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GUIDANCE AND COUNSELING ON STRESS AND BURNOUT AMONG NURSING STUDENTS – A QUASI-EXPERIMENTAL STUDY

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INTRODUCTION

In a globalization trend, the world changes every single day, especially with regard to the environment, social functions, and cultural aspects. These changes could impact the stress level of people and stimulate their adaptation. Day-to-day activities and ongoing tension can also cause stress. "Silent killer" is the best term applicable to stress. Day-to-day stress can result in changes in physiology. It can lead to the stage of ill health[1]. A lot of nursing students have stress when they begin their clinical or first see or work with dying patients as they do not know how to solve the problems or how to comfort and console the family members, feel sorry for the dying patient, and fear of failure. It can be a very embarrassing and anxiety-producing situation. To explain simply what burnout is, it is a lack of hope. When the challenge and demands of work become excessive, the pressures of the place of work exceed workers' capacities to handle them, and satisfaction turns into annoyance, that is a formula for burnout. However, burnout can also be caused as much by feeling trapped, bored, or lacking challenge as by working with unrealistic goals and expectations, or in an environment where an ethical conflict occurs.Therefore, it is recognized as a felt need to conduct a study to spell out the effectiveness of guidance and counseling among nursing students to improve the quality of their lives so as to provide a quality of service to society.

STATEMENT OF THE PROBLEM

A study to assess the efficacy of an intervention package of guidance and counseling on stress and burnout among General Nursing and Midwifery students of selected Nursing Schools in Assam.

AIM OF THE STUDY

The aim of the present study is to identify the effectiveness of an intervention package of guidance and counseling in stress and burnout among General Nursing and Midwifery students.

OBJECTIVES OF THE STUDY

1. To determine the level of stress and burnout of General Nursing and Midwifery students as measured by the **NAPS Student Nurse Stress Index**.
2. To develop guidance and counseling protocols for the stress and burnout of General Nursing and Midwifery students
3. To evaluate the efficacy of the intervention package of guidance and counseling through post-assessment.
4. To identify the correlation between the stress and burnout of nursing students
5. To find out the association between stress and burnout score and selected demographic variables.

OPERATIONAL DEFINITIONS:

Stress: In this study stress means, the physical, mental, or emotional response to events that cause physical or mental tension and affect the nursing students' lives that is measured by using the Naps Student Nurse Stress Index among the General Nursing and Midwifery students of the Kanaklata Civil School of Nursing, Baptist Christian Mission School of Nursing, and Catholic School Nursing – Borgang.

Burnout: In this study, burnout means, the feeling of physical and emotional exhaustion experience which is preventing from interacting with other people under difficult or demanding situations which is measured by using Heading ton burnout inventory among the General Nursing and Midwifery students of the Kanaklata Civil School of Nursing, Baptist Christian Mission School of Nursing, and Catholic School Nursing – Borgang.

Guidance and counseling: In this study guidance and counseling means, the process of providing help to the General Nursing and Midwifery students to discover many stressors and to recognize and improve their self-awareness and coping abilities by providing four days planned teaching sessions which include an outline of the stress, scope of the nursing profession and the various coping strategies to stress, thereby identify their educational, vocational, and psychological potentialities and to achieve an optimal level of personal happiness and social usefulness.

HYPOTHESES:

H_1: The mean post-test stress score and burnout score of General Nursing and Midwifery students are significantly lower than their mean pre-test stress score.

H_2: There is a positive correlation between stress and burnout among General Nursing and Midwifery students.

H_3: There is a significant association between stress and burnout score level and demographic variables of General Nursing and Midwifery students.

CONCEPTUAL FRAMEWORK

The study uses Betty Neumann's system model for the conceptual framework. According to this model, wellness is on a continuum of available energy to support the system in an optimal state of system stability. This model is well applicable to all the areas of nursing which creates the pathway to the holistic approach. This system model is applicable to stress management. The harmony of the whole system depends on the parts and subparts. Wholeness is based on interrelationships of variables that determine the resistance of an individual to any stressor. On the whole system psychological system is very important in identifying stress.

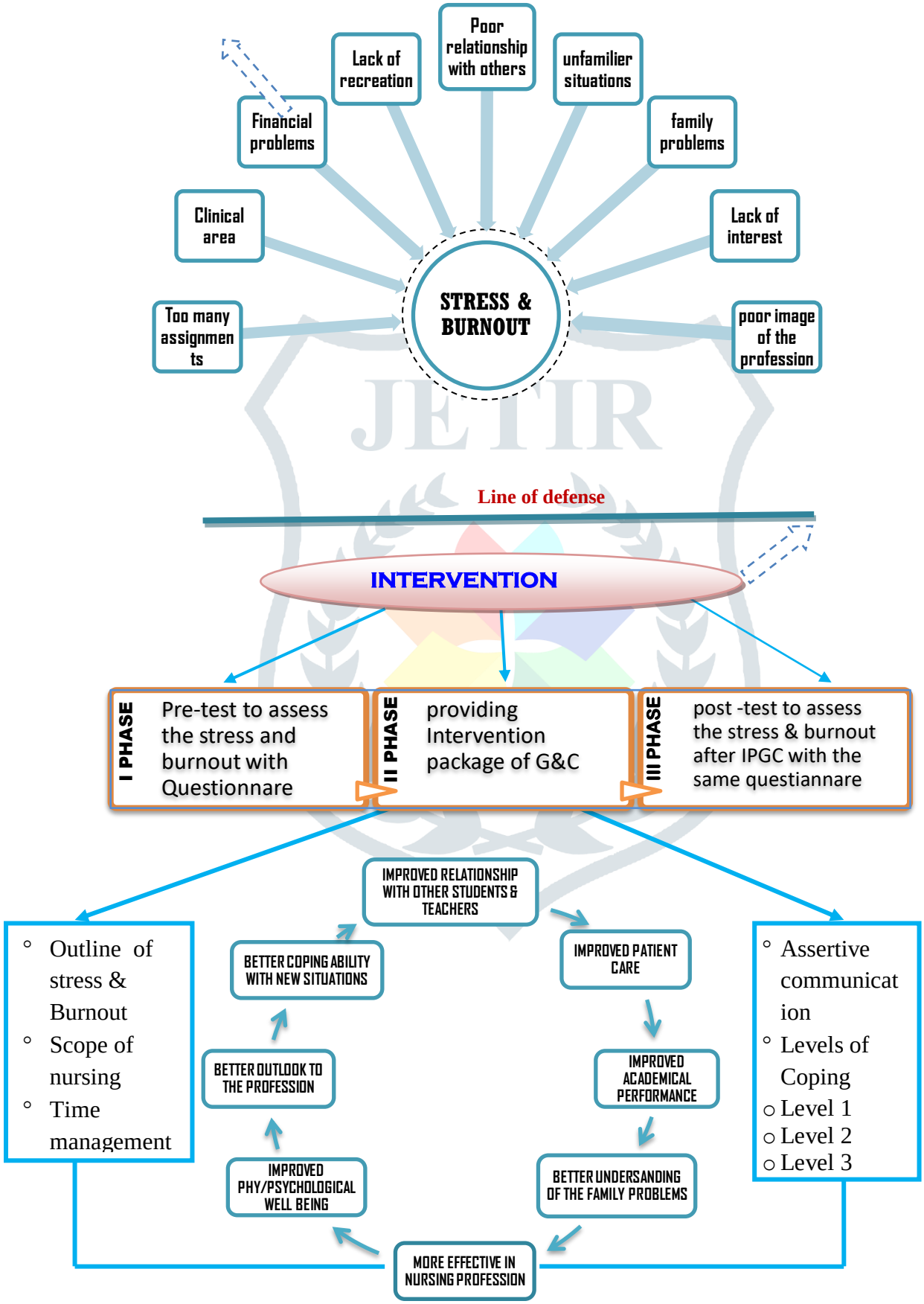

Fig 1: Modified Conceptual Framework based on Betty Neumann's System Model

RESEARCH METHODOLOGY

Research approach:

The evaluative approach was considered an appropriate research approach for the present study.

Research design:

The research design selected for the study was a quasi-experimental one-group pre-test and post-test design.

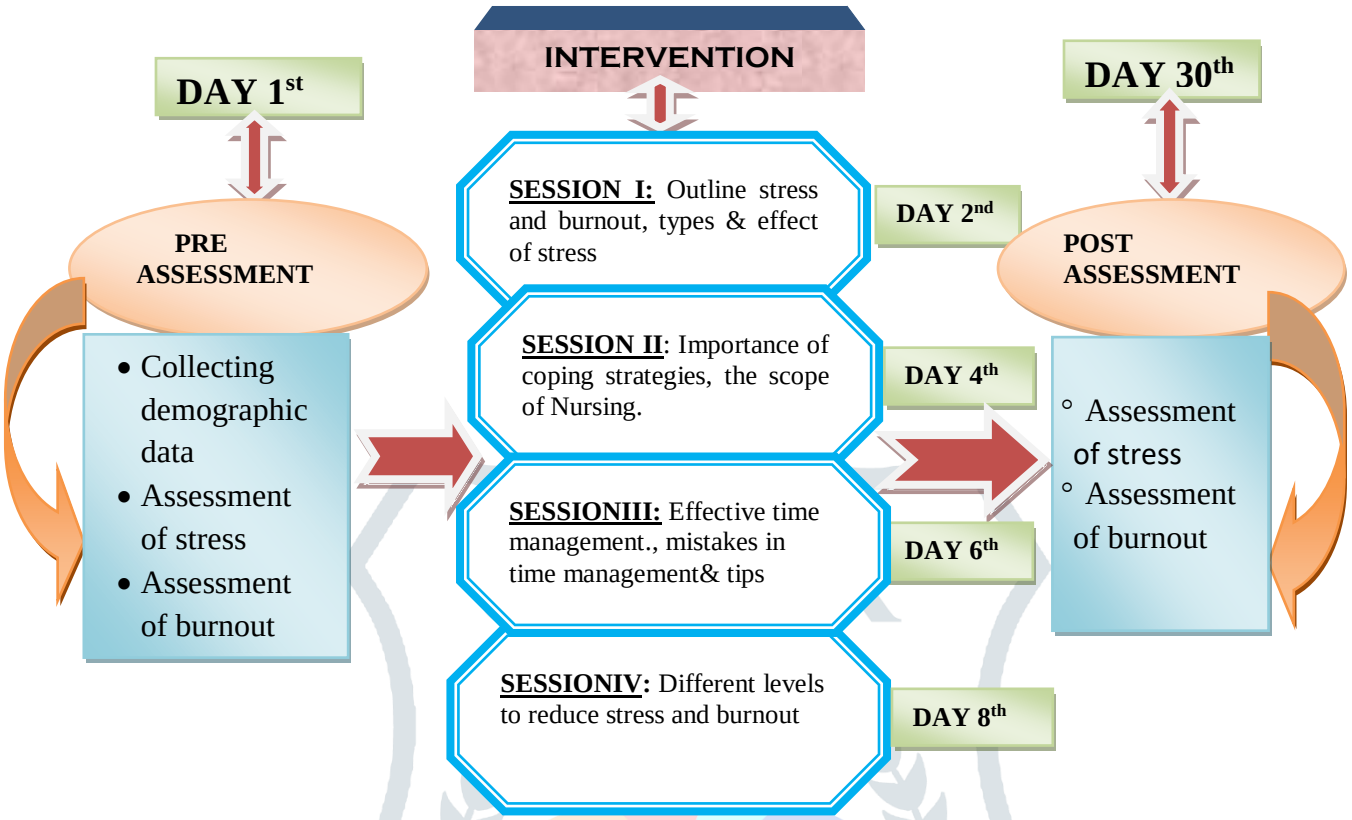

Fig 2: Schematic representation of the study design

Population

The population for the study was the General and Nursing Midwifery students.

Sample

The samples were 82 first-year General Nursing and Midwifery students i.e., 42 students from the School of Nursing of Kanaklata Civil Hospital, Tezpur, 16 students from Baptist Christian Hospital School of Nursing, Tezpur and 23 students from Catholic Hospital School of Nursing, Borgang.

Sampling Technique

The sampling technique used was purposive sampling.

Setting Of the Study

The present study was conducted in three nursing schools i.e. Kanaklata Civil School of Nursing, Baptist Christian Hospital School of Nursing, and Catholic School of Nursing – Borgang.

Inclusion Criteria

- First-year general nursing and midwifery students who were admitted to the course in the year 2010.
- Students who are willing to participate in the study.

Exclusion Criteria

- The first-year nursing students who have been admitted to the course before 2010.
- Students who are absent on the day of data collection.

Description Of the Tool

Part I: Consists of 10 items such as age, sex, educational qualification, monthly family income, religion, type of family, habitant, subject stream of qualifying course, mark percentage of qualifying exam, and hostel living.

Part II: consists of the NAPS Student Nurse Stress Index and Headington Institute burnout scale.

1. NAPS Student Nurse Stress Index[2]: This scale has 22 items that measure stress related to 4 factors: academic load, clinical sources, interface worries, and personal problems. Validity was demonstrated by confirmatory factor analysis and internal consistency reliability coefficients all exceeded 0.70.

2. The Headington Institute burnout scale[3] has 25 items. The average score on the burnout scale is 50 (SD 10; alpha scale reliability 0.75).

Description of the IPGC:

The IPGC was titled "Intervention Package of Guidance and Counseling on Stress and Burnout".

Session 1: Include an introduction, highlighting stress and the burn-out, major categories of stress, the positive and negative effects of stress, and the various stress signals.

Session 2: Include the importance of coping strategies, the purpose of coping Skills, Nursing past and now, and the scope of the nursing profession.

Session 3: Include the importance of effective time management, motivation and management of time, mistakes in managing time, tips for good time management, and assertive communication.

Session 4: Include levels to reduce stress and burnout, level 1 management, level 2 management, and level 3 management.

Determining the Method of Evaluating IPGC:

The evaluation of IPGC was done by conducting a post-test after 30 days of administration of the intervention package of guidance and counseling.

Pilot study: The pilot study was not carried out due to the lack of accessibility of a suitable sample after discussing with the guide.

Pre–Test: The pre-test was conducted after explaining the study and obtaining consent from the participants.

Implementation of IPGC:

IPGC was conducted in four sessions. After the 4th session, provision was arranged for individual counseling for the students who were found the need it.

Post-Test: Post post-test was conducted on the 30th day after the administration of the IPGC with the same questionnaire to assess the level of stress and burnout and to identify the effectiveness of the intervention package of guidance and counseling.

DATA ANALYSIS

The results were computed using descriptive and inferential statistics.

Section I: Description of demographic variables of General Nursing and Midwifery students

This section deals with the description of the demographic characteristics of the General Nursing and Midwifery students in terms of age, sex, educational qualification, monthly family income, religion, type of family, habitant, subject stream of qualifying course, mark percentage of qualifying exam, hostel living and has been presented in the form of frequency and percentage.

TABLE: 1

Frequency and percentage of the Demographic variables of the General Nursing and Midwifery students

N=82

Characteristics	Category	Respondents	
		Frequency	Percentage
Age Group	18-20	17	20.7
	21-25	61	74.4
	26-28	4	4.9
Sex	Female	82	100.0
Educational Level	Higher Secondary	63	76.8
	Graduation	19	23.2
Family income/month	Rs. <5000	35	42.7
	Rs.5001-10000	17	20.7
	Rs.10001-15000	15	18.3
	Rs.15001-20000	9	11.0
	Rs.>20000	6	7.3
Type of family	Nuclear family	67	81.7
	Joint family	15	18.3
Resident	Urban	17	20.7
	Rural	65	79.3
Subject stream	Arts	66	80.5
	Science	16	19.5
Mark percentage	40-50%	30	36.6
	51-60%	36	43.9
	Above 60%	16	19.5
Hostel living	First time	51	62.2
	Second time	16	19.5
	More than twice	15	18.3
Religion	Hindu	54	65.9
	Christian	28	34.1
Subject stream	Arts	66	80.5
	Science	16	19.5
Mark percentage	40-50%	30	36.6
	51-60%	36	43.9
	Above 60%	16	19.5
Hostel living	First time	51	62.2
	Second time	16	19.5
	More than twice	15	18.3
Total		**82**	**100**

Table:1 shows the majority of the (74.4%) respondents were in the age group of 21-25 years, 100 %of the respondents were females, (76.8%) of respondents had completed higher secondary education, the majority of the (65.9%) respondents were Hindus, (80.5%) belonged to Arts stream for the qualifying course, The highest (43.9%) had 51-60% of marks for the qualifying exam. The majority (62.2%) were living in the hostel for the first time.

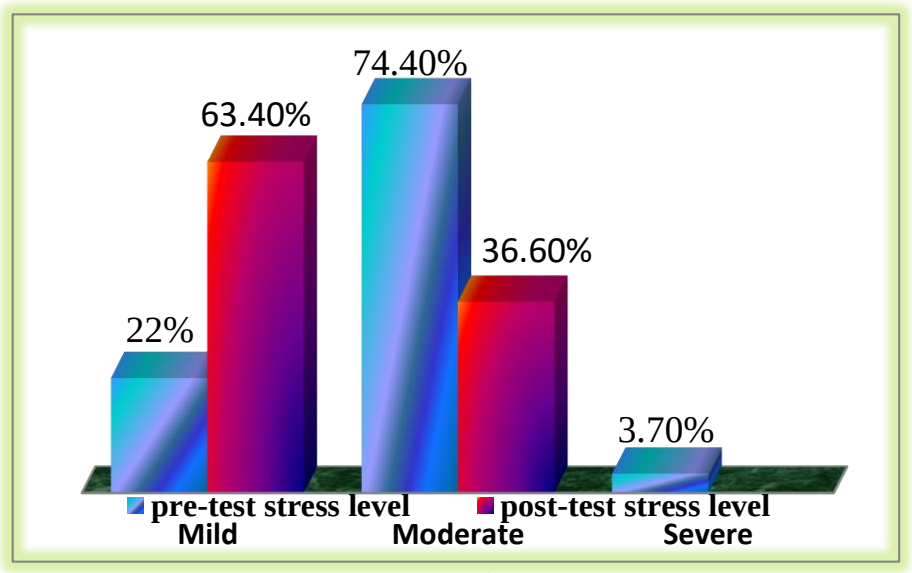

Fig 3: Pre-test and post-test levels of stress of the nursing students

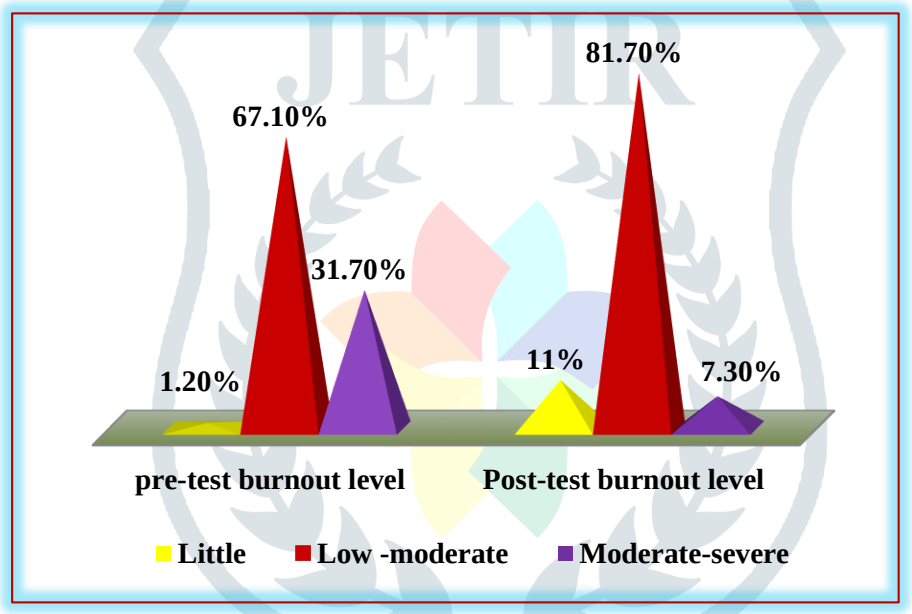

Fig 4: Pre-test and post-test level of burnout of the nursing students.

TABLE 2: Range, Mean, SD, and mean difference and *'t'* value of pre-test and post-test stress scores

N=82

Parameter	Range	Mean	SD	Mean difference	*'t'* value
Pre-test stress score	45-103	70.12	11.217	13.41	8.224*
Post-test stress score	36-76	56.71	8.884		

t60 = 1.671, p =0.01 * Significant

The data presented in Table 2 shows that the mean post-test stress score (56.71±8.884) was lower than the mean pre-test stress level score (70.12±11.217). The calculated 't' value (*t*= 8.224, p<0.05) was greater than the table value (t60 = 1.671) at a 0.01 level of significance.

TABLE 3: Range, Mean, SD, mean difference, and't' value of pre-test and post-test burnout scores

N=82

Parameter	Range	Mean	SD	Mean difference	't' value
Pre-test burnout score	24-68	44.91	10.667	7.87	5.707*
Post-test burnout score	5-53	37.04	10.296		

t60 = 1.671, p= 0.01 * Significant

The data presented in above Table 3 shows that the mean post-test burnout score (37.04±10.296) was lower than the mean pre-test burnout score (44.91±10.667). The calculated't' value (t = 5.707, p<0.05) was greater than the table value (t60 = 1.671) at a 0.01 level of significance.

TABLE 4: Correlation between pre-test stress level with pre-burnout level and post-stress level with post-burnout level

N=82

Variable Inference	Frequency			χ^2 (df)	
	Mild	Moderate	Severe		
1. Age (in years)					
a.18- 20	2	14	1	1.601(4)	NS
b.20-25 & above	16	47	2		
2.Education					
a. H. Secondary	13	47	3	1.121(2)	NS
b. Graduation	5	14	0		
3.family income/m					
a. <5000-10000	5	45	2	17.194(8)	**S***
b. 10001-15000	6	8	1		
c. 15001-20000&above	7	8	0		
4.Religion					
a. Hindu	17	37	0	13.062 (2)	**S***
b. Christian	1	24	3		
5.type of family					
a. Nuclear	13	51	3	1.902 (2)	NS
b. Joint	5	10	0		
6.Habitant					
a. Urban	3	14	0	1.15 (2)	NS
b. Rural	15	47	3		
7.subject stream					
a. Arts	12	52	2	3.43 (2)	NS
b. Science	6	9	1		
8.Mark %					
a. 40-50%	7	22	1	3.25 (4)	NS
b. 51-60% &above	11	39	2		
9.Hostel living					
a. First time	13	37	1	6.87 (4)	NS
b. Second time&and more	5	24	2		

** Significant at 0.01 level

The data presented in Table 4 shows that the Pearson correlation between the pre-test stress level with the pre-test burnout level and the post-test stress level with the post-test burnout level. It indicates that the pre-test stress level and pre-test burnout level positively correlate (.502) at the 0.01 level of significance. The post-test stress level and post-test burnout level positively correlate (.648) at a 0.01 level of significance.

TABLE 5: Chi-square test showing the association between pre-test stress level score and Demographic variables

N=82

Parameter	Mean	SD	'r' value (2-tailed).
Pre-test stress level	70.12	11.217	.502**
Pre-test burnout level	44.91	10.667	
Post-test stress level	56.71	8.884	.648**
Post-test burnout level	37.04	10.296	

0.05 level of significance S*= Significant NS= non significant

The data presented in Table 5 shows that the Chi Squire test values indicate that the stress level of the students is high when the monthly income of the family is less, the students who belong to the Hindu religion are more stressed out than the students who belong to the Christian religion. There is no significant association between other demographic variables like age, education, and type of family.

TABLE 6: Chi-square test shows the association between pre-test burnout level score and Demographic variables

N=82

Variable Inference	Frequency			χ^2 (df)	
	Little	Low-moderate	Moderate-severe		
1. Age (in years)					
a.18- 20	0	11	6	1.15 (4)	NS
b.20-25 & above	1	44	20		
2.Education					
a. H. Secondary	1	43	19	.56 (2)	NS
b. Graduation	0	12	7		
3.family income/m					
a. <5000-10000	0	37	15	18.67 (8)	**S***
b. 10001-15000	0	7	8		
c. 15001-20000&above	1	11	3		
4.Religion					
a. Hindu	1	37	16	.78 (2)	NS
b. Christian	0	18	10		
5.type of family					
a. Nuclear	1	44	22	.48 (2)	NS
b. Joint	0	11	4		
6.Habitant					
a. Urban	0	12	5	.34 (2)	NS
b. Rural	1	43	21		
7.subject stream					
a. Arts	0	46	20	4.68 (2)	NS
b. Science	1	9	6		
8.Mark %					
a. 40-50%	0	20	10	1.33(4)	NS
b. 51-60%	1	35	16		
9.Hostel living					
a. First time	0	37	14	6.12 (4)	NS
b. Second time &and more	1	18	12		

0.05 level of significance NS= non-significant S*=significant

The data presented in Table 6 reveal that the Chi-square test values computed between pre-intervention burn-out and family income of the students have a significant association at 0.05 level of significance. It indicates that the students have a high level of burnout when the monthly income of the family is less.

DISCUSSION

In order to achieve the objective of the study, one group pre-test and post-test design with a quasi-experimental design was adopted. For the present study, the sample comprised 82 first-year General Nursing and Midwifery students i.e., 42 students from the School of Nursing of Kanaklata Civil Hospital, Tezpur, 16 students from Baptist Christian Hospital School of Nursing, Tezpur, and 23 students from Catholic Hospital School of Nursing, Borgang. A structured teaching program was implemented to find out the effectiveness of guidance and counseling. The investigator utilized the Non-probability (purposive) sampling technique to select the subjects. A pre-test was conducted, an intervention package of guidance and counseling was administered in four sessions and a post-test was conducted using the same questionnaire after 30 days.

The Major findings are discussed in six parts:

Part I: Percentage distribution of the General Nursing and Midwifery students according to demographic variables.
Part II: Analysis of pre-test stress and pre-test burnout level of General Nursing and Midwifery students.
Part III: Evaluation of the effectiveness of the intervention package of guidance and counseling for the stress and burnout of General Nursing and Midwifery students.
Part IV. Analysis to find the correlation between the stress score and burnout score of General Nursing and Midwifery students.
Part V: Testing of hypothesis.
Part VI: Find the association between pre-test stress and burnout level and the demographic variables

Part I: Percentage distribution of the General Nursing and Midwifery students according to demographic variables.

In age-wise distribution, the sample revealed that the majority of the (74.4%) respondents were in the age group of 21-25 years. In relation to gender, the entire sample (100%) consisted of females. In education-wise distribution,76.8 percent of respondents completed higher secondary education. Analyses revealed that the majority of the (65.9%) respondents were Hindus.

In family income-wise distribution among the total respondent's majority (42.7%) have a monthly family income of less than Rs.5, 000. Among the total respondents under study, it is evident that 81.7 percent belonged to the nuclear family. In resident-wise distribution majority (79.3%) were hailing from rural areas It is evident that among the total respondent's majority (80.5%) belonged to the Arts stream for the qualifying course. The highest (43.9%) were having 51-60% of marks for the qualifying exam. Among the total respondents, the majority (62.2%) were first-time living in the hostel.

Part II: Analysis of pre-test stress and pre-test burnout level of General Nursing and Midwifery students in selected schools of nursing in Assam.

Preceding the administration of the intervention package of guidance and counseling, the majority (74.4%) of the sample had moderate stress (score: 61-90) while 22 percent of the sample had mild stress (score: 31-60) and 3.7 percent of the sample had severe stress (score: 91-120). Mannapur B et al.[5] carried out a cross-sectional study at Bagalkot in Karnataka among 251 undergraduate medical students. Chi-square was used for statistical analysis. The result showed that 42.63% experienced less/moderate stress and 47.01% of them had experienced severe stress. 78.26% of the smokers and 68.97% of the alcoholics had severe stress. The stress was found to be more among repeaters and the association between them was statistically significant.

Before the administration of the intervention package of guidance and counseling (67.1 percent) of the sample had low to moderate levels of burnout (score: 26-50) while 31.7percent of the sample had moderate to severe levels of burnout (score: 51-75), only 1.2 percent had little burnout or no burnout (score: 0-25) and none of the students had severe level of burnout (score: 76-100).

Part III: Evaluation of the effectiveness of the intervention package of guidance and counseling for the stress and burnout of General Nursing and Midwifery students.

a. Evaluation of the effectiveness of the intervention package of guidance and counseling for nursing students with stress.

Following the administration of the intervention package of guidance and counseling, the majority of the students had mild level (63.4%) of stress (score: 29-55) while 36.6 percent of the sample had a moderate level of stress (score: 56-83) and none of the students had a severe level of stress.Kirupa[6] conducted a study on the effectiveness of the planned intervention on self-esteem among general nursing and midwifery students in Mangalore, Karnataka. The study adopted the true experimental design with two group pre-test and post-test design. The result showed that the post-test level of self-esteem esteem higher among the experimental group than the control group. In the post-test 80% of the students were distributed in higher self-esteem than the control group.

b. Evaluation of the effectiveness of the intervention package of guidance and counseling for the General Nursing and Midwifery students with burnout.

Prior to the administration of the Intervention Package of Guidance and Counseling, 26 (31.7%) of the students experienced moderate to high levels of burnout, 55 (67.1%) had low to moderate levels of burnout, and only 1 (1.2%) experienced little or no burnout. following the administration of IPGC majority 67 (81.7) had low to moderate levels of burnout, 9 (11.0%) had little or no burnout, and only 6 (7.3%) had moderate to high levels of burnout. The present study confirms that there was a significant reduction in burnout among the General Nursing and Midwifery students after the Intervention Package of Guidance and Counseling which was statistically significant. There was a significant difference between pre-test and post-test burnout mean scores (pre-test 44.91 and post-test 37.04). As a result, this study implies the importance of offering stress management within the school/college setting to help the student nurses deal with stressors thereby minimizing burnout and improving the quality of life of the students.

Part IV. Analysis to find the Pearson correlation between the stress and burnout scores of General Nursing and Midwifery students.

Pearson correlation analysis revealed that there is a significant positive correlation between stress and burnout. It shows that the pre-test stress level and pre-test burnout positively correlate (.502) and the post-test stress level and post-test burnout level positively correlate (.648) at 0.01 level of significance Burnout gradually develops as the unintended consequence of prolonged stress levels. The finding of the study reveals that when the stress level is increased in General Nursing and Midwifery students, it also leads to an increase in the level of burnout among them and vice versa. It also implies that dealing with stress in the first academic year of the nursing student can help them cope with daily stressors, thereby trimming down the level of burnout.

Part V: Testing the hypotheses

H_1: The mean post-test stress score of General Nursing and Midwifery students is significantly lower than their mean pre-test stress score.

The hypotheses were tested at a 0.05 level of significance.

The difference between the pre-test and post-test stress scores of the General Nursing and Midwifery students was analyzed using a paired't-*test*. The difference was found to be significant (t = 8.224). A significant decrease was observed in the stress level score of the General Nursing and Midwifery students following the administration of the Intervention Package of Guidance and Counseling. Findings suggest that the Intervention Package of Guidance and Counseling is effective in reducing the stress level of General Nursing and Midwifery students. So the null hypothesis ($H_0$1) is rejected and the research hypothesis (H_1) is accepted.

H_2: The mean post-test burnout score of General Nursing and Midwifery students is significantly lower than their mean pre-test burnout score.

The difference between the pre-test and post-test burnout scores of the General Nursing and Midwifery students was analyzed using a paired't-*test*. The difference was found to be significant (t = 5.707). Findings suggest that the Intervention Package of Guidance and Counseling was effective in reducing the burnout level of the General Nursing and Midwifery students. So, the null hypothesis ($H_0$2) is rejected and the research hypothesis (H_2) is accepted. The findings of the study can help nursing administrators and nursing educators to design programs and strategies to boost student's performance in academic life. Having the stress management program in the first year itself will be an enormous aid to handling stressors in the early period, therefore preventing the negative effects of stress.

Part VI: Association between pre-test stress and burnout level and demographic variables

a. Association between pre-test stress level and demographic variables:

The present study shows there is a significant association between the family income per month of the students and their stress level and between religion and the stress level. The students who belong to the Hindu religion are having more stress compared to

the students who belong to the Christian religion. There is no significant association between other demographic variables and the level of stress which indicates that these variables have no relation to increasing stress among the students.

b. Association between pre-test burnout level and demographic variables:

The present study shows there is a significant association between the family income per month of the students and their burnout level. The low income of the family can lead to a high level of burnout which can be an unintended consequence of prolonged stress levels among the students. There is no significant association between other demographic variables and the level of burnout which implies that these socio-demographic variables have no relation in increasing the burnout level of the students.

IMPLICATION:

Nursing Education

- This study has brought to our attention many of the risk factors that add to the stress levels of nursing students. The findings of this study and the literature support the need for regular guidance and counseling services for nursing students.
- The nursing educators need to recognize the difficulties of nursing students and based on individual differences, assist them individually in order to promote the quality of clinical practice.
- The findings of the study support the need for the faculty of nursing to plan nursing curricula in a way that nursing students are involved actively in their education.

Nursing Practice

- The findings of the study call for the integration of both theory and practice with good clinical supervision which can enable them to feel that they are enough competent to take care of the patients.
- The result of this study would help educators to design strategies for more effective clinical teaching.
- Faculties of nursing need to be concerned about solving student problems in clinical

Nursing Administration

- The nursing administrators ought to be actively involved in the concerns of the nursing students.
- It is vital that the nursing administrator appoint quality teachers who are competent in guiding the students both clinically and academically.

Nursing Research

- This study helps nurse researchers to develop awareness of the development of guidance and counseling protocols for nursing students.
- Research studies on a large scale nationwide can definitely impact the present condition of nursing in our country and throw light to bring valuable changes in the field of the nursing profession in India.

RECOMMENDATIONS:

- A true experimental study can be undertaken with the control group for effective comparison.
- An explorative study can be conducted to find out the need for regular guidance and counseling programs in nursing schools/colleges.

LIMITATIONS OF THE STUDY:

- The study is limited to only three nursing schools in one district of the state of Assam.
- The study used purposive sampling and did not have a control group.
- The sample size of the study was small so unable to generalize the study findings.
- The study was confined to only first-year General Nursing and Midwifery students.

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