

Prevalence and Predictors of Domestic Violence among Geriatric Population in a Hilly District of Nepal: A Cross-Sectional Study

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ABSTRACT

INTRODUCTION: Domestic violence has been a challenging issue throughout the globe that leads to the serious health problems and geriatric populations being more vulnerable as they are dependent on family or caregiver. The study aims to identify prevalence of domestic violence and its predictors among geriatric population of Baglung district, Nepal. **MATERIALS AND METHODS:** A community based cross sectional study was conducted at 2 urban municipalities and 2 rural municipalities of Baglung district, Province number 4, Nepal. A sample of 535 geriatric populations was selected using multi stage cluster sampling. Multivariable logistic regression model was adapted to explore predictors of domestic violence among geriatric population. **RESULTS:** Among 535 geriatric people, the prevalence of domestic violence was 3.5%. Geriatric people belong to dalit ethnicity (aOR=12.7; 95% CI: 2.8-56.3) living with others than spouses (aOR=10.2; 95% CI: 1.2-86.9) and the geriatric who need helper for daily activity (aOR=2.8; 95% CI: 1.0-8.7) were more likely to have experience of DV than their counterparts. **CONCLUSIONS:** The prevalence of Domestic Violence among geriatric population was very low. However, ethnicity, living other than spouses and assistance needed for daily activities were important predictors of DV among geriatric population. Therefore, Community awareness program regarding consequences of violence targeting elders as well as caregivers could be a public health priority to improve the status of elderly by reducing the elder violence.

Keywords: Domestic violence, geriatric, Nepal, prevalence.

INTRODUCTION

Domestic violence has been a challenging issue throughout the globe that leads to serious health problems and geriatric populations being more vulnerable as they are dependent on family or caregiver. Prevalence of domestic violence among geriatric occurs in all countries, but it varies significantly across the world and even within countries. However, geriatrics in Nepal across all caste, ethnic, and socioeconomic groups continue to face violence and are subject to various forms of violence [1-3]. The associated factors for domestic violence among geriatric are socio-demographic factors, household food security, social vulnerability, anxiety, behavioural factors, and financial management, ultimately leading to the situation of severe mental and other health problem [4].

Despite the severity of its consequences, significant gaps remain in estimating the prevalence of domestic violence among geriatrics. Therefore, this study aims to explore existing conditions of domestic violence and its predictors among a geriatric population of Baglung district, Nepal.

MATERIALS AND METHODS

Study design and setting

The cross-sectional study design was adopted to conduct this study in Baglung district of Nepal between November and December 2017. Baglung district is one of the seventy-seven districts of Nepal situated in Province No. 4. The district has a population of 268,613 with 27417 geriatric population (male: 13303 and female: 14114) [5].

Participants, sample size and sampling technique

Multistage cluster sampling was adopted. Baglung district has four municipalities and six rural municipalities. First, Random selection of four municipalities (two municipalities and two rural municipalities) was done. Second, the number of clusters (wards) in the selected municipalities was listed, and three clusters (wards) from each municipality were randomly selected constituting twelve clusters. Third, a number of geriatric populations in each cluster were identified from the list obtained from the district statistics office, Baglung. The total number geriatric population in the selected cluster was 4963. The number of samples from each cluster was then selected proportionately by use of probability proportional to size.

As the study was concerned with the geriatric population, the population above 60 years of age was considered for this study. Geriatric people who were not a permanent resident of the study area, people with severe disorder or illness, paralyzed person were excluded from the study.

Sample size was estimated using the following formula: $n = Z^2P*Q/L^2$. Since the proportion of an attribute that is present in the population is not known, therefore we considered maximum variability and assumed the prevalence of violence among the geriatric as 50%. Under assumption with 5% precision at a 95% confidence level, the unadjusted sample size was calculated as 385. Applying the finite population correction factor, a sample of 356 was estimated [6]. Additionally, assuming a design effect of 1.5 to account the intra-cluster effect, the final sample size was estimated at 535.

Data were collected using structured questionnaire through face to face interview. The questionnaire was developed from the literature review and previous studies. The questionnaire was pre-tested among 10% of the total estimated sample with the population having similar characteristics in rural as well as in urban settings of Pokhara, Lekhnath Metropolitan city. Necessary modification was done as per the population characteristics. The questionnaire was then translated into Nepali language, followed by back translation into English by the researchers to ensure that the meanings of the questions were not modified. The

questionnaire contained sociodemographic characteristics, disease, disability, service used by the geriatric population, and experience of domestic violence among the geriatric population.

Operational definition

This study considered domestic violence as the outcome variable. Domestic Violence (Offence and Punishment) Act, 2066, Nepal defines domestic violence as any form of physical, mental, sexual and economic harm perpetrated by a person to person with whom he/she has a family relationship, and this word also includes any acts of reprimand or emotional harm [7].

The geriatric aged 60 years and above who experienced any condition or circumstances likely to bring into being physical (beating, pushing, slapping, kicking), psychological (threatening, intimidation, harassing), neglect (not caring for nutrition, clothing, hygiene, medical needs or not providing daily basic needs), verbal (use of gesture language) in past three months.

The socio-demography variable was age, gender, marital status, ethnicity, religion, education, working status, source of income, family monthly income, and family size. The other independent variable includes physical disability, drug used for mental problem, any addiction (alcohol, drugs or use of non-prescribed medicine), living with spouse or others, owner of the residence as relatives or on rent or their residence), assistance need for daily activities like taking the bathroom, medical help, walking/moving) and social service use (elderly allowance, health insurance) by geriatric population. Filled up questionnaire was checked and verified by researchers on the spot.

Statistical analysis and data management

The data were entered in Epi-Data software version 3.1 and then exported to Statistical Package for Social Sciences (SPSS version 23) for further analysis. Chi-square test was applied for categorical variables, and independent t-test was used for a continuous variable in bivariate analysis.

A multivariable logistic regression model was applied to assess the factors independently associated with domestic violence among the geriatric population.

Significant factors ($p < 0.05$) in bivariate analysis were selected for multivariable analysis. Adjusted

odds ratio (aOR) and 95% confidence intervals with p-value were obtained and presented.

Ethical considerations

Ethical approval for this study was obtained from the Institutional Review Committee (IRC) of Pokhara University (approval no: 103/2074/2075). Written consent was obtained from the participants before the interview. All information was kept confidential; anonymity was emphasized and maintained during the study. The personal identifier was removed at the time of data analysis and presentation.

RESULTS

Experience of Domestic Violence

Table 1 presents the experience of DV among the geriatric population. Out of 535 respondents, 19 (3.5%) of respondents reported the experience of domestic violence in any form. Among the respondents who had experience of domestic violence, verbal aggression was (1.9%), followed by neglected need (0.9%), psychological abuse (0.7%) and physical violence (0.2%).

Socio demographic characteristics and domestic violence

Baseline characteristics of the respondents and their association with domestic violence are presented in table 2. Mean age of the respondent was 72.2 years with a standard deviation of 7.6 years. More than half (54%) respondents were male, 58.9% were married, and remaining was either widow or divorced. Majority of respondents were from non-Dalit ethnicity (77.6) and Hindu religion (89.7%). A Majority (80.9%) of respondents was literate, and 65% were still working in income generation activities. Slightly more than half (52.1%) of the family involved in agricultural work for their source of income, 61.1% family had more than 2.4 lakh annual income, and 61.3% had more than five members in their family. Bivariate analysis showed that DV was strongly associated with the respondent's ethnicity, religion, source of income, and annual family income ($p < 0.05$).

Table 1 Experience of Domestic Violence among the geriatric population

Characteristics	Number (n=535)	Percentage
Domestic Violence (any form)	19	3.5
Verbal aggression	10	1.9
Neglect Needs	5	0.9
Psychological violence	4	0.7
Physical violence	1	0.2

Disease, Disability, Service Use, and Domestic violence

Bivariate analysis shows that Domestic Violence (DV) was significantly associated with physical disability, use of drugs for mental problem, any addiction (alcohol, drugs, non-prescribed medicine use), living with others than spouses, place of residence (on rent or with relatives) and assistance need during daily activities (Table 3).

Factors associated with domestic violence in the multivariable analysis by a logistic regression model

Multivariable analysis for factors associated with domestic violence is shown in Table 4.

Geriatric people belong to Dalit ethnicity, living with others than spouses and assistance need for daily activities were independently associated with domestic violence among the geriatric population. Dalit ethnicity were 12.7 times (aOR=12.7; 95% CI: 2.8-56.3) more likely to have experience of DV than nondalit ethnic groups.

Elderly living with others were 10.2 times (aOR=10.2; 95% CI: 1.2-86.9) more likely to have experience of DV as compared to those who were living with their spouses. Similarly, elderly who need a helper for daily activity was 2.8 times (aOR=2.8; 95% CI: 1.0-8.7) more likely to have experience of DV than their counterparts.

Table 2 Association of Socio-demographic characteristics and domestic violence among geriatric population.

Characteristics	Total N=535 (%)	Domestic Violence		OR(95%CI)	p - Value
		Presence; n=19(%)	Absence; n=516(%)		
Age (Mean±SD)	72.2±7.6	74.3±5.9	72.1±7.7	-	0.223
Gender					
Female	246(46.0)	10(4.1)	236(95.9)	1.3(0.5-3.2)	0.554
Male	289(54.0)	9(3.1)	280(96.9)	Reference	
Marital Status					
Single	220(41.1)	10(4.5)	210(95.5)	1.6(0.6-4.0)	0.303
Married	315(58.9)	9(2.9)	306(97.1)	Reference	
Ethnicity					
Dalit	120(22.4)	15(12.5)	105(87.5)	14.6(4.7-45.1)	<0.001
Non Dalit	415(77.6)	4(1)	411(99)	Reference	
Religion					
Non-Hindu	55(10.3)	5(9.1)	50(90.9)	3.3(1.1-9.6)	0.019
Hindu	480(89.7)	14(2.9)	466(97.1)	Reference	
Education					
Illeterate	102(19.1)	6(5.9)	96(94.1)	2.1(0.7-5.4)	0.228
Literate	433(80.9)	13(3.0)	420(97.0)	Reference	
Working Status					
Working	348(65.0)	16(4.6)	332(95.4)	2.9(0.8-10.2)	0.074
Retired	187(35.0)	3(1.6)	184(98.4)	Reference	
Income Source					
Agriculture	279(52.1)	15(5.4)	264(94.6)	3.5(1.1-10.9)	0.017
Non-Agriculture	256(47.9)	4(1.6)	252(98.4)	Reference	
Family Annual Income					
<2.4 Lakhs	208(38.9)	14(6.7)	194(93.3)	4.6(1.6-13.1)	0.002
>2.4 Lakhs	327(61.1)	5(1.5)	322(98.5)	Reference	
Family Size					
>5	328(61.3)	12(3.7)	316(96.3)	1.1(0.4-2.8)	0.866
≤5	207(38.7)	7(3.4)	200(96.6)	Reference	

Table 3 Association of disease, disability, service support and domestic violence among geriatric population

Characteristics	Total N=535 (%)	Domestic Violence		OR(95%CI)	p - Value
		Presence; n=19(%)	Absence; n=516(%)		
Physical Disability					
Yes	367(68.6)	17(4.6)	350(95.4)	4.0(1.0-17.6)	0.046
No	168(31.4)	2(1.2)	166(98.8)	Reference	
Drug used for Mental Problem					
Yes	97(18.1)	8(8.2)	89(91.8)	3.4(1.3-8.9)	0.006
No	438(81.9)	11(2.5)	427(97.5)	Reference	
Any addiction					
Yes	256(47.8)	15(5.9)	241(94.1)	4.2(1.4-13.0)	0.006
No	279(52.2)	4(1.4)	275(98.6)	Reference	
Living With					
Others	345(64.5)	18(5.2)	327(94.8)	10.4(1.3-78.5)	0.003
Spouse	190(35.5)	1(0.5)	189(99.5)	Reference	
Place of Residence					
Rental/relative	194(36.3)	11(5.7)	183(94.3)	2.5(1.0-6.3)	0.049
Own house	341(63.7)	8(2.3)	333(97.7)	Reference	
Assistance need for daily activity					
Yes	123(23.0)	10(8.1)	113(91.9)	3.9(1.5-9.9)	0.002
No	412(77.0)	9(2.2)	403(97.8)	Reference	
Social Service Use					
Yes	391(73.1)	17(4.3)	374(95.7)	3.2(0.7-14.1)	0.101
No	144(26.9)	2(1.4)	142(98.6)	Reference	

ble 4| Multivariable logistic regression analysis of socio-demographic, disease, disability and service support of geriatric population associated with domestic violence

Variables	aOR (95%CI)	p-value
Ethnicity		
Dalit	12.7(2.8-56.3)	0.001
Non-Dalit	Reference	
Living With		
Other	10.2 (1.2-86.9)	0.033
Spouses	Reference	
Assistance need for daily activity		
Yes	2.8 (1.0-8.7)	0.049
No	Reference	

DISCUSSION

The study found that the prevalence of domestic violence among the geriatric population was 3.5%. Among them, 1.9%, 0.9%; 0.7% and 0.2% had experience of verbal abuse, neglected need, psychological violence, and physical violence respectively. The present study is supported by the research done in the Netherlands that reveals the 5.6% prevalence of elder abuse. The various types of the prevalence of elder abuse shows; verbal aggression 3.2%, physical aggressiveness 1.2%, and neglect 0.2% [8]. Similarly, another study conducted in rural areas of Anhui province of China shows that prevalence of common physical abuse, severe physical abuse, and negligence was 4.5%, 1.5%, and 7.2% respectively with an overall prevalence of elder abuse was 29.9% [9].

The finding is concurrent with other studies conducted in India, Ireland, and Boston [10-12]. However, a study done in Nepal demonstrated a high prevalence of 49.1% for mistreatment of the elderly population. Prevalence rates of caregiver neglect, psychological or physical mistreatment and were 47.2%, 10.8%, and 1.42% respectively [13]. A systematic review from 28 countries showed the pooled prevalence of elder abuse was 15.7% with 11.6% of psychological abuse, 4.2% of neglect, and 2.6% of physical abuse [14]. The differences attributes in this study might be due to the socio-economic conditions of geriatrics, cultural differences, and the study conducted in different settings.

The present study found the geriatric people from Dalit ethnicity were more likely to have experience of domestic violence than non-dalit ethnic groups. In concurrent with the current study, a study in the

neighboring district of the same province revealed that dalit (untouchable backward class in the traditional Hindu caste system), was independently associated with elder mistreatment [13]. Similarly, a study conducted in seven states of India also shows a high incidence of elderly abuse among the lower castes (scheduled castes and scheduled tribes) as compared to others caste that comes in the middle, in terms of socio-economic standing [10]. A nine-year observational cohort study from Ombudsman indicated that non-white race was identified as potential risk factors for elderly mistreatment [15]. In this study, domestic violence was more than twice among elderly living others as compared to those who were living with their spouses. The finding is supported by the study conducted in the city of Florianópolis in the state of Santa Catarina, which suggests that those who lived with their children or grandchildren were twice as likely to suffer violence [16]. Significant psychological mistreatment was reported among more than one-third of the elderly living with their son(s) and daughter(s)-in-law in a study from Nepal [13].

The finding is also in line with other studies conducted in India, which demonstrated that 41% of male and 43% of female were reported to be victimized for the abuse, by their son [10]. Another study from Chennai, India revealed that Family members were the most common perpetrators of elderly and hence family support is significant factors associated with elder abuse [17-19]. Our findings are consistent with findings from similar studies indicating that the daughter-in-law is the primary perpetrator of elderly abuse followed by the son [20-22].

Regarding assistance during daily activities, our finding shows, elderly who need a helper for the daily activity such as taking to the bathroom, walking, medical care and other activities due to inability to perform their work were more likely to have experience of domestic violence than their counterparts. The finding is consistent with the finding from Brasília, Distrito Federal, Midwest region of Brazil, which expressed significant relationships between being dependent on essential activities of daily living and suffering physical violence [23]. In agreement with the present study, several other studies showed that, elderly who need assistance for self-care activities or were dependent for day-to-day activities, there was a higher chance of elderly violence experience [24-27].

The study revealed significant predictors of domestic violence among geriatric population in province number four, Nepal. However, there are

several limitations to this study. The violence reported by geriatrics was self-reported which is likely to have missed information. The study is limited in one district of Nepal. Therefore it lacks its generalizability. The study lacks structured instruments for several variables.

CONCLUSIONS

The research revealed that the prevalence of domestic violence among the geriatric population was very low. However, ethnicity, living other than spouses, and assistance needed for daily activities were major predictors of the domestic violence among the geriatric population. Therefore, effective implementation of the legislation against elder violence is needed. Community awareness program regarding consequences of violence targeting elders as well as caregivers could be a public health priority to improve the status of the elderly by reducing the elder violence. .

ADDITIONAL INFORMATION AND DECLARATIONS

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