Psychological Distress among Nursing Students in Clinical Posting During Covid-19 Pandemic

Kishor Adhikari[1], Amrita Ghimire[2], Taniya Thapa[2], Sadikshya Neupane[2], Abinash Baniya[3], Manoj Shahi[3]

[1]*School of Public Health, Chitwan Medical College, Tribhuwan University, Nepal*
[2]*School of Nursing, Chitwan Medical College, Tribhuwan University, Nepal*
[3]*School of Medicine, Chitwan Medical College, Tribhuwan University, Nepal*
Corresponding Author: Dr. Kishor Adhikari, Associate Professor, School of Public Health, Chitwan Medical College, Tribhuwan University, Nepal; email: adhikari.kishor@cmc.edu.np, kishoo2006@gmail.com

Abstract:
Background: *COVID-19 pandemic has provoked a wide variety of psychological problems such as anxiety, depression and panic disorders especially among health service providers.Due to a greater risk of exposure to the virus, increased clinical hours due to compact schedule and assignments to fulfill clinical criteria and responsibility for managing self and family for precautions, nursing students are more vulnerable to emotional distress than other health care providers during this pandemic.*
Materials and Methods: *Present study is Descriptive study conducted among 200 nursing students during their clinical posting at Chitwan Medical College teaching hospital which is one of the highest referral center of this province for all type of morbidities including Covid-19 infected patients. Complete Enumeration sampling method was used as sampling technique. Though, there were a total of 200 students studying UG nursing programme, only 176 candidates i.e. 88% have filled the questionnaire presenting the 12% of non-response rate.*
Results:. *Above 40% of respondents were suffering from psychological distress. Nearly 5% of them were suffering from severe forms of psychological distress. Religion (p=<0.01) and history of prior psychological distress (p<0.05) were found associated with psychological distress.*
Conclusion:*Two-fifth of respondents were suffering from psychological distress. Religion and prior psychological distress were significantly associated with psychological distress.*
Key words:*Psychological distress, Nursing, Students, Posting, Covid-19*

I. Introduction:

The corona virus disease 2019 (COVID-19) pandemic is a substantial health burden caused by a novel corona virus that emerged in the Province of Wuhan in China in November 2019 has worldwide122,887,146confirmed cases including 2,713,473 as of March20, 2021, while in Nepal, the confirmed cases climbed to 275,750with 3016 deaths.[1]There is hardly any sector which has not been affected by this global pandemic and healthcare is among the hardest hit sectors. Due to a increased risk of exposure to the Corona virus, increased clinical hours due to compact schedule and assignments to fulfill clinical criteria and responsibility for managing self and family for precautions, nursing students are more susceptible to emotional distress than other health care providers during this pandemic. Nursing curriculum is composed of two complementary parts: theoretical training and practical training[2] of which a large part of it is carried out in clinical environments[3.] The current COVID-19 pandemic has not only caused significant threats to people's physical health and lives but has also provoked a wide variety of psychological problems such as anxiety, depression and panic disorders[4]. Nursing students are vulnerable in the clinical environment that reduces their satisfaction with the clinical training[5] that may lead to anxiety[6]. Meanwhile nursing students having online classes from their home settings are now supposed to appear for the clinical postings through the announcements from respective universities are now supposed to work in the new reality of uncertain conditions and controversial information in relation to the new virus and often with lack of sufficient personal protection equipment (PPE).This cross-sectional study attempts to assess the psychological distress of COVID-19 among the nursing students in clinical posting.

II. Material And Methods

Present study is Descriptive study conducted among 200 nursing students during their clinical posting at Chitwan Medical College teaching hospital which is one of the highest referral center of this province for all type of morbidities including Covid-19 infected patients.

Study design: Descriptive (Cross-sectional) study design

Study location: Chitwan Medical College teaching hospital which is one of the highest referral center of this province for all type of morbidities including Covid-19 infected patients.

Study duration: 15th September 2020 to 14th December 2020

Sample size calculation: Complete Enumeration sampling method was used as sampling technique.

Sample size: Though, there were a total of 200 students studying UG nursing programme, only 176 candidates i.e. 88% have filled the questionnaire presenting the 12% of non-response rate.

Subjects and sampling method: undergraduate nursing students studying BSc Nursing, students of all four years and BNS students of all three years.

Inclusion criteria: all the students who gave consent for data collection.

Exclusion criteria: None.

Ethical approval: Prior to data collection, ethical approval was obtained from Chitwan Medical College institutional review committee (CMCIRC).

Outcome variables: Present study used the Covid-19 Peri-traumatic Distress Index (CPDI) questionnaire along with some additional socio-demographic and posting related questionnaire and the internal consistency of 24 CPDI variables was assessed by using Cronbach's α. The 5- point Likert scoring system with scales ranging from never = 0, occasionally = 1, sometimes = 2, often = 3, always = 4 was used. The sum total score was calculated and classified as score between 0 – 28: normal, 28 – 51: mild-to-moderate distress and >52: severe distress.

Statistical method: After data collection, it was checked for accuracy and completeness. Descriptive statistics i.e. frequency, percentage, mean and standard deviation were used to describe the findings. Inferential statistics i.e., chi-square test was used to determine the association between selected variables with the psychological distress. P-value <0.05 was considered significant. Fischer's exact test was used when more than 20% of cells had expected frequencies < 5

III. Result

Majority of respondents (58%) belonged to age group 18-22 years. Most of the respondents i.e. 92.6% were Hindu and almost half 49.4% were Brahmin. Majority of respondents i.e. 88.6% were unmarried. Higher proportion of respondents (64.8%) were posted in general ward. Almost all 96.6% respondents did not have any history of psychological distress. (Table 1)

TABLE 1 Respondents 'Socio- demographic characteristics

n =176

Variables	Frequency	Percentage
Age		
18 – 22	102	58.0
23 – 28	74	42.0
Median = 22 Min=18 ,Max=28		
Religion		
Hindu	163	92.6
Non-Hindu*	13	7.4
Ethnicity		
Brahmin	87	49.4
Chhetri	33	18.8
Janjati	50	28.4
Others	6	3.4
Marital status		
Married	20	11.4
Unmarried	156	88.6

Posting		
General ward	114	64.8
ICU and other Critical Unite	62	35.2
History of psychological distress		
Don't know	9	5.1
No	161	96.6
Yes	6	3.4

*Non-Hindu comprises Buddhist, Christians and others

Table 2 showed that nearly 36% of the respondents had experienced mild-to-moderate psychological distress during clinical posting whereas nearly 60% of respondents were under the normal (no distress) category. A total of 4.5% of respondents were found experiencing severe psychological distress

Table 2 Psychological distress among nursing students during clinical posting *(n=176)*

Psychological Distress	Frequency (%)
Normal (No distress)	105 (59.7)
Mild-to Moderate psychological distress	63 (35.8)
Severe psychological distress	8 (4.5)

Note: Figures in parentheses indicate percentage.

Table 3 revealed that there was significant relationship between psychological distress with religion ($p<0.01$) and history of psychiatric distress ($p<0.05$) but nosignificant relation with other socio-demographic variables like age, ethnicity, marital status, posted department and exposure to Covid-19 patients.

Table 3: Association between socio-demographic and disease related variables with psychological distress status *(n= 176)*

Variables	Psychological distress status		χ^2 P-value
	Normal (%)	Psychological distress (%)	
Age group			
18-22	64 (62.7)	38 (37.3)	0.205
23-28	41 (55.4)	33 (44.6)	
Ethnicity			
Brahmin	53 (60.9)	34 (39.1)	0.106
Chhetri	23 (69.7)	10 (30.3)	
Janajati	28 (56.0)	22 (44.0)	
Others	1 (16.7)	5 (83.3)	
Marital Status			
Unmarried	93 (59.6)	63(40.4)	0.974
Married	12 (60.0)	8 (40.0)	
Religion			
Hindu	102 (62.6)	61 (37.4)	0.006*
Non-Hindu	3 (23.1	10 (76.9)	
Posted Department			
General ward	71 (62.3)	43 (37.7)	0.211
ICU & other Critical Unit	34 (54.8)	28 (45.2)	
History of psychiatric distress			
Don't know	8 (88.9))	1 (11.1)	0.019*
No	96 (59.6)	65 (40.4)	
Yes	1 (16.7)	5 (83.3)	

Exposed to Covid-19 patient			
No	83 (58.5)	59 (41.5)	0.320
Yes	22 (64.7)	12 (35.3)	

*Note: Figures in parentheses indicate percentage. * denotes significant association at 0.05*

IV. Discussion

All together 176 undergraduate nurses participated in the study. Median age of the participant was 22 years with minimum 18 years to maximum 28 years. Present study reveals that above than four-fifth of nursing students posted in clinical setting during COVID-19 pandemic were suffered from psychological distress. Similar findings were observed from the study conducted by Shechteret al.(48%), Temsah et al.[8] (41.4%) and Kafle et al.[9]The Wang et al.[10]reported lower prevalence as compared to our finding (10.74%) which may be differences in study sites. Another study by Kim et al.[11]reported that almost a quarter of participants reported high psychological distress, while more than half reported moderate-to-severe psychological distress. In the present study, mild-to moderate psychological distress was found among 35.8% of respondents. The finding was identical with the finding from Liu et al.[12]where 28% of nursing students were suffering from mild-to moderate psychological distress.

In the present study, among total undergraduate nurses, 4.5% were categorized as suffering from severe psychological distress. Similar finding was observed from Liu et al.[12]where 6% of respondents were suffering from severe form of psychological distress.

In this study, only two independent variables were found significantly associated with psychological distress i.e. religion (p<0.01) and prior history of psychological distress (p<0.05) whereas there were no significant association of age, ethnicity, marital status, posted department, exposed with Covid-19 patient with psychological distress. This finding is similar with the study done in India Sheroun et al.[13] where there is no association between distress and most of the socio demographic variables.

The high prevalence of psychological distress among nursing students who were posted in clinical setting suggests the need of counseling and orientation programmes before posting to the clinical settings. There is need of more focused plan specially for those who have prior history of psychological distress.

V. Conclusion

Two-fifth of respondents were suffering from psychological distress. Religion and prior psychological distress were significantly associated with psychological distress. Rigorous plans, preparations, counseling sessions may be fruitful for reducing level of distress among nursing students prior posting into clinical department during Covid-19 pandemic.

References

[1].   Worldometer. (Coronavirus disease 2019 (COVID_19). Retrieved March 20, 2021. https://www.worldometers.info/coronavirus/?utm_campaign=homeAdvegas1?%22%20%5Cl%20%#countries

[2].   R. Borzou, M. Safari, M. Khodavisi, and B. Torkaman, "The viewpoints of nurses towards applicability of nursing curriculum in hospitals affiliated to Hamedan University of Medical Sciences," *Iranian Journal ofMedical Education*, vol. 8, no. 2, pp.

[3].   205–211, 2009.

[4].   V. L. Nahas, "Humour: a phenomenological study within the context of clinical education," *Nurse Education Today*, vol. 18, no. 8, pp. 663–672, 1998.

[5].   Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. Gen Psychiatr. 2020;33: e100213. doi:10.1136/gpsych-2020-100213

[6].   N. D. Nayeri, A. A. Nazari, M. Salsali, F. Ahmadi, and M. A. Hajbaghery, "Iranian staff nurses' views of their productivity and management factors improving and impeding it: a qualitative study," *Nursing and Health Sciences*, vol. 8, no. 1, pp. 51–56, 2006.

[7].   F. Sharif and S.Masoumi, "Aqualitative study of nursing student experiences of clinical practice," *BMC Nursing*, vol. 4, no. 1,article 6, 2005.

[8].   Shechter A, Diaz F, Moise N, Anstey ED, Ye S, Agarwal S. Psychological distress, coping behaviors, and preferences for support among New York healthcare workers during the COVID-19 pandemic. Gen Hosp Psychiatry 2020;66:1–8.doi:10.1016/j.genhosppsych.2020.06.007pmid:http://www.ncbi.nlm.nih.gov/pubmed/32590254

[9].   Temsah MH, SohimeF, Alamro N, A Eyadhy, Hasan K, Jamal A, et al. The psychological impact of COVID-19 pandemic on health care workers in a MERS-CoV endemic country. J Infect Public Health 2020;13:877–82.doi:10.1016/j.jiph.2020.05.021pmid:http://www.ncbi.nlm.nih.gov/pubmed/32505461

[10].   Kafle K, Shrestha DB, Baniya A, Lamichhane S, Shahi M, Gurung B, et al. (2021) Psychological distress among health service providers during COVID-19 pandemic in Nepal. PLoS ONE 16(2): e0246784. https://doi.org/ 10.1371/journal.pone.0246784

[11].   Wang Y, Li Y, Jiang J, Feng Y, Lu D , Zhang W et al. COVID-19 outbreak– related psychological distress among healthcare trainees: a cross-sectional study in China. BMJ Open 2020;10:e041671. doi:10.1136/ bmjopen-2020-041671.

[12]. Kim SC, Sloan C, Montejano A, Quiban C. Impacts of Coping Mechanisms on Nursing Students' Mental Health during COVID-19 Lockdown: A Cross-Sectional Survey. Nurs. Rep. 2021, 11, 36–44. https://doi.org/ 10.3390/nursrep11010004
[13]. Liu Y, Long Y, Cheng Y, Guo Q, Yang L, Lin Y, et al. Psychological Impact of the COVID-19 Outbreak on Nurses in China: A Nationwide Survey During the Outbreak. Front. Psychiatry. 2020; 11:598712. doi: 10.3389/fpsyt.2020.598712
[14]. Sheroun, D., Wankhar, D. D., Devrani, A., PV, L., Gita, S., & Chatterjee, K. (2020). A Study to Assess the Perceived Stress and Coping Strategies among B. Sc. Nursing Students of Selected Colleges in Pune during COVID-19 Pandemic Lockdown. International Journal of Science and Healthcare Research , 5 (2), 280-288 (PDF) Psychological Impact and Coping Strategies of Nursing Students during the Outbreak of Coronavirus Disease in Nepal. Available from: https://www.researchgate.net/publication/344201230_Psychological_Impact_and_Coping_Strategies_of_Nursing_Students _during_the_Outbreak_of_Coronavirus_Disease_in_Nepal [accessed Mar 20 2021].