

Intimate Partner Violence and its Associated Factors among Women of Reproductive Age in Nepal: Findings from a National Cross-Sectional Survey

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ABSTRACT

Introduction: In Nepal, Intimate partner violence (IPV) is quite common among women. Several factors can play a role for the incidence of intimate partner violence. The aim of the study was to assess the prevalence of lifetime IPV and last 12 months and associated factors among Nepalese women of reproductive age.

Methods: The Nepal Demographic and Health Survey 2016 data was used for secondary data analysis. In the study, a total of 3,826 women of reproductive age were included. Intimate partner violence was measured as reporting of physical and/or sexual and/or emotional violence ever experienced in her lifetime as well as in the last 12 months. Descriptive statistics, chi-square test, bivariate and multivariate logistic regression were computed.

Results: Overall, 25.7% women have experienced lifetime intimate partner violence, with 22.1% physical, 7.8% sexual and 12.7% emotional violence. Findings from multivariate logistic regression showed that women belonging to lower caste (Adjusted Odds Ratio(AOR):1.41, 95% Confidence Interval(CI)=1.07-1.85), with no education (AOR:1.95, 95%CI=1.36-2.79), with 3-5 number of children (AOR:1.57,95%CI=1.04-2.35), whose husband had no education (AOR:1.84,95% CI=1.27-2.66), whose husbands drank alcohol (AOR:2.54,95%CI=2.14-3.02) and the women who witness fathers beating their mothers (AOR:2.25,95%CI=1.81-2.78) were more likely suffering from intimate partner violence.

Conclusion: Intimate partner violence has been linked to socio-demographic factors, substance abuse, and previous experience of witnessing fathers beating their mothers. In Nepal, equal access to education for both men and women, prohibition of caste-based discrimination and prevention of substance abuse may be effective strategies for reducing intimate partner violence.

Keywords: *Intimate partner violence, Prevalence, Factors, Witnessing violence, Nepal*

INTRODUCTION

Intimate partner violence is defined as physical and/or sexual and/or emotional violence perpetrated against a woman of reproductive age (15-49 years) by her husband or partner.¹⁻³ Violence towards women is a widespread public health problem that has adverse effect on women's physical and mental health.⁴⁻⁵ In Nepal, women are particularly vulnerable to violence. They are subjected to abuse at various stages of their lives. More than half of women said that they had been victims of violence at some point in their lives.⁶ Physical violence was reported by 25.3% of Nepalese women, and sexual violence was reported by 46.2%.⁶ Globally, 30% of women in relationship experience either physical or sexual violence or both by their intimate partner in their lifetime.¹ The prevalence of IPV ranges from 23.2% in high-income countries to 37.7% in the South-East Asian countries.^{1,9} Low educational status,

alcohol use by husbands, witnessing violence during childhood etc. were associated with IPV.^{1-3,7-8,10-12}

A multi country study on intimate partner violence against woman found huge variations in the prevalence of domestic violence with regards to the level of education, socio-economic status, alcohol abuse, attitudes supportive of wife beating, having outside sexual partners, experiencing childhood abuse, growing up with domestic violence, and experiencing of violence in childhood all contributed to the increased risk of IPV.^{2,10,11}

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Many factors might contribute to the occurrence of IPV in Nepal. Women with controlling husband, level of education and having poor mental health were found to be at higher risk of domestic violence.³ Sexual violence within marriage is common in Nepal. Approximately 48.7% of women reported that they were suffering from sexual violence within marriage which ranged from unwanted sexual touch to forced sex. The consequences of sexual violence resulted to backache, headache, lower abdominal pain, vaginal bleeding and thoughts of suicide.¹³ Among the young women, 46% had experienced sexual violence at some point and 31% had experienced sexual violence within last 12 months by their husband in Nepal. The protective factors against sexual violence were found women's autonomy at the individual and community level and educational level of the husband.⁸

Although IPV has been experiencing regularly among Nepalese women, most of the literature have focused on domestic violence,^{6,8,12,13} there is lack of enough evidences on the factors influencing IPV occurrence and its correlates. Understandings of the factors that influence IPV are needed to address the problem through policy and programs. This study measures IPV as an outcome variable which includes any form of physical violence and/or sexual violence and/or emotional violence by husband or partner. Therefore, this study aimed to assess the prevalence of IPV and its associated factors among women of reproductive age in Nepal.

METHODS

Study design, data and participants

The study utilized the secondary data of Nepal Demographic and Health Survey (NDHS), 2016.¹⁴ A publicly available dataset was obtained from the measure DHS website after the written request to DHS.¹⁵ The dataset was created by including relevant information from the women's questionnaire. The NDHS used a multistage cluster sampling procedure for data collection. Each province was stratified into urban and rural areas, yielding 14 sampling strata. Samples of wards were selected independently in each stratum. In the first stage, 383 wards were selected with probability proportional to ward size and in a second stage of sample selection; one enumeration area was randomly selected from each of the sample wards.^{14,15}

The design of this study was cross sectional. The study population comprised women of age 15-49 years. Total sample size was 4,447. For the measurement of intimate partner violence, 3,826 women of 15-49 years were

included for the analysis after excluding missing. The respondents who did not answer the question of violence were considered as missing. The details of sampling design, sampling frame, questionnaire and procedure can be found in the DHS website and NDHS survey report.¹⁴

Study variables

An outcome variable is IPV that includes any form of physical and/or sexual and/or emotional violence to the women of reproductive age (15-49 years) she ever experienced during her lifetime as well as in the last 12 months by her husband or partner.^{2,3} Occurrence of physical, sexual and/or emotional violence were measured according to the questionnaire of NDHS 2016. There were 13 questions related to emotional, physical, and sexual violence in NDHS regarding IPV.⁸

The physical violence is considered if the respondent experienced any of the act defined as pushed, shook or threw something at her, slapped her, twisted her arm or pulled her hair. Likewise, punched her with his fist or with something that could hurt her, kicked her, dragged her, or beat her up, tried to choke her or burn her on purpose and threatened her or attacked her with a knife, gun, or any other weapon. Whereas sexual violence is considered if the respondent experienced any of the action against her like physically forced her to have sexual intercourse even when she didn't want to or forced her to perform any sexual acts she didn't want to or any degrading or humiliating sexual act. Emotional violence is considered if the respondent perceived that she was humiliated in front of others or threatened to hurt or harm her or someone close to her or insulted her or made her feel bad about herself. Woman who gave a positive response to any of the questions related to physical and/or sexual and/or emotional violence, was considered IPV.^{14,16}

The independent variables are age group, ethnicity, religion, education, occupation, number of children, wealth quintile, ecological zone, developmental region, type of residence, cigarette smoking, respondent's father beat her mother, husband age, husband education level, husband occupation and husband's alcohol consumption. Most of the variables were categorized as they were in the NDHS survey.¹⁴ Ethnicity was categorized into three groups: upper caste (Hill Brahmin, Hill Chhetri, Terai Brahmin, and Terai Chhetri), lower caste (Hill Dalit and Terai Dalit), and others (all other recorded ethnicities).^{17,18}

Data analysis

The data were analyzed using IBM SPSS version 20.0. Descriptive statistics were used to describe the

characteristics of the study population and to find out the prevalence of IPV in lifetime and in last 12 months. The chi-square (χ^2) test was used to analyze the association between the explanatory variables and IPV in lifetime. Logistic regression was conducted to determine the strength of association of different independent variables with dependent variable i.e., IPV in lifetime. The variables that were significant in the chi-square test were included in the bivariate and multivariate logistic regression. Both crude and adjusted odds ratios were computed at 5% level of significance. Adjusted odds ratios (AORs), 95% confidence intervals (CIs), and p values were presented. Hosmer and Lemeshow Model test was done, and the model was fit for the independent variables in adjusted logistic regression. Nagelkerke R Square was also computed and presented.^{3,16}

The NDHS 2016 was approved by the Nepal Health Research Council and Ethical Review Board of ICF Macro International. Authors got permission from the DHS program to use the dataset for this study.

RESULTS

Prevalence of intimate partner violence

More than a quarter (25.7%) of the respondents experienced IPV, where 22.1% suffered from physical, 7.8% from sexual and 12.7% from emotional violence in their lifetime. Likewise, 13.6% of respondents experienced IPV in the last 12 months where 10.1% suffered from physical, 4.8% suffered from sexual, and 7.8% suffered from emotional violence.

Table 1: Prevalence of different types of intimate partner violence (n=3,826)

Variables	Categories	Lifetime		Last 12 months	
		n	%	n	%
IPV	Yes	983	25.7	520	13.6
	No	2843	74.3	3306	86.4
Physical Violence	Yes	842	22.1	384	10.1
	No	2984	77.9	3442	89.9
Sexual Violence	Yes	297	7.8	183	4.8
	No	3529	92.2	3643	95.2
Emotional Violence	Yes	485	12.7	300	7.8
	No	3341	87.3	3526	92.2

Socio-demographic factors with lifetime intimate partner violence

Table 2 shows the relationship between socio-demographic variables and lifetime IPV against women. Age group,

ethnicity, religion, education, occupation, number of children, wealth quintile, ecological region, developmental region, cigarette smoking, respondents witnessing fathers beating their mother and husband’s consumption of alcohol were associated with intimate partner violence.

Table 2: Lifetime intimate partner violence and its socio-demographic factors (n=3826)

Variables	Categories	Any type of violence		p value
		Yes (%)	No (%)	
Age group (in years)	<25	180(21.1)	675(78.9)	0.001
	25-34	394(25.6)	1144(74.4)	
	35-45	335(28.4)	844(71.6)	
	>45	74(29.1)	180(70.9)	
Ethnicity	Lower caste	193(34.2)	372(65.8)	<0.001
	Other caste	566(29.8)	1333(70.2)	
	Upper caste	224(16.4)	1138(83.6)	

Religion	Hindu	850(25.2)	2520(74.8)	<0.001
	Buddha	31(18.3)	138(81.7)	
	Others	102(35.5)	185(64.5)	
Education	No education	533(33.4)	1064(66.6)	<0.001
	Primary	203(28.7)	504(71.3)	
	Secondary	172(20.4)	670(79.6)	
	Higher	75(11.0)	605(89.0)	
Occupation	Did not work	245(22.5)	843(77.5)	<0.001
	Agriculture	526(26.4)	1467(73.6)	
	Job	123(23.1)	410(76.9)	
	Skilled/unskilled manual	89(42.0)	123(58.0)	
Number of children	0	54(16.5)	273(83.5)	<0.001
	1-2	422(22.6)	1444(77.4)	
	3-5	436(30.7)	985(69.3)	
	>5	71(33.5)	141(66.5)	
Wealth quintile	Poorest	210(23.7)	676(76.3)	<0.001
	Poorer	235(28.7)	583(71.3)	
	Middle	243(31.2)	535(68.8)	
	Richer	193(25.9)	551(74.1)	
Ecological zone	Richest	102(17.0)	498(83.0)	<0.001
	Mountain	58(19.7)	236(80.3)	
	Hill	368(20.5)	1431(79.5)	
	Terai	557(32.1)	1176(67.9)	
Development region	Eastern	195(26.1)	551(73.9)	<0.001
	Central	291(31.3)	638(68.7)	
	Western	174(21.1)	649(78.9)	
	Mid-western	207(25.2)	614(74.8)	
Type of residence	Far- western	116(22.9)	391(77.1)	0.619
	Urban	618(26.0)	1762(74.0)	
Cigarette smoking	Rural	365(25.2)	1081(74.8)	<0.001
	No	853(24.2)	2668(75.8)	
Respondent's fathers beat her mother	Yes	130(42.6)	175(57.4)	<0.001
	No	725(22.6)	2490(77.4)	
	Yes	233(42.6)	314(57.4)	
	Don't Know	25(39.1)	39(60.9)	
Husband age (in years)	<25	76(20.2)	301(79.8)	0.004
	25-34	335(23.7)	1078(76.3)	
	35-45	314(26.3)	880(73.7)	
Husband educational level	>45	211(29.1)	513(70.9)	<0.001
	No education	243(41.5)	342(58.5)	
	Primary	272(31.5)	592(68.5)	
	Secondary	341(20.9)	1293(79.1)	
	Higher	80(12.8)	545(87.2)	

	Did not work	31(24.8)	94(75.2)	
Husband occupation	Agriculture	211(25.8)	607(74.2)	<0.001
	Service	315(21.4)	1155(78.6)	
	Skilled/unskilled manual	375(29.5)	888(70.5)	
Husband's alcohol consumption	No	336(16.7)	1681(83.3)	<0.001
	Yes	647(35.8)	1162(64.2)	

Factors associated with intimate partner violence

All the variables that were significant in the chi-square test were selected for the regression analysis. In the adjusted analysis ethnicity, religion, education, occupation, number of children, ecological zone, developmental region, cigarette smoking, husband education, respondents witnessing fathers beating their mothers and husband's drinking alcohol were statistically significant with lifetime IPV.

Women belonging to the lower caste (AOR: 1.41, 95%CI=1.07-1.85) and other caste (AOR: 1.26, 95% CI=1.01-1.58) were more likely to report IPV as compared to the women of upper caste. Women with no education were 1.95 times; primary level education were 1.9 times and with secondary level education were 1.6 times more likely to report IPV as compared to the women of higher

education. Women of middle class were at more risk of IPV compared to women of richest family (Table 3).

Women whose husband had no education and primary education were more likely to report IPV as compared to the women whose husband had higher education. Similarly, respondents witnessing fathers beating their mother was significantly associated with IPV. Woman's whose husband consumes alcohol had higher odds of reporting IPV compared to non-alcohol users (AOR: 2.5, 95% CI= 2.14-3.02) (Table 3).

The Hosmer and Lemeshow test was done to check the model fitness ($p > 0.05$). The Nagelkerke R square was 0.206 in the study. It means 20.3% variation in the IPV is explained by factors included in the model.

Table 3: Logistic regression analysis with factors association with lifetime intimate partner violence

Variables	Categories	Crude OR(95%CI)	AOR(95%CI)	p value
	<25	Ref		Ref
Age group (in years)	25-34	1.29(1.06-1.58)	1.09(0.82-1.44)	0.569
	35-45	1.49(1.21-1.83)	1.13(0.78-1.65)	0.518
	>45	1.54(1.12-2.11)	1.05(0.62-1.77)	0.866
Ethnicity	Upper caste	Ref		Ref
	Other caste	2.16(1.81-2.57)	1.26(1.01-1.58)	0.042
	Lower caste	2.64(2.10-3.30)	1.41(1.07-1.85)	0.014
Religion	Hindu	Ref		Ref
	Buddha	0.66(0.45-0.99)	0.55(0.35-0.85)	0.007
	Others	1.64(1.27-2.11)	1.35(1.01-1.82)	0.046
Education	No education	4.04(3.11-5.24)	1.95(1.36-2.79)	<0.001
	Primary	3.25(2.43-4.34)	1.91(1.34-2.71)	<0.001
	Secondary	2.07(1.55-2.78)	1.62(1.16-2.25)	0.005
	Higher	Ref		Ref
Occupation	Did not work	Ref		Ref
	Agriculture	1.23(1.04-1.47)	1.25(1.01-1.54)	0.037
	Service	1.03(0.81-1.32)	1.42(1.06-1.90)	0.018
	Skilled/unskilled manual	2.49(1.83-3.39)	1.90(1.33-2.70)	<0.001

	0	Ref		Ref
Number of children	1-2	1.48(1.08-2.02)	1.44(1.00-2.09)	0.050
	3-5	2.24(1.64-3.06)	1.57(1.04-2.35)	0.031
	>5	2.55(1.69-3.83)	1.57(0.93-2.65)	0.090
	Poorest	1.52(1.17-1.97)	1.04(0.71-1.52)	0.850
Wealth quintile	Poorer	1.97(1.52-2.56)	1.30(0.92-1.84)	1.131
	Middle	2.22(1.71-2.88)	1.36(0.99-1.89)	0.061
	Richer	1.71(1.31-2.24)	1.25(0.91-1.71)	0.162
	Richest	Ref		Ref
Ecological zone	Mountain	Ref		Ref
	Hill	1.05(0.77-1.43)	1.02(0.71-1.46)	0.933
	Terai	1.93(1.42-2.61)	1.83(1.25-2.68)	0.002
	Eastern	1.19(0.92-1.55)	1.26(0.92-1.72)	1.153
Development region	Central	1.54(1.19-1.97)	1.74(1.29-2.35)	<0.001
	Western	0.90(0.69-1.18)	1.16(0.84-1.59)	0.374
	Mid-western	1.14(0.87-1.47)	1.41(1.04-1.91)	0.027
	Far- western	Ref		Ref
Cigarette smoking	No	Ref		Ref
	Yes	2.32(1.83-2.95)	2.05(1.54-2.74)	<0.001
Husband age (in years)	<25	Ref		Ref
	25-34	1.23(0.93-1.63)	0.89(0.62-1.27)	0.521
	35-45	1.41(1.07-1.88)	0.78(0.51-1.19)	0.245
	>45	1.63(1.21-2.19)	0.81(0.50-1.32)	0.392
Husband educational level	No education	4.84(3.63-6.45)	1.84(1.27-2.66)	0.001
	Primary	3.13(2.38-4.12)	1.44(1.02-2.03)	0.036
	Secondary	1.80(1.38-2.34)	1.13(0.84-1.53)	0.419
	Higher	Ref		Ref
Husband occupation	Did not work	Ref		Ref
	Agriculture	1.05(0.69-1.63)	0.78(0.48-1.26)	0.304
	Service	0.83(0.54-1.26)	0.85(0.53-1.35)	0.488
	Skilled/unskilled manual	1.27(0.83-1.94)	0.80(0.50-1.27)	0.336
Respondents fathers beat her mother	No	Ref		Ref
	Yes	2.55(2.11-3.08)	2.25(1.81-2.78)	<0.001
	Don't Know	2.20(1.32-3.66)	1.81(1.02-3.22)	0.044
Husband's alcohol consumption	No	Ref		Ref
	Yes	2.79(2.39-3.24)	2.54(2.14-3.02)	<0.001

DISCUSSION

The study revealed the prevalence of lifetime IPV which was 25.7% whereas prevalence of IPV in the last 12 months was 13.6%. According to a study conducted in Nepal in 2011, showed that about 15% of young and middle-aged married women reported some form of violence in the last

12 months.¹⁹ Similarly, another study conducted in 2011 in Nepal found that 28.31% of women had been exposed to IPV in the last 12 months.¹⁰ According to the other study conducted in rural Nepal in 2011 showed that 51.9% of women have reported having experienced some form of

violence in their lifetime.⁶ The prevalence of life time IPV from the referenced study conducted in 2011 in Nepal showed almost double than the prevalence reported in this study. Because of the wide variance in prevalence across different studies, it is important to do further research on related topics.³ The difference might be due to time gap in between the studies. The interventions in Nepal in recent time focuses on women's health, education and empowerment, which may have impacted in lowering the prevalence of IPV.

In this study, 22.1% of women have experienced physical, 7.8% have experienced sexual, and 12.7% have experienced emotional violence during their lifetime whereas 10.1% have experienced physical, 4.8% have experienced sexual and 7.8% have experienced emotional violence in the last 12 months. In this study, physical violence was reported higher than emotional violence. It might be due to lack of perceiving emotional violence compare to physical violence and it might be due to the social acceptance of emotional violence in Nepal. The study done in eastern India showed that overall prevalence of physical, psychological, sexual and any other form of violence were 16%, 52%, 25% and 56% respectively.²⁰ WHO multi-country study done in 2005 in 10 countries regarding women's health and domestic violence during their life time by their intimate partner showed the varying of prevalence from 13% in Japan to 48.7% in Ethiopia. Similarly, sexual violence was found varying from 6.2% in Japan to 58.6% in Ethiopia whereas for emotional violence it was observed 4.5% in Japan to 15.7% in Peru.²¹

In comparison to the women with higher education, women with no education were more likely to be the victims of IPV. Women whose husband had primary, secondary and higher education were less likely to report IPV, compared to the women whose husband had no education. This study revealed that education of both partners was one of the most important correlates of IPV in Nepal; which was also evident in previous other studies.^{2,10} In this study, women who had engaged themselves in service, agriculture, or other works were more likely to experience IPV than women who are at home without any formal job or labor work. The study done in rural Nepal showed that risk of violence was more than two times higher among women who were in agriculture or daily wages occupation as compared to the women who were in service or small businesses.⁶ Women's engagement in economic activities empowers them, gives them decision-making authority, and have reporting tendency against any form of violence compare to women who do not have any service or job.

In this study, there was association between husband's alcohol consumption and IPV. The study carried out by WHO in multi-countries also showed the similar result in terms of alcohol consumption by male partner and IPV.² Study done in rural Uganda also showed that women whose husband frequently consumed alcohol were 4.6 times more prone to suffer from IPV than whose husband never drink alcohol. Similarly, women whose husband drink alcohol occasionally were 1.6 times higher at risk of IPV compared to women whose husband never consume alcohol.²²

Number of children was also found to be significantly associated with IPV in this study. Similarly, another study done in Nepal showed that there is an association between higher number of children and IPV.¹⁰ In contrast to this, the study done in Uganda reported that women with many children had significantly lower risks of violence than the reference group that is 0 to 1 number of children.²² In this study, women witnessing father beating their mother were more likely to report IPV. The similar result was shown by the study carried out in multi-country by WHO which showed that women reported higher IPV when their mother was abused by their partner.² Similarly, the Serbian report showed the mother who was beaten by her partner was also substantially correlated with IPV (OR 2.75).²³ Women who have experienced and witnessed violence against their mother by their father may perceive violence against them by their partner is acceptable.

CONCLUSION

The lifetime prevalence of IPV was 22.1% for physical, 7.8% for sexual and 12.7% for emotional whereas it was 10.1%, 4.8%, and 7.8%, respectively for physical, sexual and emotional violence in the last 12 months. The factors associated with IPV were respondent's education, respondents' husband education, cigarette smoking, husband's alcohol consumption, respondents witnessing fathers beating their mother, ethnicity, religion, occupation and number of children. Intervention programs to address IPV should target on the afore mentioned factors. Formal education of both male and female and prevention of substance abuse might be the important strategies to reduce the IPV in Nepal. Further research should be done to understand men's use of alcohol/smoking and violence to tailor the prevention and management programs that address both alcohol/smoking and violence issues.

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