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DEPRESSION, ANXIETY AND STRESS AMONG POSTGRADUATE NURSING STUDENTS

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ABSTRACT

Introduction: Physical and mental health of nursing students is directly related to the health and future of society. It has been well documented that nursing students across the world experience stress and anxiety throughout their education and training.

Methods: In a exploratory, cross sectional survey, 100 conveniently selected postgraduate nursing students from four nursing colleges of Punjab, were assessed by using the socio demographic data sheet and standardized depression, anxiety and stress scale (DASS). The descriptive statistics, unpaired t test, ANOVA test and Karl Pearson's correlation was used for analysis.

Results: Results showed that about 17% students had mild depression, 14% had moderate depression, 18% had severe depression and 6% had extremely severe depression, whereas 34% students had mild anxiety, 18% had moderate anxiety, 22% had severe anxiety and 15% had extremely severe anxiety. About 15% students had mild stress, 26% had moderate stress, 6% had severe stress and 3% had extremely severe stress. Strong significant positive correlation was found between depression, anxiety and stress.

Conclusion: Overall, study suggests that postgraduate nursing students experienced high levels of depression, anxiety and stress which probably may affect their physical and psychological wellbeing. Nursing faculty should understand the possible causes of high level of depression, anxiety and stress and try to overcome for better health of their students and quality of clinical practice.

Key Words: Depression, Anxiety, Stress, Nursing, Students.

INTRODUCTION

Stress has been identified as a 20th century disease and has been viewed as a complex and dynamic transaction between individuals and their environment.[1] The World Health Organization (WHO) has estimated that stress-related disorders will be one of the leading causes of disability by the year 2020.[2] According to the precipitation of the World Health Organization (WHO), depression is estimated to become the second leading cause of dysfunction by the year 2020.[3]

Stress is a perceived concept, meaning that it can be caused by anything that one feels unbalances the harmony in life. Different types of stress produce anxiety, which results in feelings of apprehension that can ultimately lead to negative physical, emotional, cognitive and behavioral symptoms.[4] Anxiety and depressive mood are sometimes accompanied by modulation of neuroendocrine and immune functions. Both stress and anxiety are ubiquitous among nursing students.[5]

Nursing students are subjected to different kinds of stressors, such as the pressure of academics with an obligation to succeed, an uncertain future and difficulties of integrating into the system.[6] Moreover, the transition between the middle childhood and adolescence represents a confluence of social, academic, cognitive, physiological and physical changes.[7]

Nursing schools are now recognized as a stressful

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environment that often exerts a negative effect on the academic performance and psychological well-being of the students.[8]

It is well known that stressful life events can cause psychological symptoms. Besides, stressful life events have been suggested to be antecedents and even predictors of the majority of depression symptoms.[9]

Studies from the United Kingdom and India have reported increasing levels of stress among nursing students.[10-11] **Dhar R et al(2009)[12]** reported 48.83% mild stress and 11.62% moderate stress among nursing students. Clinical sources of stress include working with dying patient, interpersonal conflict with other nurses, insecurity about clinical competence and fear of failure and interpersonal relations with patients, work overload and are concerned about nursing care given to the patient. Other potential sources of stress are assignment submission, excessive homework, assessment deadlines, unclear assignments, uncomfortable classrooms and relations with faculty members. **Mimura et al.(2009)[13]** found that nursing students in Japan and England have additional vulnerability to stress as well as higher level of stress when compared with the general college-student population. **Yucha et al.(2009)[14]** reported that anxiety levels among nursing students in clinical setting were high compared to those non nursing college students in the United States.

Regardless of the desired outcome, the process of education is a very stressful experience. Postgraduate nursing students are valuable human resources, but there is a paucity of comprehensive research in the area of nursing student's psychological distress and depressive symptoms. Detection of these symptoms is crucial since stress and depression can lead to low productivity, minimized quality of life and suicidal thoughts.

There are no published studies for evaluating depression, anxiety and stress level simultaneously among postgraduate nursing students. It is important for nursing educators to know the prevalence of psychological distress and other psychological factors among postgraduate nursing students.

Thus, considering the need of the participant's, researcher selected this topic. The main objectives of this study were to assess level of depression, anxiety and stress among postgraduates nursing students and to find its relationship with selected socio-demographic variables.

METHODOLOGY

A descriptive cross sectional survey was done to assess level of depression, anxiety and stress among postgraduates nursing students and their relationship with selected socio-demographic variables. The present study was conducted at four conveniently selected nursing colleges of Punjab. The colleges were selected on the basis of expected availability of postgraduate nursing students, giving permission to conduct the study and convenience in terms of distance. The sample for the study was 100 postgraduate nursing students present at the time of data collection and who were willing to participate in the study. Two self administered measures were used to collect data from the subjects.

Tool 1: Socio demographic data sheet: It was developed by researchers which consist of 9 items to measure socio-demographic data of the subjects. Total administration time for this tool was approximately 5 minutes. Reliability was done by test-retest method and was 1.0.

Tool 2: Depression Anxiety and Stress Scale (DASS): The DASS is a 42-items questionnaire which includes three self-report scales designed to measure the negative emotional states of depression, anxiety and stress. Each of the three scales contains 9 items, divided into subscales of 2-5 items with similar content. Respondents were asked to use 4-point severity/frequency scales to rate the extent to which they had experienced each state. Reliability of tool in study setting was determined by test- retest method and found to be adequate 0.76 for depression, 0.78 for anxiety and 0.79 for stress.

Content validity of tool was determined by experts in the field of psychiatry, psychiatric nursing and psychology respectively. Content appropriateness, clarity and relevance were ascertained by language expert. Try out of the tools was done on ten postgraduate nursing students to ensure the reliability and understanding of the tool. Pilot study was conducted in University college of Nursing, Faridkot to find feasibility of the study. The study was found to be feasible.

Ethical considerations

Study approval and written permission was granted by the principal of the nursing college to protect the rights of the subjects. Study procedure

was explained and written information was given to the subjects. Informed written consent from the subjects was taken. Participants who were willing to participate were included in the study. Anonymity of study subjects and confidentiality was maintained.

STATISTICAL ANALYSIS

Statistical analysis was done by using SPSS (16) software. The descriptive statistics and unpaired t-test, ANOVA and Karl Pearson's correlation were used to analyze the data. The p value <0.05 was considered as level of significance.

RESULTS

Table 1: Distribution of subjects according to socio-demographic characteristics

(N=100)

Characteristics		f	%
Age			
	20-24 years	62	62
	24-28 years	36	36
	>28 years	2	2
Gender			
	Male	3	3
	Female	97	97
Residence			
	Hostler	80	80
	Day scholar	20	20
Habitat			
	Urban	62	62
	Rural	38	38
Type of family			
	Nuclear	74	74
	Joint	26	26
Monthly income			
	≤ 10, 000	-	-
	10,001 – 20,000	14	14
	20,001 – 30,000	27	27
	≥ 30,000	59	59
Marital status			
	Single	91	91
	Married	9	9
Standard			
	M.Sc. 1st yr	23	23
	M.Sc. 2nd yr	77	77
Type of college			
	Govt.	50	50
	Private	50	50

As shown in table no 1, majority of subjects were single females studying in M.Sc. (N) 2nd year. Maximum number of subjects residing in urban areas belonging to nuclear families.

Table 2: Frequency and Percentage Distribution of depression, anxiety and stress among subjects

(N=100)

Category	Depression f (%)	Anxiety f (%)	Stress f (%)
Normal	45(45%)	34(34%)	50(50%)
Mild	17(17%)	11(34%)	15(15%)
Moderate	14(14%)	18(18%)	26(26%)
Severe	18(18%)	22(22%)	6(6%)
Extremely severe	6(6%)	15(15%)	3(3%)

Table 2 shows, distribution of subjects on the basis of frequency and percentage distribution**.** About 6% subjects had extremely severe depression, 15% had extremely severe anxiety 3% had extremely severe stress.

Table 3: Correlation between depression, anxiety and stress

(N=100)

Variables	r and p value
Depression level ↔ Anxiety level	Highly Significant (r= .777**)
Depression level ↔ Stress level	Highly Significant (r= .822**)
Anxiety level ↔ Stress level	Highly Significant (r= .857**)

As shown in table 3, there was strong significant positive correlation was found between depression, anxiety and stress level.

As shown in table 4, there was significant relationship of depression with gender and type of family. Rest of the variables had non significant relationship with depression.

Table 4: Relationship of depression with selected socio-demographic characteristics among subjects

(N=100)

Socio demographic characteristics		Mean(SD)	F/t	Df	p Value
Age	20-24	12.94(9.922)	.084	2	.919
	24-28	12.67(9.040)			
	>28	15.50(9.516)			
Gender	Male	26(1.732)	2.485	98	.015*
	Female	12.48(9.370)			
Standard	M.Sc.(N) 1st yr	13.35(9.093)	.262	98	.794
	M.Sc.(N) 2nd yr	12.75(9.693)			
College	Govt.	13.14(10.027)	.261	98	.794
	Private	12.64(9.073)			
Habitat	Urban	12.32(9.328)	-.760	98	.449
	Rural	13.82(9.872)			
Residence	Hostler	12.69(9.701)	-.424	98	.673
	Day scholar	13.70(8.927)			
Type of family	Nuclear	10.70(9.022)	-4.189	98	.000**
	Joint	19.12(8.155)			
Monthly income	≤ 10, 000	-	.165	2	.848
	10,001 – 20,000	11.86(8.160)			
	20,001 – 30,000	12.48(9.435)			
	≥ 30,000	13.32(9.961)			
Marital status	Single	12.54(9.824)	1.385	1	.242
	Married	16.44(4.391)			

Table 5: Relationship of anxiety with selected socio-demographic characteristics among subjects

(N=100)

Socio demographic characteristics		Mean(SD)	F/t	df	p Value
Age	20-24	12.03(7.891)	0.034	2	0.967
	24-28	11.64(8.079)			
	>28	12.50(0.707)			
Gender	Male	16.0(1.000)	5.033	98	0.360
	Female	11.77(7.927)			
Standard	M.Sc.(N) 1st yr	13.04(6.799)	0.796	98	0.428
	M.Sc.(N) 2nd yr	11.56(8.136)			
College	Govt.	12.98(7.734)	1.384	98	0.170
	Private	10.82(7.876)			
Residence	Hostler	11.70(7.453)	-0.508	98	0.612
	Day scholar	12.70(9.409)			
Habitat	Urban	11.19(7.574)	-1.153	98	0.252
	Rural	13.05(8.230)			
Type of family	Nuclear	10.99(8.076)	-1.995	98	0.049*
	Joint	14.50(6.598)			
Monthly income	≤ 10, 000	-	0.149	2	0.862
	10,001 – 20,000	10.86(6.597)			
	20,001 – 30,000	12.22(8.469)			
	≥ 30,000	12.00(7.920)			
Marital status	Single	11.81(8.007)	0.123	1	0.727
	Married	12.78(6.220)			

As shown in table 5, there was significant relationship of anxiety with type of family. Rest of the variables had non significant relationship with anxiety.

Similarly, **Dhar R et al (2009)[12]** concluded that 48.83% mild stress and 11.62% moderate stress among nursing students. It may be due to excessive workload (assignments, presentations, clinical

Table 6: Relationship of stress with selected socio-demographic characteristics among subjects

(N=100)

Socio demographic characteristics		Mean(SD)	F/t	df	p Value
Age	20-24	14.35(9.235)	0.703	2	0.498
	24-28	14.78(8.708)			
	>28	22.00(2.828)			
Gender	Male	21.33(6.429)	1.312	98	0.193
	Female	14.45(8.990)			
Standard	M.Sc.(N) 1st yr	16.52(8.575)	1.135	98	0.259
	M.Sc.(N) 2nd yr	14.10(9.074)			
Type of college	Govt.	16.50(9.067)	2.084	98	0.040*
	Private	12.82(8.585)			
Residence	Hostler	14.88(9.045)	0.477	98	0.634
	Day scholar	13.80(8.877)			
Habitat	Urban	13.52(8.498)	-1.641	98	0.104
	Rural	16.53(9.529)			
Type of family	Nuclear	12.86(8.957)	-3.568	98	0.001**
	Joint	19.77(6.942)			
Monthly income	≤ 10, 000	-	0.136	2	0.873
	10,001 – 20,000	13.57(8.364)			
	20,001 – 30,000	15.11(9.258)			
	≥ 30,000	14.71(9.114)			
Marital status	Single	14.14(9.191)	3.438	1	0.067
	Married	19.89(3.621)			

As shown in table 6, there was significant relationship of stress with type of college and type of family. Rest of the variables had non significant relationship with stress.

DISCUSSION

Findings of present study reveal that 6% had extremely severe depression, 15% had extremely severe anxiety and 3% had extremely severe stress.

These findings are supported by **Lotfi et al (2010)[15]** indicated that 50% of Iran students were suffering from different grades of depression, 35.4% of which was mild, 13.4% was moderate, and only 1.2% was severe.

Similarly, **Yucha et al (2009)[14]** found that anxiety levels among nursing students in clinical setting were high compared to those non nursing college students in the United States.

requirements and research work), extended clinical hours and dealing with patient related issues.

Findings of present study revealed highly significant relationship was between depression, anxiety and stress levels. These findings are supported by **Sokratis Sokratous et al. (2013)[16]**, who reported a strong positive association between the prevalence of clinically significant depressive symptoms and stressful life events. This might be due to reason that a high level of stress and anxiety present a substantial effect over the attention, with possibilities of errors, lack of concentration and learning difficulties, this leads to significant impairment in important areas of functioning due to which students feel more depressed.

Results shows that students of M.Sc. (N) 1st year have obtained a high mean score on depression, anxiety and stress level as compared to students of M.Sc. (N) 2nd year. It clearly shows that students of M.Sc. (N) 1st year have more depression, anxiety and

stress level as compared to students of M.Sc. (N) 2nd year. This may be due to reason that students of M.Sc. (N) 1st year have more work load (due to extended duty hours and number of subjects for study), fear of making mistakes as with beginning of their new experience and problem in adjustment to new environment.

Results shows that students of government colleges have obtained a high mean of depression, anxiety and stress level when compare to students of private schools. It clearly shows that students of government colleges have more depression, anxiety and stress level when compare to students of private colleges. This might be due to reason that in Government College more emphasis given on practical aspects and students have to divide their time between clinical work, study, research work and caring of their family and home and feel more work load as compared to private college students where more emphasis given on theoretical aspects and research work and they can easily complete their assignments and feel very relaxed.

Implications and Recommendations:

Nursing educators should encourage students to broaden their personal social supports and social networks, this can help in adaptation during their educational experience and throughout their lifetime. Early recognition of students under stress and counseling will go a long way in helping students adjust to the demands of the nursing course and to hostel life. Nursing students should be encouraged to use different methods for assessing stressors and symptoms of depression, anxiety and stress. Establishment of consulting and recreation centers can be helpful. At each school, there should be counseling services that would helps students to adjust to the demands of the postgraduate nursing course.

CONCLUSION

The nursing students experience high levels of depression, anxiety and stress during their post graduation study. The results may help to better understand the phenomena of psychological stress, anxiety and depression among postgraduate nursing students. The results also help nursing educators to understand the difficulties of postgraduate nursing students and based on individual difference assist them individually in order to promote the quality of clinical practice.

LIMITATIONS

The present study was limited to selected colleges of Punjab. Lack of large sample size may result in lack of representativeness and generalizibility to the whole population. So studies may be conducted on large sample size with different variables on different population. Study may be conducted on influence of depression, anxiety and stress on academic achievement of nursing students. Future research may also focus on ways of increasing nursing student's ability to cope with the stressors of nursing education at post graduate level. Despite of these limitations, the study had a strong design and care was taken at every step to minimize bias in the findings.

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