Relationship between Academic Stress and Mental Health of Undergraduate Nursing Students

Athar Javeth

Abstract

Academic stress is a demand related to academics that tax or exceed the available resources (internal or external) as cognitively perceived by the student involved. Mental health is a state of being which is conducive to harmonious and purposeful living. The objective of the study was to assess the academic stress and mental health of undergraduate nursing students and establish the relationship between them. College of Nursing was selected using convenient sampling and simple random sampling was used to select the students. Structured questionnaire was used to collect the data from the students. The overall mean of academic stress scores and mental scores were 124.4 ± 14.99 and 18.08 ± 3.84 respectively. Majority of students (79%) were in the range of high stress. Maximum students (72%) were in the range of Average Mental health. There was a significant negative relationship between academic stress scores and mental health scores (r=-0.45) at p<0.05 level. There was a significant association between health problem and academic stress (χ^2= 17.01 at df 2) at p<0.05 level. There was no significant association between mental health and selected demographic variables of undergraduate nursing students. This necessitates a need of stress management sessions for the students so that students can well deal with the academic stress and thereby have good mental health.

Academic stress is an emotional distress due to expected frustrations related to actual or potential academic failure. Academic stress is defined as a demand related to academics that tax or exceed the available resources (internal or external) as cognitively comprehended by the student involved (Bisht, 1980). There are four different elements of academic stress. Academic Frustration is a state in which certain academic goals causes harm. Academic Conflict is the result of two or more essential compatible response tendencies to academic goals. In order to meet academic goals and when the student is under heavy demands of time and energy Academic Pressure occurs. Academic Anxiety - some academic goals lead to apprehension of damage. Academic stress can severely affect the academic achievement. The important reasons of academic stress are academics, dating, environment, extra-curricular activities, peers and parental pressure. It also contributes to major mental health hazards, problems both physical and mental stress-related diseases.

Mental health has a major role in the maintenance of physical health and social effectiveness. According to WHO, mental health is a condition which permits the optimal development – physical, intellectual and emotional development of the individual, so far as this is compatible with that of other individuals. According to the Mental Health Task Force on Graduate Student Mental Health at the University of California Berkley, 45 percent of graduate students developed an emotional or stress-related problem and well-being and academic performance were significantly affected.

Review of Literature

A study in 141 first-year undergraduate students to evaluate coping style and motivation affecting academic stress and performance of college students found that problem-focused coping played a major role in the relationship between academic stress and course grade and motivation. Students with increased academic stress related with lower course grades and students who used problem-focused coping were motivated and scored better than students who used emotion-focused coping. Highly resourceful students could deal with the adverse effects of academic stress effectively.

In a web-based study to assess the relationship between students' mental health and their knowledge and utilisation of mental health in

The author is Assistant Professor, Mother College of Nursing, Mother Hospital, Pullazhi PO, Thrissur (Kerala).

campus in 266 undergraduate students, females were having more knowledge and service uses of mental health. With the increased incidence of mental health problems, strategic efforts must be taken to provide knowledge about mental health services to all students in University.

A survey conducted to determine the association between mental health and social support in 1,378 college students showed that students with decreased social support, as measured by the Multidimensional Scale of Perceived Social Support, were more affected with mental health problems as compared with high quality social support. Administrators and health care providers must identify students who are at high risk for mental illness and to implement proper services to deal with this public health issue.

Objectives

The objectives of the study were to (1) assess the academic stress and mental health of undergraduate students, (2) establish the relationship between academic stress and mental health of undergraduate students, (3) find the association between (a) academic stress and selected demographic variables, and (b) mental health and selected demographic variables.

Hypothesis

H_1: There is a significant relationship between academic stress and mental health of undergraduate students at 0.05 level of significance.

H_2: There is a significant association between academic stress and selected demographic variables of undergraduate students at 0.05 level of significance

H_3: There is a significant association between mental health and selected demographic variables of undergraduate students at 0.05 level of significance

Conceptual Framework: The present study was based on Lazarus and Folkman transactional model of stress and coping (1984).

Methodology

A quantitative approach with the descriptive survey design was selected to determine the relationship between academic stress and mental health of undergraduate nursing students. The study was conducted at Mother College of Nursing, Thrissur, Kerala and selection of college was done by convenient sampling. The sample comprised of 150 undergraduate nursing students and selected by simple random sampling. Forty students out of 50 students from the first year, 40 students out of 48 students from the second year, 40 students out of 50 students from the third year and 30 students from fourth year were

selected for conducting the study.

The tool for data collection was Structured Questionnaire for collecting the information about the demographic data, Structured Likert's scale (Modified Educational Stress Scale for Adolescents) for assessing the academic stress and checklist (Mental Health Questionnaire by Fliege) for assessing the mental health of undergraduate nursing students. Reliabil-

Table 1: Distribution of students by socio-demographic characteristics (N=150)

Sl.No.	Sample Characteristics		Frequency	Percentage (%)
1	Age in years			
	a.	17	3	2
	b.	18	28	19
	c.	19	42	28
	d.	20	41	27
	e.	Above 20	36	24
2	Gender			
	a.	Female	146	97
	b.	Male	4	3
3	Year of education			
	a.	1st year	40	26.667
	b.	2nd year	40	26.667
	c.	3rd year	40	26.667
	d.	4th year	30	20
4	Religion			
	a.	Hindu	31	21
	b.	Muslim	11	7
	c.	Christian	108	72
	d.	Others	0	0
5	Place of Domicile			
	a.	Urban	31	21
	b.	Suburban	73	49
	c.	Rural	46	30
6	Income of the family per month, Rs.			
	a.	Below 5000	24	16
	b.	5001-10000	51	34
	c.	10001-20000	41	27
	d.	20001-50000	30	20
	e.	Above 50000	4	3
7	Social Support			
	a.	Parents	88	59
	b.	Siblings	8	5
	c.	Friends	46	31
	d.	Relatives	5	3
	e.	Others	3	2
8	Place of living			
	a.	Own house	69	46
	b.	Hosteller	78	52
	c.	Relatives house	2	1
	d.	Paying guest	1	1
9	Reason for joining course			
	a.	Self interest	90	60
	b.	Pressure from parents	33	22
	c.	Friends	4	3
	d.	others	23	15
10	Any affair			
	a.	Yes	25	17
	b.	No	125	83
11	Any Health problem			
	a.	Yes	81	54
	b.	No	69	46

ity of the tool was estimated by split half reliability method by administering questionnaire to 10 samples and reliability coefficient was 0.73 and it was found to be reliable.

Data was collected in month April 2016. Formal administrative approval was obtained and 120 samples were selected by purposive sampling. Informed consent was taken from the subjects before administering tool to the students. The purpose of the study was explained and confidentiality was assured. The selected subjects was given the tool and asked to fill the structured questionnaire to assess the academic stress and mental health in 30 minutes. The procedure for the data collection was found to be satisfactory. Descriptive and inferential statistics were used to analyse the data.

Results

Socio-demographic characteristics

Considerable number of students (28%) were aged around 19 years (Table 1). Majority of the students (72%) were Christians. Highest percent (73%) students were living in suburban areas. Income of families of most (34%) of students was in the range of Rs. 5001-10000. Majority of the students (59%) received support from the parents. Majority of the students (52%) were hosteller and 46 percent were staying in their own house. Maximum of the students (60%) joined the course because of self-interest and 22 percent joined due to pressure from the parents. Majority of students (83%) were having no affair during

Table 2: Distribution of academic stress scores (N=150)

Level of stress	Frequency	Percentage %
Mild stress 36-72	0	0
Moderate stress 73-108	18	12
High stress 109-144	118	79
Severe stress 145-180	14	9

Table 3: Distribution of mental health scores (N=150)

Mental health	Frequency	Percentage (%)
Poor mental health 1-10	2	1
Average mental health 11-20	108	72
Good mental health 21-30	40	27

Table 4: Coefficient correlation between academic stress and mental health (N=150)

Scale	Mean	S.D.	Correlation (r)
Academic stress	124.4	14.99	-0.45*
Mental health	18.08	3.84	

*r = 0.159 for df (148) at 0.05 level of significance.

the education period and major portion of students (54%) were having health problems.

Academic stress & mental health of undergraduate nursing students

The academic stress scores range from 36-180 and mental health scores from 1-30 (Table 2). The overall mean of academic stress scores and mental scores are 124.4±14.99 and 18.08±3.84 respectively. Majority of students (79%) were in the range of 109-144 (High Stress). Majority (72%) of undergraduate nursing students were in the range of 11-20 (average mental health).

Relationship between academic stress and mental health

There was a significant negative relationship between academic stress scores and mental health scores as obtained by the r value (-0.45), which is more than the tabulated value (0.159) at 0.05 level of significance for df (148) (Table 4). This suggests that academic stress and mental health are related for undergraduate nursing students i.e. when mental health of the students increases, academic stress decreases. Thus null hypothesis HO_1 was rejected and research hypothesis H_1 was failed to reject i.e. accepted.

Association of selected factors with academic stress and mental health

There was a significant association between health problem and academic stress as shown by the obtained chi-square value (17.01) which is smaller than the table chi-square value (5.991) at 2 df and 0.05 level of significance (Table 5). Therefore it is concluded that the health problem and academic stress among undergraduate nursing students had a significant association.

Thus null hypothesis HO_4 was partially accepted in terms of age, gender, year of education, religion, place of domicile, family income, social support, place of living, reason for joining the course and affair. Research Hypothesis H_4 was partially accepted in terms of health problems.

Thus null hypothesis HO_4 was accepted. Research Hypothesis H_4 was rejected. There was no significant association between mental health and selected demographic variables of undergraduate nursing students at 0.05 level of significance.

Discussion

Findings of the present study have been consistent with those of Jayanthi et al (2015) who discovered severe stress among the adolescent students. Adolescents with severe academic stress need to

Table 5: Association between academic stress and selected factors (N=150)

Sl. No	Selected Variables	Academic stress			Mental Health		
		χ^2	df	Table value	χ^2	df	Table value
1	Age in years a. 17 b. 18 c. 19 d. 20 e. Above 20	8.37NS	8	15.507	7.197NS	8	15.507
2	Gender a. Female b. Male	5.75NS	2	5.991	0.064NS	2	5.991
3	Year of education a. 1st year b. 2nd year c. 3rd year d. 4th year	4.082NS	6	12.592	2.751NS	6	12.592
4	Religion a. Hindu b. Muslim c. Christian d. Others	1.992NS	4	9.488	1.629NS	4	9.488
5	Place of domicile a. Urban b. Suburban c. Rural	2.979NS	4	9.488	3.397NS	4	9.488
6	Income of the family per month, Rs. a. Below 5000 b. 5001-10000 c. 10001-20000 d. 20001-50000 e. Above 50000	6.39NS	8	15.507	7.137NS	8	15.507
7	Social support a. Parents b. Siblings c. Friends d. Relatives e. Others	10.954NS	8	15.507	2.974NS	8	15.507
8	Place of living a. Own house b. Hosteller c. Relatives house d. Paying guest	7.875NS	6	12.592	1.704NS	6	12.592
9	Reason for joining course a. Self interest b. Pressure from parents c. Friends d. Others	7.32NS	6	12.592	4.348NS	6	12.592
10	Any affair a. Yes b. No	5.137NS	2	5.991	1.680NS	2	5.991
11	Any health problem a. Yes b. No	17.01*	2	5.991	3.276NS	2	5.991

* significant at p=0.05; NS- Not significant at p=0.05.

be identified early as interventions to reduce academic stress are likely to affect the occurrence and severity of depression. Mishra et al (2016) examined perceptions of academic stress among male and female college students, and compared faculty and student perceptions of students' academic stress; they found that college students experienced high stress and stress is perceived negatively or becomes excessive which can affect both health and academic performance.

With regard to mental health, it was found consistent with the study of Whitley OJ (2011) was studied regarding their mental health status, mental health service use, and attitudes toward mental health professionals among the random sample of college students and Catholics students had higher scores on the mental health symptom scale. Biyan J & Beili Z (2003) examined college and middle school students' mental health and its relationship with physical exercises and found that students had better mental health effect.

Implications

There is a need of stress management sessions for the students so that students can satisfactorily deal with the academic stress and can have good mental health learning opportunities should be given to the nursing students so as to improve mental health to restore their quality of life which is the need of the day. Communication techniques and therapeutic communication should be given more emphasis in all the subjects.

Limitations: The study size was limited and therefore generalisations cannot be made. Second, the college selected was private ones. So the study findings can be generalised to only the private college students only.

Recommendations

A similar study can be replicated on a larger sample to assess academic stress and mental health of undergraduate nursing students for making the broad generalisations. A qualitative study can be conducted to explore the experiences related to academic stress and mental health of undergraduate nursing students. An experimental study may be conducted to implement and

evaluate the effectiveness of the stress management sessions.

Conclusion

The study results showed that students of college of nursing were experiencing academic stress and at the same time they were having proper mental health. Students were using different coping mechanisms to deal with the stress and do better in their studies.

References

1. Lal Krishan. Academic stress among adolescents in relation to intelligence and demographic factors. *American International Journal of Research in Humanities, Arts and Social Sciences* 2014; 5(1): 123-29

2. Balachandran M. *Psychology for Nursing students.* First reprint edn, 2003. Thiruvananthapuram: Maanas Publications

3. Bisht AR. A Study of Stress in Relation to School Climate and Academic Achievement (age group 13-17). Doctoral thesis, Education, Kumaon University, 1980

4. Greg Henriques. The College Student Mental Health Crisis. *Psychology Today* 15 February 2014

5. Ward Struthers C, Raymond P Perry, Verena H Menec. An examination of the relationship among academic stress, coping, motivation, and performance in college. *Research in Higher Education* 2000; 41(5): 581-92

6. Serap Akgun, Joseph Ciarrochi. Learned resourcefulness moderates the relationship between academic stress and academic performance. *Educational Psychology* 2003; 23(3): 287-94

7. Jeremy B Yorgason, Deanna Linville, Bryan Zitzman. Mental health among college students: do those who need services know about and use them? *Journal of American College Health* 2008; 57(2): 173-82

8. Hefner Jennifer; Eisenberg Daniel. Social support and mental health among college students. *American Journal of Orthopsychiatry* 2009; 79(4): 491-99

9. Jayanthi P, Thirunavukarasu M, Rajamanickam Rajkumar. Academic stress and depression among adolescents: A cross-sectional study. *Indian Pediatrics* 2015; 52: 217-19

10. Misra Ranjita, McKean Michelle, West Sarah, Russo Tony. Academic stress of college students: Comparison of student and faculty perceptions. *College Student Journal* 2000; 34(2): 236

11. Jeffrey O Whitley. Mental health of college students. *Journal of American College Health Association* 2011; 28(2): 92-95

12. Jiang Biyan, Zhu Beili. The mental health of college and middle-school students in shanghai and its relationship with physical exercises. *Psychological Sciences* 1997; 3

■