Correlates of intimate partner violence in Bhutan: Evidence from the 2012 National Health Survey

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Abstract

Purpose – This paper is to examine the factors associated with partner violence (IPV) in Bhutan.
Design/methodology/approach – The nationally representative National Health Survey data conducted in 2012 was used. The survey included 12,210 women aged 15–75 years. Multiple logistic regression accounting for complex survey design was performed to assess the possible association of the putative factors with physical, sexual, psychological and any IPV experienced in the past 12 months before the survey.
Findings – Alcohol consumption, quarrelling habits and extramarital relationships of husbands/partners were associated with the experience of all types and any IPV. Women performing household chores had increased odds of sexual and any IPV, and those whose husbands had low education levels were more likely to experience physical IPV. Women living in households with >9 members had reduced odds of physical and any IPV. Women married to older husbands/partners were less likely to be psychologically abused. Women from poorer wealth quintiles and who married before reaching 18 years of age also had greater odds of any IPV.
Originality/value – Poor relationship quality, alcohol use, household size, low education, early marriage, poor wealth status and husband's age were factors associated with one or more types of IPV in Bhutan. Interventions to reduce alcohol use, transform social norms, promote healthy relationships and enhance female empowerment through socio-economic programs may help prevent IPV.

Keywords Alcohol, Determinants, Gender, Intimate partner violence, Bhutan
Paper type Research paper

Introduction

Intimate partner violence (IPV) is a global public health problem [1] with significant socioeconomic and health costs [2–4]. According to the World Health Organization (WHO),

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These first two authors contributed equally.

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one in three women worldwide reported having ever experienced violence perpetrated by their intimate partners [4]. IPV is defined as the conduct perpetrated by an intimate partner, both present and previous, that causes physical, sexual or psychological harm, including physical aggression, sexual intimidation, emotional abuse, economic coercion and controlling behaviors [5]. Domestic violence, wife or spouse abuse and battering are some different terms used to refer to IPV. IPV is often stigmatized, hidden, ignored and frequently accepted by women [1] and occurs in all cultures with varying prevalence and spans the life course [6]. Prevention of IPV can improve the physical, mental and economic well-being of women, families and society at large [7, 8].

Numerous individuals, partner, socioeconomic, health and community characteristics are thought to shape women's vulnerability to IPV. These include young age [9–11], age at marriage [12], education and illiteracy [8, 12–16], poverty [8], history of violence [10–13] and rape [17], number of children [13, 18], economic pressure [19], religious commitment [16], childhood trauma [8, 11], gang involvement [8] and lack of autonomy [13]. Health and behavioral factors such as alcohol use [8–12, 14], substance abuse [9, 11, 16] and mental ill-health [8, 16, 20], risky sexual behaviors [8, 10], quarrelling [8] and controlling behavior [20] are shown to be associated with IPV. The area and region of residence [12–14, 17], crime and community norms [19] and being from underprivileged groups [10, 13] have also been linked with IPV.

Factors such as low-income and education, unemployment, early marriage age, alcohol consumption and extramarital affairs are also shown to be related to IPV in patriarchal societies such as Sri Lanka [9], Nepal [13], Indonesia [15] and China [14]. Patriarchal norms have been associated with IPV and women's role and position in society [14, 21–23]. Although a woman's societal role has received increased attention, male dominance, especially within the family, persists in many parts of Bhutan. These factors may also be at play in influencing IPV in Bhutan.

Bhutan has made significant socioeconomic and health developments in the last decades. However, IPV among women remains a public health and social issue in the country. The Bhutan National Health Survey (NHS) conducted in 2012 reported the prevalence of physical, sexual and psychological violence by an intimate partner in the past 12 months to be 6.1, 2.1 and 3.2%, respectively [24]. Another study indicates the domestic violence prevalence to be as high as 44% in the capital city [25]. The 2010 Bhutan Multiple Indicator Survey (BMIS) reported that 68.4% of women agreed that the husband is justified in beating his partner [26]. This is corroborated by the 2012 NHS results, which showed that 74.9% of women agreed that men have reasons to beat their partners [24]. These data suggest a high prevalence and wide acceptability of IPV by the women victims.

Evidence on the factors influencing IPV is limited in Bhutan. A descriptive study conducted in the capital city showed that younger women and those working were more likely to experience sexual violence and women who were working, living in urban residents and had higher education levels were likely to report emotional violence [25]. While the national-level surveys such as the NHS and BMIS have assessed the prevalence of IPV, the potential determinants of IPV were not examined in these surveys. This study examined the factors associated with IPV against women in Bhutan using the dataset of the 2012 NHS.

Methods

Study design

This was an analytical cross-sectional study carried out using the most recent available data on IPV.

Study setting

The total area of Bhutan is 38,394 square kilometers, and the population in 2017 was 735,553 [27]. Out of the total population, 37.8% resided in urban areas and 62.2% in rural areas. The

overall sex ratio was 110 males per 100 females, and 55.3% of the population were currently married [27]. The general literacy rate was 71.4% (78.1% among males and 63.9% among females). Administratively there are 20 *districts* and 205 *blocks* in Bhutan.

Sampling and data collection

The 2012 NHS is a nationally representative household-based survey conducted by the Ministry of Health and the National Statistical Bureau of Bhutan [24]. The survey interviewed 12,214 women aged 15–75 years and achieved a response rate of 97%. The NHS employed the multistage stratified cluster sampling approach to recruit the participants. Urban and rural areas in each district were the primary sampling units. Households were listed and sequentially numbered by selecting villages in rural areas and blocks in the urban areas. A circular systematic selection method was used to select the households. The details of the methods employed and the findings are provided in the 2012 NHS Report [24]. For this analysis, data with missing values on IPV were omitted, making a final sample size of 12,210.

The NHS questionnaires were prepared in English that was pilot tested in two districts. The data were collected by university graduates who were supervised by health workers in the field. The survey teams were trained on the conduct of interviews and in translating the questions, including the questions/definitions of IPV (Table 1), into the national and local languages to ensure that the questions were communicated precisely. Where possible, the deployed teams comprised of members who could speak and understand the local dialect of the area.

Study variables

The 2012 NHS collected data on domestic violence against women, including IPV, by adapting the WHO's Multi-Country Study on Women's Health and Domestic Violence against Women questionnaire [3]. The outcome variable was derived from the question, "In the past 12 months, did your current/most recent partner, or any previous partner commit any of the following acts against you?" The responses were "happened once", "happened a few times", "happened many times" and "never happened". This question was asked regarding physical, sexual and mental/psychological types of IPV separately (Table 1), and each type of IPV and any IPV was analyzed as an outcome variable individually. Those respondents who reported having experienced violence once or more were categorized as having experienced IPV.

The selection of the independent variables was informed by the literature and availability of information in the 2012 NHS dataset. The variables were categorized into women-related, husband/partner-related and household-related factors. Women's age, age when first

Physical violence	*A woman is considered to have experienced physical violence when she:* (1) had something thrown at her that could hurt her, was slapped, hit with a fist, kicked or beaten up, choked or burned on purpose (2) was threatened with the use or actual use of a gun, knife or other weapon
Sexual violence	*A woman is considered to have experienced sexual violence when she:* (1) was physically forced to have sexual intercourse when she did not want to (2) was forced to do something sexual which she found degrading or humiliating
Psychological violence	*A woman is considered to have experienced psychological violence when she:* (1) was insulted or humiliated in front of other people (2) when the perpetrator had done things to scare or intimidate her on purpose by yelling and smashing things
Intimate Partner	Husband and/or partner in an intimate relationship such as living together

Table 1. Operational definition of the types of intimate partner violence used in the 2012 NHS

married, women's education and employment status comprised the women-related factors. While the husband's age, education and employment status, alcohol use, quarrelling habit with the wife and the extramarital relationship of husband/partner as reported by the women were grouped under the husband-related factor. The household-related factors included household size, wealth index, region of residence and residential area.

Data analysis

Frequencies and descriptive statistics were used to describe the characteristics of the study participants and the distribution of all types of IPV. Complex samples analysis was applied to account for clustering, sampling weights and the potential unequal sampling probabilities due to multistage sampling of the NHS. Sampling features such as that of multistage clustering and stratification can affect the standard errors that can lead to wrong inferences [28]. Since the unit of analysis in this sample were women, the sampling weights for women provided in the NHS dataset were used to account for the potential systematic difference in sampling [24].

The STATA command svyset (survey set) was used to declare the survey data by specifying the women's sampling weight, primary sampling unit and the strata variables. Thereafter, the STATA svy command for logistic regression was used to perform the bivariate and multivariate analyses to identify the factors associated with IPV. Those factors found significant at a 10% level ($p < 0.1$) in the bivariate analysis were considered to be included in the multivariate analysis that was built using the backward elimination approach. The unadjusted and adjusted odds ratios with the 95% confidence intervals were estimated. All variables were entered again in the final model one by one to reassess their effect. All statistical associations at $p < 0.05$ in the multivariable model were considered statistically significant. STATA v. 15 was used to conduct the analysis.

Ethical consideration

We obtained approval to use NHS 2012 data from the Ministry of Health, Royal Government of Bhutan. The ethical clearance was sought from the Research Ethics Board of Health (REBH), Ministry of Health, Bhutan (Ref no. REBH/Approval/2018/010).

Results

Sample characteristics

The characteristics of the study sample and the distribution of different forms of violence by the explanatory variables are provided in Supplementary Table S1.

The majority of the women were 25–34 years of age (31.0%), ≥18 years when first married (66.8%), uneducated (63.0%) and were housewives (70.5%). Most of their partners and/or husbands were uneducated (48.8%), employed (38.4%), were 1–5 years older in age (40.9%), never consumed alcohol and quarreled with the wife, also many had no relationship with another woman. The majority of the women were from rural areas (75.7%), from the western region (44.2%), and lived in households with >4 members (53.0%).

Prevalence of Intimate Partner Violence

The weighted prevalence of any form of IPV (who reported having experienced at least physical, sexual or psychological) among women aged 15–75 years in the past 12 months was 7.7%. The prevalence of physical, sexual and psychological violence was 6.0, 2.1 and 3.2%. The proportion of those who reported having experienced all three types of IPV was 0.90%, and the proportion was highest for those reporting both physical and psychological IPV (2.1%).

Factors associated with Intimate Partner Violence

Tables 2 and 3, the unadjusted and adjusted odds ratios of the factors associated with IPV are presented. The bivariate analysis showed that alcohol use by husbands, quarrelling habits, extramarital relationships and having unskilled workers and farmers as husbands were significantly associated with greater odds of experiencing all types and any form of violence. Women's employment status was a significant factor for all but not for psychological violence. Women's age when first married, husband's education, household size, wealth index, residential area and region were associated with physical and any form of violence. Having an older husband and residing in the eastern region was associated with reduced odds of psychological violence.

Table 3, in the multivariate analysis, alcohol use by husband, quarrelling habit and having extramarital relationships of husbands emerged to be consistently associated with increased odds of all types and any form of violence. The odds increased with increasing frequency of alcohol intake and quarrelling with the wife. The probability of experiencing all types and any form of violence rose with the increasing frequency of alcohol use by husbands/partners (Figure 1).

Those women whose husbands had no education (AOR: 1.62, 95% CI: 1.15–2.29) and had primary/non-formal/monastic education (AOR: 1.45, 95% CI: 1.03–2.03) were more likely to be physically abused. Compared to those women living in households with <5 members, those from households with >9 members had 71% ($p < 0.001$) and 48% ($p = 0.023$) reduced odds of experiencing physical and any violence. Women who were not formally employed but performed household chores had higher odds of experiencing sexual (AOR: 1.64, 95% CI: 1.08–2.49) and any form (AOR: 1.32, 95% CI: 1.08–1.60) of violence than those employed. Women whose husbands were 1–5 years (AOR: 0.67, 95% CI: 0.52–0.87) older than their age had a reduced likelihood of being psychologically abused. Women who married when they were younger than 18 years of age also had increased odds of experiencing any form of violence. Compared to the wealthiest (fifth) quintile, those in the lower quintiles had greater odds of experiencing any violence, with a significant association for those in the second wealth quintile (AOR: 1.51, 95% CI: 1.02–2.21).

Those women who reported that they did not know whether their husband had a relationship with another woman had increased odds of experiencing physical (AOR: 1.90, 95% CI: 1.31–2.74) and any form (AOR: 1.64, 95% CI: 1.16–2.34) of violence.

Discussion

This study examined the risk factors associated with IPV in Bhutan by using national-level survey data. The findings reflect the situation of IPV in a country where the nation's growth and development policies are guided by the unique philosophy of Gross National Happiness. Based on the NHS survey data, the weighted prevalence of any, physical, sexual and psychological IPV in the past year was 7.8, 6.1, 2.1 and 3.2%. A recent survey reported comparable prevalence for physical (5.1%) and sexual violence (2.5%) but found a higher prevalence of psychological (27%) and any violence (30%) [29]. This study had a smaller sample size and also assessed the specific attributes of controlling behaviors of the partners and economic abuse, which was not collected in the NHS. The prevalence of intimate partner's controlling behavior was found high at 24.3% [29]. This may help explain the stark difference for any form and psychological IPV prevalence between the two studies.

Women who married before reaching 18 years of age had increased odds of experiencing IPV. This is consistent with findings in other studies [9, 12, 30]. Early marriage can lead to greater financial dependence, which in turn can affect decision-making ability. These women may not have the capacity to safely challenge their husbands and prevent violence. Marrying

Table 2.
Unadjusted associations between independent variables and different forms of and any violence

Variables	Physical	Sexual	Psychological	Any violence
(1) *Women-related factors*				
Women's age (yrs) (ref: 15–24 years)				
25–34	0.90 (0.52–1.57)	0.75 (0.43–1.33)	1.27 (0.73–2.20)	0.91 (0.60–1.38)
35–44	0.92 (0.57–1.47)	0.75 (0.40–1.42)	1.04 (0.65–1.65)	0.86 (0.59–1.26)
45–54	1.00 (0.60–1.67)	1.16 (0.58–2.34)	1.31 (0.84–2.02)	1.03 (0.72–1.47)
55–64	1.32 (0.76–2.32)	1.08 (0.50–2.36)	1.96 (1.19–3.21)**	1.30 (0.82–2.05)
≥65	0.64 (0.34–1.23)	0.56 (0.24–1.28)	0.61 (0.27–1.37)	0.66 (0.41–1.07)
Women's age when first married (ref: ≥ 18 years)				
<18	1.30 (1.03–1.65)*	1.26 (0.86–1.83)	1.14 (0.86–1.52)	1.34 (1.12–1.60)**
Women's educational level (ref: High school and above)				
No education	1.56 (0.93–2.63)	1.32 (0.64–2.68)	1.30 (0.83–2.05)	1.45 (0.97–2.17)
Primary/NFE/monastic	1.39 (0.74–2.60)	1.43 (0.65–3.15)	1.25 (0.67–2.34)	1.40 (0.86–2.26)
Women's employment status (ref: Employed)				
Household chores	1.36 (1.09–1.69)**	1.70 (1.10–2.62)*	1.32 (0.87–2.01)	1.44 (1.17–1.77)**
Student and unemployed	0.82 (0.46–1.45)	0.84 (0.39–1.83)	0.80 (0.45–1.43)	0.68 (0.41–1.13)
(2) Husband-related factors				
Husband's age (years)(ref: ≤ Wife's age)				
1–5	0.91 (0.66–1.25)	1.01 (0.76–1.36)	0.63 (0.48–0.83)**	0.89 (0.67–1.18)
6–10	0.85 (0.68–1.07)	0.94 (0.65–1.36)	0.63 (0.41–0.97)*	0.84 (0.67–1.05)
>10	0.99 (0.77–1.27)	1.27 (0.78–2.06)	0.87 (0.54–1.41)	0.95 (0.76–1.17)
Husband's educational level (ref: High school and above)				
No education	1.88 (1.32–2.67)**	1.18 (0.67–2.06)	1.12 (0.77–1.64)	1.55 (1.19–2.03)**
Primary/NFE/monastic	1.78 (1.29–2.45)**	1.48 (0.76–2.89)	1.49 (0.98–2.25)	1.56 (1.20–1.04)**
Husband's employment status (ref: Employed)				
Unskilled workers	1.44 (1.13–1.84)**	1.67 (1.05–2.70)*	1.72 (1.23–2.40)**	1.58 (1.27–1.98)***
Farmers	1.39 (1.11–1.74)**	0.75 (0.52–1.09)	0.98 (0.68–1.43)	1.22 (1.03–1.45)*

(*continued*)

Table 2.

Variables	Physical	Sexual	Psychological	Any violence
Unemployed	1.05 (0.66–1.65)	0.87 (0.36–2.06)	0.84 (0.44–1.61)	1.06 (0.74–1.53)
Frequency of alcohol use (ref: Never)				
Occasionally (times a week)	1.23 (0.81–1.87)	1.29 (0.83–2.01)	1.88 (1.28–2.76)**	1.34 (0.95–1.90)
1–2	2.94 (1.99–4.33)***	1.70 (0.84–3.46)	2.19 (1.55–3.11)***	2.89 (2.07–4.03)***
≥3	4.85 (3.62–6.49)***	4.00 (2.54–6.30)***	6.19 (4.23–9.04)***	4.58 (3.37–6.29)***
Frequency of quarrel with wife (ref: Never)				
Rarely	4.74 (3.00–7.47)***	2.27 (1.08–4.74)*	4.18 (1.85–9.46)**	4.01 (2.71–5.92)***
Sometimes and often	13.57 (9.59–19.20)***	5.82 (3.30–10.26)***	19.58 (11.14–34.41)***	12.11 (8.84–16.60)***
Having a relationship with other women (ref: No)				
Yes	5.43 (3.76–7.84)***	4.32 (2.19–8.54)***	5.97 (3.89–9.17)***	5.11 (3.56–7.33)***
Don't know	2.06 (1.39–3.04)***	1.59 (0.75–3.36)	1.49 (0.72–3.08)	1.82 (1.27–2.62)**
(3) Household-related factors				
Household size (ref: ≤ 4)				
5–9	1.16 (0.88–1.55)	1.26 (0.85–1.86)	1.19 (0.86–1.65)	1.15 (0.90–1.47)
≥10	0.31 (0.19–0.50)***	0.50 (0.09–2.69)	0.95 (0.36–2.51)	0.55 (0.34–0.89)*
Wealth index (ref: Richest)				
Fourth	1.59 (1.04–2.45)*	0.72 (0.41–1.26)	0.85 (0.45–1.61)	1.39 (0.94–2.04)
Middle	1.48 (1.03–2.14)*	1.19 (0.66–2.15)	1.38 (0.75–2.54)	1.50 (1.07–2.11)*
Second	2.09 (1.43–3.07)***	1.26 (0.72–2.23)	1.44 (0.79–2.64)	1.94 (1.37–2.75)***
Poorest	1.92 (1.33–2.78)**	1.56 (0.94–2.60)	1.39 (0.76–2.53)	1.84 (1.29–2.62)**
Type of residence (ref: Urban)				
Rural	1.42 (1.09–1.85)*	1.33 (0.77–2.30)	1.22 (0.76–1.94)	1.39 (1.06–1.83)*
Region (ref: Western)				
Central	1.57 (1.12–2.22)*	1.42 (0.88–2.28)	2.08 (1.33–3.25)**	1.79 (1.33–2.42)***
Eastern	1.86 (1.45–2.39)***	1.52 (0.99–2.33)	1.12 (0.72–1.72)	1.91 (1.52–2.40)***

Note(s): ref: reference group; NFE: non-formal education; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Variables	Physical	Sexual	Psychological	Any violence
(1) Women-related factors				
Women's age when first married (ref: ≥ 18 years)				
<18				1.23 (1.05–1.45)*
Women's employment status (ref: Employed)				
Household chores		1.64 (1.08–2.49)*		1.32 (1.08–1.60)**
Student and unemployed		0.80 (0.38–1.70)		0.66 (0.38–1.15)
(2) Husband-related factors				
Husband's age (yrs) (ref: ≤ Wife's age)				
1–5			0.67 (0.52–0.87)**	
6–10			0.67 (0.44–1.01)	
>10			0.91 (0.55–1.53)	
Husband's educational level (ref: High school and above)				
No education	1.62 (1.15–2.29)**			
Primary/ NFE/ monastic	1.45 (1.03–2.03)*			
Frequency of alcohol use (ref: Never)				
Occasionally (times a week)	1.12 (0.74–1.69)	1.20 (0.75–1.90)	1.62 (1.09–2.42)*	1.21 (0.86–1.71)
1–2	2.26 (1.52–3.35)***	1.34 (0.65–2.78)	1.56 (1.09–2.24)*	2.19 (1.55–3.09)***
≥3	2.91 (2.21–3.84)***	2.67 (1.58–4.49)***	3.59 (2.51–5.14)***	2.80 (2.07–3.77)***
Frequency of quarrel with wife (ref: Never)				
Rarely	4.50 (2.74–7.40)***	2.20 (1.06–4.57)*	3.89 (1.70–8.92)**	3.83 (2.53–5.82)***
Sometimes and often	10.26 (7.03–14.96)***	4.56 (2.52–8.24)***	14.35 (7.98–25.80)***	9.47 (6.77–13.24)***
Having a relationship with other women (ref: No)				
Yes	3.14 (2.41–4.83)***	2.76 (1.35–5.65)**	3.28 (2.12–5.07)***	3.20 (2.31–4.46)***
Don't know	1.90 (1.31–2.74)**	1.39 (0.67–2.92)	1.29 (0.64–2.59)	1.64 (1.16–2.34)**
(3) Household-related factors				
Household size (ref: ≤ 4)				
5–9	1.06 (0.78–1.45)			1.08 (0.82–1.43)
≥10	0.29 (0.17–0.47)***			0.52 (0.30–0.91)*
Wealth index (ref: Richest)				
Fourth				1.33 (0.86–2.07)
Middle				1.28 (0.85–1.93)
Second				1.51 (1.02–2.21)*
Poorest				1.42 (0.97–2.08)

Note(s): ref: reference group; NFE: non-formal education; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table 3.
Adjusted associations between independent variables and different forms of and any violence

early may aggravate power inequities in marital relationships, thus placing women at a greater risk of IPV [31].

Women whose husbands had higher education and were older were less likely to experience physical and psychological IPV. A study showed similar findings for the

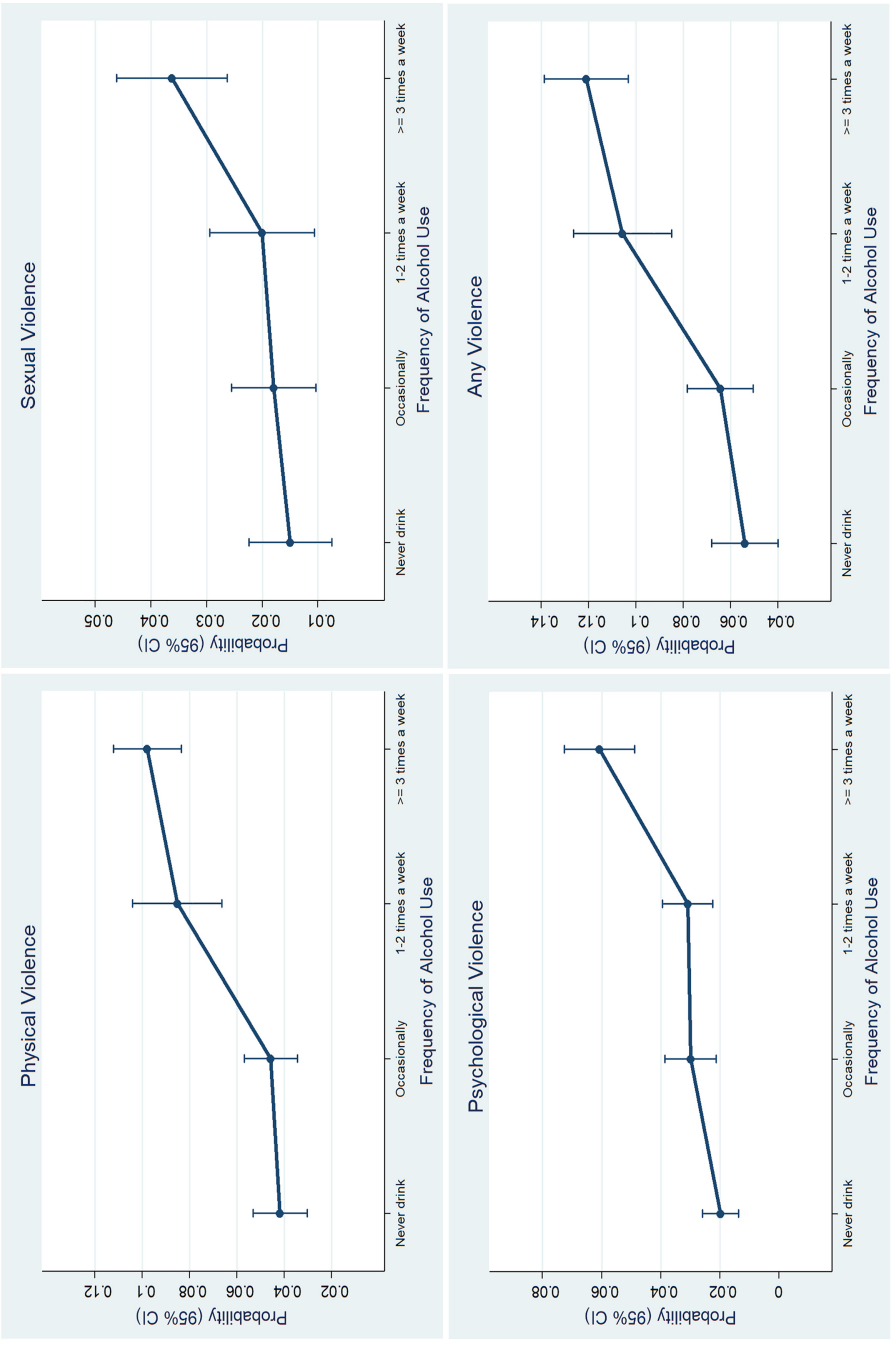

Figure 1.
Margin probabilities of physical, sexual, psychological and any violence by frequency of alcohol use

husband's age and education in relation to women's inclination toward acceptance of wife-beating [15]. Older and well-educated husbands may have equitable attitudes and practices toward women [32] and better insight into the non-acceptance of IPV [33]. Contrarily, husbands with low education and income may be more aggressive due to the economic challenges and may resort to physical force. We found that those women without formal employment and who were housewives doing household chores were more likely to experience violence. These women may not be earning income and are socially and economically dependent on their husbands/partners. Low contribution to household income is a risk factor for IPV [14].

Our study found that poorer wealth status was associated with experiencing any form of IPV. Poverty-related stress might increase women's susceptibility to IPV. Moreover, women in poor households may be less powerful and autonomous, especially in decision-making regarding household matters, which can make them more likely to accept violence. Given that male dominance is still culturally rooted in many parts of Bhutan, less severe forms of violence from husbands are usually accepted especially among women with low socioeconomic backgrounds. On the other hand, women from rich households are less likely to approve violence [31]. They may also be reluctant to report their experience of violence due to concerns over the family's prestige in society. Those who reported not knowing whether their husbands had an extramarital relationship had greater odds of physical IPV. The proportion of women who reported not knowing about their husband's extramarital relationship was higher among richer households (11.8% in richest and 9.2% in the fourth quintile vs 4.5% among the poorest).

Alcohol consumption among husbands/partners was associated with IPV, which is consistent with findings from other studies [8–12]. Alcohol can incite aggressive behaviors through its effect on cognitive functioning, problem-solving abilities, increasing risk-taking behaviors and increased concern over one's power [34]. Sociocultural perceptions of alcohol can also influence the drinker's behaviors. In Bhutan, alcohol consumption is socially accepted as depicted by the high prevalence. 42.4% of Bhutanese adults were current drinkers, and as high as 22.4% engaged in heavy episodic drinking [35], and alcohol is identified as the top leading cause of mortality in Bhutan [36].

Results indicate that IPV is correlated with poor relationship quality. Those women who quarreled with their husbands and whose husbands had extramarital affairs were more likely to experience IPV. A study of Bhutan showed that the proportion of those having sexual relationships with non-regular partners was as high as 31.2%, and almost 11% had extramarital sexual contacts [37]. Extramarital relationship and high marital conflict is a commonly cited risk factor for IPV against women [9, 11, 38, 39]. Increased frequency of quarrelling with the husband that can also be triggered by alcohol use may lead to engagement in an extramarital relationship by one or both partners, which in turn can influence IPV.

The larger household in terms of family members emerged to be a protective factor for physical and any form of IPV in this study. This supports the findings in India's study which showed that women living in nuclear families experienced IPV [40]. It may be that in households with more members, the hesitation due to the presence of other household members or denial by other members could be preventing the husbands or partners from physically abusing their wives. The finding that household size was not strongly associated with psychological and sexual violence also partly supports this explanation. In contrast, a study showed a positive association between family size and domestic violence [12]. Large families can also be a source of increased responsibility and financial pressure that can strain the relationship and prompt IPV.

The proportion of those reporting two types of IPV was highest for physical and psychological IPV which may be attributable to a higher occurrence of these types of IPV.

This suggests some overlap between these two and maybe commonly endured concomitantly by Bhutanese women. The associations for women's education, husband's employment status and rural-urban residence in relation to IPV were not statistically strong in our study. This may imply that the other factors found significantly correlated with IPV in the multivariate analysis are more important factors in predicting IPV in Bhutan. The small sample size of women who experienced psychological and sexual IPV could have also nevertheless influenced the analysis to some extent.

Policy implications

The findings can be beneficial for the policymakers in developing focused interventions to prevent IPV in Bhutan. The risk factors found in this study highlight the need to focus on multiple risk factors and for comprehensive strategies to combat IPV. Awareness and education programs on IPV, its effects on health and well-being and those aimed to transform gender and social norms and attitudes may assist in protecting women from experiencing IPV [6–8]. These need to be undertaken alongside interventions to empower women through education and socioeconomic programs [6] and promote healthy relationships by developing problem-solving and interaction skills for both the partners [8, 41]. Policies to reduce the harmful use of alcohol should also be prioritized [7, 41]. This can not only help reduce IPV but also potentially impact other associated health and social problems in Bhutan. Besides, interventions targeting adolescents and younger women can be cost-effective [7]. The results can help the relevant organization's effort to enhance collaboration and resources to address IPV.

Strengths and limitation of this study

This study used a nationally-representative survey data collected using the standard Demographic and Health Survey methods. The NHS adapted the questionnaire of Women's Health and Domestic Violence against Women of the WHO's Multi-Country Study to assess IPV, which enables comparison of results with other studies. The analysis also accounted for the complex survey design of the NHS. The findings can be widely applicable in the Bhutanese context.

The possibility of social desirability bias in self-reporting IPV by women might have underestimated the prevalence. Generally, physical and sexual violence is considered a sensitive private problem in many countries, including in Bhutan; thus, some women may have chosen not to disclose their experience of IPV. Likewise, as discussed earlier, the 2012 NHS did not examine the husband's/partner's controlling behavior and economic violence that led to the underreporting of psychological violence. Given the cross-sectional design, the temporality of the associations identified cannot be deduced. Finally, we used secondary data from the NHS 2012, and the prevalence of IPV and the related factors might have changed over time.

Conclusions

Alcohol consumption and poor relationship quality indicated by extramarital affairs and quarrelling habits were the factors associated with increased odds of all types of IPV. Smaller household size, having husband's with low education, being housewives, early marriage age, husband's age and poor wealth status were associated with one or more types of IPV. The findings highlight that interventions to empower women through socioeconomic and education programs, transform gender norms and attitudes in the society including awareness of IPV, reduce harmful alcohol use and those aimed to promote healthy relationships can potentially help reduce IPV. Intensified efforts involving a multi-sectoral approach are needed to combat IPV in Bhutan.

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Supplementary data

Supplementary data related to this article can be found at https://data.mendeley.com/datasets/578jvfbsds/1.

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