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Prevalence of Abuse and Its Associated Factors among Elder Population Living in Kawasoti Municipality of Nepal

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ABSTRACT

Background: Elder abuse is a growing public health problems. To tackle the elder issues World Health Organization declare for the decade of healthy ageing from 2020 to 2030, where Nepal is not exception from this goal. Thus, study aims to assess the prevalence of abuse and its associated factors among elder population living in Kawasoti Municipality.

Methods: A community based cross sectional study was conducted, taking 422 elders who were 60 years and above. The face to face interviews were conducted from October 2018 to January 2019. The collected data were entered into EpiData 3.1 and was exported to SPSS 26 version. The logistic regression was performed to measure associated between overall abuse and its covariates.

Results: The overall prevalence of elder abuse was 43.8% and caregiver neglect was the most reported form of elder abuse. Study found that nuclear family [OR=0.42, 95% CI;0.18-0.97], illiterate [OR: 2.01, 95% CI; 1.11-3.96], family members have no migrated to another country [OR=0.57, 95% CI; 0.33-0.97], health condition was bad [OR= 1.92, 95% CI; 1.15-3.21], elder who did not depend on their daily activities on family members [OR=0.25, 95% CI; 0.12-0.52], and those who had consumed tobacco [OR= 1.91, CI; 1.19-3.06] were associated with elder abuse.

Conclusion: Finding suggests that good health, a nuclear family, literacy, family members not migrated to another country, and independence in daily activities strongly reduce elder abuse. To address this, it is essential to implement awareness programs, and ageing population for their economic sustainability activities, and healthy and active aging life.

Keywords: Elderly, mistreatment, family-based, Nepal

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BACKGROUND

The increasing aging population has significantly changed the society all over the world.(1) Globally, increasing ageing population and survival rate are one of the human success stories.(2) According to a systematic review from various countries, one in six elder individuals had been abused in a community settings.(3) These suggest that elder abuse remained iceberg phenomenon in the community which indicates higher risk of abuse that actual at figure.(3) Elder abuse can cause financial hardships, social repercussions, and serious physical and mental health issues, including injury, cognitive decline, and the need for alternative care.(4)

WHO defined elder abuse as "a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm

or distress to an elder person".(5) In Nepal, elder abuse is considered a social taboo that paradoxically make it challenging to identify cases of elder abuse.(6,7) As a result, it's often believed that elder abuse is uncommon in Nepal. Despite, this several earlier studies have shown that elder abuse is more prevalent in the country.(6–9) Recent census, showed that population aged 60 years and above has increased from 8.1% in 2011 to 10.2% in 2021, indicating that Nepal's population is aging(10) and other hand empirical evidence showed that elder abused increased recent decade varying prevalence, ranging from 49.1% to 61.7%.(7-9) Consequently, health system is unable to bring equilibrium in the high demand and supply of health services among the elder population which result to increasing government health expenditure in future.(11) To tackle the elder issues WHO declare for the decade of healthy ageing from 2020 to 2030, Nepal is not exception from this goal.(1) This study brings contributions towards this goal. Kawasoti municipality is one of the highly populous municipality among the Nawalparasi district and it hold top position among the Gandaki province. In which various studies not cover migration and elder abuse but this study try to find out the migration variable and elder abuse.(6-9) Thus, study aims to assess the prevalence of elder abuse and its associated factors.

METHODS

For reporting purposes, this study adheres to the STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) criteria.(12) This study was community based cross-sectional study conducted in Kawasoti Municipality. The total sample was obtained 422 households after adding 7% of non-response rate. Sample size was calculated by using formula $\frac{z2pq/*}{d2}$ (D.E). (13) Value at a specified confidence level (95% CI=1.96), P= Prevalence 0.8 (14), q= 1-p, d= 5%, and design effect=1.6. The study adopted three stage stratified cluster sampling. In first stage, out of seventeen wards six wards of the municipality were selected, at the second stage enumeration area was selected, enumeration areas constitutes of previous wards of village development committee. At the third stage households with elder were selected from each enumeration areas which was shown in (Figure 1). This study was conducted from October 2018 to January 2019 among population aged 60 years and above, with face to face interviews using interview schedule.

Outcome variable

Elder adult's ≥60 self-reported their behavioral experiences of facing any sort of abuse within the last three months. A series of 21 questions with yes/no responses were asked to assess six different types of abuse (physical, psychological, caregiver neglect, financial, legal, and sexual) they faced. Which adopted from earlier study of Nepal.(7,9) The first question, "Have you experienced some form of abuse in last three months?" was excluded, because of information provided regarding non-specific abuse. Overall abuse was define and determined at least any abuse specify of remaining six types of abuses included in this study.

Predictors

Sociodemographic factors were age, gender, ethnicity, religion, marital status, disability status, type of family, number of children, living arrangement, occupation, education status, availability of land, ownership of land, related to livelihood, depended on family, and members have migrated to another country. Gender was categorized either "male" or "female." Age, the numeric variable was categorized as "60 to 74" years, "75 to 84" years" and "above 85 years." Ethnicity was

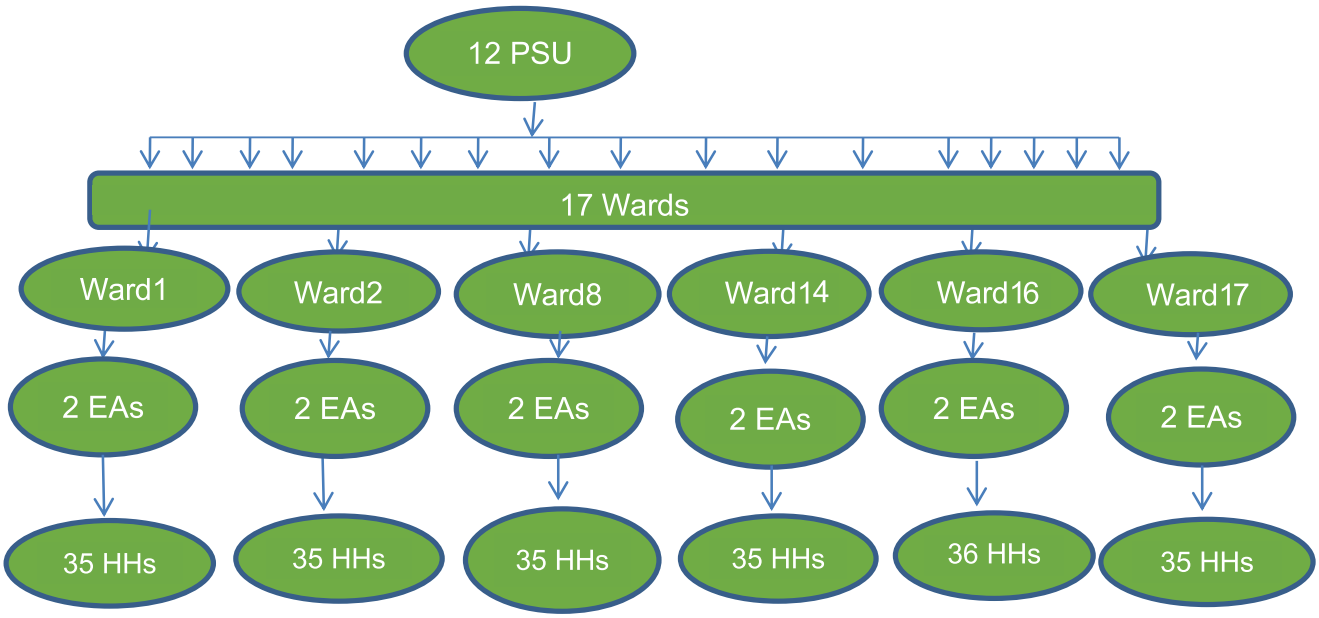

Figure 1. Sampling procedures applied in the study

categorized into "Brahmin/Chhetri", "Tarai Janajati", "Pahadi Janajati", and "Dalit." Religion was categorized into major religion of Nepal "Hindu", "Buddhist," and combining "Muslim," and "Christian" into "Others". Similarly, marital status was recoded into two categories: "married" and "Others which combined by "single or without partner;" "divorced," "widowed," and "separated." Disability status included "not disabled" and "disabled." Type of family categorized into "nuclear" and "joint". Number of children categorized into either elder had no child or one child categorized into "≤1", "two", and "three or more than three". Living arrangement was categorized into "son/daughter-in-law", "spouse", and "Others". Occupation categorized dichotomously "agriculture" and non-agriculture". Similarly, education status also dichotomously categorized "literate vs. illiterate". Availability of land, ownership of land, related to livelihood, depended on family, and members have migrated to another country were categorized into "yes" and "no". Alcohol consumption, tobacco use, and from any disease in the past one year were categorized into ("yes," and "no"), which were behavioral health factors. Health status was measured using self-reported health and was assessed by asking "How do you rate your health condition today?" The responses were: "good and "bad." Further, asked which system do you belief in treatment? Response which belief in allopathic was categorized into "modern" and response other else then allopathic were categorized into "alternative" health system of belief.

Data analysis

Data from EpiData 3.1 was exported to SPSS and analyses were performed using SPSS 26 version. All the variables described above were fitted in the initial model. Multicollinearity was checked for each categorical variables (table-2) with a tolerance of collinearity statistics cut-off point of ≥0.5. "Availability of land in household" showed multicollinearity with "ownership of land". Thus, the latter variable availability of land in household was removed from the model. For categorical variables, univariate statistics were expressed in frequency distribution and percentage, and one proportion method for confidence interval. Bivariate relationships between all categorical predictors and outcome variable were assessed using the Chi-Square test of independence; determined the association. Multivariable logistic regression provided the regression results of elder abuse experience.

Validity and reliability

Validity of the study were assessed by used self-reported series of 21 questions with yes/no responses which adopted from earlier study of Nepal.(7,9) Translation and back translation of tools (English-Nepali) was performed, peer-reviewed, expert consultation, and pre-testing were conducted to maintained validity whereas reliability of questionnaire was determined by internal consistency tested across twenty question items used in this study with Cronbach coefficient alpha score of 0.84, which indicated high reliability of this tool.(15)

Ethical approval

Ethical permission was obtained from the ethical review board of the Nepal Health Research Council (Reg. no. 652/2018). Administration permission was taken from the Kawasoti Municipality. Participants were explained about the aims of study and written permission were taken and confidentiality was maintained.

RESULTS

The overall prevalence of elder abuse was 43.8% [95% CI: 39.2-48.6]. Caregiver neglect was the most reported form of elder abuse 34.4% [95% CI: 29.9-39.0], followed by psychological abuse 31.5% [95% CI: 27.2-36.1], Financial abuse 13.3% [95% CI: 10.3-16.7], legal abuse 9.0% [95% CI: 6.5-12.0], physical abuse 6.4% [95% CI: 4.3-9.0], and sexual abuse 1.9% [95% CI: 0.1-3.5] (Table 1).

Table 1. Prevalence of Elder Abuse

Type of abuse	Prevalence (%)		Overall prevalence % (95% CI)
	Male	Female	
Caregiver neglect	13.7	20.6	34.4 (29.9-39.0)
Psychological	13.0	18.5	31.5 (27.2-36.1)
Financial	5.0	8.3	13.3 (10.3-16.7)
Legal	2.8	6.2	9.0 (6.5-12.0)
Physical	2.6	3.8	6.4 (4.3-9.0)
Sexual	0.5	1.4	1.9 (0.1-3.5)
Any abuse	17.5	26.3	43.8 (39.2-48.6)

More than half of the elder adults were female 55.0%, aged between 60-75 years 78.2%, and Hindu were 86.7%. Majority of the participants from "Brahamin/ Chhetri" ethnic groups 48.1% and "Tarai/Janajati" 22.3%. About 62.8% were married, 74.6% were lived in joint family, having children three and more than three were 82.9%, and living arrangement with son/daughter-in-law were 82.9%. Most of the elder occupation were agriculture 78.9%, 80.1% illiterate, 58.8% had land availability, not having land ownership were 55.5%, and elder not dependent on family were 74.4%. Members who have had migrated to another country were 43.8%. Approximately one third 37.7% elder consume alcohol, and more than half 53.1% use tobacco substances. Majority 79.4% of the respondent reported any form of disease in the past one year, 64.2% having good health condition, and 55.7% belief in modern health system. Among those experienced abuse following variables were statistically significant; type of family (p=0.002), education status (p=<0.001), availability of land

(p=0.011), ownership of land (p=0.002), depended on family (p=0.003), family member migrated to another country (p=0.008), tobacco use (p=0.012), any form of disease in the past one year (p=0.001), health conditions (p= <0.001), and belief in health system (p=0.002) (Table 2).

Table 2. Characteristics of Elder Adults Overall and Based on Abuse Experience

Characteristics	Overall n (%)	Experienced abuse Yes	Experienced abuse No	p-value
Total	422 (100.0%)	185 (43.8%)	237(56.2%)	
Sociodemographic Factors				
Gender				0.067
Female	232 (55.0%)	111 (26.3%)	121 (28.7%)	
Male	190 (45.0%)	74 (17.5%)	116 (27.5%)	
Age in years (69.85±7.6 years)				0.065
60-74	330 (78.2%)	137 (32.5%)	193 (45.7%)	
75-84	76 (18.0%)	37 (8.8%)	39 (9.2%)	
85+	16 (3.8%)	11 (2.6%)	5 (1.2%)	
Religion				0.987
Hindu	366 (86.7%)	161 (38.2%)	205 (48.6%)	
Buddhist	35 (8.3%)	15 (3.6%)	20 (4.7%)	
Others	21 (5.0%)	9 (2.1%)	12 (2.8%)	
Ethnicity				0.629
Brahmin/ chhetri	203 (48.1%)	91 (21.6%)	112 (26.5%)	
Tarai janajati	94 (22.3%)	39 (9.2%)	55 (13.0%)	
Pahadi janajati	80(19.0%)	32 (7.6%)	48 (11.4%)	
Dalit	45 (10.7%)	23 (5.5%)	22 (5.2%)	
Marital status				0.397
Married	265 (62.8%)	112 (26.5%)	153 (36.3%)	
Others	157 (37.2%)	73 (17.3%)	84 (19.9%)	
Type of family				0.002*
Nuclear	107 (25.4%)	33 (7.8%)	74 (17.5%)	
Joint	315 (74.6%)	152 (36.0%)	163 (38.6%)	
Number of children				0.087
≤1	21 (5.0%)	12 (2.8%)	9 (2.1%)	
2	51 (12.1%)	16 (3.8%)	35 (8.3%)	
3+	350 (82.9%)	157 (37.2%)	193 (45.7%)	
Living arrangement				0.791
Son/daughter-in-law	350 (82.9%)	156 (37.0%)	194 (46.0%)	
Spouse	38 (9.0%)	15 (3.6%)	23 (5.5%)	
Others	34 (8.1%)	14 (3.3%)	20 (4.7%)	
Occupation				0.633
Agriculture	333 (78.9%)	144 (34.1%)	189 (44.8%)	
Non-agriculture	89 (21.1%)	41 (9.7%)	48 (11.4%)	
Education				<0.001*
Illiterate	338 (80.1%)	163 (38.6%)	175 (41.5%)	
Literate	84 (19.9%)	22 (5.2%)	62 (14.7%)	
Ownership of land				0.002*
Yes	188 (44.5%)	67 (15.9%)	121 (28.7%)	
No	234 (55.5%)	118 (28.0%)	116 (27.5%)	
Availability of land				0.011*
Yes	248 (58.8%)	96 (22.7%)	152 (36.0%)	
No	174 (41.2%)	89 (21.1%)	85 (20.1%)	
Related to livelihood				0.715
Yes	53 (12.6%)	22 (5.2%)	31 (7.3%)	
No	369 (87.4%)	163 (38.6%)	206 (48.8%)	
Depended on family				0.003*
Yes	108 (25.6%)	34 (8.1%)	74 (17.5%)	
No	314 (74.4%)	151 (35.8%)	163(38.6%)	
Members have migrated to another country				0.008*
Yes	185 (43.8%)	52 (12.3%)	41 (9.7%)	
No	237 (56.2%)	133 (31.5%)	196 (46.4%)	
Alcohol consumption				0.284
Yes	159 (37.7%)	75 (17.8%)	84 (19.9%)	
No	263 (62.3%)	110 (26.1%)	153 (36.3%)	
Tobacco use				0.012*
Yes	224 (53.1%)	111 (26.3%)	113 (26.8%)	
No	198 (46.9%)	74 (17.5%)	124 (29.4%)	
From any disease in the past one year				0.001*
Yes	335 (79.4%)	161 (38.2%)	174 (41.2%)	
No	87 (20.6%)	24 (5.7%)	63 (14.9%)	
Health condition				<0.001*
Good	271 (64.2%)	90 (21.3%)	181 (42.9%)	
Bad	151 (35.8%)	95 (22.5%)	56 (13.3%)	
Belief in health system				0.002*
Modern	235 (55.7%)	119 (28.2%)	116 (27.5%)	
Alternative	187 (44.3%)	66 (15.6%)	121 (28.7%)	

*Statistically significant

In the unadjusted model, age 60 to 75 years shows significance for abuse by 67% lower odds [OR=0.32, 95% CI; 0.11-0.95]. However, abuse was no significance while performing with adjusted model. Among the sociodemographic factors adjusted with the covariates shows only nuclear family had significant associated by 58% lower odds of abuse compare to joint family [OR=0.42, 95% CI; 0.18-0.97]. Socioeconomic variables during unadjusted model education, land ownership,

depended on the family member, and family member migrated to another country were significantly associated. Amid association of unadjusted model of socioeconomic variables education status and family member migrated to another country were retained association by adjusted model. Participants who were illiterate had more than twice the increased odds of abuse compared to those who literate [OR: 2.1, 95% CI; 1.11-3.96]. Those family member who have no migrated to another country had lower odds by 43% abuse [OR=0.57, 95% CI; 0.33-0.97]. Of the health and behavior related factors, health system, self-rated health condition, depended on daily living activities on family, suffer any form of disease in the past one year, and tobacco consumption showed significant association during unadjusted model after employed adjusted model self-stated health condition, depended on daily living activities on family, and tobacco were significant. Elder who believe their self-stated health condition bad was almost twice abuse compare to good health condition [OR= 1.92, 95% CI; 1.15-3.21]. Regarding depended on daily living activities on family, elder who did not depend had 75% lower odds of abuse [OR= 0.25, 95% CI; 0.12-0.52]. Elder who consumed tobacco faced double odds of abuse compare those who did not consumed [OR= 1.91, CI; 1.19-3.1] (Table 3).

Table 3. Unadjusted and Adjusted Odds Ratios (OR) for Factors Associated with Elder Abuse using Binary Logistic Regression

Characteristics	Unadjusted OR (95%CI)	[1]Adjusted OR (95%CI)
Sociodemographic Factors		
Age (ref= "85+ years")		
60-74	0.32 (0.11-0.95)	0.70 (0.19-2.58)
75-84	0.43 (0.14-1.36)	0.49 (0.13-1.91)
Gender (ref= "Male")		
Female	1.44 (0.98-2.12)	1.242 (0.78-1.99)
Type of family (ref= "Joint")		
Nuclear	0.48 (0.30-0.76)	0.42 (0.18-0.97)
Generation (ref= "three generation")		
Two generation	1.67 (1.05-2.64)	0.73 (0.32-1.68)
Others	2.21 (0.95-5.14)	1.97 (0.75-5.18)
Disability Status (ref= "With disability")		
Without disability	0.33 (0.21-0.51)	0.58 (0.33-1.01)
Socioeconomic Factors		
Education (ref= "literate")		
Illiterate	2.62 (1.54-4.47)	2.106 (1.110-3.96)
Land ownership (ref=No)		
Yes	0.54 (0.37-0.81)	0.70 (0.37-1.35)
Depended on family (ref=yes)		
No	0.50 (0.31-0.79)	0.72 (0.41-1.27)
Members have migrated to another country (ref=yes)		
No	0.54 (0.34-0.85)	0.57 (0.33-0.97)
Health and Behavior Related Factors		
Health system (ref=alternatives)		
Modern	1.88 (1.27-2.79)	1.21 (0.74-1.99)
your health condition (ref= good)		
Bad	3.41 (2.25-5.17)	1.92 (1.15-3.21)
Depended on your daily living activities on your family (ref= yes)		
No	0.18 (0.10-0.34)	0.25 (0.12-0.52)
Suffer from any disease in the past one year (ref= yes)		
No	0.41 (0.25-0.69)	0.67 (0.37-1.21)
Tobacco consumption (ref= no)		
Yes	1.65 (1.12-2.43)	1.91 (1.19-3.06)

DISCUSSION

The present study revealed that approximately 44 percent of elder reported that they had faced any kind of abuse and majority of the female participants reported the overall or any type of abuse. However, sex was not identified as statically significant in multivariable logistic model. The global prevalence of elder abuse was 15 percent.(3) Similarly, study conducted in the various Asian countries showed that the prevalence of elder abuse in China was 36.2 percent (16), India, Japan, and South Korea were (47 percent, 17.9 percent, and 6.3 percent respectively) (17), 13.6 percent was in Turkey (18), and Bangladesh was 62 percent. (19) National study from Rural and Urban exhibited 61.7 percent (9) and 49.10 percent. (7) The above data indicates that the prevalence of elder abuse was greater than the global, East Asia, and Western world but is similar to the South East Asian countries.

The current study found that the most common abuse was caregiver neglect and others were followed by psychological, financial, legal, physical, and sexual abuse respectively. Result was consistent with the global study. In contrast, the prevalence was less than the study conducted in the eastern part of Nepal but higher with the study conducted in Bangladesh.(3,9,19) This could be Nepalese society historically lived in joint family and that was gradually erode in this globalization era. Nonetheless, family has still rooted with the traditionally belief and culturally bounded with the elder take care in household setting. It assumed that the institutional care is taking disrespectful and abounding the parents. (7,9,20,21) Thus, Care takers who are engaged for their carrier development or economic progress, due to this they less prioritize to take care for elder in household settings which leads to perceived that they were neglected.

In line with the psychological abuse, findings consistent with the results of global as well as studies conducted in Nepal.(7,9,22,23) Most elders live with their children. Traditionally, daughters-in-law focused on household

chores and caring for children and elders. However, changing roles and responsibilities due to education and careers have created a gap between elders' expectations and caretakers' realities. This mismatch, leads to elder's feelings of psychological abuse.

Financial abuse was similar to the study conducted in Nepal with contrast of higher prevalence in Turkey and lower in global and China. (3,7,9,16,19) This rises mainly due to inheritance law on the land ownership, possessions handover, and allowance dispute with family members.(7,9) Similarly, result of physical abuse consistent with the study conducted in Nepal but contrast with various others studies.(3,7,16,22) In Nepalese society, elders might feel comfortable sharing experiences of physical abuse if they trusted to strangers. Similarly, legal abuse is consistent with the study conducted in Eastern Nepal (9),whereas higher in the study conducted in Urban western part of Nepal. (7) This might be Elders often hesitate to report abuse due to limited legal knowledge, fear of family discord, and societal pressure. Even when reported, legal intervention often leads to forced reconciliation, further victimizing the elder. (9) Furthermore, the sexual abuse of the present study was similar to a study conducted in Nepal with higher prevalence in global and Europe. (7,19,22)

The present study revealed that age group from 60 to 75 years showed significantly associated with unadjusted model by 67% lower odd of abuse, but not associated with adjusted model. However, the findings consistent with national as well as international studies. Increasing age and their changing behavior patterns in elders often lead to more frequent abuse. Elder who lived in nuclear family likely to have 58% lower odds to abuse as compared to joint family. Similar findings, were found from the various study conducted in Nepal but the result is contrast with the other study conducted in various settings of Nepal. (6,21) This might be due to that elder leaving in nuclear families, face fewer barriers in decision-making and power struggles, which leads towards happiness. (6)

Elders who are illiterate experience twice the odds of abuse as compared to literate. Consistent results were found in Nepal and Turkey which shows 2 times and 4 times higher odds of abuse respectively. (7,18) This association implies that education is essential to assess for identifying the abuse and obtaining legal assistance, which leads in lower susceptibility to abuse and empower from the vulnerability. (24,25) Those family members who have not migrated to another country had lower odds 43% to abuse. Consistent result showed by the study conducted in Nepal.(8) In this regard Youth migration is due to the economic globalization and system theory of migration which leads to create migrated from the low resource to the high resource country. Our study revealed that who are not migrated can easily take care of them that leads to share sorrow and happiness as compared to those who are migrated. Elder who believe their self-stated health condition bad was twice the abuse compare to good health condition. Results were consistent with the several study conducted in Nepal. (7,9) As well as similar findings was found by the study conducted in India. (26) The reason might be due to that family perceived burden of care taking, financial hardship for seeking treatment, need to allocate time to visit health institution, loss of opportunity cost due to caring of elder, and sometimes care takers loss their job which possess the abuse toward the elder. (21) Regarding not depend on daily living activities towards family, elder had lower odds of abuse. Result was consistent with the study conducted in Nepal. (8,9) As household settings are assumed to provide strong social, psychological, and financial support for elder. Family members need to create an enabling environment, assist during hospital visit, provide companionship, and manage diet and medication. Without this support, elder perceived abuse.(8,21) Participants consumed tobacco faced double odds of abuse compare to those who did not consumed. This result is supported by the study conducted in Nepal. (7) This could be due to family members blame for their smoking habits to cause disease which create elder misbehaving or bullying leads to perceived abuse. (9)

Significance of the study

Elder abuse response has been lagging due to a lack of recognition as a public health issue. In Nepal, the elder population is expected to increase significantly overcoming the decade, leading to higher direct costs associated with the elder abuse, primarily due to increased healthcare expenses for treatment and rehabilitation. So, this study urged for the stakeholders to address this critical issue.(27,28) Study sensitized and emphasized to empower the health and wellbeing financial security, economic independence, social connectivity, and self-endowment for elder. As well as creating supportive policy for caregiver, elder abuse reporting helplines, educational interventions are necessary to develop respect for elder adults among children and youth, for the prevention strategies. (26)

This study is not without limitation. Study explicitly exhibit cases for self-reported elder abuse, which does not incorporate family perspective that might differ than actual scenario. Underreporting of sensitive issues, qualitative perspective is not included, and only triangulated by observation which might not capture all issues. Additionally, tools used yes/no response may not provide actual answer, create response bias.

CONCLUSION

The study revealed that four in ten elder faced any type of abuse, women has high prevalent, and caregiver neglect was the most common. Further, study suggests that good health, nuclear family, literacy, family members not migrated to another country, and independence in daily activities strongly reduce elder abuse. To address this, it is essential to implement awareness programs, and ageing population for their economic sustainability activities, and healthy and active aging life. Elder abuse is a complex issue so, using an ecological model is needed to better understand this phenomenon and develop targeted plans and policies to improve family behavior towards elders.

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