

Determinants of Intimate Partner Violence Against Women in Sri Lanka: An In-Depth Analysis

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Abstract

Intimate partner violence against women can be defined as any emotional, physical, psychological, or sexual abuse committed against women by intimate partners. The main objective of the study is to identify the factors associated with violence from intimate partners against women in Sri Lanka. The other objective is to determine the awareness among the women about the organization or people providing services to combat violence from intimate partners. To achieve those objectives, data was obtained from the demographic and health survey (2016) conducted by the Department of Census and Statistics Sri Lanka. The chi-square test, binary logistic regression, and ordinary logistic regression were used for the analysis. The average age of the women in this study was 35.98 ± 7.69 years, and women from age 15 to 49 were considered eligible for the study. The results of chi-square tests, binary logistic regression analysis, and ordinary logistic regression analysis revealed that intimate partner violence can be decreased in many ways, including increasing education and media exposure. The well-being of women in society should be at a higher level since more than half of the community consists of women and they are key to the growth and development of a society in various ways. Therefore, determining the magnitude and associated factors from different studies can help government officials, policymakers, program designers, and concerned bodies design prevention and control strategies to lower domestic violence.

Keywords: Awareness, Decreased, Age, Logistics, Chi-square

1. Introduction

Background of the Study

Violence is the use of physical forces that are intended to hurt people or are likely to cause damage. Domestic violence is a very complex and broader situation. The victim can be a woman, a man or a child. Most of the time the victim is a woman or a child. Therefore, this study is planned to consider intimate partner violence against women. Violence against women can be defined as any emotional, physical, psychological, or sexual abuse committed against women by intimate partners or acquaintances, including current or former spouses, cohabiting partners or boyfriends (Kerr, Levine, & Woolard, 2007; Dienye & Gbeneol, 2009; Vadysinghe et al., 2017; Semahegn & Mengisite, 2015). Generally, emotional and psychological abuse is intended to control victims by limiting resources and social contacts, reducing victims' sense of self-worth. Physical abuse happens in different ways. Such as slapping, pushing, and hitting (Lacey et al., 2012). Sexual abuse includes forced sex, engaging in sexual activities because of fear, and degrading or

humiliating sexual behaviour (Reyal et al., 2021).

There are several reasons for the occurrence of violence from an intimate partner. For instance, unawareness of domestic violence, to secure the marriage, inabilities, personality traits and lack of knowledge about laws which help to stop violence (Vadysinghe et al., 2017). Further, the problems cannot be directly observed for several reasons, such as fear, shame, and taboos (Vadysinghe et al., 2017). Most of the time the effect of violence is hidden. Only the effect is visible when it comes to a physical injury. Still, intimate partner violence can affect the mental health of the victim and lower the personality and economic losses. Even the increment of violence from intimate partners in a society can slow the growth and development of a country (Krug et al., 2002). When it comes to the Sri Lankan context, there is limited study regarding the factors associated with violence from intimate partners against women in Sri Lanka. Therefore, it is better to identify the reasons for violence to mitigate such situations. So, this research tried to identify factors associated with violence from intimate partners against women in Sri Lanka.

Significance of the Study

Violence is harmful to the physical, psychological, economic and social well-being of the victim. So, it is better to identify the factors associated with violence. These identified factors can be used to reduce violence in several ways, such as conducting programmes to prevent violence, policy making to prevent violence, planning future research to determine the actual effect of these identified variables on intimate partner violence, and identifying the target group that requires more attention. Since intimate partner violence against women has different negative social, economic, physical, psychological, sexual and reproductive health outcomes or consequences, without addressing violence against women, it could not achieve growth and development targets. The well-being of women in society should be at a higher level since more than half of the community consists of women, and they are key to the growth and development of a society in various ways. Therefore, determining the magnitude and associated factors from different studies can help government officials, policymakers, program designers, and any concerned bodies design prevention and control strategies to lower domestic violence.

Objectives

1. Identify the factors associated with violence from intimate partners against women in Sri Lanka.
2. Identify the awareness level among the women about the organization or people providing services to combat violence from intimate partners.

2. Literature Review

Domestic Violence Against Women

Domestic violence is a significant form of violence perpetrated by intimate partners and family members, including physical abuse, sexual abuse, psychological abuse, economic abuse, and acts of omission. According to domestic violence against women and associated factors in Ethiopia, systematic review violence is defined by the World Health Organization (WHO) as the intentional use of physical force or power, threatened or actual, against oneself, another person, against a group that either results in or has a high

likelihood of resulting in injury, death, psychological harm, mal development, or deprivation (Semahegn & Mengisite, 2015). Domestic violence has gained worldwide recognition as a serious violation of human and legal rights. In many instances, women experience domestic violence resulting from unequal power dynamics between genders, recognized as a substantial public health and human rights issue. This research includes one of the common forms of violence, which is physical and sexual abuse of women by intimate partners.

Aghakhani et al. (2015) implied that women are subjected to domestic violence significantly more often than men. In addition, domestic violence is one of the causes of disability and death in women. Women who are abused frequently have a range of physical health problems, including headaches, hypertension, and chronic fatigue. These health problems dramatically reduce their ability to cope with the violence they experience. These health problems result in chronic physical diseases and reduced practice of healthy actions and lifestyle choices. Economic problems are the most common cause of domestic violence while showing a significant relationship between low socioeconomic levels and a higher risk of violence (Aghakhani et al., 2015).

Intimate Partner Violence

Intimate partner violence can be identified as one of the most common forms of violence against women and includes physical, sexual, and emotional abuse and controlling behaviours by an intimate partner (World Health Organization, 2012).

Intimate partner violence is gender-based and is a serious public health problem that cuts across nations, cultures, religions, and classes (Ilika, Okonkwo, & Adogu, 2002; Olufunmilayo, Adedibu, & Adeniran, 2005). Another important thing is that intimate partner violence can occur in same-sex and opposite-sex relationships. Mchugh and Frieze (2006) used the term intimate partner violence to refer to physical injury to one's partner in the context of intimate (romantic/sexual) relationships, and intimate partner abuse refers to physical, psychological, and sexual coercion perpetrated in the context of an intimate relationship. Several studies of various Asian populations in the United States report the prevalence of physical and sexual intimate partner violence around 18 - 52 % (Yoshihama, 2009). In addition to this, tolerance of intimate partner violence appears high among Asians in the United States (Yoshihama and Tolman, 2015). A nationwide study compared the attitudes toward intimate partner violence across various racial & ethnic groups and the results suggest that Asian men and women were less likely to define a husband's shoving or "face-smacking" as intimate partner violence when compared to other racial & ethnic groups (Klein et al. 1997).

Intimate partner violence impacts individuals of different genders, income levels, nationalities, ethnicities, and belief systems. More recent studies found that the lifetime prevalence of intimate partner violence in Sri Lanka varies between 25% and 35% (Reyal et al., 2021). A recent study conducted in Sri Lanka indicated that both ever abused (n=393; 50.8%) and currently abused (n=200; 25.8%) were significantly higher among the women living in the tea plantation sector (Muzrif et al., 2018). Therefore, as a country, necessary steps should be taken to tackle this situation.

Forms of Intimate Partner Violence

There are several forms of intimate partner violence such as physical violence, Sexual

violence, psychological abuse, and controlling behaviours. According to the World Health Organization (2012), physical violence includes slapping, hitting, kicking, and beating. Physical abuse consisted of a combination of acts that included throwing something that could hurt, pushing, grabbing, shoving, pulling hair, and threatening with objectives including guns and knives (Lacey et al., 2012). Studies have indicated that there are approximately 4.8 million women who are both raped and physically assaulted or one at a time annually, and about 1.5 million of those offences are committed by an intimate or ex-intimate partner (Lundy & Grossman, 2009).

Sexual violence, including forced sexual intercourse and other forms of sexual coercion (World Health Organization, 2012). Similarly, Reyat et al. (2021) identified sexual abuse in terms of forceful sexual intercourse, engaging in sexual activities because of fear, and degrading or humiliating sexual behaviour.

Psychological abuses include belittling, constant humiliation, intimidation, threats of harm, and the fear of child custody loss (World Health Organization, 2012). There are 20-75% of women who are experiencing violence from a partner in their lifetime. Additionally, psychological abuse includes controlling behaviours such as isolating a person from family and friends, monitoring their movements, and restricting access to financial resources (World Health Organization, 2012). As per the World Health Organization (2012), the most widely used model for understanding violence is the ecological model, which proposes that violence results from factors operating at four individual levels: relationship, community, and societal. History of violence in their family of origin and excessive use of alcohol & drugs (Hotaling & Sugarman, 1986). Some community and societal factors are gender-inequitable social norms, poverty, low social and economic status of women, weak legal sanctions against intimate partner violence within marriage, lack of women's civil rights, armed conflict, and high levels of general violence in society (World Health Organization, 2012). Furthermore, there are several reasons for not leaving the abusive intimate partner such as lack of money, transportation, or a safe place to exit (Bowker, 1983; Browne & Williams, 1989). Correspondingly, several social factors such as loss of social status, disapproval of family and friends, and feelings of failure or guilt for abandoning the relationship limit women's options for leaving (Dobash & Dobash, 1979; Frieze, 1979; Walker, 1979). Moreover, many women return or remain with their abusers because they lack access to community resources (Mchugh et al., 2006).

Approaches to Prevent Intimate Partner Violence

In recent years, several international reviews have integrated the evidence on practical approaches to responding to violence against women, including intimate partner violence. These reviews have identified specific strategies, such as reforming civil and criminal legal frameworks and strengthening women's civil rights related to divorce, property, child support, and custody (World Health Organization, 2012). Several kinds of research suggested that there are ways to obtain help, coping mechanisms, and survival skills. Bowker (1983) explored the victims who acquired help from different sources. Gondolf & Fisher (1988) pointed out how battered women in their Texas sample acted assertively and logically in response to the abuse. Hence, increasing awareness among society about intimate partner violence is a good approach to combat violence. According to Capaldi and Rohling (2012), it is essential to identify the pattern of intimate partner violence to prevent it, such as the relationship between intimate partner violence and its most risk factors, such as age, alcohol consumption, use of a substance, and child abuse.

The factors linked to intimate partner violence against women in Sri Lanka have not received much attention in the local context. To lessen such circumstances, it is essential that we can determine the causes of violence. Thus, this study attempted to pinpoint factors linked to intimate partner violence against women in Sri Lanka.

3. Materials and Methods

Population and Sampling

The data was obtained from the Department of Census and Statistics, Sri Lanka. So, the data used for the analysis is secondary data from the demographic and health survey, 2016. The response variable is violence from an intimate partner, and responses of 16474 respondents (eligible women) were used for the analysis. The target population was ever married women aged 15 years to 49 years (women section of the survey) in Sri Lanka. A stage sampling technique was used by the Department of Census and Statistics to select a good representative sample from the population. In the first stage, a stratified sample of primary sample units was selected with probability proportional to size. After that, a fixed number of households was chosen from the selected primary sample units using the equal probability systematic sampling method. In addition, at the planning stage, they decided that ever-married women aged from 15 years to 49 years would be eligible women for the interviews of individual women. Then, every eligible woman was interviewed using a personalized questionnaire. Computer-Assisted Personal Interviewing (CAPI) was used to collect data.

Development of the Design of the Study

After obtaining the data, the responses in the response variable were categorized based on the type of violence for analysis. Here, the response variable is the frequency of intimate partner violence, which includes four levels: daily, weekly, less often and no. Independent variables were selected based on previous similar studies, as required. Descriptive analysis was done to get a general idea about the data. Then, the chi-square test was used to identify the association between the frequency of intimate partner violence and each independent variable separately. Then, the binary logistics regression was performed. Here, the response variable was the occurrence of violence, which was considered whether violence occurred or not. So, the binary logistics regression analysis focused on finding whether there was an association between the occurrence of violence and other independent variables. After that, an ordinary logistic regression was conducted. Here, the response variable is the frequency of violence, which includes three levels: daily, weekly, and less often. These three levels are relevant to the data that has faced violence by the respondent. Therefore, the ordinary logistics regression model included frequency of violence as a response variable with 2996 responses (366 – daily, 295 – weekly and 2335 – less often). So, the ordinary logistics regression analysis focused on finding the association between the frequency of occurring violence and other independent variables.

Chi-square Test

The chi-squared test can be used to identify the association between two categorical variables, homogeneity of data distributions and goodness of fit of the model for a given probability distribution. The chi-squared test is especially suitable when the test statistic is a chi-squared distribution under the null hypothesis. When the sample size increases,

it can be assumed that the data approximately follows a chi-square distribution, as a sufficiently large sample size allows for the applications of the normal approximation. Furthermore, the sample used is more than 10,000 for this study. Pearson's chi-squared test was used to determine whether there is a significant difference between the expected frequency and observed frequency in one or more categories of a contingency table. So, it helps to identify the association between two categorical variables.

$$\chi^2 \text{ (chi-square)} = \sum \frac{(\text{Expected values} - \text{observed values})^2}{\text{Expected values}} \quad (1)$$

Logistic Regression

Logistic regression extends simple linear regression (linear model for log odds values). Here, the multicollinearity can be tested using VIF or tolerance values. The backward elimination technique was used to obtain the best-fit model. Furthermore, the goodness of the model's fit should be checked using an appropriate test, like the deviance test and omnibus test. Both the omnibus and deviance tests use the chi-square approximation to find significance.

The binary logistic regression is the statistical technique used to predict the relationship between independent variables and a dependent variable when the dependent variable is binary (gender [male vs. female], score [high vs. low], response [yes vs. no]). In addition to the deviance test, the Hosmer-Lemeshow test is similarly used to check the goodness of the fit. The corresponding model for the logistic regression is:

$$\ln \left(\frac{p}{1-p} \right) = \hat{\beta}_0 + \hat{\beta} X \quad (2)$$

$$\text{If } Y = \ln \left(\frac{p}{1-p} \right) \quad (3)$$

$$\text{then } \hat{P} = \frac{\exp(Y)}{1 + \exp(Y)} \quad (4)$$

$$\hat{P}(\text{no}) = 1 - \hat{P} \quad (5)$$

Here $\hat{\beta}_0$ is the intercept (constant) of the model and $\hat{\beta}$ is the coefficient (gradient, slope) of relevant variable.

Ordinary logistic regression is the statistical technique used to predict the relationship between independent variables and a predicted dependent variable when the dependent variable is ordinary (educational level [up to OL, up to AL, degree], frequency [daily, weekly, monthly], Likert scales [strongly, moderately, weakly]). The corresponding model for the ordinary logistic regression is (Suppose Y is the outcome variable with J levels):

$$\ln \left(\frac{\hat{p}(Y \leq j)}{1 - \hat{p}(Y \leq j)} \right) = \hat{\alpha}_j + \hat{\beta}_1 X_1, j = 1, 2, \dots, J-1 \quad (5)$$

$$\text{If } H = \ln \left(\frac{\hat{p}(Y \leq j)}{1 - \hat{p}(Y \leq j)} \right) \quad (6)$$

$$\text{then } \hat{P}(Y \leq j) = \frac{\exp(H)}{1 + \exp(H)} \quad (7)$$

$$\hat{P}(Y > j) = 1 - \hat{P}(Y \leq j) \quad (8)$$

Here $\hat{\alpha}_j$ is the intercept (constant) for j^{th} level of the response variable of the model and $\hat{\beta}$ is the coefficient (gradient, slope) of the relevant variable. Here separate intercepts ($\hat{\alpha}_j$) for each cumulative logit and the same slope ($\hat{\beta}_1$) for each cumulative logit.

Furthermore, the model only applies to data that meet the proportional odds assumption. To test this, a test of parallel lines test will be used. The null hypothesis of this test is that the location parameters (slope and coefficients) are the same across response categories. So, if this test shows an insignificant result, the data meets the proportional odds assumption.

4. Result and Discussion

In this study, it was considered only eligible women of age from 15 years to 49 years. Here, 18303 women participated in the study (Demographic and Health Survey, 2016), and 16474 women answered the questions about intimate partner violence, while 1878 women refused to answer about intimate partner violence.

Socio-demographic Factors

As per Table I, the number of respondents is low in the age group between 15 to 19 (1.01%) and 20 to 24 (6.95%) while showing the maximum number of respondents is in the age group between 35 to 39 (22.27%). Furthermore, more than half (56.76%) of respondents are aged between 25 to 39. A considerable number of respondents aged between 40 to 49 (35.25%). Most respondents (46.72%) have education up to grades 10 and 11. Also, 4228 respondents have education levels up to grades 12 & 13 (AL), which is 25.67 % out of all respondents. The number of respondents with a degree & above qualification is 762. In contrast, the lowest number of respondents responded about their education qualification, as "never attended a school", 1.6% (263) out of all respondents. Many respondents live in rural areas (7010), while the lowest number of respondents recorded their resident area as in another country. Furthermore, a considerable number of respondents are living in urban areas (1804). More than 90 % of respondents are currently married. In addition, 845 respondents are not in a union, and 589 live with a man.

Table I: Frequency & % of age, education, residence area, jobs and relationships

Variable	Level	Frequency	Percentage
Age	15 – 19	168	1.02
	20 – 24	1149	6.95
	25 – 29	2349	14.26
	30 – 34	3332	20.23
	35 – 39	3669	22.28
	40 – 44	3021	18.34
	45 – 49	2786	16.92
Education	Preschool to grade 9	3525	1.60
	Grade 10 & Grade 11	7696	21.40
	Grade 12 & Grade 13	4228	46.72
	Degree & above	762	25.66
	Never attend	263	4.62
Residential area	Urban	1804	19.54
	Rural	7010	75.93

	Estate	301	3.26
	Other country	117	1.27
Relationships	Currently married	15040	91.30
	Living with a man	589	3.57
	Not in union	845	5.13
Working in a job or business	Yes	5259	31.92
	No	11215	68.08

Awareness and understanding regarding intimate partner violence

Table II shows that 744 respondents asked for help to combat violence. Nonetheless, most responses (2252) did not ask for help to combat violence. So, out of respondents who faced violence, only 32.40% asked for help.

Multiple responses were allowed for the questions about helpers and knowledge about organizations or people who provide services to combat violence. Most respondents (546) ask for help from relatives. Especially 373 respondents obtained help only from relatives. Furthermore, 92 respondents ask help from both relatives and friends. Many respondents asked for help from friends (including neighbours) or the police. Many respondents believed that the Sri Lankan Women's Bureau (7684) is an organization that provides services to combat violence. Especially a considerable number of respondents mentioned public health midwives. In addition, 4286 respondents mentioned the women's helpline. However, the percentage is only 26%. Correspondingly, "Mithuru Piyasa" in a hospital is a better place to obtain help to combat violence. But only 12.41% (2045) of respondents mentioned it. Also, only 18.25% mentioned the Legal Aid Commission. All respondents mention at least one relevant organization or person providing help to combat violence. However, multiple responses were allowed. Only about 100 respondents mentioned all the relevant organizations. Therefore, there is a lack of knowledge about organizations or people who provide services to combat violence.

Table II: Frequency & % of obtaining helps and knowledge to combat against violence

Variable	Level	Frequency	Percentage
Ask for help	Yes	744	24.83
	No	2252	75.17
Helpers	Relatives	546	55.43
	Friends	198	20.10
	Health related people	61	6.20
	Police	144	14.62
	Other	36	36.55
Do you know which organizations or people provide services to combat against violence?	Public health midwife	4337	14.75
	Medical officer health	1625	5.53
	'Mithuru Piyasa' in hospital	2045	6.96
	Legal aid commission	3007	10.23
	Women help line (tel.no.1938)	4286	14.57
	Sri Lankan women bureau	7684	26.14
	Dept. of social service	3012	10.25
	Other	3402	11.57

Frequency of intimate partner violence

There are several types of domestic violence, such as slapping, pushing, pulling, beating, burning, and forcing to have sex. If at least one type of domestic violence has occurred daily, consider the frequency of violence as daily. Here, 366 respondents recorded the

frequency of violence daily. That is 2.22 % of all respondents. When considering the frequency of violence as weekly, at least one type of domestic violence has occurred weekly. Here, 295 respondents recorded the frequency of violence weekly, and the percentage of that is 1.79 %. Again, 2335 respondents have recorded the frequency of violence as "less often", and the percentage of that is 14.17 % out of all respondents. So, 2996 respondents have faced at least one type of domestic violence in recent times. It is 18.186 % out of all respondents. On the other hand, the majority of respondents recorded that they have not faced any sort of domestic violence in recent times, and this value is 13478, and the percentage of that is 81.81 %.

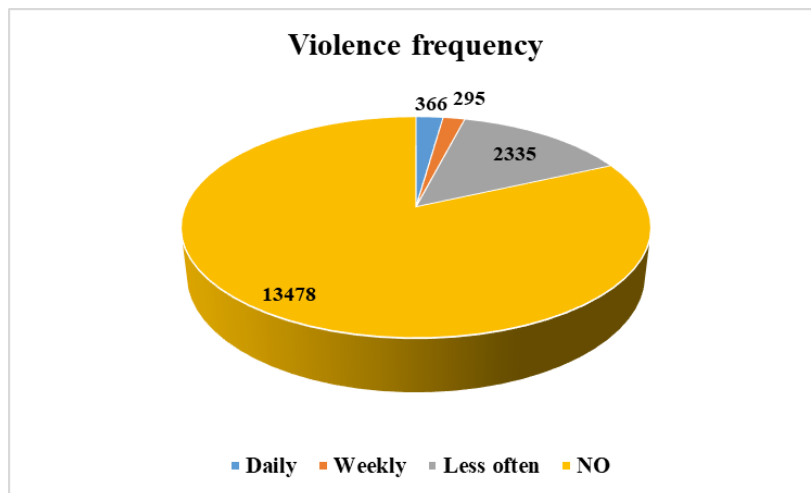


Figure I: Bar chart of violence frequency

Binary logistics regression

Table III: Significance of model effects of binary logistics model

Variable	Wald chi-square	Df	P value
Education	78.242	4	0.000
Watching TV	53.368	2	0.000
Owning telephone	20.716	1	0.000
Living with children	17.815	2	0.000
Child dies at birth	10.280	1	0.001
Most preferable family planning method	33.858	8	0.000
Marital status	11.086	2	0.004
Decision about daily household purchases	39.839	3	0.000
Decision about family visit	16.875	3	0.001
Age of first sexual intercourse	13.720	1	0.000
Pregnant now	7.850	2	0.020
Child lost during pregnancy	3.469	1	0.063
Number of marriages	10.522	1	0.001
Doing a job or owning a business	3.809	1	0.051
Decision about healthcare of respondent	7.317	3	0.062
Decision about significant household purchases	16.472	3	0.001
Suitable age to get pregnant the first time	8.797	1	0.003

If the p-value (table III) is lower than 0.05, the effect of the relevant independent variable is significant on the intimate partner violence frequency under 0.05 significant level. So, the most significant variables of the binary logistics model are included in the following table, which contains the relevant levels of each variable.

Table IV: Coefficients (B), p-values and exponential (B) of levels of most significant variables

Variable	levels of the Variable	B (coefficient)	P value	Exp(B) (e ^B)
Education	Never attend	0.035	0.863	1.035
	Preschool to grade 9	0.300	0.017	1.350
	Grade 10 & Grade 11	-0.100	0.405	0.905
	Grade 12 & Grade 13	-0.256	0.033	0.774
	Degree & above	0	-	1
Watching TV	At least once a week	-0.386	0.000	0.680
	Less than once a week	-0.037	0.667	0.964
	Not at all	0	-	1
Owning a Telephone	Yes	-0.231	0.000	0.794
	No	0	-	1
Living with Children	Yes	0.378	0.000	1.460
	No	0.083	0.662	1.086
	Don't have	0	-	1
Child Die at birth	Yes	0.317	0.001	1.373
	No	0	-	1
Most preferable family planning Method	Female sterilization	0.367	0.032	1.443
	IUD	0.326	0.059	1.386
	Injectable	0.390	0.022	1.478
	Implants	0.582	0.002	1.791
	Pills	0.274	0.114	1.315
	Condom	0.333	0.067	1.394
	Rhythm method	-0.052	0.779	0.949
	Not using	0.390	0.023	1.476
	Other methods	0	-	1
Age of first sexual intercourse	-	-0.019	0.000	0.982
	-	-	-	-
Marry times	Only one time	-0.406	0.001	0.666
	More than one	0	-	1
Decision about healthcare of Respondent	Respondent	-0.507	0.046	0.602
	Partner/husband	-0.626	0.018	0.535
	Both	-0.588	0.023	0.555
	Other one	0	0.046	0.602
Suitable age to pregnant 1 st time	-	-0.025	0.003	0.975
	-	-	-	-

Ordinary logistics regression

Table V: Significance of model effects ordinary logistics model

Variable	Wald chi-square	Df	P value
Watching TV	6.702	2	0.035
Internet user	4.591	1	0.032
Child dies at birth	5.890	1	0.015
Marital status	36.353	2	0.000
Number of marriages	8.386	1	0.004
Decision about healthcare of respondent	18.634	3	0.000
Decision about family visit	23.264	3	0.000
Ask for help	86.605	1	0.000
Education level	8.217	4	0.084
Daily household purchases	13.263	3	0.004

Major household purchases	6.336	3	0.096
Suitable age to get pregnant first time	6.018	3	0.111
Age	5.277	1	0.022

If the p-value (table V) is lower than 0.05, the effect of the relevant independent variable is significant on the intimate partner violence frequency under 0.05 significant level. So, the most significant variables of the ordinary logistics model are included in the following table, which contains the relevant levels of each variable.

Table VI: Coefficients (B), p-values and exponential (B) of levels of most significant variables (ordinary)

Variable	levels of the Variable	B (coefficient)	P value	Exp(B) (e ^B)
Education	Never attend	1.085	0.015	2.959
	Preschool to grade 9	0.804	0.031	2.234
	Grade 10 & Grade 11	0.761	0.038	2.140
	Grade 12 & Grade 13	0.522	0.157	1.685
	Degree & above	0	-	1
Internet user	Yes	-0.367	0.039	0.693
	No	0	-	1
Child die at birth	Yes	-0.521	0.015	0.594
	No	0	-	1
Marital status	Married	-1.011	0.000	0.364
	Living together	-0.750	0.012	0.472
	Not in union	0	-	1
Decision about daily household Purchases	Respondent	-0.902	0.013	0.406
	Partner/husband	-0.697	0.080	0.498
	Both	-0.480	0.205	0.619
	Other one	-	0	1
Decision about family visits	Respondent	-0.418	0.350	0.658
	Partner/husband	-0.372	0.433	0.689
	Both	-1.011	0.026	0.364
	Other one	0	-	1
Ask help	Yes	0.923	0.000	2.517
	No	-	-	-
Marry times	Only one time	-0.585	0.005	0.557
	More than one	0	-	1
Age	-	0.140	0.026	1.150

Discussion

Preliminary analysis was focused on descriptive analysis of univariate variables and bivariate analysis of selected independent variables and the response variable. Tables and graphs were mainly used here. Besides, a chi-square test was conducted to identify the association between each selected independent variable and the response variable.

The response variable is violence from an intimate partner, which is a categorical variable. The majority of the respondents were aged 30 to 44. Most respondents have an education level up to grade 10 or 11 (about 47%). Most of them are married and live in rural areas without a job/business. The percentage of asking for help when it occurs is low, only 32.40 %. According to Vadysinghe et al. (2017), lack of help-seeking behaviour was due to embarrassment, concerns about family reputation, and fear of more violence, and some women have accepted violence as normal behaviour, taboos, and feelings of guilt and shame. Furthermore, the knowledge about organizations that can help combat

violence is low since only around 100 respondents marked all the relevant organizations. Therefore, the knowledge about organizations that can help combat violence, as well as the courage to ask for help to combat violence should be improved.

Binary and ordinal logistic regression models were used as advanced analysis, to find the factors associated with intimate partner violence. Here, the backward elimination technique was used to identify the best-fit model with the help of the omnibus and deviance tests. Additionally, the test of parallel lines was used to test the significance of the proportional odds assumption when performing the ordinary logistic regression analysis. In this study, when fitting the binary logistic model, the occurrence of violence was used as the response variable. The occurrence of violence was considered whether violence occurred or not. Also, 16 474 respondents (2996 – yes, 13 478 – no) recorded their experiences with violence from an intimate partner. Also, there are three levels, if violence occurs. Subsequently, ordinarily, logistics regression was focused on identifying the association between the frequency of occurring violence and other independent variables. Therefore, the ordinary logistics regression model included frequency of violence as a response variable with 2996 responses (366-daily, 295-weekly, and 2335-less often).

The ordinary logistics model (table VI) suggests that the frequency of violence increases with age. Bonomi et al. (2006) showed that the probability of domestic violence increases with age. Abramsky et al., 2011 believed that younger women have a higher probability of facing domestic violence by their husbands. On the other hand, Dolatian et al. (2009) found a significant relationship between a woman's age and the domestic violence she experiences: younger women experience severe domestic violence. Noohjah et al. (2011) found a significant relationship between men's age and domestic violence: older men are more violent than younger men.

The present study (Tables IV and VI) shows that a lower level of education is increasing the occurrence of intimate partner violence. According to the findings of Aghakhani et al. (2015), the rate of domestic physical violence was higher in women with a lower level of education compared to more educated women. This might be due to educated women coping more effectively with violence and having a better economic situation (Aghakhani et al., 2015). Also, in many studies, high educational attainment of women was associated with low levels of violence (Steinmetz, 1987; McCall and Shields, 1986).

The results of the present study show that marital status is significantly associated with violence from an intimate partner. The results of the chi-square test and ordinary logistic regression analysis (table VI) implied that the frequency of violence is highest among those not in a union category and is lowest among those currently married. Most previous studies have similar findings. In North America, there is a high prevalence of violent experiences in separated or divorced women (Bachman and Saltzman, 1995). According to a few studies, divorced and separated people experience relationship violence at three times the rate of people who are never married (Tjaden and Thoennes, 2000).

When considering the results of the present study (Tables IV and VI), decision-making power (about respondents' healthcare, daily & significant household purchases, family visits and earnings) is significantly associated with intimate partner violence. On most occasions, the frequency of violence is decreased when involving both the husband/partner and respondent together in making decisions. So, convincing husbands to allow their wives to participate in decision-making is another important step that could

help reduce the prevalence of intimate partner violence. Plus, Semahegn et al. (2015) mentioned that decision-making power is significantly associated with intimate partner violence.

According to the results of binary logistic regressions, the effect of being of a suitable age to become pregnant for the first time is significant. Also, the odds of occurrence of violence decreased with increasing the suitable age to become pregnant for the first time (table IV). The results of the present study show that “you are pregnant now” is significantly associated with intimate partner violence. The expected count and observed count of the chi-square test suggested that the frequency of violence is higher when the woman is not pregnant. The binary logistics regression analysis (Table IV) shows that the odds of the occurrence of violence are higher when the woman is not pregnant. Semahegn et al. (2015) found that a significant number of women had experienced domestic violence from the father of the child during their pregnancy, resulting in many injuries. The results of the present study show that the age of first sexual intercourse is significantly associated with violence (binary logistic regression, table IV). Additionally, it shows that the odds of occurrence of violence get lower when increasing the age of first sexual intercourse. Godwin et al. (2009) discovered that girls who endure sexual intimate partner violence are more prone to initiating sexual activity before the age of 13, engaging in sexual intercourse with four or more partners, and using drugs and alcohol before sex. According to the present study, the odds of occurrence of violence are increased when increasing the number of married times, child loss during pregnancy and decreasing the frequency of media exposure (Tables IV and VI).

5. Conclusion, Limitation and Future Research Direction

The mean age of the respondent in this study is 35.98 ± 7.69 years. Intimate partner violence is decreased when increasing the level of education, increasing media exposure, owning a telephone & bank account, using the internet, involving both (respondent & partner) in making decisions, thinking the age to become pregnant for the first time as a higher age, increasing age of first sexual intercourse, marry only one time and not giving birth to a child. Similarly, the descriptive analysis of the awareness of the organizations and people that give help to combat violence revealed that the knowledge about awareness of preventive measures of intimate partner violence is low among women.

One major limitation of the present study is the absence of data for certain variables, which posed challenges for imputation. Consequently, the true impact of these variables on the response variable may be hidden. Subsequently, further research is required to be conducted to identify the correct impact of these variables. In addition to this, data on the knowledge about intimate partner violence is low in the dataset. So, it is hard to identify the knowledge regarding violence among women. Besides, multiple answers were allowed for the data about the organizations that can help combat violence. Accordingly, these data cannot be used directly to identify the associations. Analogously, this study considers most of the data related to women. Hence, the outcome of the study implies the association between characteristics of women (faced or not faced with violence) and the frequency of violence, but intimate partner violence is related to both partners. Consequently, it is better to identify and try to overcome limitations as much as possible. Finding a way to overcome nonresponsive bias is significant as well as knowledge about intimate partner violence should be questioned more. After finding the associations, it is better to plan research about the causations between intimate partner violence and other variables and the impact on the health of intimate partner violence should be examined.

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