

Original Research Article

Spousal violence among consanguineous marriage in India: a social-ecological analysis using nationally representative cross-sectional study

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ABSTRACT

Background: Marriage is a second most event after birth. Wikipedia states consanguinity marriage as the property of being from the same kinship as another India is a socially and culturally diverse country, which is also reflected in considerable variation in the prevalence of IPV across regions. The aim of study to identify the prevalence and the factors influencing the spousal violence among consanguineous marriage in India.

Methods: The present study utilised the fourth wave of the National family health survey (2015-16), the Indian version of the demographic and health survey. Descriptive, bivariate with Chi-square tests and multivariable multilevel logistic regression analyses were done to determine the extent of association between spousal violence and various predictor variables.

Results: The study established the prevalence of spousal violence among consanguineous marriage were higher (33.0%) compared with spousal violence among non-consanguineous marriage (26.0%). Women those who get married with any blood relation experienced more physical violence (16.6%), emotional (27.7%), sexual (7.6%) compared with women those who get marriage with non-blood relation, physical violence (11.0%), emotional (22.4%), sexual (5.5%) respectively.

Conclusions: The finding is expected to contribute to formulating an appropriate policy to combat Spouse violence in consanguineous marriage among women at the national level of India. The study also showed a significant association between consanguinity and experience more emotional as compared to physical and sexual violence. The results argue for manipulating contextual factors to empower women to challenge gender-related equations and investing in education for gender sensitization at the higher-level social ecologies.

Keywords: Domestic, Violence, Social-ecology, Multilevel analysis, Consanguineous marriage

INTRODUCTION

Domestic violence against women by their intimate partners is a human right violation and a public health

concern.^{1,2} Globally, one third of all women are estimated to be exposed to physical or sexual intimate partner violence against women during their lifetime.² As gender inequality is typically associated with and function as a

predictor of IPV rates, countries with low levels of gender equality are expected to show a high prevalence of IPV, and vice versa. In India, Intimate partner violence (IPV) has been recognized since 1983 as a criminal offence under section 498-A of the Indian Penal Code, while it is expansively defined in the protection of women from domestic violence Act (PWDVA) 2005, which came into effect in 2006. The Domestic violence is defined as any act or conduct that constitutes harassment, harms, injuries, or threats to an aggrieved person or behaviours that likely results in physical, sexual, economic, emotional, verbal, or psychological abuse. However, despite enactment of the PWDVA, the prevalence of physical and sexual violence remains high-31 percent, six percent point decrease after PWDVA went into effect in the country.³ India has variation in cultural norms and standards of living between regions in India, rates of IPV are inconsistent across Indian's 29 states. The prevalence of IPV among Indian women has been estimated at 6% in Himachal Pradesh and at nearly 59% in Bihar.^{4,5} Consanguineous marriage refers to marriage between close biological relatives.⁶ Consanguineous marriage can be categorized by the level of relationship between spouses: for example, first cousins either paternal or maternal side, second cousins, third cousins, uncle–niece or distant relations.^{6,7} The consanguinity in India is necessarily highly complex given the size and diversity of the population, and it is exacerbated by the strongly divergent attitude towards consanguineous marriage in the majority Hindu population⁸. In India, the prevalence of consanguineous marriage ranges from 9.3 (NFHS-1) and 7.4 (NFHS-4), and it varies with socioeconomic condition, educational attainment, geographical region, religious belief and cultural practices.⁸⁻¹⁰ For example However, the state level picture is complex, with large reductions in consanguinity in southern states and on other hand there is slightly increase in Northern states.⁸ His prevalence of consanguineous marriage is higher in rural areas, among low socio-economic group and among the Muslim community.¹¹⁻¹⁵ Women having a blood relationship with husbands were more likely to report having ever been subjected) to marital control behaviours, emotional, and physical violence by their husbands, compared to ones without such relationship.¹⁶⁻¹⁸ While another study found that marrying a nonrelative increased odds of IPV. Several studies examined the role of determinants of spousal violence beyond the level of the household and the individual.¹⁹ Heise used a social-ecological framework that theorized, rationalized, and integrated findings of violence research from different disciplines such as anthropology, psychology, and sociology.²⁰ Heise emphasized the importance of different social systems and their interplay to explain the differential rates of violence against women. This framework has also been used in other studies to explain the variation in violence against women.²¹ India's latest round of the National family health survey (NFHS-4), conducted in 2015 to 2016, which collect data related to consanguinity and spouse violence using multilevel analysis with a large, nationally representative data set. Therefore, the objectives of this study are to identify the

spousal violence in consanguineous marriage in India and how the operating at multiple levels of social ecology, explain the prevalence of spousal violence within different settings.

METHODS

Data source

The present articles utilised data from the fourth round of the National Family Health Survey (2015-16), the Indian version of the demographic and health survey (DHS). NFHS-4 is the countrywide community-based cross-sectional survey and includes a nationally representative sample of women of reproductive age (15-49 years) in India.

Sampling design and sample size

For the NFHS-4 survey, the Census 2011 serve as a sampling frame. The survey adapted a multistage stratified sampling design to select a representative sample of women. A stratified two stage sampling design has been adopted for the selection of the samples in rural area. In the first stage of sampling the villages (PSU) were selected using probability proportional to size (PPS) sampling while in the second stage 22 households were selected by using the systematic random sampling from selected villages. A stratified three stage sampling design has been adopted for the selection of urban samples. In the first stage of sampling the urban wards were selected using probability proportional to size sampling while in the second stage of the sampling the census enumeration blocks (CEBs), were selected randomly from each selected ward which treats as a PSU in urban areas. In the thirds stage of sampling, the 22 households were selected using the systematic random sampling from selected census enumeration blocks.

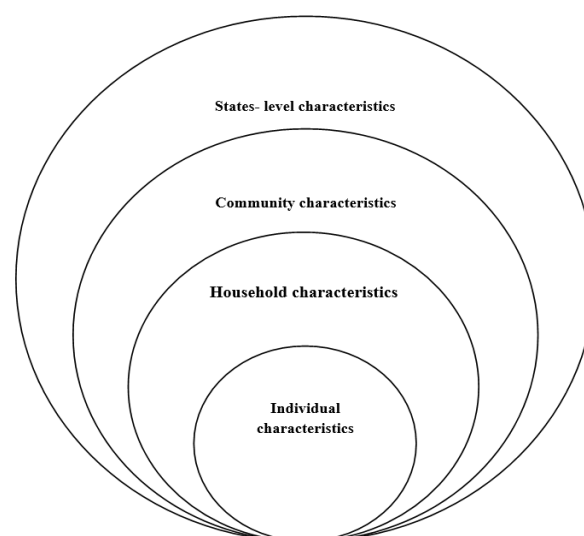


Figure 1: Factors associated with violence from the spouse at different levels of the social ecology.

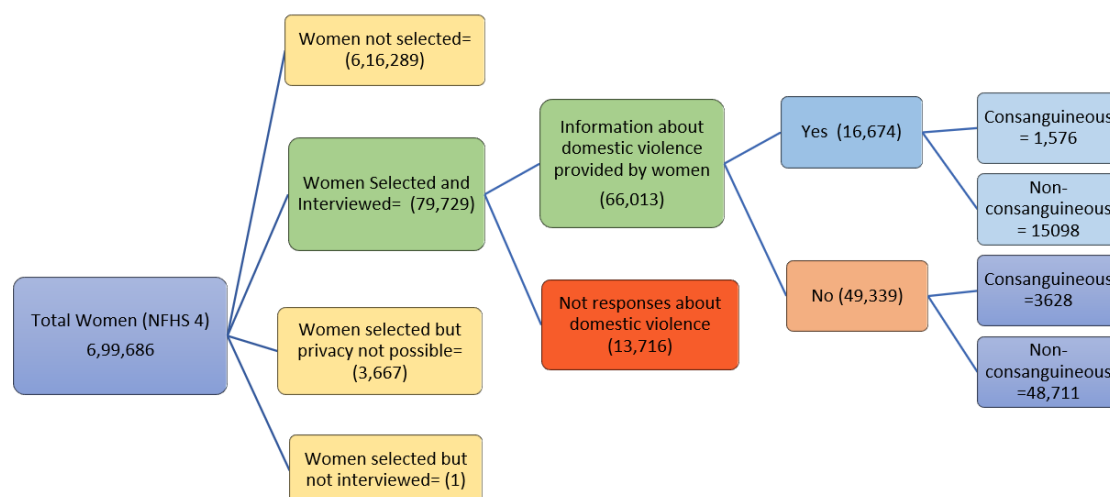


Figure 2: The sample arrived for violence among women by husband in non-consanguineous and consanguineous marriage.

Table 1: Description and scale of measurements of explanatory variables.

Variable level	Description and coding	Scale of measurements
Age groups	Age of the women in completed years and it is directedly associated with the life style of the women and groups in four categories 15-24, 25-34 and 35-49 Years.	Ordinal
Age at marriage	Age at marriage also directedly associated with the life style of women and groups in two categories Equal or more than 18 and Less than 18	Nominal
Age gap between husband and wife (years)	Age gap between husband and wife (years) categories as a Wife age equal or more, Wife 1-5 years young, Wife 6 -10 years young, and Wife more than 11 years	Nominal
Education of the women	Educational status of the women was grouped into No education, Primary, Secondary, and Higher	Ordinal
Education of the husband	Educational status of the husband was grouped into No education, Primary, Secondary, and Higher	-
Working status of couple	Both not working, Wife working, husband not working, Husband working, wife not working and Both working	-
Religion of the households	Religious affiliation is another’s a contextual factor which have bearing on life styles of the patient’s religious brief/stigma and grouped into Hindu, Muslim and Others.	Nominal
Social group	For each household surveyed, the social group to which the head of the household belonged to was recorded irrespective of the actual social group to which the individual members belonged. The information recorded in this regard was based entirely on the response of the informant and not based on any state or central level list of the social group and it’s grouped in three categories as a SC/ST, OBC and Non-SC/ST/OBC for the present study.	Nominal
Economic status of the households	Similarly, household wealth was also calculated from the standard set of assets owned by the household, which included ownership of consumer items and dwelling characteristics. Individuals were ranked on the basis of their household scores and divided into different quintiles, each representing 20 percent of the score, between 1 (poorest) and 5 (wealthiest).	Ordinal
Place of residence	This variable is derived from the question sector of the residence. It is dichotomous variables (Rural and urban) according the where the patients were living at the time of the survey.	Nominal
Region of residence	To examine the regional variation of treatment seeking behaviour, India was divided into six regions based on geographical location and cultural settings and categorised as a North, Central, East, West, South and North-east regions.	Nominal

The factors associated with violence from the spouse at different levels of the social ecology and demonstrations of sample arrived for violence among women by husband in non-consanguineous and consanguineous marriage is depicted in (Figures 1 and 2).

Outcome measurement

The outcome variable for this study were spousal violence among consanguineous marriage. Further violence divided in four categories namely physical, emotional, sexual, and IPV from husband to the ever-married women aged 15 to 49 years in the last 12 months. In the NFHS-4, the following two questions were asked to those women who had experiencing violence from their husband in the last 12 months.

Defining predictor variables

In order to study the social-ecological factors associated with spousal violence among consanguineous marriage, the present study included a number of individuals, households and community level variables considered for analysis based on theoretical and observed status applied in literature and information availability in NFHS-4 data set. Description of each explanatory variables and scale of measurements are given in (Table 1).

Statistical analysis

Descriptive, bivariate and multivariable estimates were carried out to meet the objective of the paper. Descriptive estimates were calculated to know the socio-demographic characteristics of the study population while in bivariate estimates were carried out to examine the socio-demographic differences in spousal violence among consanguineous marriage and Chi-square tests were done to observe the statistical significance of this difference. To identify the possible multicollinearity among the selected predictor variables a variance inflation factor (VIF) diagnostic test was done. If Multicollinearity exists among predictor variables. The interpretation of the results is often found misleading. Value of $VIF > 5$ shows highly correlation among predictor variable. In this study collinearity within predictors' variables not found and the highest Variance inflation factor was 4.76 for this study.

Finally, a multivariable multilevel logistic regression analysis was carried out to measure the adjusted association between socio-demographic characteristics and spousal violence among consanguineous marriage in India. Multivariable multilevel logistic regression was used to analyse factors associated with Spousal Violence among consanguineous marriage at two and three levels, individual (level 1), nested within village (level 2), and village nested within districts (level 3), was fitted to assess factors affecting spousal violence among consanguineous marriage. The outcome variable in this analysis is whether any spousal violence or not and it is binary (yes/no) nature, the multilevel model express as follows:

$$\ln \left[\frac{p_{cvd}}{1 - p_{cvd}} \right] = \alpha + x_{cvd} \beta + w_{vd} \gamma + z_d n + u_{cd} + v_d,$$

Where $\ln [p_{cvd}/(1 - p_{cvd})]$ is the logit in which p_{cvd} is the probability of Spousal Violence among women by their husband 'c' in village (PSU) 'v' in district 'd' Spousal Violence among women; x_{cvd} , w_{vd} and z_d are routes of individual, village- and district-level structures; α is a constant, whereas β , γ and n are vectors of estimated parameter coefficients; and u_{cd} and v_d are unexplained residual terms at the village and district level, respectively. Therefore, a multilevel model with two and three levels were fitted to examined the impacts of individual, village and district-level influences as fixed effects, and village (u_{cd}) and district (v_d) as random effects on the Spousal Violence among women. The correlations between the probability of Spousal Violence among women in the same village (VPC_v) and district (VPC_d) are presented by variance partition coefficients (VPC).

$$VPC_v = \left(\frac{\sigma_v^2 + \sigma_d^2}{\sigma_v^2 + \sigma_d^2 + 3.29} \right) \text{ and } VPC_d = \left(\frac{\sigma_d^2}{\sigma_v^2 + \sigma_d^2 + 3.29} \right)$$

Where σ_v^2 denotes the village-level variance, and σ_d^2 denotes the district-level variance. The graphic illustrate of multilevel structure of the data. Four models were fitted for this multilevel logistic regression analysis. The first and second model was an empty model without any explanatory variables at two level (individuals and village) and three levels (individuals, village and district), respectively to estimate the extent of the village and district variation on spousal violence among women. The third model included possible predictor at two level whereas the fourth model included possible predictor at three levels. The present study used STATA 13.1 to accomplish all the statistical analyses. The SVYSET and SVY prefix commands available in STATA 13.1 were used were used in order to take into account, the survey design for estimating the results on the population.

RESULTS

Background characteristics of the study population

The socioeconomic characteristics of the ever-married women who participated in violence elements is depicted in (Table 2). More than two fifths (43.2%) women were above 35 years while one fourth (20.7%), women were youth (15-24 years). About half of the women got marriage before completed the legal age of marriage that is the 18 years. About one third (32.0%) women were illiterate while more than two fifths (45.3%) women had a secondary level education.

Type of violence among women by husband in non-consanguineous and consanguineous marriage

The type of violence among women by husband in non-consanguineous and consanguineous marriage is shown in (Figure 3).

Table 2: Background characteristics of the study population.

Socioeconomic characteristics	%	N
Individual level characteristics		
Age group (years)		
15-24	20.7	8290
25-34	36.1	14540
35-49	43.2	16786
Age at marriage		
Equal or more than 18	50.6	20,013
Less than 18	49.4	17,450
Women autonomy		
Low	41.2	2970
Medium	35.9	2422
High	22.9	1402
Age gap between husband and wife (years)		
Wife age equal or more	3.9	375
Wife 1-5 years young	51.5	3876
Wife 6 -10 years young	33.6	2066
Wife more than 11 years	11.0	672
Education of women		
No education	32.0	13887
Primary	14.9	5886
Secondary	45.3	17094
Higher	7.8	2749
Husband education		
No education	21.1	17938
Primary	16.3	13648
Secondary	50.4	13648
Higher	12.2	48314
Working status of couple		
Both not working	2.6	211
Wife working, husband not working	1.0	76
Husband working, wife not working	66.9	5119
Both working	29.6	1937
Characteristics of household		
Religion		
Hindu	75.9	27021
Muslim	19.6	10580
Other	4.5	2015
Social group		
Scheduled caste	21.5	7377
Scheduled tribe	8.0	4631
Other backward classes	51.0	18216
Others	19.5	7250
Wealth Index		
poorest	10.9	5511
poorer	18.9	8379
middle	25.8	9853
richer	25.5	9209
richest	19.0	6664
Community-level variables		
Place of residence		
Urban	38.0	12820
Rural	62.0	26796
Regions of residence		
North	5.2	5248

Continued.

Socioeconomic characteristics	%	N
Central	15.4	8962
East	8.1	3528
Northeast	0.4	1057
West	15.0	4089
South	56.1	16732
Total	100	39616

Table 3: Percentage of ever-married women aged 15 to 49 years (n=66,013) who have experienced various from their husband in the 12 months preceding the survey, India 2015 to 2016.

Type of violence	In the past 12 months (%)
Physical violence	
Any form of physical violence	23.8
Pushed her, shook her, or threw something at her	10.33
Twisted her arm or pulled her hair	9.06
Slapped her	19.61
Punched her with his fist or with something that could hurt her	6.91
Kicked her, dragged her, or beat her up	7.82
Tried to choke her or burn her on purpose	1.38
Threatened her or attacked her with a knife, gun, or any other weapon	0.93
Sexual violence	
Any form of sexual violence	7.45
Physically forced her to have sexual intercourse with him even when she did not want to	5.67
Forced her to perform any sexual acts she did not want to	3.06
Forced her with threats or in any other way to perform any sexual acts she did not want to	3.83
Emotional violence	
Any form of emotional violence	15.06
Said or did something to humiliate her in front of others	10.29
Threatened to hurt or harm her or someone close to her	6.22
Insulted her or made her feel bad about herself	8.53
Any form of emotional, physical, or sexual violence	29.35
India	100.0

Results clearly shows that prevalence of spousal violence among consanguineous marriage were higher (29.4%) compared with spousal violence among non-consanguineous marriage (24.1%).

compared with those who get marriage with non-blood relation, physical violence (20.0%), emotional (10.1%), sexual (5.3%) respectively.

Women experienced various from of violence by their husband

About one third of ever-married women reported experiencing any form of violence in the past 12 months. Physical violence was the most common form of spouse violence experienced in the last 12 months, reported by 27.7% of ever-married women, followed by emotional and sexual violence by 16.6% and 6% in consanguinity marriage among women (Table 3).

Social-ecological differentials in types of spousal violence

The percentage of ever-married women who have experienced physical, emotional, sexual, and IPV from their husband in the 12 months is depicted in (Table 4). To perceive the association between different covariates and spousal violence, Chi-square test was done.

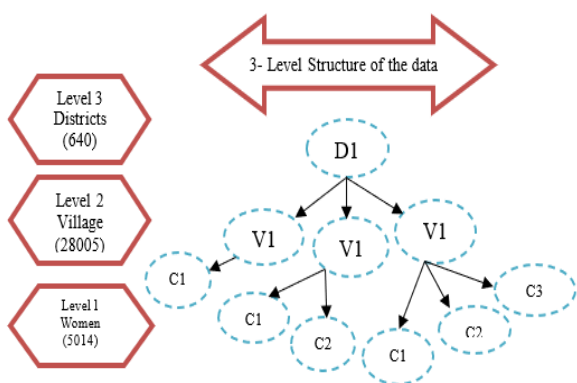


Figure 3: The multilevel structure of the data.

When we talk about types of violence, those who get married with any blood relation experienced more physical violence (24.0%), emotional (15.1%), sexual (7.5%)

Table 4: Percentage of ever-married women aged 15 to 49 years who have experienced physical, emotional, sexual, IPV from their husband in the 12 months preceding the survey, India 2015 to 2016.

Socioeconomic characteristics	Type of violence			
	Physical	Emotional	Sexual	IPV
Individual level characteristics				
Age group (years)	$\chi^2=5.202$	$\chi^2=7.353$	$\chi^2=0.134$	$\chi^2=5.305$
15-24	21.29	12.75	6.21	26.43
25-34	23.31	13.77	6.64	27.95
35-49	25.3	17.17	8.68	31.82
Age at marriage	$\chi^2=27.326$	$\chi^2=17.498$	$\chi^2=16.909$	$\chi^2=38.601$
Equal or more than 18	21.13	12.64	6.59	25.49
Less than 18	26.25	16.88	8.2	33.29
Women Autonomy	$\chi^2=2.858$	$\chi^2=0.235$	$\chi^2=6.947$	$\chi^2=1.25$
Low	22.68	15.04	8.18	29.06
Medium	22.05	13.89	5.7	26.82
High	27.15	14.65	8.36	32.53
Age gap between husband and wife (years)	$\chi^2=18.200$	$\chi^2=6.890$	$\chi^2=1.970$	$\chi^2=20.564$
Wife age equal or more	15.17	12.07	5.93	19.09
Wife 1-5 years young	21.96	13.39	6.35	27.04
Wife 6 -10 years young	26.5	15.67	8.79	32.68
Wife more than 11 years	26.42	18.81	8.79	33.63
Education of women	$\chi^2=68.880$	$\chi^2=27.959$	$\chi^2=20.758$	$\chi^2=74.447$
No education	28.42	17.25	9.25	35.49
Primary	28.28	17.39	7.11	34.63
Secondary	20.63	13.71	6.34	25.14
Higher	15.57	9.81	7.04	19.58
Husband education	$\chi^2=112.873$	$\chi^2=41.095$	$\chi^2=29.352$	$\chi^2=103.982$
No education	33.31	20.34	11.07	40.3
Primary	27.25	16.63	8.64	32.61
Secondary	21.16	13.92	6.34	26.48
Higher	15.57	9.61	4.98	20.14
Working status of couple	$\chi^2=28.013$	$\chi^2=18.628$	$\chi^2=11.338$	$\chi^2=27.881$
Both not working	24.3	18.75	10.84	30.72
Wife working, husband not working	31.59	16.8	12.35	36.03
Husband working, wife not working	22.13	13.69	6.92	27.57
Both working	27.95	18.03	8.17	33.69
Characteristics of household				
Religion	$\chi^2=74.716$	$\chi^2=18.438$	$\chi^2=3.379$	$\chi^2=67.715$
Hindu	26.95	16.45	8.41	32.76
Muslim	16.69	11.96	5.39	21.98
Other	21.44	13.76	6.08	24.69
Social group	$\chi^2=65.222$	$\chi^2=26.198$	$\chi^2=13.776$	$\chi^2=79.005$
Scheduled caste	33.5	18.53	8.93	38.88
Scheduled tribe	21.85	12.42	5.07	24.55
Other backward classes	24.1	14.94	7.97	30.63
Others	19.1	14.16	6.41	23.16
Wealth Index	$\chi^2=100.214$	$\chi^2=45.585$	$\chi^2=37.463$	$\chi^2=95.913$
Poorest	36.41	20.97	12.07	42.63
Poorer	29.42	18.71	8.27	35.12
Middle	23.13	14.44	7.03	28.95
Richer	23.3	13.43	5.81	28.08
Richest	14.03	11.66	6.75	19.95
Community-level variables				
Place of residence	$\chi^2=7.116$	$\chi^2=7.716$	$\chi^2=0.229$	$\chi^2=8.536$
Urban	20.76	13.87	8.05	26.43
Rural	25.81	15.85	7.06	31.29
Regions of residence	$\chi^2=159.615$	$\chi^2=159.615$	$\chi^2=45.308$	$\chi^2=151.805$

Continued.

Socioeconomic characteristics	Type of violence			
	Physical	Emotional	Sexual	IPV
North	10.58	7.93	3.3	16.41
Central	23.84	14.19	7.33	28.83
East	31.01	16.77	11.77	38.55
Northeast	17.27	11.31	7.45	21.24
West	17.28	7.82	2.23	19.1
South	29.26	19.65	9.53	35.57
Total	23.8	15.06	7.45	29.35

Table 5: Random-effects parameters for the multilevel model for spousal violence among consanguineous marriage in India, NFHS-4 (2015-16).

Random effects	Without explanatory variables (Null model)			
	Model 1		Model 2	
	Random variance	Standard Error (95% CI)	Random variance	Standard Error (95% CI)
Village (PSU)	1.27	0.19 (0.95-1.69)	0.78	0.16 (0.53-1.16)
Village (PSU) VPC (%)	27.83	-	27.30	-
District	-	-	0.45	0.08 (0.32-0.65)
District VPC (%)	-	-	10.00	-
With explanatory variables (Full model)				
Parameters	Model 3		Model 4	
	Random variance	Standard Error	Random variance	Standard Error
Village (PSU)	0.90	0.19 (0.61-1.33)	0.69	0.17 (0.42-1.11)
Village (PSU) VPC (%)	21.52	-	21.62	-
District	-	-	0.22	0.07 (0.12-0.40)
District VPC (%)	-	-	5.16	-

The prevalence of spousal violence was higher among women were above 35 years compared with women whose age were less than 25 years. The prevalence of spousal violence was higher among women who were illiterate compared with women had a secondary level education.

Factors associated with spousal violence among consanguineous marriage

The random intercept model (empty model and full model) is depicted in (Table 5). Village (PSU) and district were model as random in the multilevel models. Two level and three level multilevel analyses shows almost same variation partition coefficient whereas the variance is more at village level in two level. In the full model controlled with explanatory variables the variances endorsed to the differences in the village 27.30 to 21.62, while districts reduced 10.00 to 5.16.

Determinants of spousal violence among consanguineous marriage

The results of multilevel logistic regression model is depicted in (Table 6). Results shows that age at marriage, women education, husband education, social group, economic status (wealth quintile) and region of residence are the significant predictors of the spousal violence

among consanguineous marriage in India. The results indicate that the women who got marriage before 18 years had significantly higher adjusted odds (AOR:1.21; 95% CI-1.03-1.42) to experiencing spousal violence than those women who got marriage after 18 years age. Women and husband educational attainment were found to be influential socioeconomic characteristics associated with spousal violence among consanguineous marriage.

Women who had completed middle secondary (AOR=0.75; 95% CI-0.60-0.93) and higher secondary (AOR=0.51; 95% CI-0.34-0.78) level of schooling had significantly lower odds of experiencing spousal violence than those women who were illiterate. Social group and economic status of the household played a significantly role in spousal violence among consanguineous marriage. Women belonging to Scheduled tribes (48%), Other's backward caste (34 %) Others General caste (38 %) were less likely to experiencing spousal violence than those women who belongs to Scheduled caste. The odds of women experiencing spousal violence were lower among poorer wealth quintile (28%), middle wealth quintile (45%), richer wealth quintile (46%) and richest wealth quintile (52%) compared with women from the poorest wealth quintile. The probability of women experiencing spousal violence were higher in Central, East, Northeast, and South regions compared with North regions.

Table 6: Results of the multilevel analysis showing factors associated with spousal violence among consanguineous marriage in India, NFHS-4 (2015-16).

Background characteristics	Model 3				Model 4			
	Odds Ratio	P value	95 % CI		Odds Ratio	P value	95 % CI	
			Lower	Upper			Lower	Upper
Individual level characteristics								
Age group (years)								
15-24	-	-	-	-	-	-	-	-
25-34	1.13	0.26	0.91	1.41	1.14	0.24	0.92	1.42
35-49	1.16	0.24	0.91	1.47	1.15	0.24	0.91	1.47
Age at marriage								
Equal or more than 18	-	-	-	---	-	-	-	-
Less than 18	1.21	0.02	1.03	1.42	1.20	0.02	1.02	1.44
Women Autonomy								
Low	-	-	-	-	-	-	-	-
Medium	1.02	0.81	0.86	1.22	1.01	0.92	0.85	1.20
High	1.12	0.29	0.91	1.39	1.09	0.42	0.88	1.35
Age gap between husband and wife (years)								
Wife age equal or more	-	-	-	-	-	-	-	-
Wife 1-5 years young	1.26	0.25	0.85	1.87	1.21	0.34	0.82	1.80
Wife 6 -10 years young	1.41	0.10	0.94	2.12	1.36	0.14	0.91	2.05
Wife more than 11 years	1.14	0.57	0.72	1.81	1.12	0.62	0.71	1.77
Education of women								
No education	-	-	-	-	-	-	-	-
Primary	0.88	0.33	0.69	1.13	0.88	0.33	0.69	1.13
Secondary	0.75	0.01	0.60	0.93	0.75	0.01	0.60	0.93
Higher	0.51	0.00	0.34	0.78	0.51	0.00	0.34	0.78
Husband education								
No education	-	-	-	-	-	-	-	-
Primary	1.78	0.00	1.24	2.54	1.79	0.00	1.25	2.55
Secondary	1.61	0.01	1.14	2.29	1.61	0.01	1.13	2.28
Higher	1.35	0.05	1.01	1.82	1.34	0.06	0.99	1.80
Working status of couple								
Both not working	-	-	-	-	-	-	-	-
Wife working, husband not working	1.24	0.63	0.52	2.98	1.29	0.57	0.54	3.09
Husband working, wife not working	1.09	0.74	0.67	1.75	1.10	0.70	0.68	1.77
Both working	1.22	0.43	0.74	2.02	1.22	0.43	0.74	2.01
Characteristics of household								
Religion								
Hindu	-	-	-	-	-	-	-	-
Muslim	0.74	0.01	0.58	0.93	0.76	0.03	0.60	0.97
Other	0.90	0.61	0.58	1.37	0.89	0.61	0.58	1.38
Social group								
Scheduled caste	-	-	-	-	-	-	-	-
Scheduled tribe	0.52	0.00	0.39	0.71	0.56	0.00	0.41	0.76
Other backward classes	0.66	0.00	0.53	0.82	0.65	0.00	0.52	0.80
Others	0.62	0.00	0.47	0.83	0.65	0.00	0.49	0.87
Wealth Index								
Poorest	-	-	-	-	-	-	-	-
Poorer	0.72	0.02	0.55	0.94	0.72	0.02	0.55	0.94
Middle	0.55	0.00	0.41	0.74	0.56	0.00	0.42	0.75
Richer	0.54	0.00	0.39	0.74	0.53	0.00	0.39	0.73
Richest	0.48	0.00	0.33	0.69	0.46	0.00	0.32	0.68
Community-level variables								
Place of Residence								
Urban	-	-	-	-	-	-	-	-

Continued.

Background characteristics	Model 3				Model 4			
	Odds Ratio	P value	95 % CI		Odds Ratio	P value	95 % CI	
			Lower	Upper			Lower	Upper
Rural	0.87	0.18	0.71	1.07	0.87	0.19	0.71	1.07
Regions of residence								
North	-	-	-	-	-	-	-	-
Central	1.92	0.00	1.37	2.69	1.81	0.00	1.25	2.61
East	2.63	0.00	1.78	3.89	2.41	0.00	1.59	3.68
Northeast	1.67	0.17	0.80	3.48	1.48	0.32	0.69	3.17
West	1.21	0.34	0.82	1.78	1.15	0.53	0.75	1.75
South	2.63	0.00	1.87	3.69	2.40	0.00	1.66	3.46
Constant	0.25	0.00	0.11	0.56	0.27	0.00	0.12	0.61

Likelihood ratio (LR) tests for multilevel logistic vs ordinary logistic regression model: for model 1 ($x^2 = 122.27$, $p < 0.00$); for model 2 ($x^2 = 207.16$, $p < 0.000$); for model 3 ($x^2 = 54.54$, $p < 0.000$); for model 4 ($x^2 = 71.67$, $p < 0.000$).

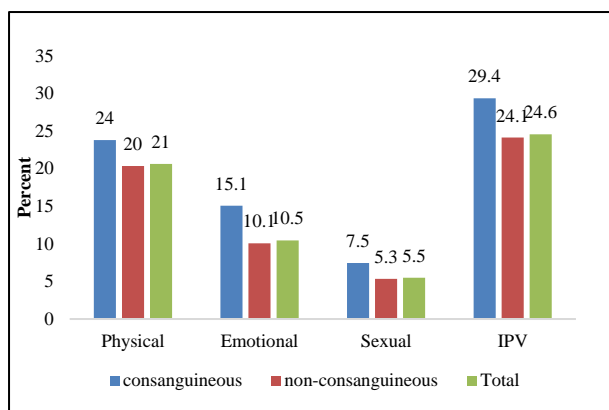


Figure 4: Type of violence among women by husband in non-consanguineous and consanguineous marriage.

DISCUSSION

We found that the manifestation of spousal violence against Indian women originates at multiple levels of the social ecology in which women marry with blood-relation (consanguinity). Whereas, most of the variables at the individual, household levels and community level demonstrated a significant association with spouse violence, the prevailing norms at larger socio-ecologies from the community level to state level are also significantly associated with the spousal violence in India. This paper utilized the national representative cross-sectional data which follow the well research designed, covered all the states of India which offers the generalizability the results on the population. Results clearly shows that prevalence of spousal violence among consanguineous marriage were higher (33.0%) compared with spousal violence among non-consanguineous marriage (26.0%). When we talk about types of violence, those who get married with any blood relation experienced more physical violence, emotional, sexual compared with those who get marriage with non-consanguineous marriage, similar study was also found.^{16,18-22} Women in consanguineous relationships were more likely to justify violence in the present study. This may be because women in consanguineous marriages hold more traditional

patriarchal beliefs that justify violence against women by husbands. We found that the manifestation of spousal violence against Indian women originates at multiple level of the social ecology in which the women live in consanguineous marriage. Although most of the variables at the individual and household levels demonstrated a significant association with spousal violence, the prevailing norms at larger socio-ecological from the community level to state level are also significantly associated with the spousal violence in consanguineous marriage in India. The findings of this study show that certain determinants at the micro-level significantly explain the experience of spousal violence. Women, belonging to a scheduled caste, with less education and less wealth had higher odds of experiencing spousal violence in consanguinity marriage. Similar results were also found in following literature.^{16,22,23} This study found that IPV was significantly related to women’s age at marriage. Even through the legal age for women to marry in India is 18, about 1.2 time higher as women marry 18 and above similar study.²⁴ Younger women have little knowledge about sex and fear sexual activity, so this can be a traumatic experience for them. Girls aged less than 18 when they marry have less ability to make decisions, and lower social status, power and resources than women who marry at, or after, the legal age. Early marriage has been found to reduce a wife’s opportunity for education and increase her dependence on her husband, with these factors increasing the risk of violence Existing evidence is insufficient to allow any conclusion to be made on the regional differences in the association between consanguineous marriage and spousal violence. Therefore, a detailed study is required to understand the regional differences in the causal linkages of spousal violence in the context of consanguineous marriage.

CONCLUSION

Despite these limitations, this study provides valuable information and contributes to a better understanding of the magnitude of IPV among consanguineous marriage and its multifaceted contribution factors in India. In a society with a patriarchal structure, females encounter different problems due to their gender. Therefore, different violent

relationships appear mainly targeting women as the victims. There are different sources, including cultural, social, and legal factors supporting domestic violence against females. In the present study, we demonstrated domestic violence among consanguineous married women by their husbands, which may be rooted in their socio-cognitive context in India. We also found that physical abuse is more prevalent, followed by emotional and sexual violence among consanguineous married women. Furthermore, our findings indicated the role of age at marriage and social-economic and social inequality through observational learning in forming beliefs that suppress violent behaviors against women. As India has already passed to strictly implement the law. This may lead to a more constructive and sustainable response to domestic violence in India for the improvement of women's health and wellbeing. This study will also inform the efforts needed in achieving the new global health goals, specifically related to sustainable development goal (SDG) targets 5.2 (eliminate all forms of violence against all women and girls). This paper highlights the effect of different marital patterns on provoking domestic violence against females. It proposes that society, the lawmakers, and all the humans stand altogether for making a violence-free society all over the world.

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