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PREVALENCE OF DEPRESSION, ANXIETY AND STRESS AMONG NURSES WORKING IN TERTIARY CARE HOSPITAL, MANIPUR: A COMMUNITY BASED CROSS-SECTIONAL STUDY

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Abstract

Background: All professions experience occupational stress; however, nursing profession is among the more stressful occupation even among healthcare workers. Mental health disorders are not only detrimental to their health, they also affect the quality of patient care. There is a lack of knowledge about job stress and depressive symptoms among nursing staff. The study was conducted to determine the prevalence of depression, anxiety and stress among staff nurses working in tertiary care hospital and to identify the socio-demographic factors associated with poor mental health. **Materials and Methods:** A cross-sectional community-based study was conducted from November 2019 to January 2020 among nurses working in tertiary care hospital. A pre-tested, self-administered questionnaire constituting Socio-demographic details and DASS-21 for assessment of Depression, Anxiety and Stress. Statistics such as Mean (SD), Percentages, Chi-square was used for testing association taking p-value of <0.05 as statistically significant. Approval from IEC was obtained. **Result:** The total number of participants were 272. The mean (SD) age was 32.7(8.8) years, mostly females (96.33%), and majority were Hindu by religion (68.4%). The overall prevalence of any mental morbidities among study participants was 55.1% and that of Depression, Anxiety and Stress was 32%, 52.2% and 11.8% respectively. Respondents belonging to 19-30 years, those posted in bigger departments with lesser work experience (≤ 3years) were found to have higher mental morbidities which as statistically significant. **Conclusion:** The study shows that majority of the nurses are suffering from one of the mental morbidities studied. Younger age, lesser work experience and nurses working in bigger departments had significant association.

INTRODUCTION

Mental health has been defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.[1]

In 2019, 970 million people around the world were living with a mental disorder, with anxiety around 301 million people including 58 million children and adolescents and 280 million people were living with depression, including 23 million children and adolescents. In 2020, the number of people living with anxiety (26%) and depressive disorders (28%) rose significantly because of the COVID-19 pandemic. At its worst, depression can lead to suicide, around 700 000 people are dying due to suicide every year. As per Global Burden of Disease report, mental disorders accounts for 13% of total DALYs lost for Years Lived with Disability (YLD) with depression being the leading cause.[2]

In India according to National mental health survey (2016) found the overall current prevalence estimate of any mental morbidity was 10.6% in the total surveyed population and the prevalence of mental morbidity was higher among males (13.9%) than among females (7.5%). The weighted prevalence of depression is 2.7% and Neurotic, stress-related and Phobic Anxiety disorders was (3.5%) and (1.9%) respectively. In Manipur, the weighted prevalence was higher than the national average with mental illness for lifetime and current experiences were 19.9% and 13.9% respectively.[2]

Nursing is a demanding profession that necessitates a high level of dedication and energy both physically and mentally. Professional nurses are affected by anxiety, stress and depression and

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associated physical and mental illnesses caused by the inherent nature of their work. Nursing as a profession involves responsibilities towards human health, dealing with dying patients and dealing with emergencies.[3] Studies have reported nurses experiencing higher risk of depression, anxiety and stress. [4-6]

On extensive literature search, both online and print, limited studies were available from India in relation to the mental health status of nurses, and none could be found from North-East India. The high mental disease burden in state Manipur even among the general population was of huge concern and a compelling reason to conduct the study among nurses in Manipur. Thus, this study was planned to assess the prevalence of depression, anxiety and stress among nurses working in Tertiary care hospital and to identify the socio-demographic factors associated with poor mental health.

MATERIALS AND METHODS

Study Design: A cross-sectional community-based study was conducted among Nurses currently working in tertiary care hospital, Manipur. The study was conducted from November 2019 to January 2020.

Study Population and Sample Size: All Nurses working in Tertiary care hospital during the study period of three months were included in the study. Those who were on leave, those who cannot be contacted up to 02 attempts and refusal to participate were excluded from the study.

Study Tool and Technique: A Pre-tested, self-administered questionnaire consisting of 2 sections of socio-demographic profile and DASS (Depression, Anxiety, and Stress Scale) 21 [7] was used. DASS-21 consist of 21 statements and each statement were scored ranging from 0 to 4. It has 3 domain comprises seven items for the assessment of mental health symptoms: depression, Anxiety and stress with four options were given for each item. The scoring was done as per the instructions given for DASS 21.

After getting the informed verbal consent, self-administered questionnaire was used for data collection from nurses working under various departments. All data collected were first entered in MS Excel and then the data analysis was done in SPSS v20. Descriptive statistics were presented in terms of mean, percentages, standard deviations were used to summarize the findings. Chi-square test was used to find any association mental morbidities with some socio-demographic variables. p-value of less than 0.05 was taken as statistically significant. Ethical approval was obtained from the Institutional Ethics Committee, before conducting the study, and those found suffering from any of the mental health morbidities were referred to the psychiatry department of the institution.

RESULTS

The total number of nurses working in Tertiary care hospital was 365. The number of participants were 272, giving a response rate of 74.5%. There were 04 refusals and rest of the non-responders could not be contacted because of leave and different shift timings from the data collection timing. The mean (SD) age of the respondents was 32.7(8.8) years.

Table 1: Socio-demographic profile of participants (n=272)

Characteristics	Frequency (percentage)
Age group	
19-30 years	108 (39.7)
31-45 years	130 (47.8)
>45 years	34 (12.5)
Sex	
Male	10 (3.67)
Female	262 (96.33)
Religion	
Hindu	186 (68.4)
Christians	64 (23.5)
Others	22 (8.1)
Marital status	
Married	157(57.7)
Unmarried	113 (41.5)
Others	2 (0.7)
Number of children	
0-2 children	224 (82.4)
3 & above	48 (17.6)
Qualification	
Bsc/ Msc/ P.B.Bsc (Nursing)	68 (25)
General nurse midwifery	204(75)
Designation	
Staff Nurse	231 (85)
All others (PHN)	41 (15)
Work experience	
0-3 years	71 (26.2)
4-7 years	77 (28.3)
8-10 years	77(28.3)
11 years and above	47(17.2)

Living circumstance	
Living Alone	9 (3.3)
Living with family	263 (96.7)

Most of them belonged to the age group of (31-45 years). Majority were females, and were married and had 2 children or lesser, and most were living with own family members. Around three-fourth of them had done General nurse midwifery course and of them were working as a staff nurse. Most of the participants had at least 4 years of working experience in the same hospital. [Table 1]

Table 2: Prevalence of mental morbidities among the study participants (n=272)

Prevalence	N (%)
Any Mental morbidity (DAS)	150 (55.1)
Depression	87 (32)
Anxiety	142 (52.2)
Stress	32 (11.8)
Depression and Anxiety	51(18.8)
Anxiety and Stress	4 (1.5)
Depression and Anxiety and Stress	28(10.3)

In the study we found that 55% of the nurses were suffering from at least one of the mental health morbidities which was studied with majority of them suffering from anxiety. It was also found that 10.3% of them were suffering from all the three morbidities studied.

Table 3: Association between mental morbidities and socio-demographic variables

Variable	Mental morbidities Present n (%)	Mental morbidities Absent n (%)	p-value (Chi-square)
Age group			
19-30 years	71(65.7)	37(34.3)	
31-45 years	62(47.6)	68(52.4)	0.02
>45 years	14(56)	11(44)	
Gender			
Male	5(50)	5(50)	0.7
Female	145(55.3)	117(44.7)	
Religion			
Hindu	100(54.1)	85(45.9)	0.6
Christianity	35(54.7)	9(45.3)	
Others (TRC*, Sanamahi)	14(63.6)	8(36.4)	
Marital status			
Married	78(63.9)	44(36.1)	0.09
Unmarried	81(54)	69(46)	
Qualification			
BSc Nursing and above	27(39.7)	41(60.3)	0.9
GNM	95(46.6)	109(53.4)	
Department groups			
Surgery, Medicine, OBG, ATC*	87(61.3)	55(38.7)	0.02
All Other	60 (47.2)	67(52.8)	
Number of children			
2 or less	65(52)	60(48)	0.58
3 or more	12(46.2)	14(53.8)	
Work Experience			
0-3 years	42(67.7)	20(32.3)	
4-7 years	33(49.3)	34(50.7)	0.004
8-10 years	33(49.3)	34(50.7)	
11 years and more	13(31.7)	28(68.3)	
Working hours			
0-36 hours	43(56.6)	33(43.4)	
37-42 hours	51(48.7)	41(51.3)	0.8
43-48 hours	19(48.7)	20(51.3)	
48 hours or more	15(50%)	15(50)	

TRC* - Tingkao Ragwang Chapriak, ATC* – Acute Trauma Care

Those respondents who belonged to the age group of 19-30 years (71, 65.7%), and Nurses who were working in the departments of Surgery, Medicine, OBG, and ATC (87, 61.3%) and with lesser work experience of 0-3years (42, 67.7%) were found to have higher mental morbidities than others. These findings were found to be statistically significant. (p value <0.05). No significant statistical association

was found with gender, religion, marital status, qualification, number of children, and Number of working hours in a week. [Table 3]

DISCUSSION

The current study was conducted among the Nurses working in tertiary care hospital to determine the prevalence of depression, anxiety and stress and to identify the socio-demographic factors associated with poor mental health.

Out of 272 respondents, Almost half 47.8% belonged to the age group of 31-45 years and Married 57.7%. Majority 96.33% were females and three-fourth of them 75% had done General nurse midwifery course and majority (85%) were working as a staff nurse and more than half 56.6% were having work experience of 4-10 years. It is similar to Cheung T et al,[4] study conducted among Hong Kong Nurses, majority were female 87.6% with mean age between 34 and 44 years old (SD ± 2.79), 55% were married, 70% had obtained a Bachelor degree or above.

We found in our study, the overall prevalence of any mental morbidities among study participants was 55.1%. The prevalence of Depression, Anxiety and Stress among the nurses were 32%, 52.2% and 11.8% respectively. A Cross-sectional study conducted by Taghinejad H et al,[5] in western Iran found the prevalence of mental disorders among the study participants was 56.8%, 16% with anxiety symptoms, and 6.2% with symptoms of depression. Online survey conducted among Australian midwifes by DK Creedy et al,[6] found 17.3% of midwives reported depression, anxiety 20.4% and stress 22.1%. Compared to these studies, the increase in proportion of depression and anxiety among nurses in our study might be because of more workload, and limited resources in terms of manpower, and infrastructure and Manipur itself prevalence of Mental morbidities higher than the national level.[7]

Nurses of younger age group 19-30 years, 65.7% and with lesser work experience of ≤3 years 67.7% in our study were found to have higher mental morbidities than others. It is similar to Cheung T et al study,[8] found participants were between 21 to 24 had higher 39.3% prevalence of depression and nurses with clinical experience of less than 10 years had higher degree of mental disorder. It is because younger nurses may not have clinical experience and inability to handle complex clinical situation, feeling of inadequacy and lack of support from senior staffs.

Our study found Nurses working as staff nurses in major departments like medicine, Surgery, Obstetrics and Gynaecology, ATC 61.3% was at higher risk of having mental disorder. It is similar with study conducted by Davey A et al,[9] they found that a large number 42% of nurses posted in

ICU/emergency department suffered from stress followed by those posted in medicine and surgery department 15% each. It might be because of heavy workload and less manpower.

CONCLUSION

The findings of this study showed that almost half of the participants were having the prevalence of any mental morbidities and anxiety. Almost one-third had Depression and minor proportions had stress among the study participants. Nurses of younger age group and lesser work experience and working as staff nurse in bigger departments like medicine, Surgery, Obstetrics and Gynaecology, ATC were found to be more prone to have mental disorder than others. Every hospital needs to create appropriate programmes to provide positive reinforcement to nurses in order to reduce anxiety, stress, and depression, and establish a system where the nurses are not overworked and have proper number of patient-nurses ratio. This intervention strategy may contribute to greater job satisfaction and organisational commitment to nurses' health and well-being. Most importantly, reduced stress, anxiety, and depression among nurses can improve patient care quality.

REFERENCES

1. World Health Organization. Mental Health: Strengthening Our Response. [cited 28 November 2019]; Available from https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response
2. Ministry of Health and Family Welfare. Summary of National Mental Health Survey of India, 2015-16, NIMHANS pdf; [cited 20 December 2019]. Available from http://indianmhs.nimhans.ac.in/Docs/Summary.pdf
3. Rothenhausler HB, Grieser B, Nollert G, Reichart B, Schelling G, Kapfhammer HP. Psychiatric and psychosocial outcome of cardiac surgery with cardiopulmonary bypass: a prospective 12-month follow-up study. Gen Hosp Psychiatry. 2005; 27:18– 28.
4. Cheung T, Yip PS. Depression, Anxiety and Symptoms of Stress among Hong Kong Nurses: A Cross-sectional Study. Int J Environ Res Public Health. 2015 Sep 7;12(9):11072-100.
5. Taghinejad H, Suhrabi Z, Kikhavani S, Jaafarpour M, Azadi A. Occupational Mental Health: A Study of Work-Related Mental Health among Clinical Nurses. J Clin Diagn Res. 2014 Sep;8(9):1-3.
6. Creedy DK, Sidebotham M, Gamble J, Pallant J, Fenwick J. Prevalence of burnout, depression, anxiety and stress in Australian midwives: a cross-sectional survey. BMC Pregnancy Childbirth. 2017 Jan 9;17(1):13.
7. Lovibond PF, Lovibond SH. The structure of negative emotional states: comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. Behav Res Ther. 1995 Mar;33(3):335-43.
8. Cheung T, Yip PS. Lifestyle and Depression among Hong Kong Nurses. Int J Environ Res Public Health. 2016 Jan 16;13(1):135.
9. Davey A, Sharma P, Davey S, Shukla A. Is work-associated stress converted into psychological distress among the staff nurses: A hospital-based study. J Family Med Prim Care. 2019 Feb;8(2):511-16.

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