CTS2 questionnaire, which is substantially higher than the National Family Health Survey (NFHS-5) data, which revealed that around 30% of women in India were exposed to GBV. The higher prevalence we found may be attributed at least partially to the fact that the CTS2 tool is useful for getting women to report spousal violence.

For accuracy of recall, we were keen to study current violence, and correlates were studied by looking at violence in the preceding year. 44% of women reported GBV in the preceding year. COVID-19 restrictions of 2020-22 were in place during the year studied. The UNDP has reported that the social and economic turmoil resulting from the pandemic and the lockdowns have resulted in social isolation and an increase in GBV. Women have been locked down with their abusers and bereft of normal support services during this period.^[23] In the absence of historical data from the area, we cannot speculate what the baseline rate of GBV in the area was before the pandemic.

GBV was related strongly to alcoholism, but we found more GBV in households with lower family income. It was not found to be related to the age of the partners, age at marriage, or education.

Table 3: Correlation of GBV with factors presenting as continuous variables

	AUC	95% CI	P
Respondent Age	0.51	0.44–0.58	0.80
Criteria >33			
Partner Age	0.51	0.44–0.58	0.80
Criteria >36			
Respondent Age at Marriage	0.50	0.43–0.57	0.98
Criteria ≤17			
Partner Age at Marriage	0.54	0.46–0.60	0.39
Criteria ≤22			
Family Income	0.62	0.55–0.69	0.0015
Criteria ≤7500			
MDI	0.58	0.43–0.72	0.38
Criteria >0.39			

GBV=gender-based violence, AUC=area under the curve, CI=confidence interval, MDI=multidimensional deprivation

The trauma of displacement and its effect on refugees has been documented.^[24] An investigation done among migrant villagers in the capital city of Delhi has shown that families who were provided housing plots under what appears like a lottery system did vastly better by way of social development than kindred left behind in urban slums next door.^[25] The authors comment that being provided housing plots helped lift the migrants out of a cycle of slum dwelling, low self-esteem, low expectations of their children, low school attendance, lower intelligence quotient (IQ), and perpetuation of poverty into the next generation. The social security afforded to migrants by the distribution of housing property was an empowerment tool and could be a significant step in ameliorating poverty and deprivation. In stark contrast, the insecurities evoked by the serial evictions of people living in the Bhatti Mines area and the impact this has on family cohesion, gender relationships, interpersonal interactions, and conflicts are difficult to scientifically anticipate. It could have contributed to the high level of gender violence recorded

in our investigation. There are perhaps few parallels in our country where displaced persons allocated government land are threatened with eviction a second time.^[26-28] This unique situation makes it difficult to compare with other populations similarly affected, and we can only speculate that it can have had a bearing on the increased incidence of GBV seen in the population.

Sexism in the study

In this investigation, we studied women as victims of GBV but not as perpetrators. Esquivel-Santoveña and colleagues have shown that in countries where there is patriarchy and inequality between the sexes with a low gender empowerment measure (GEM) score, like Uganda, there is higher female victimization. Where there is more gender equality, as in the US, there were as many female aggressors as victims. In all countries, however, it is women who suffer more serious injuries from partner violence.^[28] India is ranked 134 by the UNDP in the GEM rating.^[28] India's GEM score was 0.497 in 2006.^[28] In this context, we specifically set out to document violence against women.

Age of marriage

It is illegal in India for girls under 18 and boys under 21 to be married under the Prohibition of Child Marriage Act 2006.^[29] However, our study found that 32.5% of the women we surveyed were married before the legal age of marriage, with some as young as 10 years. The NFHS-5 2019–21 data shows that 23% of women have married before 18 years of age.^[1] 42% of men were married before the legal age of 21 years. The law has been of little avail in curbing this widespread social practice.

A US study pointed out that child brides are vulnerable to gender violence, that they are often incapable of negotiating safe sex, and are at risk of unwanted pregnancies and acquiring sexually transmitted diseases.^[30] We found a large number of early marriages, but underage marriages were not associated with GBV.

Alcoholism and GBV

We found a strong correlation between GBV and alcoholism. In fact, over 90% of men who were severe alcoholics were violent to their spouses. Many previous studies have demonstrated that male alcoholism results in IPV against women.^[31-33] An Australian study found a correlation between liquor license outlets and family violence.^[34] These authors have suggested that changes in town planning and licensing policies to restrict alcohol availability must be used to curb family violence. Taken to its extreme, some suggest a complete prohibition on the sale of alcohol. Bihar is a state that has enforced prohibition since 2015. It is said to have improved the

safety of women, and it is reported that it has resulted in women being able to spend more on health and the education of children.^[35] However, prohibition often results in tragic poisonings from the use of illicit liquor or hooch, laced with the poisonous industrial spirit or methyl alcohol. In Bihar, in May 2022, six people died, and two lost vision from drinking spurious liquor.^[36] The historian Michael Lerner has written how 1000 people died each year in the US from drinking bootlegged alcohol during the Prohibition of 1929.^[37] This suggests that although inebriation is the cause of many social evils, including GBV, other education-based methods need to be considered rather than prohibition by fiat.

Education

Previous studies have shown that wives with higher education than their husbands were less likely to experience domestic violence as compared to equally low-educated spouses. Equally highly educated couples revealed the lowest likelihood of experiencing domestic violence.^[38] However, we did not find any correlation between violence and education.

Deprivation

The headcount ratio of India in global MPI 2020 was 27.91%, meaning that 27.9% of the households had multiple indicators of deprivation.^[23] The MPI is the product of the headcount ratio and intensity of derivation. The national MPI is 0.123, and it is 0.039 in urban areas. In the study area, the MPI was 0.0639, higher than the national urban MPI. Sabina^[39] has found that economically deprived people suffer more partner violence and also that there is more such violence in poorer countries. Studies in the UK have found that more women suffer intimate partner violence where household income is low, among people in council housing estates and residents living in multiply deprived areas.^[40] Another UK study found alcohol-related domestic violence more in the lower socioeconomic groups.^[41] However, we found no association between MDI and GBV, although we found there was significantly more GBV in poorer households.

The law against GBV

The Protection of Women against Domestic Violence, 2005, has been passed by the Indian Parliament. Enforcement of the law has been a challenge because of poor reporting. Women are economically and emotionally dependent on their husbands, and they often fear that reporting GBV will endanger their marriage, resulting in separation or divorce and the loss of their children.^[42]

Weakness of study

The CTS2 has been used by participants from diverse cultural backgrounds in at least 32 countries.^[20] It is arguably the most widely used questionnaire to

assess gender violence. A lot of our understanding of intimate partner violence is based on the CTS2.^[19] The CTS2 has been used in various cultures, although it has not been officially translated or culturally adapted in all these countries. As we did not have access to a validated translation of the CTS2 in the Od dialect, we relied on the ad-lib translation of the questions into Hindi. Junger-Tas and Marshall^[43] have shown how the wording of questionnaires can bias memory or help recall traumatic events. Ideally, we should have translated, then back-translated, and validated the questionnaire before administration so that we would have standardized questions for all respondents. As we lacked the expertise to engage in this process for the Od dialect, we adopted the more pragmatic approach. This has been a major weakness of this study.

Other limitations

The study may have recall bias and some amount of sampling bias. Selecting the next house in case the door was locked can lead to a sampling bias. In addition, people who are away from home may be different from those who stay at home. There may be self-selection bias of more homebound people who are likely to be in poor health or women who are less emancipated.

The way forward

In the face of this resistance to reporting partner violence, the WHO suggests that injury surveillance by healthcare workers can help identify domestic violence.^[44] Raj has suggested that gender transformative interventions through strong role models are helpful for men and boys to change the male acceptance of GBV. He also suggests that alcohol intake reduction intervention must be employed.^[45] The United Nations Educational, Scientific and Cultural Organization (UNESCO) MENTalities program follows a similar plan.^[46]

Kaur and Garg have emphasized the need for women to develop skills to engage and communicate with their male partners and be empowered to leave their partners if needed to lower the risk of violence. Women must be helped to support and strengthen each other. Women from impoverished backgrounds need educational and economic growth opportunities and financial independence.^[47] It requires a multipronged, multidisciplinary approach to address this problem.

Data availability statement

The data is being provided as a supplementary file for use by anyone without restriction.

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Conflicts of interest

There are no conflicts of interest.

Authors' contribution statement

RR and JPul planned the study. SS, IM YK SDC, and JPun conducted the study, collected the data, and interpreted it. They also wrote up the initial draft of the paper, which was finalized by RR and JPul. All authors have approved the manuscript sent for publication.

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