

RESEARCH ARTICLE

Polygyny and spousal violence in India: Findings from the 2019 – 2021 national family health survey

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Polygyny results in a variety of physical, sexual, and psychological consequences for women which has an impact on gender relations such as the subordination of women, unequal treatment of spouses, neglect of children, rivaling step-children, and inheritance issues among children/spouses. This study aims to explore the association between polygyny and spousal violence in India using the data from the fifth round of the National Family Health Survey-5 of India in 2019 – 2021, which provides information on both polygyny and spousal violence. To understand the effect of polygyny on spousal violence, multivariate logistic regressions were used to obtain unadjusted and adjusted odds ratios by controlling a number of explanatory factors. The results reveal that women in polygynous unions experience more spousal violence compared with those in monogamous unions. The results indicate that, since the law does not permit men to be married to more than one wife simultaneously, this form of marriage should be discouraged by strictly enforcing it to protect women from marital violence in polygynous unions. The analysis contributes to the body of the literature on the association between polygynous marriage and spousal violence in the Indian context.

Keywords: Polygyny; Spousal violence; India; National family health survey

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Citation: Nagarajan, R., & Sahoo, H. (2021). Polygyny and spousal violence in India: Findings from the 2019 – 2021 national family health survey. *International Journal of Population Studies*, 7(1):108-123. <https://doi.org/10.36922/ijps.v7i1.350>

Received: September 15, 2022

Accepted: December 1, 2022

Published Online: December 29, 2022

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1. Introduction

Polygyny is a form of polygamy involving the practice of one man being married to multiple wives at the same time. Polygyny was commonly practiced in many cultures around the world – it existed in more than 83% of 849 cultures worldwide during 1960 – 1980 (Coult & Habenstein, 1965; Murdock, 1981; Gray, 1998) and, in 35% of cultures, it is sororal, that is, men marry sisters (Coult & Habenstein, 1965). Although polygyny is not a common practice today as opposed to the past, it is still being practiced by some sections of the communities in many parts of the world, especially in many Islamic and African nations (Jansen & Agadjanian, 2020; Kramer, 2020), and including India (Rahaman *et al.*, 2022).

The practice of polygyny exists in different ways depending on religious, customary, cultural, regional, and socioeconomic contexts (Altman & Ginat, 1996; Bretschneider,

1995; Jansen & Agadjanian, 2020). The consequences associated with the practice may also differ according to these contexts. There are several causes and consequences of polygynous marriage. Polygyny may occur for various reasons such as excess mortality of men than women, leading to a deficit of men and surplus of women, desire to have children to continue the family line, failure to produce children/son by first wife, and the cultural practices of lengthy periods of sexual abstinence after childbirth driving the man to seek another partner (Dorjahn, 1959; Ezeh, 1997; Gage-Brandon, 1992; Josephson, 2002; Kiros & Kertzer, 2000; Lardoux & van de Walle, 2003; Rice, 2000; Rahaman *et al.*, 2022; Sichona, 1993; White & Burton, 1988).

Polygyny has several negative consequences such as gender inequality, subordination of women, unequal treatment of spouses, neglect of children, rivalling step-children, and inheritance issues among children/spouses (Al-Krenawi & Lev-Wiesel 2002a; Al-Krenawi *et al.*, 2002b; Al-Krenawi, 2001; Cherian, 1989). Polygyny also affects spousal age differences, coital frequency, child survival, marital relationships, widowhood, and mental health (Arthi & Fenske, 2018; Ashby & Gupta, 2013; Brainard, 1991; Lardoux & van de Walle, 2003; Lesthaeghe *et al.*, 1989; Shepard, 2013; Timaeus & Reynar, 1998). Contemporary social scientists have explored the effect of polygamous marriage systems on gender relations. As a part of the global effort to address the gender equality and women's empowerment, the Sustainable Development Goal five (SDG-5) of the United Nations targets to eliminate all forms of violence against women by 2030. Specifically, the indicator 5.2.1 of SDG-5 monitors "the proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual, and psychological violence by a current or former intimate partner in the previous 12 months" (United Nations, 2015 p. 18). In view of the SDG-5 and the emerging literature pointing toward the effect of polygyny on gender relations, it would be appropriate to examine its effect on spousal violence.

Spousal violence has been linked to several health consequences for women, physical injury, unwanted or forced sex, pregnancy losses, contraction of sexually transmitted diseases, depression, and psychological distress for women (Durevall & Lindskog, 2015; Mason & Lodrick, 2013; WHO, 2013; WHO, 2021b). Studies conducted to identify the determinants of spousal violence have found the age at first marriage, spousal age difference, education, wealth index, women's autonomy, place of residence, and race/ethnicity, controlling behavior of men and alcohol use by men as some of its important predictors (Kimuna & Djamba, 2013; Goli *et al.*, 2020; Parekh *et al.*, 2022). Recent literature also indicates that the type of marital

union (monogamy and polygamy) has an effect on spousal violence (Behrman, 2019; Jansen & Agadjanian, 2020; Ahinkorah, 2021). Polygyny is a harmful practice and a form of violence against women under international law (Boltz & Chort, 2016). In general, it results in a variety of physical, sexual, and psychological harm to women.

According to NFHS-4 (conducted in 2015 – 2016), 26.4% of the ever-married women have experienced physical, sexual, or emotional violence in India (IIPS & ICF, 2017). In India, 52% of women and 42% of men agree that a husband is justified in hitting or beating his wife, indicating that it is a gendered norm that husbands have the right to control their wives through violence (IIPS & ICF, 2017). These gendered attitudes reflect that the broader gender inequalities in India are deeply rooted in the marital system that forces a woman to be younger than her husband, dowry to be paid to the husband's family, reside in husband's residence after marriage, and lack of inheritance of parental property. Polygynous form of marriage, along with traditional patriarchal norm of male dominance in decision making and female subordination, may lead to increased risk of spousal violence. Considering the lack of research in India with respect to the prevalence of polygyny and its impact on gender relations, this study aims to explore the association between polygyny and spousal violence in India. The availability of data both on polygyny and spousal violence in the fifth round of the National Family Health Survey (NFHS) of India (conducted in 2019 – 2021) makes it possible to look into their association. The paper is presented as follows: after introduction, the paper focuses on the literature review and polygyny in India, followed by data and methods, results, discussion, conclusion, and finally limitations.

1.1. Literature review

Gender-based violence is globally recognized as a violation of basic human rights, particularly against women. It is defined by the United Nations as "any act of gender-based violence that results in, or is likely to result in, physical, sexual, or mental harm or suffering to women, including threats of such acts, coercion, or arbitrary deprivation of liberty, whether occurring in public or in private life" (United Nations, 1993, p. 3). Increasing body of the literature has highlighted its extent, pattern, causes, and consequences. Spousal or intimate partner violence is the most widespread common form of violence against women globally (Kishor & Johnson, 2004; Garcia-Moreno *et al.*, 2005; Hindin *et al.*, 2008; the WHO, 2021a). Analysis of prevalence data in 2000 – 2018 across 161 countries and areas by the WHO found that worldwide, nearly 1 in 3 women were subjected to physical and/or sexual violence by an intimate partner or non-partner sexual violence or

both (the WHO, 2021a). Gender-based violence exists in many forms and spousal/intimate partner violence has been regarded as its most significant component. Spousal violence often serves to reinforce the prevailing gendered power relations in the families, communities, and regions. In patriarchal societies, violence against women is used as a tool to reinforce control on women (ICRW, 2004; Jakobsen, 2014; Jewkes *et al.*, 2015; Weitzman, 2014).

Polygyny is a form of violence against women under international law (Boltz & Chort, 2016). In general, it results in a variety of physical, sexual, and psychological harm to women. Some studies revealed that polygamy creates inequality amongst co-wives since the husband cannot care for and cater to the needs of more than one wife. The odds of intimate partner violence (IPV) is higher among women with co-wives compared to those in monogamous marriages (Heath *et al.*, 2020; Jansen & Agadjanian, 2020; Rahaman *et al.*, 2022). The literature also suggests that women involved in polygyny are susceptible to sexually transmitted diseases, infertility, and mental health complications (Ashby & Gupta, 2013; Shepard, 2013). A husband's ability to marry another wife can be used to abuse and control the current wife (Cook & Kelly, 2006). The abuse may be elicited either by the husband or the co-wives (McDermott & Cowden, 2015). The option of taking another wife allows a husband to evade the conflicts inherent in the spousal relationship such as disagreements regarding role division, sexual relations, and distribution of resources/finances/properties (Ross, 2002; UNCHR, 2002). Unresolved issues can also lead to frustration and feelings of hostility and anger on the husband's part, resulting in aggressive behavior with the earlier wife. Hence, it is pertinent to understand that the relationship between polygyny and spousal violence is causal or driven by the background characteristics of women such as residence, caste, religion, education, and wealth.

Studies that have analyzed the relationship between polygyny and spousal violence in recent years, mainly in the African context, have found that spousal violence is higher in polygynous marriages compared with monogamous marriages (Ahinkorah, 2021; Al-Krenawi & Lev-Wiesel, 2002; Amo-Adjei & Tuoyire, 2016; Behrman, 2019; Ebrahim & Atteraya, 2020; Heath *et al.*, 2020; Jansen & Agadjanian, 2020). Polygyny may constitute a source of friction and conflict in the family (Amo-Adjei & Tuoyire, 2016; Uthman *et al.*, 2010). Controlling behavior of men has been described as enforcing masculinity through male authority to control women (Barker & Ricardo, 2005; Heath *et al.*, 2020). Polygynous relationships are usually characterized by competition for resources among competing co-wives (Wekwete *et al.*, 2014). A husband, therefore, manages and controls his wives to prevent

rivalry between them (Agadjanian & Ezeh, 2000). In polygynous marriages, it is difficult for the husbands to provide equal space for all wives to discuss matters and listen to their emotions and feelings. They think that they need to be fully respected and cannot tolerate the rejection of their decisions (Mukhuba, 2017). Women's autonomy does not necessarily evenly characterize all aspects of the conjugal lives of co-wives. While a husband may allow certain independence to one of his spouses with regard to handling of their resources, this may lead to disagreement and conflict with another wife. Several studies have been conducted in India to understand the predictors of spousal violence (Garg *et al.*, 2021; Jejeebhoy, 1998; Jeyaseelan *et al.*, 2007; Koenig *et al.*, 2006). However, with few exceptions (Rahaman *et al.*, 2022), studies on the association between polygyny and spousal violence are lacking in the Indian context. Therefore, a comprehensive study that examines the association between polygyny and spousal violence is worthwhile. Understanding the role of polygynous unions in spousal violence in India would not only be helpful to identify the factors contributing to it but also provides a benchmark for the government to frame policies to stop it.

1.2. Polygyny in India

Although monogamy was the preferred marriage system in India, historically, polygamy was permitted under certain circumstances. There are two forms of polygamy – one is polygyny (a man marries more than one woman) and another is polyandry (a woman marries more than one man). In the past, it was a common custom among the kings, upper castes, merchants, wealthy classes, and elites to have multiple wives to practice unrestricted polygyny (Bhati, 2020; Singh, 2019; Yelamanchili & Parasuraman, 2010). The Hindu Marriage Act of India prohibited the practice of polygyny in 1955. Although India banned polygyny among Hindus, this practice still exists among them (Sahoo *et al.*, 2022; Yelamanchili & Parasuraman, 2010) and the Personal Law of Muslims legally allows such practice. Hence, the practice of polygyny continues in India irrespective of region, religion, caste or class at varying levels. However, over the years, due to the law prohibiting polygyny and possibly the rising cost of maintaining more than one family/wife, it is uncommon to find a man being married to more than one wife simultaneously. The analyses of three rounds of NFHS data indicate that the prevalence of polygyny is low in India, and it declined from 1.9% in 2005 – 2006 to 1.6% in 2015 – 2016 and to 1.4% in 2019 – 2021. Socioeconomic variation in polygyny is observed in India, with higher prevalence among poor, uneducated, rural, and older women compared to their counterparts. Regional variation in polygyny exhibits higher prevalence in the North-eastern region, followed

by Southern and least in Northern region of India (Sahoo *et al.*, 2022).

2. Data and methods

The present investigation is based on a secondary analysis of the data collected in NFHS-5 during 2019 – 2021. The NFHS is a nationally representative, cross-sectional, and demographic and health survey similar in design to the general format adopted for Demographic and Health Surveys (DHS) worldwide. For this study, 512,408 currently married women were investigated from NFHS-5. Since the data provides information about the other co-wives of women, it is possible to study polygynous marriage and its relation to spousal violence. In NFHS-5, a question was asked, “Besides yourself, does your husband have other wives?” Women who indicated that their partners had no other wives were considered to be in non-polygynous marriages (i.e., monogamy), while those who indicated that their partners had one or more other wives were considered as those being in polygynous marriages. Hence, a dichotomous outcome variable was derived from the polygyny variable and coded as 0 = non-polygynous and 1 = polygynous.

Although NFHS-5 provides information at the district level, the survey includes a section on “Domestic Violence” only at the state level (IIPS & ICF, 2021). Data were collected from only one woman in each household. The present study used the sample of currently married women aged 15 – 49 years. After applying weight, the final sample size for spousal violence was 58,699 currently married women. Women who had ever been physically, emotionally, or sexually abused by their current husband in the past 12 months were categorized as having “experienced any spousal violence.” To calculate physical violence, the currently married women were asked seven questions, such as “Did your partner: (a) slap? (b) twist the arm or pull the hair? (c) push, shake, or throw something at? (d) punch with his fist or with something that could hurt? (e) kick, drag or beat? (f) try to choke or burn on purpose? and (g) threaten or attack with a knife, gun, etc.?” If a woman reported that she had experienced any of the above acts by her husband, it was considered as an incident of physical violence. Similarly, for the computation of emotional violence, currently married women were asked “If their husbands: (a) say or do something to humiliate you in front of others? (b) threaten to hurt or harm you or someone close to you? and (c) insult you or make you feel bad about yourself?” If one of the answers by a woman was affirmative, it was considered as a case of emotional violence. As for sexual violence, women were asked: “(a) ever been physically forced into unwanted sex by husband/partner? (b) ever been forced into other

unwanted sexual acts by husband/partner? and (c) ever been physically forced to perform unwanted sexual acts?” If the response was positive for one of the questions by a woman, then it was considered as a case of sexual violence.

The study examined the possible association between polygyny and spousal violence by doing cross-tabulation. Multivariable logistic regressions were used to obtain unadjusted and adjusted odds ratios by controlling a number of explanatory factors such as caste, religion, residence, region, wealth index, age of the respondent, age at marriage, number of living children, spousal age difference, educational status, work status, decision-making power in the household, freedom to go out alone, control over money, attitude toward wife-beating, alcohol consumption of husband, and marital control by husband. $p < 0.05$ was considered statistically significant at 95% of the confidence interval. The odds ratio larger than one represents a greater likelihood of the outcome than the reference category (non-polygynous women) in the logistic regression analysis. Statistical analyses were conducted using Stata version 16.

3. Results

In India, around 1.4% of the currently married women ($N = 7,183$) in 2019 – 2021 reported that their husbands had other wives. Table 1 presents the percentage of currently married women who experienced spousal violence in the past 12 months by type of marital union. Out of 58,699 eligible women selected for the domestic violence module, 57,757 were in non-polygynous union and 942 in polygynous union. In India, 22.3% women were victims of at least one type of physical violence by their husbands. Among them, 38.5% were from polygynous union and 22.1% from non-polygynous union. It was observed that all the acts of physical violence were more than double in polygynous union than in non-polygynous union. Regarding different types of violence, slapping was the most reported act of physical violence, followed by being pushed, shaken, or having something thrown at them.

Overall, 4.9% women faced sexual violence for the past 1 year – 12.2% and 4.8% of them belonging to polygynous and non-polygynous unions, respectively. Being physically forced to have sexual intercourse was the most prevalent sexual violence (10.1% in polygynous and 3.5% in non-polygynous), followed by forced with threats and forced to perform sexual act that women did not want to. About 11.6% women reported that their husbands had emotionally abused them. Women in polygynous union (27.8%) were more likely to report emotional violence than those in non-polygynous ones (11.3%). Saying or doing something to humiliate them in front of others

Table 1. Percentage of currently married women who faced different forms of spousal violence in the past 12 months in polygynous and non-polygynous marriage in India, 2019 – 2021

Type of violence	Non-polygynous	Polygynous	Total
Physical violence			
Any form of physical violence	22.1	38.5	22.3
Pushed her, shook her, or threw something at her	9.3	21.5	9.5
Slapped her	19.0	33.1	19.2
Punched her with his fist or with something that could hurt her	5.8	15.3	5.9
Kicked her, dragged her, or beat her up	6.1	13.4	6.2
Tried to choke her or burn her on purpose	1.6	5.5	1.7
Threatened her or attacked her with a knife, gun or any other weapon	0.8	3.9	0.9
Twisted her arm or pulled her hair	7.8	16.8	7.9
Sexual violence			
Any form of sexual violence	4.8	12.2	4.9
Physically forced her to have sexual intercourse with husband even when she did not want to	3.5	10.1	3.6
Forced her to perform any sexual acts she did not want to	1.8	3.8	1.9
Forced her with threats or in any other way to perform any sexual acts she did not want to	2.7	8.9	2.8
Emotional violence			
Any form of emotional violence	11.3	27.8	11.6
Said or did something to humiliate her in front of others	7.4	19.5	7.6
Threatened to hurt or harm her or someone close to her	4.6	13.9	4.8
Insulted her or made her feel bad about herself	6.7	18.7	6.9
Any form of physical and sexual violence	3.8	10.3	3.9
Any form of emotional and physical and sexual violence	2.4	8.2	2.5
Any form of physical and/or sexual violence	23.1	40.4	23.4
Any form of emotional or physical or sexual violence	25.8	44.5	26.1
Number of currently-married women	57,757	942	58,699

(19.5%) and insulting them or making them feel bad about themselves was the usual form of emotional violence. All three types of emotional violence were reported by a higher proportion of women in polygynous union than in non-polygynous union. Overall, more women in polygynous union reported experiencing either physical, sexual, and emotional violence separately or in combination of these than women in non-polygynous union.

The socioeconomic characteristics of women who endured violence are depicted in Table 2. As mentioned earlier, polygynous women experienced more violence than non-polygynous women. It was observed that 50.6% of the polygynous and 30.8% of the non-polygynous women who belonged to the scheduled castes suffered most from marital violence, followed by those from others, other backward classes, and scheduled tribes. In particular, among scheduled tribes, the percentage of polygynous women experiencing sexual violence was three times higher (12.2%) than that of non-polygynous women (4.8%). A large proportion of Hindu women from

polygynous unions (46.0%) reported some form of violence than non-polygynous women (26.7%). The percentage of women reporting violence in Muslim polygynous families (42.5%) was almost near of the Hindus. In rural areas, the prevalence of violence was higher for polygynous (45.0%) and non-polygynous women (42.7%) than in urban areas.

Spousal violence by region shows that a higher proportion of women in polygynous union reported violence from the western region (50.4%). In non-polygynous unions, it was higher in the southern parts (30.4%) of India (Figure 1). Physical violence among polygynous unions in Southern region of India (43.4) was higher than among non-polygynous women (26.3%). As expected, spousal violence was high among the poorest women – 46.8% in polygynous unions and 34.2% in non-polygynous families. The prevalence of spousal violence among non-polygynous women declined gradually from low to high wealth quintile, violence against the richest women in polygynous unions was very high (32.4%) compared to richest women in non-polygynous unions (14.9%). A similar result was found for emotional violence.

Table 2. Percentage of currently married women who have experienced spousal violence in the preceding 12 months according to household characteristics and by the status of polygyny, 2019 – 2021

Background characteristics	Physical violence		Sexual violence		Emotional violence		Any violence	
	Non-polygynous	Polygynous	Non-polygynous	Polygynous	Non-polygynous	Polygynous	Non-Polygynous	Polygynous
Caste								
Scheduled castes	26.7	41.7	5.6	12.7	13.9	32.4	30.8	50.6
Scheduled tribes	24.3	30.3	4.8	12.2	11.9	30.1	28.2	40.2
Other backward classes	23.3	41.3	4.7	13.0	11.3	27.4	27.0	42.8
Others	16.2	35.5	4.3	10.4	9.4	22.6	19.8	44.2
Religion								
Hindu	22.9	39.8	4.7	12.4	11.6	27.9	26.7	46.0
Muslim	20.4	37.4	5.2	12.1	10.8	28.4	24.2	42.5
Others	14.1	27.1	3.4	10.2	8.7	28.7	17.8	34.4
Residence								
Urban	17.9	37.9	3.6	8.9	9.4	29.2	21.4	42.7
Rural	23.9	38.6	5.3	13.0	12.2	27.5	27.8	45.0
Region								
North	11.4	23.8	3.3	2.6	7.3	12.0	14.7	30.3
South	26.3	43.4	4.2	11.4	14.1	33.8	30.4	49.0
East	25.1	39.2	6.4	17.8	12.5	28.6	29.1	46.7
West	15.6	42.8	3.5	10.9	8.8	31.9	19.1	50.4
Central	25.4	30.2	4.9	6.5	10.8	18.2	28.8	32.2
North-east	21.0	23.5	5.2	4.3	9.7	10.6	24.8	27.2
Wealth Index								
Poorest	29.7	41.1	7.9	22.5	15.1	27.8	34.2	46.8
Poorer	27.4	35.7	6.0	7.1	13.1	24.9	31.4	41.3
Middle	22.7	38.3	4.2	7.8	12.0	31.4	26.6	47.5
Richer	17.8	41.8	3.4	6.1	9.5	32.0	21.3	44.5
Richest	12.0	26.7	2.2	12.3	6.7	14.4	14.9	32.4
Total	22.1	38.5	4.8	12.2	11.3	27.8	25.8	44.5

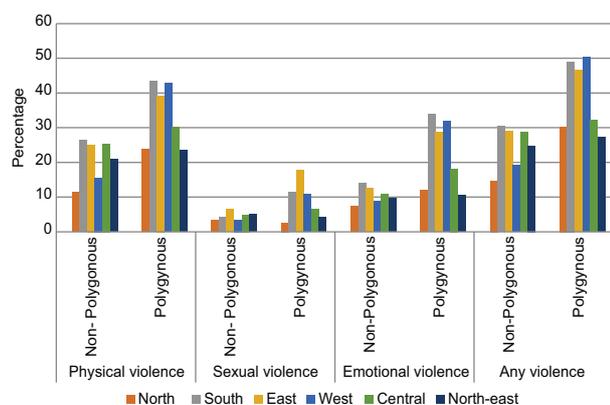


Figure 1. Percentage of Polygyny and Spousal Violence by Region, India, 2019 – 2021

Table 3 compares the different forms of marital/spousal violence according to individual characteristics of women, dimensions of women’s agency and polygyny status. Nearly, two-fifths (44.5%) of polygynous women compared with one-fourth (25.8%) of non-polygynous women had to face marital/spousal violence. In the polygynous and non-polygynous unions, violence was more prevalent among women who got married before the legal age (18 years), had no formal education, had more than two children, and worked on a wage basis.

Decision-making power or women’s empowerment has a significant impact on the incidence of violence. Notably, marital violence is higher in polygynous unions (42.0%) compared to non-polygynous unions (24.3%), where

Table 3. Percentage of currently married women who have experienced spousal violence in the preceding 12 months according to their individual characteristics and dimensions of women's agency and by the status of polygyny, India, 2019 – 2021

Woman level indicators and characteristics related to violence	Physical violence		Sexual violence		Emotional violence		Any violence	
	Non-polygynous	Polygynous	Non-polygynous	Polygynous	Non-polygynous	Polygynous	Non-Polygynous	Polygynous
Sociodemographic								
Current age (years)								
15 – 24	19.5	35.6	4.8	1.05	10.2	25.6	23.8	43.2
25 – 34	22.8	35.3	5.0	10.1	11.8	25.3	26.3	41.1
35 and above	22.4	40.3	4.6	14.4	11.4	29.2	26.2	46.2
Age at marriage (years)								
<18	26.5	40.5	5.8	12.7	13.0	28.3	30.2	46.4
≥18	18.6	37.2	4.0	11.9	10.1	27.5	22.4	43.4
No. of living children								
0	13.5	24.2	3.4	3.5	8.8	16.8	17.6	27.9
1	17.4	43.4	4.2	9.0	9.8	30.4	21.3	45.8
2	20.8	34.6	4.1	15.8	11.0	28.5	24.7	48.0
3 and above	28.1	46.3	6.2	16.7	13.1	30.9	31.7	49.0
Spousal age difference (years)								
Wife older or same age with husband	17.2	69.9	3.8	37.8	8.0	27.9	19.4	74.4
Husband older 1 – 2 years	22.8	44.5	5.0	5.2	10.8	36.9	26.0	45.7
Husband older of 3 and above years	22.3	36.5	4.8	11.7	11.7	27.0	26.3	43.1
Educational attainment level								
No. formal education	30.1	38.9	6.3	14.3	14.6	27.8	33.9	43.6
Primary	24.5	40.1	5.8	15.8	12.1	23.3	28.2	41.8
Secondary and higher	17.8	36.9	3.8	6.8	9.7	30.8	21.5	47.6
Wage work status								
Not worked for wages	19.7	35.0	4.0	5.5	9.5	23.6	23.1	40.6
Worked for wages	26.7	41.7	6.2	18.3	14.9	31.7	31.2	48.2
Agency								
Decision-making authority (no. of household decisions in which woman participates)								
0	20.9	37.1	4.3	9.9	10.1	23.4	24.3	42.0
1 – 2	25.9	28.5	6.1	12.1	15.1	23.6	31.2	40.8
3 – 4	29.9	54.5	9.2	23.0	21.0	51.7	34.9	58.2
Freedom of movement to visit all three locations probed alone								
No	22.9	39.3	5.1	8.2	11.9	22.4	26.7	42.5
Yes	21.7	38.1	4.6	14.1	11.1	30.4	25.4	45.5
Control over money: Owns a bank account								
No	21.8	22.7	5.1	9.5	11.7	21.0	25.4	31.9
Yes	22.2	42.6	4.7	12.9	11.2	29.6	25.9	47.8
Attitudes to wife beating: Number of situations in which wife beating is justified								
0	15.1	30.4	3.2	7.4	7.3	22.1	17.9	35.0
1 – 2	25.3	42.2	4.7	8.7	12.6	26.8	29.7	44.3
3 – 4	32.9	41.9	7.3	13.5	17.2	32.8	37.8	53.5

(Cont'd...)

Table 3. (Continued)

Woman level indicators and characteristics related to violence	Physical violence		Sexual violence		Emotional violence		Any violence	
	Non-polygynous	Polygynous	Non-polygynous	Polygynous	Non-polygynous	Polygynous	Non-Polygynous	Polygynous
5 – 7	32.1	51.4	8.3	28.2	18.5	37.5	37.2	57.7
Characteristics related to violence								
Alcohol consumption by husband								
No	17.1	29.9	3.2	4.9	8.4	22.1	20.6	35.9
Yes	39.3	52.6	10.3	24.2	21.4	37.2	44.2	58.7
Number of marital control behavior displayed by husband								
0	11.2	27.2	1.1	4.1	3.2	14.3	12.7	29.8
1 – 2	28.2	34.1	5.4	8.2	13.0	19.0	33.3	42.7
3 – 6	46.3	58.2	15.1	27.1	34.0	54.9	54.7	66.7
Total	22.1	38.5	4.8	12.2	11.3	27.8	25.8	44.5

women had not participated in any of the household decision making and lower where women had participated in three to four household decisions (58.2% and 34.9%, respectively). Polygynous women (45.5%) and non-polygynous women (25.4%) who had the freedom to go out alone had experienced lesser violence than those who did not. On the other hand, polygynous or non-polygynous women who had a bank account were more likely to suffer from marital violence than those who did not have a bank account. About 35% of the polygynous women agreed that beating a wife without any reason was justified, whereas 57.7% agreed that beating in just 5 – 7 situations was justified if the wife: (a) went out without telling her husband, (b) neglected the house or children, (c) argued with her husband, (d) refused to have sex with him, (e) did not cook properly, (f) was unfaithful to her husband, and (g) showed disrespect to the in-laws. Among non-polygynous women, 37.8% reported that wife-beating was justified in 3 – 4 situations. More than half of the polygynous women (58.7%) and 44.2% of non-polygynous women reported spousal violence when their husbands were alcoholics. Husband's alcohol habit appeared to increase spousal violence across all categories of violence among polygynous and non-polygynous unions. Further, marital violence was higher among polygynous (66.7%) and non-polygynous women (54.7%) when husbands had 3 – 6 types of controlling behavior over women.

The unadjusted odds ratio (UOR) and adjusted odds ratio (AOR) with 95% confidence interval (CI) of the multivariate logistic regression model is presented in Table 4 to show the relationship between polygyny and spousal violence. The unadjusted odds ratio shows that the likelihood of physical violence was 1.87 times more among polygynous women than among non-polygynous women in India. After controlling the other variables, a similar

result (with a lower AOR = 1.36) was found in the adjusted model. The result is also consistent for the physical, sexual, and emotional violence with higher odds in sexual and emotional violence in both unadjusted and adjusted models. Although the unadjusted odds of polygyny showed that spousal violence was higher in all the regions of India, no significant relation was found for Eastern, Northern, and Central regions while adjusting all the factors. While physical (UOR = 2.77) and sexual violence (UOR = 2.95) was higher among polygynous women in the western region, emotional violence was significantly higher among polygynous women in the southern region (UOR = 2.67, AOR = 1.64). Since the odds ratio of polygyny was greater than one, it vividly becomes a risk factor for polygynous women.

4. Discussion

Spousal violence is still widespread in India and women in polygynous marriages have higher odds of experiencing marital violence than in non-polygynous marriages. The results of the study indicate that nearly two-fifths of women from polygynous marriage and about one-fourth from non-polygynous marriage were victims of spousal violence in 2019 – 2021 in India. Several studies found that women in polygynous unions were more likely to experience spousal violence than their monogamous counterparts (Abramsky *et al.*, 2011; Ahinkorah, 2021; Behrman, 2019; Bove & Vallengia, 2009; Jansen & Agadjanian, 2020; Jewkes *et al.*, 2002; Rahaman *et al.*, 2022; Kimuna & Djamba, 2008; Nyamayemombe, *et al.*, 2010). However, most of these studies were from Africa, where the prevalence of polygyny was much higher than in India. Although Rahaman *et al.* (2022) studied women's violence between polygynous and monogamous marriages in India, their data were from the 4th wave of NFHS in 2015 – 2016. Our results are not

Table 4. Unadjusted and adjusted odds ratios showing the effect of polygyny on spousal violence by region, India, 2019 – 2021

Region	Physical violence		Sexual violence		Emotional violence		Any violence	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
India	1.87 (1.63, 2.14)***	1.36 (1.17, 1.58)***	2.17 (1.74, 2.70)***	1.36 (1.07, 1.74)*	2.18 (1.87, 2.55)***	1.47 (1.23, 1.76)***	1.93 (1.69, 2.19)***	1.39 (1.19, 1.61)***
North	2.58 (1.44, 4.64)**	1.69 (0.85, 3.35)	1.04 (0.25, 4.25)	0.54 (0.12, 2.32)	1.90 (0.90, 4.01)	0.95 (0.40, 2.24)	2.63 (1.52, 4.52)***	1.80 (0.94, 3.50)
South	2.28 (1.75, 2.98)***	1.50 (1.10, 2.05)*	2.95 (1.94, 4.50)***	1.62 (0.99, 2.63)	2.67 (1.99, 3.58)***	1.64 (1.14, 2.25)***	2.26 (1.74, 2.95)***	1.45 (1.06, 1.99)*
East	1.47 (1.10, 1.96)**	1.09 (0.79, 1.50)	2.43 (1.62, 3.64)***	1.68 (1.07, 2.65)*	1.92 (1.37, 2.71)***	1.34 (0.91, 1.96)	1.67 (1.27, 2.21)***	1.25 (0.92, 1.71)
West	2.77 (1.61, 4.77)***	2.13 (1.14, 3.97)*	2.95 (1.25, 6.95)*	2.38 (0.90, 6.20)	2.23 (1.15, 4.33)*	1.68 (0.77, 3.66)	2.73 (1.61, 4.64)***	2.20 (1.19, 4.90)*
Central	1.41 (1.04, 1.92)	1.24 (0.88, 1.74)	1.16 (0.63, 2.14)	0.87 (0.44, 1.76)	1.87 (1.29, 2.71)**	1.55 (1.01, 2.38)*	1.32 (0.97, 1.78)	1.12 (0.79, 1.57)
North-east	1.81 (1.36, 2.41)***	1.41 (1.02, 1.94)*	1.86 (1.15, 2.99)*	1.23 (0.73, 2.07)	2.19 (1.50, 3.07)***	1.46 (0.99, 2.14)*	1.94 (1.49, 2.53)***	1.47 (1.08, 2.00)*

Note: Unadjusted model examining the independent association of polygyny and spousal violence; Adjusted model for the variables listed in Table 2 and 3; and 95% confidence intervals in brackets. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

only a merely update but also are an extension of theirs by examining factors associated with specific types of spousal violence and regional variations in a more systematic way.

In spite of the lower prevalence of polygyny in India, the association between polygyny and spousal violence is the same as that in Africa. The possible reasons attributed by the above-mentioned studies for the positive association between polygyny and spousal violence are as follows: less spousal communication and weaker emotional ties in polygynous unions; competition for resources between senior and junior wives leading to strain in familial relationships; low cooperation/interaction between co-wives attributed to competition amongst competing co-wives for various reasons; husband's controlling behavior on the first/older wife once he establishes a second/younger relationship; conflict/jealousy among co-wives pushing the husbands to control them through violence; use of violence by the husbands to resolve the power dispute among the co-wives; and socioeconomic characteristics of the husband, wife, and households.

Our study also finds that the odds of experiencing all the three types of spousal violence (physical, sexual, and emotional) was significantly higher for women in polygynous unions than for those in monogamous ones in India and across all regions. Slapping was the most common form of physical violence with the highest levels observed among polygynous women. Nearly, 12% of women in India experienced sexual violence in polygynous unions and 5% in non-polygynous unions. Among women who experienced sexual violence in polygynous unions, most (10%) were forced to have sex with their husbands.

A previous study on polygyny also found that marital rape occurred when a husband forced his wife to take part in sexual acts without her consent (Ogunwale *et al.*, 2020). More women in polygynous unions than non-polygynous ones suffered from emotional violence. A husband's exclusive support for one wife creates rivalry, violence, and bad feelings among other wives. Sometimes husbands' resort to emotional violence to control violence between wives (Adewale *et al.*, 2021).

Regardless of the personal characteristics of women and the form of violence, a higher proportion of women in polygynous unions experienced spousal violence compared to non-polygynous women. Scheduled caste women (bottom of India's caste system), especially those in polygynous unions, were subjected to severe violence. Irudayam *et al.* (2012) argued that schedule caste women (known as *dalit* women) faced local gender-and-caste discrimination and violence due to extreme imbalance in social, economic, and political power equations. While there was a significant difference in spousal violence between polygynous and non-polygynous women, there was little difference between Hindu and Muslim polygynous women. Spousal violence was more prevalent in rural areas than in urban areas, especially in polygynous marital structures, indicating stronger patriarchal norms in rural areas than in urban areas. In this study, spousal violence was observed to be higher among working women in polygynous and non-polygynous unions. Many studies have also reported similar findings in other contexts (Schuler *et al.*, 1998; Gallin, 1999; Tranchant & Mueller, 2017) and in India (Krishnan, 2005; Rocca, *et al.*, 2008; Krishnan *et al.*, 2010; Weitzman, 2014), indicating a

conflict between financial autonomy of women and marital control behaviors of husbands. Studies by Rao (1997) and Krishnan (2005) found that economic status and alcohol consumption by the husbands played an important role in the abuse of wives in India. Consistent with other studies, poor polygynous women were more likely to be exposed to violence due to their low income and poor bargaining power (Aizer, 2011). Furthermore, the possibility of spousal violence may not carry a monotonous negative relationship with increasing wealth (Kishor & Johnson, 2005). Our results also indicate that emotional violence was higher among the richest women in polygynous unions compared to richest women in non-polygynous unions. As the evidence for the positive relationship between wealth status and emotional violence is less in the literature, the issue requires further probing. However, it should be noted that the studies have reported the higher prevalence of spousal violence if the wives were engaged in paid employment or earned more than their husbands (Dalal, 2011; Kishor & Johnson, 2005; Stöckl *et al.*, 2021). As the economic empowerment of women increases spousal violence, there is a possibility that increased wealth status of the households may lead to increased emotional violence, if not physical/sexual violence.

Globally, women who married before the age of 15 years were more likely to experience violence than those who married 18 (Ahinkorah *et al.*, 2022; Kidman, 2017). Under both marriage categories (<18 years and ≥18 years), women from polygynous unions experienced more violence than those in non-polygynous ones. Similar to several previous studies, this study also found that lack of formal education was significantly associated with greater spousal violence. The present study observed that women who had two or more children were more likely to be victims of spousal violence and this was higher in polygynous unions compared to non-polygynous ones. The positive association between spousal violence and the number of children had also been observed earlier by others (Garg *et al.*, 2021; Solanke *et al.*, 2018; Weitzman, 2014). In addition, women who were relatively older than their husbands, or in cases where the age gap between the spouses was less, faced a higher risk of spousal violence. This finding is in order with other studies from different contexts. Several individual and multi-country studies have reported that the lower age difference between the spouses works as a risk factor for different forms of spousal violence (Abramsky *et al.*, 2011; Hindin *et al.*, 2008; Jewkes *et al.*, 2002; Kishor & Johnson, 2004; Otieno, 2017; Pandey *et al.*, 2009). Our analysis indicates a significant negative association between women's participation in decision-making in the household and violence against them in both polygynous and non-polygynous unions. This result

is in line with the finding of a study in Myanmar, where it was observed which found that women's decision-making power had a negative effect on domestic violence (Kabir *et al.*, 2019). Similarly, Ebrahim & Atteraya (2019) observed that women who made decisions jointly with their spouses in Ethiopia faced a lower risk of domestic violence than those with lower levels of family decision-making autonomy. Women's participation in household decision making indicates an increased interaction and cordial relationship between spouses. As the patriarchal power and control are the basis for the continuation of spousal violence, an increased participation of woman in household decision making helps her to negotiate the allocation of household resources for the benefit of all household members. Several studies have highlighted involvement of women in household decision making in reducing the spousal violence in different contexts (Jewkes *et al.*, 2002; Svec & Andic, 2018). This study also revealed that justification for wife beating was higher in polygynous unions than in non-polygynous ones. Similar results were also observed in seven sub-Saharan African countries (Rani *et al.*, 2004). The study observed a positive association between the controlling behavior of husbands and marital violence, and it was higher in polygynous than in non-polygynous unions. A similar finding was reported in other studies as well (Antai, 2011). Husbands' alcohol consumption had been associated with spousal violence against women in India (Wagman *et al.*, 2018). While our findings reiterated the same, it, further, highlighted that higher proportion women with alcoholic husbands in polygynous unions faced violence compared to their counterparts in non-polygynous unions. The unadjusted effect of polygyny was found to be significantly higher with spousal violence in all the six regions of India and also at the national level. Although the adjusted effect of polygyny on spousal violence was also significant at the national level, it was found to be insignificant in three regions of India (North, East, and Central). This may be due to the much stronger contribution of women empowerment-related variables (education, participation in household decision-making, freedom of movement, control over money, attitudes toward wife-beating, and marital control behavior displayed by husband) which are controlled in the model. It should also be noted that adjusted effect of polygyny on sexual violence was significant in eastern regions and emotional violence in central region.

4.1. Limitation

Although this study used a large sample size from a nationally representative dataset, a few important limitations need to be noted. The results of this study are limited by the cross-sectional nature of the analyzed data;

therefore, it could not have captured all the known risk factors of spousal violence at the individual and community levels. Future studies may focus on the variables omitted in the current study such as history of abuse, residential status of polygynous women (co-residing with husband or not), and rank order of the polygynous women (first/second wife). Furthermore, the results of the study were not supplemented with qualitative data because the goal of the study was to determine the effect of spousal violence on the marital structure (more specifically in polygynous marriage). Since polygyny is a rare marital union in India, a qualitative study can be undertaken to understand, in depth, what other factors affect spousal violence. Despite all these limitations, this study helps to understand the importance of eliminating polygyny and also its impact on spousal violence.

5. Conclusions

Spousal violence is one of the major social problems globally, especially in India and other South Asian countries. The analysis indicates that polygyny, further, amplifies spousal violence against currently married women. There are several individual and household level factors that cause spousal violence. Notwithstanding the higher odds of spousal violence among women in polygynous unions compared with those in monogamous ones across different socioeconomic characteristics of women and across regions of India, the findings of the present study call for a uniform approach to deal with spousal violence at the national level. Further, irrespective of polygynous or non-polygynous unions, this research provides evidence for the need for a proactive and integrated approach to empowering women economically, promoting social environments that are intolerant toward the controlling behavior of men and spousal violence, thus breaking the norms that sustain women's vulnerability to violence within the society. An environment of intolerance toward violence against women needs to be created by removing sociocultural barriers that prevent women from reporting spousal violence. The findings of the study also call for strengthening the implementation of the laws designed to remove more than one marriage simultaneously by men (polygyny). Lack of implementation of marital laws leads to polygynous unions and makes women even more vulnerable to violence by their husbands. The newly enacted protection of women against domestic violence legislation, 2005, in India will go a long way in strengthening the existing goal of reducing the prevalence of domestic violence. Education could provide a woman with more opportunities for financial independence, allowing her to leave an abusive husband. Public education through media channels should be used to target women who may fall outside the formal education

system. Involvement of men in all these interventions is essential to change people's attitude toward violence against women. Moreover, as the law does not permit men to marry more than one wife simultaneously in India (except for one religious minority group), this form of marriage should be discouraged by strictly enforcing it to protect women from marital violence in polygynous unions. To conclude, the analysis has contributed to the body of the literature by analyzing the association between polygynous marriage and spousal violence in India.

Acknowledgments

The authors thank the Ministry of Health and Family Welfare, Government of India and International Institute for Population Sciences (IIPS) for providing a research grant for undertaking this study. Authors also thank to Ms. Srishti Srivastava for helping in the research work.

Funding

None.

Conflict of interest

The authors declare that they do not have any competing interest.

Author contributions

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Ethics approval and consent to participate

Not applicable as this study involves the analysis of secondary data collected by the DHS program (NFHS-5) in India.

Consent for publication

Not applicable.

Availability of data

The use is secondary that is freely available to everyone on request at DHS website https://dhsprogram.com/Countries/Country-Main.cfm?ctry_id=57&c=India

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