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Psychological Distress among Adults of an Urban Community of Lalitpur District, Nepal

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ABSTRACT

Introduction: Psychological distress is a widespread indicator of mental health. It is a state of emotional suffering associated with stressors and demands that are difficult to cope with in daily life. The study aimed to identify the prevalence of the psychological distress among adult population.
Methods: A cross-sectional house to house survey was conducted in an urban community for four weeks in 2018. Face to face interview was done among 618 adults using Kessler K6 Nepali version interview questionnaire. Descriptive and inferential statistics (Pearson Chi-square and Pearson correlation) were used for analyzing the data. P value was set at 0.05.
Results: We found that 0.3% adults had severe psychological distress, 1.5% had mild to moderate and 98.2% had no psychological distress. Education, past history of mental health problem and occupational status were significantly associated with psychological distress (p-value = < 0.05). Age, alcohol intake and smoking cigarettes were positively correlated with psychological distress (r = 0.12), (r = 0.13), (r = 0.10) respectively and education was significantly negatively correlated with psychological distress (r = - 0.16).
Conclusion: Our findings showed low psychological distress among urban community adults. Education, history of mental problem and occupation were associated with psychological distress. Higher the age, positive history of smoking and alcohol were associated with high psychological distress. However, the adults who had high education had low psychological distress. Thus, it suggests that elderly people in an urban community might need psychological support.

Keywords: Adults, Psychological distress, Urban community

INTRODUCTION

Psychological distress is one of the indicators of mental health of the population. [1] There are currently over 792 million people living with mental health disorders. This is slightly more than one in ten people globally (10.7%). Mental disorders are complex and can take many forms and remain widely under reported. [2] Psychological distress is largely defined as a state of emotional sufferings characterized by symptoms of depression (loss of interest, sadness, hopelessness) and anxiety (restlessness, feeling tense). [3] It has been recognized increasingly that health issues related to mental, behavioral, and neurological disorders are growing throughout the world. High levels of psychological distress are indicative of impaired mental health of the population. [4]

Prevalence of psychological distress varies in different countries. For instance; 19.5% in South America [5], 20.2% in India [6], 52.5% in Bangladesh [7], 18.09% in Myanmar [8], and in Nepal psychological distress has not been studied in urban community population. However, Khatri and his colleagues [9] identified mental

distress among 37.5% of rural community population. The issues regarding the role of psychological distress, in the pathway to depression if left untreated [10] has the great concern.

The studies of psychological distress among the population in Asian countries have shown that socio-cultural factors, such as female gender, low educational status, lack of social support [11], unemployment, lower economic status, older age, and chronic medical problem (hypertension, diabetes mellitus) were important contributors for psychological distress. [7, 12,13]. Furthermore, recent study identified that psychological distress significantly increases the risk for incident of arthritis, cardiovascular disease and chronic obstructive pulmonary disease even at low and moderate distress levels. [14] Thus, if we could screen the psychological distress earlier among adult population we can prevent the chronic problems later on. Therefore, this study aimed to identify the prevalence of psychological distress and examine the factors associated with psychological distress among adults of an urban community of Lalitpur, Nepal.

MATERIAL AND METHODS

Cross-sectional house to house survey was conducted in Lalitpur Metropolitan City ward no.8 Subahal tole. Total population of Subahal tole was 1400 according to 2011 census.

Non-probability purposive sampling techniques were used for selecting 618 adults for 4 weeks in 2018. The data was collected in all the house hold of Subahal tole. Each house was approached and data was collected from all the adults, who were 18 years and above, available at the time of data collection period and willing to participate in the study.

Data was collected after obtaining administrative approval from Internal Research Committee of Patan Academy of Health Sciences School of Nursing and Midwifery (Lalitpur Nursing campus) and ward Chairperson of ward no.8, Lalitpur Metropolitan City. Informed verbal consent was obtained from each respondent before data collection. Respondents' participation in the study was voluntary and they were allowed to discontinue the study at any time without giving any reason. Face to face interview was taken with each adult who fulfilled the inclusion criteria. Survey was conducted over four weeks. Each day 30 adults were interviewed.

Data sources: Data used in this study was a part of a community mental health survey conducted in 2018 by six Master in nursing students.

Data collection instruments

Demographics - Demographic variables included age, gender, education status, occupation, medical problem, history of mental problem, habit of drinking alcohol and smoking cigarettes.

Kessler K6 - The K6 questionnaire asks respondents to consider the past one month to report how frequently they experienced the following six symptoms; felt nervous, hopeless, restless or fidgety, worthless, depressed and felt that everything was as effort. It was measured in a five-point Likert Scale 1, (none of the time) 2(a little of the time), 3(some of the time) 4 (most of the time) and 5 (all of the time). Response option was re-coded as 0, 1, 2, 3, and 4 for 1, 2, 3, 4, and 5. The responses to the six items were summed to yield a K6 score between 0 and 24, with higher score indicating a greater tendency towards mental illness. The cut off score of 5 or less than five was used as no distress, 6-13 as moderate distress and >13 as severe distress. This scale has been translated into Nepali language and has been used in Nepal. [15]

Data analysis

Data analysis was done by using SPSS Software version 16. Descriptive statistics was used to describe socio-demographic information and level of psychological distress. Inferential statistics Pearson chi-square test was used to examine

association between socio-demographic variables and level of psychological distress and Pearson correlation was used to examine the relationship between independent and dependent variables.

RESULTS

A total of 618 data were analyzed. The mean age of the respondents was 41.02± 8.21 years. Among the respondents, two third of them were married. Sixty percent were Hindu and having occupation. About 55% were living in joint family and 80% were literate (Table 1).

Table 1. Socio- Demographic information, N=618

Variables	Frequency	Percent
Age	Mean age 41.02±15.69 years	
Young adult	339	54.9
Middle aged adult	185	29.9
Older adult	94	15.2
Gender		
Male	313	50.6
Female	305	49.4
Marital status		
Married	458	74.1
Unmarried	121	19.6
Single after marriage*	39	6.3
Religion		
Hindu	370	59.9
Buddhist	217	35.1
Christian	31	5.0
Family type		
Nuclear	261	42.2
Joint	332	53.7
Extended	25	4.0
Education		
Literate	496	80.3
Illiterate	122	19.7
Occupation		
Yes	368	59.5
No	250	40.5

*Note: * divorced, widowed, widower, separated*

Table 2. Clinical problems, alcohol drinking and smoking habit of the respondents N=618

Variables	Frequency	Percent
Mental health problem (Past history)		
Yes	16	2.6
No	602	97.4
Medical health problem		
Yes	120	19.4
No	498	80.6
Alcohol intake habit		
Yes	200	32.4
No	418	67.6
If yes, amount per day (n=200)		
One glass	163	81.5
Two glass	25	12.5
Three glass	6	3.0
Four glass	3	1.5
Five glass	3	1.5
Ten glass	2	1.0
Smoking habit		
Yes	100	16.2
No	520	83.8
If yes, number of sticks per day (n=98)	56	56.0
1-5 Stick per day	40	40.0
6-10 Sticks per day	4	4.0
More than 10 Sticks per day		

Table 3. Association between independent variables and distress level, N=618

Variables	Level of distress				Chi-square value	p-value
	No distress		Distress			
	Frequency	Percent	Frequency	Percent		
Gender						
Male	309	98.7	4	1.3	.91	0.33
Female	298	97.7	7	2.3		
Education						
Literate	491	99	5	1.0	8.56	0.00
Illiterate	116	95.1	6	4.9		
Mental problem						
Yes	11	68.8	5	31.3	81.5	0.00
No	596	99.0	6	1.0		
Medical Problem						
Yes	117	97.5	3	2.5	.44	0.50
No	490	98.4	8	1.6		
Occupation						
Yes	365	99.2	3	0.8	4.84	0.02
No	242	96.8	8	3.2		
Alcohol habit						
Yes	195	97.5	5	2.5	0.877	0.34
No	412	98.6	6	1.4		
Smoking habit						
Yes	94	95.9	4	4.1	3.52	0.06
No	513	98.7	7	1.3		

Only about 3 % of respondents reported that they had past history of mental health problem. However, about 20% had medical health problems. Thirty two percent (32%) of respondents reported that they drink alcohol. Among those who reported

that they drink alcohol, 82% reported that they drink occasionally. Regarding smoking habit, 16% of respondents had the habit of smoking. Among them who had smoking history, 56% smoked 1-5 stick per day and 4% smoked more than 10 sticks per day (Table 2). Regarding the prevalence of psychological distress only 1.8% had moderate to severe distress and 98.2% had no to mild distress.

Regarding the association between independent variables and psychological distress, educational status, past history of mental health problem and presence of occupation have significant association with level of distress. However, gender, and alcohol intake habit had no significant association. In addition, smoking habit and psychological distress had not significantly associated with but p value was on borderline value (Table 3).

Table 4. Correlation between age, education, amount of alcohol and number of, sticks smoked and level of distress, N=618

Variables	Age	Education	Amount of alcohol	Number of sticks	Distress
Age	1				
Education	-.65**	1			
Amount of alcohol	.20**	-.13**	1		
Smoking number of sticks	.19**	-.16**	.49**	1	
Level of distress	.12**	-.16**	.13**	.10**	1

*Note: **p value less than .01*

Pearson's correlation revealed a positive correlation between age, amount of alcohol intake and number of smoking sticks with psychological distress (r = 0.12), (r = 0.13), (r = 0.10) respectively. However, education was negatively correlated with psychological distress (r = - 0.16) meaning that when the level of education increases the level of psychological distress decreases (Table 4).

DISCUSSION

Of the total (n=618) respondents, 54.9% were young adult, 29.9% middle aged adult and 15.2% older adult. The mean age of the respondents was 41.02± 8.21 years. Gender wise, 50.6% were male and 49.4% were female. Among the respondents, two third of them were married. Sixty percent were Hindu and having occupation. About 55% were living in joint family and 80% were literate.

In our study, it was found that 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 with a national surveillance of Suriname in South America [3] where 3.8% had severe psychological distress and 15.7% had mild to moderate psychological distress. Similarly, in a nationally representative survey conducted in South Africa, the prevalence of psychological distress was 23.9%. [5] Likewise, the prevalence of psychological distress was higher in study conducted in rural community of Bangladesh [7], where 9.0% had severe psychological distress, 20.8% moderate and 22.7% had mild psychological distress. Furthermore, prevalence of psychological distress in an urban community population in India was also high 20.2%. [6] The variations in prevalence between countries can be a result in differences of an unequal distribution of risk factors like low level of education, low income, female gender, having chronic medical problems or multiple comorbidities and older age. [7, 8, 10, 11] which need to be explored in more depth. The prevalence is lower in the present study, and this could be because it is an urban community of Kathmandu valley with predominantly joint or extended families and sufficient educational opportunities (schools and colleges), and livelihood opportunities (cottage industries) as well as good availability and accessibility of health care facilities.

In current study findings, education status, past history of mental problem and

occupational status was significantly associated with level of distress. Similar to this study finding, low educational status, financial difficulties due to unemployment and past history of treated mental illness was significantly associated with psychological distress. [16,17], as studies shown that level of education either directly or indirectly influences levels of distress. [18] Furthermore, a strong association between low education and clinical depression has also been reported among representative population-based studies conducted in Finland, Poland and Spain. [19] Similarly, contradict result was found in a study of Sweden, where they didn't find association between low educational status and psychological distress. [20]

However, in our study we found no association between psychological distress, gender, having medical problem (hypertension, diabetes mellitus), alcohol intake and smoking habit. These findings are contradicted with the study done in China [13], in their study, gender and medical problem were significantly associated with psychological distress. Likewise, smoking has been reported to be linked to mental health conditions, either as a consequence or as a cause. [7] Therefore, whether smoking causes psychological distress or vice versa is unknown and it cannot be explained from this cross-sectional study.

We analyzed Pearson correlation on selected independent variables. Positive correlation was found between age, amount of alcohol intake and number of cigarettes smoking and overall level of psychological distress. This indicates that, when the age increases the psychological distress decreases. Similarly, when the level of psychological distress increases, the intake of amount of alcohol and cigarettes smoking also increases, as found in other studies. [21, 22] However, in our study education was significantly negatively correlated with psychological distress. Similar to this finding, study conducted in UK [23] reported that higher education was associated with lower risk of psychological distress. Likewise, contradict result was found in study done in Sweden reported that persons with low and medium educational level had a lower risk of psychological distress than persons with high educational level. [19] Differences in result might be country context situation, opportunities and level of job satisfaction, which might affect on mental health of the people.

Some of the limitations of our study, data were obtained through face-to-face interview questionnaire therefore we may not get accurate information especially in cigarettes smoking and alcohol drinking habit. Furthermore, the questionnaire considers from the past one month how frequently experiencing the symptoms therefore, there may have been recalled biases from the respondents.

CONCLUSION

The prevalence of psychological distress in the current study was low. Factors including low educational status, past history of mental health problem and unemployment status were significantly associated with level of psychological distress. Age, smoking and drinking of alcohol were positively correlated and education status was significantly negatively correlated with psychological distress. Urban health program should target people in high risk group to reduce their psychological distress.

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REFERENCES

1. Ritchie H, Roser M. Mental health: our world in data, 2018. Available from: http://ourworldindata.org/mental health.
2. Kessler RC, Bakker PR, Clope LJ, et al. Screening for serious mental illness in the general population. Archives of General Psychiatry, 2003;60:184-189. DOI: 10.1002/mpr.310
3. PW Gunther, M Sanches, CCF Smits, ISK Krishnadath (2017) Prevalence of Psychological Distress in Suriname In Urban and Rural Areas: The Suriname Health Study. Journal of Human Psychology - 1(1):8-17. DOI: 10.14302/issn.2644-1101.jhp-17-1665
4. Arvidsdotter T, Marklund B, Kylen S, et al. Understanding persons with psychological distress in primary health care. Scandivanian Journal of Caring Science. 2016; 30:687-94. DOI: 10.1111/scs.12289
5. Mthembu JC, Mabaso MLH, Khan G, et al. Prevalence of psychological distress and its association with sociodemographic and HIV-risk factors is South Africa: findings of the 2012 HIV prevalence, incidence and behavior survey. Population Health. 2017;3: 658- 62. DOI: http://doi.org/10.1016/J.ssmph.2017.07.009
6. Murugan N, Mishra AK, Chauhan RC, et al. Psychological distress among adult urban population of Puducherry. International Journal of Community Medicine Public Health. 2018;5(8):3265-69. DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20182984
7. Fakir M. Amirul I. Psychological distress and its association with socio-demographic factors in a rural district in Bangladesh: a cross-sectional study. POLOS ONE. 2019;14 (3):1-18. DOI: https://doi.org/10.1371/journal.pone.0212765
8. Aye WT, Lien L, Stigum H, et al. The prevalence of mental distress and the association with education: a cross-sectional study of 18-49-year-old citizens of Yangon region, Myanmar. BMC Public Health. 2020; 20(94):1-12. DOI: 10.1186/s12889-020-8209-8.
9. Khattri JB, Poudel BM, Thapa P, et al. An epidemiological study of psychiatric cases in a rural community of Nepal. NJMS, 2013;2(1):52-6. DOI: 10.3126/njms.vjms.v2i1.7654
10. Marchand A, Drapeu A, Beaulieu-Prevost D. Psychological distress in Canada: The role of employment and reasons of non-employment. International Journal of Social Psychiatry. 2013;58(6):596-604. | DOI: 10.1177/0020764011418404.
11. Husain N, Chaudhry N, Jafri F, et al. Prevalence and risk factors for psychological distress and functional disability in urban Pakistan. WHO, South-East Asia Journal of Public Health. 2014; 3 (2):144-153. DOI: 10.4103/2224-3151.206730
12. Kuriyama S, NakayoN, Ohmoni-Matsuda K, et al. Factors associated with psychological distress in a community-dwelling Japanese population: The Ohsaki cohort 2006 study. Journal of Epidemiology. 2009;19(6):294-302. DOI: 10.2188/jea. je20080076.Epub2009Sep12.
13. Qiu S, Sun XH, Liu WY, et al. Prevalence and correlates of psychological distress among diabetes mellitus adults in the Jilin province in China: a cross- sectional study. The Open Access Peer Journal. 2017; 5:1-17. DOI: 10.7717/peerj.2869. e collection 2017.
14. McLanchlan KJJ, Gale CR. The effects of psychological distress and its interaction with socioeconomic position on risk of developing four chronic disease. Journal of Psychosomatic Research. 2018; 109:79-85 DOI: https://doi.org/10.1016/j.jpsychores.2018.04.004
15. Panthee B, Shimazu A, Kawakami N. Validation of Nepalese version of Utrecht engagement scale. Journal of Occupational Health. 2014; 56:421-429. DOI: https//doi.org/10.1539/joh.14-0041.OA
16. Husain N, Chaudhry N, Jafri F, et al. Prevalence and risk factors for psychological distress and functional disability in urban Pakistan. WHO south-East Asia Journal of Public Health. 2014;3(2):144-153 Available from: www.searo.who.int/ publications/journals/seajph
17. Cheon Y, Park J, Jeong BY, et al. factors associated with psychological stress and distress among Korean adults: the results from Korea national Health and nutrition examination Survey. Scientific Research OPEN. 2020; 10:1-10. Available from: https://doi.org/10.1038/s41598-020-71789-y

18. Sathyanath MS, Kundapur R. Epidemiological correlates of psychological distress in a rural community of South India: A cross-sectional study. Indian Journal of Community Medicine. 2020;45(2):240-243. DOI: 10.4103/ijcm.IJCM_129_19
19. Freeman A, Tyrovolas S, Koyanagi A, et al. The role of socio-economic status in depression: results from the COURAGE (aging survey in Europe). BMC Public Health 2016; 16:1098 DOI: 10.1186/s12889-016-3638-0
20. Anu M, Fredrik G. Educational differences in psychological distress: results from a population- based sample of men and women in Sweden in 2012. BMJ Open. 2018;8: e021007. DOI:10.1136/bmjopen-2017-021007
21. Greenhalgh EM, Jenkins S, Stillman S, et al. Smoking and mental health, tobacco in Australia: facts and issues. Melbourne: Cancer council Victoria. 2018. Available from: http://www.tobaccoinaustralia.org.au/chapter-7-cessation/7-12-smoking-and-mental-health
22. Myriane S, Sinclair I, Elgbeili G, et al. Relationships between psychological distress and health behaviors among Canadian adults: differences based on gender, income, education, immigrant status, and ethnicity. Elsevier: SSM - Population Health. 2019; 7:100385. DOI: https://doi.org/10.1016j.ssmph.2019.100385
23. Byles JE, Galliaenne L, Blyth FM. Relationship of age and gender to the prevalence and correlate of psychological distress in later life. International Psychogeriatrics. 2012;24(6):1009-18. DOI: 10.1017/s1041610211002602

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