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Factors Associated with Psychological Distress Among Elderly People in Chandragiri Municipality

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ABSTRACT

Introduction: Psychological distress is a key indicator of mental health, characterized by emotional strain and difficulty coping with daily demands. Various factors such as socio-demographic status, lifestyle, behavior, and health conditions may influence psychological distress. This study aimed to assess psychological distress and its associated factors among elderly people in Chandragiri Municipality.

Methods: A descriptive cross-sectional study was conducted among 276 elderly individuals using a semi-structured questionnaire. Kessler Psychological Distress Scale was used to assess pyschological distress. Data were collected through face-to-face interviews and analyzed using EpiData 3.1 and SPSS version 20. Descriptive statistics and chi-square tests were applied.

Results: Psychological distress was prevalent among participants, with 36.6% experiencing severe distress. Living arrangements, chronic illnesses, and back pain were significantly associated with higher distress levels.

Conclusions: A majority of elderly individuals in Chandragiri Municipality experience psychological distress, particularly those living alone or suffering from chronic illness and back pain.

Keywords: *Elderly; Pyschological Distress; Nepal.*

INTRODUCTION

Psychological distress is commonly understood to be a condition of intense emotional suffering marked by signs of anxiety (tenseness, restlessness) and depression (lack of interest, despair, hopelessness).[1] It is one of the most common mental health problems in old age, often linked with other health challenges such as oral health problems, back pain, hearing issues, hypertension, and diabetes. Studies suggest that 27% to 48% of older persons experience psychological distress.[2] Elderly women, especially those with only primary education, are more vulnerable due to limited participation in society from a cognitive perspective. They are more affected by widowhood, isolation, insecurity, physical illness, and lack of attention than older men.[3]

Despite its seriousness, very few community-based studies have been conducted in Nepal to explore psychological distress in elderly populations. Various psychosocial and economic factors, such as leaving home for work, lack of physical care for children, abuse of elderly parents, low awareness of threat issues, poor diet, loneliness, emotional strain, and low income after retirement, contribute to psychological distress if not addressed. However, there is no current evidence indicating the level of psychological distress among elderly people in Chandragiri Municipality.

This study aims to assess psychological distress and the factors associated with it among elderly people in Chandragiri Municipality. The specific objectives are to

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assess the prevalence of psychological distress using the Kessler Psychological Distress Scale (10); to examine the association between socio-demographic and behavioral factors and psychological distress; and to assess comorbidities .

METHODS

A descriptive cross-sectional study was used to assess the factors associated with psychological distress among elderly people in Chandragiri municipality. Quantitative research involving a community-based cross-sectional design was conducted during the study. The Study was conducted at Selected Wards of Chandragiri Municipality for 1 Month. The study's inclusion criteria were adults (above 60 years), male and female. The exclusion criteria of the study were individuals below 60 years of age. For the Study, a (Ref No. 081/82/52) was obtained from the college and the respected municipality, wards, and schools.

The written and Verbal consent from respondents was taken before data collection. Confidentiality of information and privacy were also maintained during the study.

The population proportion formula for sample size calculation was applied to calculate the sample size for the study. The prevalence of psychological distress was found to be 23.5%.[5] 95% confidence level, 5% margin of error. Cochran's Formula was used to calculate the Sample Size. The formula is given by:

Here,

n = Desired sample

Prevalence of psychological distress (P) = 23.5 % = 0.235

q = 1-p

= 1- 0.235

= 0.765

Confidence interval (Z) = 95 % = 1.96

Allowable error (e) = 0.05

According to the formula,

$$n = \frac{Z2 \times p \times q}{e2}$$

$$= \frac{(1.96)^2 \times 0.235 \times 0.765}{(0.050^2}$$

= 276

Therefore, the final sample size was 276.

There are 15 wards in Chandragiri municipality. Out of 15 wards, 35 % of wards (five wards), i.e., 1, 6, 7, 8, 12, were selected randomly from Excel. A total of 276 was determined to be the sample size for the study. To determine the sample size for each ward, probability proportionate to size (PPS) (i.e., Samples in each ward =276×Total number of elderly people (60 above) in each ward/Total number of elderly people (above 60) in Chandragiri Municipality) was used to select sample size from each 5 wards. Then, respondents in wards were chosen using a random sampling method. The center of the catchment area was reached for the selection of the first unit of population. An online lottery method was applied to decide the direction indicated by the starting point for the data collection.

The data was collected by using a semi-structured questionnaire and the Kessler psychological tool(k10)[6] which was developed through a review of the literature and then was adapted for the Nepalese context. The questionnaire was a self-made questionnaire along with the Kessler psychological tool.[7] The questionnaire was first prepared in English and then translated into the Nepali language. The questionnaire was checked, coded, and entered into Epidata and was exported into SPSS version 22 software.

For analysis, a descriptive statistical procedure was used. Descriptive statistics such as mean, standard deviations, and chi-square were used to ascertain the association between factors and psychological distress among elderly people.

The research findings can not be generalized as the research area was selected purposively. The study was limited in scope, as only elderly people residing in Chandragiri Municipality were included in the study.

RESULTS

This table shows the socio-demographic characteristics of respondents (n=276). Among 276 respondents, 41.7% were male and 58.3% female, while 97.5% identified as Hindu. Notably, 25.4% were Brahmin, 20.3% Chhetri, and 54.3% Jana Jati. Similarly, 61.6% were married, 2.5% unmarried, and 35.9% widowed. Furthermore, 62.7% could not read or write, whereas 19.6% had informal schooling, 12.0% basic education, 3.6% secondary education, and 2.2% bachelor's/masters.

Likewise, 63.4% were unemployed, 13.4% were housewives, 6.5% were farmers, 4.3% were in service, 12.0% were retired, and 0.4% were in business. Notably, 83.0% lived in nuclear families, and only 12.0% lived alone compared to 88.0% who lived with relatives.

Table 1: Demographic and Reproductive Characteristics of Respondents (n=276)

Variables	Categories	n (%)
Age	60-64	56 (20.3)
	65-69	64 (23.2)
	70-74	65 (23.6)
	75-79	38 (13.8)
	80-84	42 (15.2)
	85-90	5 (1.8)
	90 and above	6 (2.2)
	Mean ± S. D	71.31 ± 7.775
Gender	Male	115 (41.7)
	Female	161 (58.3)
Ethnicity	Brahmin	70 (25.4)
	Chhetri	56 (20.3)
	Jana Jati	150 (54.3)
Religion	Hindu	269 (97.5)
	Buddhist	6 (2.2)
	Christian	1 (0.4)
Marital Status	Married	170 (61.6)
	Unmarried	7 (2.5)
	Widow/widower	99 (35.9)
	Can't read and write	173 (62.7)
Education	Informal	54 (19.6)
	Basic level	33 (12)
	Secondary level	10 (3.6)
	Bachelor's and master's level	6 (2.2)
Occupation	Unemployed	175 (63.4)
	Housewife	37 (13.4)
	Farming	18 (6.5)
	Service	12 (4.3)
	Retired	33 (12)
	Business	1 (0.4)
Family arrangement	Nuclear	229 (83.0)
	Joint	47 (17.0)
Living arrangement	Living alone	33 (12)
	Living with family	243 (88)

Overall, 86% of respondents felt wanted within their families, whereas only 4% did not, and most actively contributed, with 6% indicating otherwise. Similarly, nearly all believe their family members care for them, though 4% feel uncared for, and one-third have faced an adverse event. Likewise, 94% receive financial support, while 6% do not, and 96% feel respected and spend sufficient time with their families, whereas 4% do not. Regarding behaviors, 20.7% reported smoking and 16.3% consumed alcohol. Notably, more than half experience daily difficulties, yet over 70% sleep well and feel free to go anywhere. Moreover, most can eat their favorite foods, though 9.8% cannot. Lastly, 87% have some form of chronic illness, whereas 13% do not.

Table 2: Factors affecting psychological distress

Variables	Categories	n (%)
Family Factors (n=243)		
Do you feel wanted with family?	Yes	233 (85.9)
	No	10 (4.1)
Are you contributing to the family?	Yes	229 (94.2)
	No	14 (5.8)
Do family members care about you?	Yes	232 (95.5)
	No	11 (4.5)
Any adverse event happened in life?	Yes	85 (35)
	No	158 (65)
Have you received family support?	Yes	230 (94.7)
	No	13 (5.3)
Have you received financial support?	Yes	229 (94.2)
	No	14 (5.8)
Do you feel respected?	Yes	232 (95.5)
	No	11 (4.5)
Do you spend enough time with family members?	Yes	234 (96.3)
	No	9 (3.7)
Behavioral Factor (n= 276)		
Do you smoke?	Yes	57 (20.7)
	No	219 (79.3)
Do you drink alcohol?	Yes	45 (16.3)
	No	231 (83.7)
Any Difficulty in daily living activities?	Yes	213 (77.2)
	No	63 (22.8)
Can you sleep well?	Yes	219 (79.3)
	No	57 (20.7)
Can you go anywhere?	Yes	231 (83.7)
	No	45 (16.3)
Can you eat your favorite food?	Yes	249 (90.2)
	No	27 (9.8)
Comorbidities Factor (n=276)		
Are you suffering from any Chronic illness?	Yes	239 (86.6)
	No	37 (13.4)

The table shows psychological distress among 276 participants, the highest proportion experiencing severe distress (36.6%), followed by mild distress (24.3%), with the lowest percentages in the well (21.0%) and moderate (18.1%) categories.

Table 3: Kessler Psychological Distress scale(10) (n=276)

Variables	Categories	n (%)
Psychological Distress	Well (10-19)	58 (21.0)
	Mild (20-24)	67 (24.3)
	Moderate (25-29)	50 (18.1)
	Severe (30-50)	101 (36.6)
	Mean ± S. D	2.70 ±1.169

This table summarizes the associations between demographic factors and levels of psychological distress, revealing that living arrangement is significantly associated with psychological distress (p = 0.002 while the table on chronic health conditions demonstrates strong associations for suffering from any chronic disease (p = 0.000) and suffering from back pain (p = 0.022).

Table 4: Factors associated with psychological distress

Sociodemographic factors associated with psychological distress							
Variables	Category	Category of psychological distress				Chi square value	P-value
		Well	Mild	Moderate	Severe		
Living arrangement	Living alone	5 (15.2%)	1 (3.0%)	12 (36.4%)	15 (45.5%)	15.275	0.002*
	Living with family	53 (21.8%)	66 (27.2%)	38 (15.6%)	86 (35.4%)		
Comorbidities factor associated with psychological distress							
Suffering from any chronic disease	Yes	42 (17.6%)	55 (23.0%)	42 (17.6%)	100 (41.8%)	24.919	0.000*
	No	16 (43.2%)	12 (32.4%)	8 (21.6%)	1 (2.7%)		
Suffering from Back pain	Yes	35 (23.2%)	34 (22.5%)	26 (17.2%)	56 (37.1%)	9.622	0.022*
	No	7 (8%)	21(23.9%)	16 (18.2%)	44 (50.0%)		

DISCUSSION

This study aimed to assess various factors associated with psychological distress among elderly people living in Chandragiri Municipality. The study revealed a high prevalence of psychological distress, with severe distress affecting 36.6% of participants. Notably, elderly individuals living alone experienced higher levels of psychological distress compared to those living with family; findings from India were that living alone was associated with higher distress levels (50.9%). This suggests that social isolation and the lack of someone to share their feelings with significantly contribute to higher distress levels.[8] While studies from Spain have shown significant gender differences in psychological distress, with elderly women generally reporting higher distress levels than men, the present study did find significant gender differences; females reported higher psychological distress compared to men.[9]

In the current study, it was found that 36.6% had severe psychological distress, 18.1% of respondents had moderate psychological distress, 24.3% of respondents had moderate psychological distress, and 21% had no psychological distress. This percentage is lower when compared with the prevalence of psychological distress in a study conducted in a rural community of Bangladesh, i.e, 52.5%.[4,] but in a study in Nepal, 0.3% had severe psychological distress, 1.5% of respondents had mild to moderate psychological distress, and 98.2% had no psychological distress. This percentage is lower when compared to the present study.[10]

Family factors, such as feeling wanted, contributing to the family, and receiving support, did not show significant associations with psychological distress in the current study. This contrasts with findings from a study Psychological Distress of The Elderly in Selected Barangays in Caoayan, Ilocos Sur in the Philippines, where family support was positively associated with reduced distress.[11] A study on Psychological distress among a sample of Iranian older adults in Iran found no significant difference in psychological distress between unmarried and married individuals (p > 0.05), aligning with the current study's findings on marital status. Both studies identified significant associations with living status; the Iranian study showed a significant difference in psychological distress based on living status (t = -2.28), supporting the current finding that those living alone experienced higher distress. [12] In present study, factors such as feeling wanted by family and receiving support did not show significant links to psychological distress, whereas, in other studies of older adults dependent on home care, a lack of family support and interaction is often a major cause of psychological distress.[13] while studies from Spain have shown significant gender differences in psychological distress, with elderly women generally reporting higher distress levels than men, the present study did not find significant gender differences

Education played a role in psychological distress, with many illiterate individuals in the present study experiencing high levels of distress, similar to findings in Psychological distress and its association with socio-demographic factors in a rural district in Bangladesh: A cross-sectional study, where lower education

levels were associated with more distress.[4] However, behavioral factors such as smoking, drinking, and daily living activities were not significantly correlated with psychological distress in the present study. This finding contrasts with research from Nigeria, which identified alcohol consumption as a major risk factor for psychological distress.[14] Similarly, findings in a study Psychological distress among adults of an urban community of Lalitpur district, Nepal indicated that neither smoking nor alcohol consumption significantly impacted psychological distress, suggesting that the relationship between these behaviors and psychological distress may vary by region and context.[10]Also, Self-management in terms of maintaining the ability to perform activities of daily living, such as preparing warm meals, were associated with less psychological distress was found in the Psychological distress in elderly people is associated with diet, wellbeing, health status, social support and physical functioning- a HUNT3 study study which was similar with the findings of present study.[1]

In terms of comorbidities, chronic diseases, particularly back pain, were strongly associated with higher levels of psychological distress in the current study. This is consistent with the study Psychological Distress Among Older Adults During the First Wave of SARS-CoV-2 Pandemic: Survey of Health, Ageing, and Retirement in Europe, which identified chronic health problems as major contributors to psychological distress among older adults[15]. The present study found a 36.6% prevalence of severe psychological distress, slightly lower than the 40.6% reported in a study on elder abuse in India.[8] Furthermore, findings from the Psychological distress and its correlates in older care-dependent persons living at home study showed only 10.7% of participants with psychological distress, with no association with physical health problems or disabilities, contrasting with the present study findings where chronic health conditions were significant factors.[13] Additionally, the study in Nepal indicated that 90% of participants were Hindu, similar to the 97.5% in the current study.[16] Interestingly, the proportion of elderly people suffering from back pain and chronic illnesses was higher compared to those without these diseases, underscoring the impact of comorbidities on psychological distress in the elderly. This highlights the critical need for healthcare and social support systems to address both the physical and psychological well-being of the elderly population.

CONCLUSIONS

The majority of elderly people in Chandragiri Municipality suffer from psychological distress, with a significant portion experiencing severe distress. Females are more affected by psychological distress compared to males. The study reveals that psychological distress is a serious issue among the elderly population. Living arrangement shows a significant association with psychological distress, with those living alone experiencing higher levels of distress. Also, suffering from any chronic disease and back pain is significantly associated with psychological distress. Other factors such as age, gender, ethnicity, religion, marital status, education, occupation, family factors, and behavioral factors do not show a significant association with psychological distress. The concerned organizations and authorities should focus on providing more support and activities such as social engagement programs, mental health counseling, physical exercise groups, and intergenerational interactions to help reduce psychological distress among the elderly.

Conflict of interest:

None

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