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A COMPARATIVE STUDY TO ASSESS THE LEVEL OF STRESS BETWEEN FIRST AND FINAL YEAR B.SC NURSING STUDENTS IN SELECTED NURSING COLLEGES OF TAMIL NADU

R. Jancy Rachel Daisy*[1]

[1]*Department of Mental Health Nursing, CSI Jeyaraj Annapackiam College of Nursing, Jonespuram, Pasumalai, Madurai, Tamilnadu, India.

ABSTRACT

This present study was undertaken to assess the level of stress between first and final year B.Sc Nursing students in selected Nursing colleges. This was a descriptive study conducted at two private Nursing colleges in Tamil Nadu. The names of the colleges are kept confidential as per the instructions of the permitting authority. The samples were collected through convenience sampling technique. The sample size was 100. The tool used for data collection consists of 52 questions rated on a five point rating scale to assess the level of stress among I year and final year B.Sc Nursing students. The findings of the study revealed that majority of first year Nursing students 30(60%) experienced severe stress, 15(30%) of them experienced moderate stress and a small minority 5(10%) experienced mild stress. A large number of final year students 28(56%) experienced mild stress, 15(30%) of them experienced moderate stress and only 7(14%) of them experienced severe stress. Majority of first year Nursing students 30(60%) experienced severe stress, 15(30%) of them experienced moderate stress and a small minority 5(10%) experienced mild stress. The total mean score of first year students are greater than the final year B.Sc Nursing which indicates that there was a significant difference in the level of stress between first year and final year B.Sc Nursing students. There is an association between the level of stress of first year and final year B.Sc Nursing students and the educational status of parents, place of residence, order of sib-ship and no association between the level of stress of both first and final year B.Sc Nursing and religion and there is no association between level of stress and occupation of parents of final year B.Sc Nursing whereas an association between level of stress and occupation of parents of first year B.Sc Nursing. With regard to the type of family, there is no association between first year B.Sc Nursing between level of stress and income of parents, type of family among first B.Sc Nursing and an association between level of stress and their type of family among final year B.Sc Nursing students. The study result emphasizes that the first year students experience a higher level of stress than the final year students. Therefore it is essential for nurses to provide a non-threatening environment for the student nurses in clinical settings and build a healthy rapport with the student nurses which will facilitate their learning in clinical areas.

KEYWORDS

Stress and Nursing students.

Author for Correspondence:

Jancy Rachel Daisy R,
Department of Mental Health Nursing,
CSI Jeyaraj Annapackiam College of Nursing,
Jonespuram, Pasumalai, Madurai, India.

Email: r.jancyvincent@gmail.com

INTRODUCTION

Stress, first coined in the 1930's, has in more recent decades become a common place of popular parlance. Stress could be defined simply as the rate of wear and tear on the body systems caused by life[1]. It occurs when a person has difficulty in dealing with life situations, problems and goals[2]. Stress has physical, emotional, and cognitive effects. Although everybody has the capacity to adapt himself to stress,

not everyone responds to similar stressors exactly the same[3].

According to Frassrand[4], excessive stress can be harmful to a student's academic performance and students who perceive their stress levels as very high may often become depressed. This depression can lead to mental health problems, such as excessive corrupted interpersonal relationships.

A study on Psychiatric morbidity in College and illiterate youths in India revealed that about 10% to 30% of University student have emotional problems and nearly 30% of them leave college or University without completing their studies. The types of emotional disorders in the college and the University students include severe mental disorders including psychosis (1-2%), personality disorders (4-5%), sexual problems (8-10%) and depression (3-4%)[5].

Top five major sources of stress were detected among nursing college students: Change in sleeping habits, vacations, breaks, and change in eating habits, increased workload, and new responsibilities. Furthermore, stress may result from being separated from home for the first time, the transition from a personal to an impersonal academic environment, and the structure of the academic experience at the college level[6].

Sax[7] found that 9.7% of college freshmen report frequent depression. Additionally, only 48% of female students and 59.3% of male students were confident of their mental health. Douglas, Collins and Warren 15 reported that on the National College Risk Survey as many as 10.3% of the students that participated had serious thoughts of suicide. Among college and university students, some stress is motivating whereas too high a level interferes with teaching Excessive stress can be harmful to a student's academic performance and students who perceive their stress levels as very high may often become depressed. This depression can lead to other mental health problems, such as excessive drinking or indiscriminate use of other substances.

Archer and Lamnin found that tests, grades, competition, time demands, professors and the class environment, and concern about future careers were major sources of academic stress. Stress and the identification of potential stressors among student nurses have received much attention in the literature[8].

Student nurses have the same academic stressors as other college students, such as midterm and final examinations, research papers and other assignments In addition, student nurses experience a clinical component, which is highly stressful. Students have a large amount of preparatory work before their clinical assignments. They often must travel long distances to clinical sites and use highly technical equipment[9].

Though we hear a lot about stress from the western literature, this area is not much studied on the Indian situation. The existing studies are on students featured (Wig and Nagpal, 1972) and psychiatric morbidity among student (Chandrasekar, 1979, Thacore and Gupta, 1971). In the area of life events, stress and coping, Albuquerque (1990) did a study comparing gender differences in college students, Prabhu (1975) a noted Indian psychologist highlighted the need for researchers to focus attention on mental health of the college students. All these observations strongly support the need for the present study.

STATEMENT OF THE PROBLEM
A comparative study to assess the level of stress between first and final year B.sc Nursing students in selected Nursing colleges of Tamil Nadu.

OBJECTIVES
1. To identify the level of stress perceived by the first year B.Sc Nursing students.
2. To identify the level of stress perceived by the final year B.Sc Nursing students.
3. To compare the level of stress perceived by the first year B.Sc Nursing students with final year B.Sc Nursing students.
4. To determine the association between the level of stress perceived by the first year B.Sc Nursing students and their selected demographic variables (family income, education and occupation of parents, order of sib ship, day scholar/hostel, place of residence).

5. To determine the association between the level of stress perceived by the final year B.Sc Nursing students and their selected demographic variables (family income, education and occupation of parents, order of sib ship, day scholar / hostel, place of residence).

METHODOLOGY
Research approach
A survey approach was used in the study
Research design
Descriptive comparative study design was used for this study.
Setting of the study
The setting of the study comprises of two private Nursing colleges in Tamil Nadu. The names of the colleges are kept confidential as per the instructions of the permitting authority. The criteria for selecting their setting were according to the availability of the samples. Total number of first year and final year B.Sc Nursing students in each college was 50.
Population
The target population of this study was Nursing College students, first year and final year studying in selected Nursing colleges.
Samples
The study sample was first year and final year Nursing students studying in two selected Nursing colleges under Dr. M. G. R. Medical University.
Sample size
Sample size was 100 comprising of 50 first year Nursing students and 50 final year Nursing students.
Sampling technique
Convenience sampling technique was used for selecting Nursing Colleges and the samples.

INCLUSION CRITERIA
Group A
Students who are studying first year B.Sc Nursing in two different selected Nursing College.
Group B
Students who are studying final year B. Sc Nursing in two different selected Nursing colleges.

DESCRIPTION OF INSTRUMENTS
A five point rating scale was developed by the researcher based on the review of literature and experts opinion. It consists of two parts.
Part I
Consists of demographic profile (name, age, sex, name of the college, education and occupation of the parents, total income, family type, place of residence, order of sib-ship, gender, day scholar/hostel).
Part II
Consists of 52 questions rated on a five point rating scale to assess the level of stress among I year and final year B.Sc Nursing students.

SCORING PROCEDURE
The stress scale 52 items and it was Likert's scale (5 point) scale ranged from 0 - 4 which was as follows

No distress	-	0
Mild stress	-	1
Moderate stress	-	2
Severe stress	-	3
Very severe stress	-	4

It consists of six aspects, which includes problems related to education, problems related to family, personal problems, psychological problems, sex related to problems and social problems.

- Problems related to education contain nine questions
- Family related problems to family contain 11 questions
- Personal problems contain nine questions
- Psychological problems contain nine questions
- Sex related problems contain four questions
- Social questions contain four questions.

The responses of the students were entered in appropriate columns in the respective statements. Maximum obtainable score was 208 and the total score was calculated for percentage. A level of stress was graded as follows:

Mild stress	-	1 - 25%
Moderate stress	-	26-50%
Severe stress	-	>50%

RELIABILITY OF THE TOOL

The reliability of the tool was established by test retest method and the co-efficient of correlation was found to be 0.98 and indicates that the tool is highly reliable.

METHOD OF DATA COLLECTION

The researcher collected the data from the students based on the convenient time allotted by the principal of the respective colleges. The researcher introduced herself to each subject and explained the purpose of the study. The researcher then instructed the method of answering the questions and disturbed a rating scale.

DATA ANALYSIS AND INTERPRETATION

Demographic data reflects that nearly an equal number of parents, were literates among fist year B.Sc Nursing (56%) and final year B.Sc Nursing (54%) students. A similar pattern was observed in the occupation of parents, 70% of the parents of first year students and 76% of the parents of final year students were sedentary workers. Half (50%) of the parents of first year B.Sc Nursing students of first year B.Sc Nursing students earned to less than Rs.5000 per month while majority (66%) of the parents of the final years earned greater than Rs.5000/-. A high percentage of samples, 88% and 76% from first year and final year level in nuclear families. Strikingly equal samples were Hindus in both groups higher number of subjects, 29 from first year and 27 from final year came from rural background. Most of the samples, 30 from the first year and 26 from the final year were the middle child in their family.

Table No.1 reflects that educational problems was considered as severe stress for majority of the first year students (92%) while most of the final year students (60%) consider it to be moderate stress. With regard to family problems majority of the first year and final year students (38 and 24 respectively) experienced moderate stress and nearly equal number of participants (7 and 8 respectively) experienced severe stress. With regard to physical problems majority of the first year and final year (38 and 48 respectively) experienced moderate stress and

severe stress was experienced by 11(22%) of first year B.Sc Nursing students while none of the final year B.Sc Nursing students experienced severe stress.

Table No.2 Portrays that psychological problems was considered as severe stress for majority of the first year B.Sc Nursing students and final year B.Sc Nursing students (41 and 35 respectively) with regard to the sex related problems, participants from both groups (2 and 1 respectively) experienced mild stress and majority of the first year B.Sc Nursing students (86%) and final year B.Sc Nursing students (70%) considered it as severe stress. While seeing the social problems, none of the first year and final year B.Sc Nursing students experienced mild stress. Majority of the students 37(74%) considered it as severe among first B.Sc Nursing students and 37(74%) considered it as moderate among final year B.Sc Nursing students.

Table No.3 shows that the overall mean scores of the subjects (104) studying first year B.Sc Nursing students is higher than the mean score (93.72) of the students studying final year Nursing student at 0.05 level of significance.

While seeing the association between the level of stress and demographic variables, there is a significant difference in the level of stress between first year and final year B.Sc Nursing students.

- There is an association between the level of stress of first year and final year B.Sc Nursing students and the educational status of parents, place of residence, order of sibship and no association between the level of stress of both first and final year B.Sc Nursing and religion.

- There is no association between level of stress and occupation of parents of final year B.Sc Nursing whereas an association between level of stress and occupation of parents of first year B.Sc Nursing.

- There is no association between first year B.Sc Nursing between level of stress and income of parents, type of family among first B.Sc Nursing and an association between level of stress and their type of family among final year B.Sc Nursing students.

DISCUSSION

The first objective of the study was to assess the level of stress among first year B.Sc Nursing students.

Majority of first year Nursing students 30(60%) experienced severe stress, 15(30%) of them experienced moderate stress and a small minority 5(10%) experienced mild stress.

The second objective of the study was to assess the level of stress among final year students.

The results of the present study shows that a large number of final year students 28(56%) experienced mild stress, 15(30%) of them experienced moderate stress and only 7(14%) of them experienced severe stress.

The third objective of the study was to compare the level of stress between first year and final year B.Sc Nursing students.

With regard to the educational problems of first year and final year B.Sc Nursing students, 46(92%) of first year experienced severe stress while only 1(2%) student from final year suffered from severe stress in this area. Conversely 19(38%) of final years considered educational problems to be mildly stress provoking while none 0(0%) of first years felt that may be a stress provoking. The 't' value with regard to the problems of education, 't' value is 7.066 which is greater than the table value 1.984 which indicates that there is a difference in the level of stress between first year and final year B.Sc Nursing students.

In relation to family problems, majority of the first year and final year B.Sc Nursing students (38 % 24) experienced moderate stress and nearly equal number of participants 7(14%) from first year and 8(16%) from final year had experienced severe stress. The computed 't' value is 6.3 which is greater than the table value, which indicates that the level of stress among first year B.Sc Nursing was higher than the final year B.Sc   Nursing.

Regarding personal problems, 1(2%) of first year and 2(4%) of final year B.Sc Nursing experienced mild stress. 38(76%) of first year and 48(96%) of final year B.Sc Nursing experienced moderate stress and 11(22%) of first year experienced severe stress whereas none of them experienced severe stress

among final year. The obtained 't' value 3.88 is greater than the table value. This shows that the level of stress among first year B.Sc Nursing students was higher than the final year B.Sc Nursing students.

Analyzing psychological problems, none of the first and final year B.Sc Nursing students experienced mild stress 9(18%) of first year and 15(30%) of final year students experienced moderate stress. 42(82%) of first year and 35 (70%) of final year students experienced severe stress. The obtained 't' value is 9.37 which is greater than the table value. This shows that the level of stress among first year B.Sc Nursing students was higher than the final year students.

Probing the sex related problems, participants from both groups 2(4%) from first year and 1(2%) from final year experienced mild stress 5(10%) of first year and 14(28%) of final year felt moderate stress. Majority of the students, 43(86%) of fist year and 35(70%) of final year B.Sc   Nursing considerate as severe stress. The computed 't' value is 2.16 which is greater than the value. This shows that the level of stress among first year students was higher than the final year B.Sc Nursing students.

A look into the social problems revealed that none of the first and final year students experienced mild stress, 13(26%) of the first year and 37(74%) of final year students felt moderate stress towards social problems. 37(74%) of the first year and 13(26%) of final year students felt severe stress considering social problems. The computer 't' value is 26, which is greater than table value. This shows that the first year students experienced more stress than final year B.Sc Nursing students.

Table No.3 depicts the total mean score of first year students are greater than the final year B.Sc Nursing which indicates that there was a significant difference in the level of stress between first year and final year B.Sc Nursing students.

The fourth and fifth objective was to determine the association between the level of stress perceived by first year and final year B.Sc Nursing students and their selected demographic variables.

While observing the education of parents, the obtained chi-square value is greater than the table

value at 0.05 level of significance for both first and final year B.Sc Nursing students.

The higher the education of parents, the higher the stress rate of the samples from both groups. This may be due to the fact that educated parents expect higher grades from their children in Nursing colleges.

While observing the income of parents the chi-square value was less than the table value among first year B.Sc Nursing students. This indicates that there is no association between the level of stress of first year B.Sc Nursing students and their parents income.

While observing the income of parents of final year, the obtained chi-square value for final year B.Sc Nursing students at 0.05 level of significance was greater than the table value. It indicates that there is an association between the level of stress and income of parents. It may due to the fact that their awareness about the fees structure has improved over the years.

While interpreting the occupation of parents, the obtained chi-square value is greater than the table value at 0.05 level of significance among first year B.Sc Nursing students. Hence there is an association between the level of stress and occupation of parents. This is attributed to the fact that parents whose work is sedentary have more time and energy to scrutinize the outcome of their children.

An analysis of the type of family, the obtained chi-square value is lesser that the table value at 0.05 level of significance among first and final year B.Sc Nursing students. Hence there is no association between the level of stress and type of family for the first year B.Sc Nursing students.

Whereas the obtained chi-square value is greater than the table value, there is an association between the level of stress and type of family income and final year B.Sc Nursing students.

Looking into the religion of students, the obtained chi-square value is less than the table value for both first and final year B.Sc Nursing students. This indicates that there is no association between the level of stress and religion. This statistical findings reveals that the faith of students whether Christian, Muslin or Hindu is similar.

While calculating the place of residence, the obtained chi-square value is greater than the table value for both first and final year B.Sc Nursing students. Hence there is an association between the level of stress of both groups of students and place of residence.

Regarding the order of sib-ship the obtained chi-square value is greater than the table value at 0.05 level of significance for first year and final year B.Sc Nursing students. Hence there is an association between the level of stress and order of sib-ship of both groups.

Table No.1: Sub-scale pertaining to personal characteristics of the First year B.Sc Nursing students

S.No	Level of Stress	Personal Characteristics										
		First year						Final year				
		Educational Problems		Family problems		Physical problems		Educational Problems		Family problems		Physical problems	
		F	%	F	%	F	%	F	%	F	%	F	%
1	Mild (1-25%)	0	0	5	10	1	2	19	38	13	26	2	4
2	Moderate (26-50%)	4	8	38	76	38	76	30	60	24	18	48	96
3	Severe (>50%)	46	92	7	14	11	22	1	2	8	16	0	0

Table No.2: Sub-Scale Score Pertaining to Psychosocial Characteristics of the First and Final Year B.Sc Nursing Students

S.No	Level of Stress	Psychosocial Characteristics											
		First year						Final year					
		Psychological problems		Sex-related problems		Social problems		Psychological problems		Sex-related problems		Social problems	
		F	%	F	%	F	%	F	%	F	%	F	%
1	Mild (1-25%)	0	0	2	4	0	0	0	0	1	2	0	0
2	Moderate (26-50%)	9	18	5	10	13	26	15	30	14	28	37	74
3	Severe (>50%)	41	82	43	86	37	74	35	70	35	70	13	26

Table No.3: Comparison of the level of stress between first year and final year B.Sc Nursing students

| S.No	Level of Stress	Group A = 50			Group B = 50			
		Total score	Mean score	SD	Total score	Mean score	SD	't' value
1	Problems related to education	1052	21.04	3.97	999	19.98	3.68	7.066
2	Problems related to family	699	13.98	4.5	642	12.84	4.29	6.3
3	Personal problems	1339	26.72	5.35	1219	24.38	3.37	3.88
4	Psychological problems	1074	21.48	3.45	1014	20.28	3.14	9.37
5	Sex related problems	529	10.58	2.43	406	8.12	1.77	2.16
6	Social problems	514	10.2	2.51	406	8.12	1.77	26
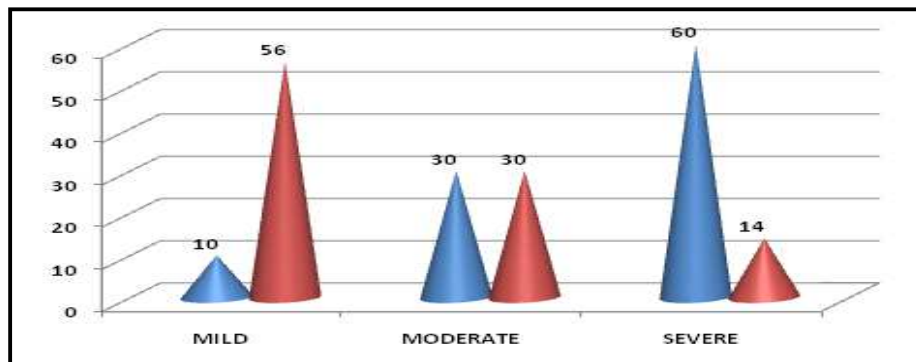
Figure No.1: Percentage Distribution of level of stress among first year and final year B.Sc Nursing students

CONCLUSION
- Students at different level of education experience stress in varying degree.
- Students of first year B.Sc Nursing experience more stress than final B.Sc Nursing in all domain's investigated.
- The education of parents, place of residence and order of sib-ship had a significant influence on the level of stress of the samples in both groups.
- The higher the literacy rates of parents, subjects from rural living, middle child, higher the stress rates of the samples from both groups.
- Occupation of parents had no effect on final year Nursing students however it had greatly increased the stress of levels of first year B.Sc Nursing students.
- Religion did not affect the first year and final year B.Sc Nursing students.
- The income of parents and type of family did not affect fresher whereas it had played a vital role in increased stress level of final year B.Sc Nursing.

ACKNOWLEDGEMENT

CONFLICT OF INTEREST

We declare that we have no conflict of interest.

IMPLICATIONS

Implications to Nursing practice

The study result emphasizes that the first year students experience a higher level of stress than the final year students. Therefore it is essential for nurses to

- Provide a non-threatening environment for the student nurses in clinical settings
- Build a healthy rapport with the student nurses which will facilitate their learning in clinical areas.

Nursing education

- All corrections to wrong behaviors should be based on the principle of positive reinforcement.
- There should be strong foundation made in the medium of instruction before starting lectures on the Nursing subjects for first year B.Sc Nursing students.

Nursing administration

1. The administrator is responsible for the provision of one clinical instructor for every six to eight students.
2. The administrator should channelize the energy of adolescent nurses in both curricular and extracurricular activities.

RECOMMENDATIONS FOR FUTURE STUDY

1. Similar study can be conducted for a larger group
2. A study can be conducted to assess stress and coping behavior in first year and final year B.Sc Nursing students.

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