Original Research Article

A study to find the effect of stress on gender and their demographic variables among nursing students

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ABSTRACT

Introduction: The study was conducted with the aim to assess the association of stress among nursing students and their demographic variables. Stress arises when there is increasing demand from external factors and is commonly found in nursing students due to number of factors like; academic stress, new environmental stress etc.

Materials and Methods: Quantitative research approach with Quasi Experimental, Non-randomized control group design [Pre-test –Post-test Control group design] was used Total enumerate sampling technique was used to collect data from the 40 subjects who fulfilled the inclusion criteria and were assigned to control group (n=20) and experimental group (n=20).

Results : Findings of the present study revealed that there was statistically significant association of level of stress score in the control and the experimental group with the age, total monthly income of the family, and residence of the study subjects with (p=0.008),(p=0.027), and (p=0.000) respectively, while as no association was found between pre-interventional level of stress scores in the control and the experimental group with other demographic variables like gender (p=0.113), and type of family (p=0.429) at 0.05 level of significance.

Conclusion : The results revealed that there was significant association between the age, total monthly income of family and residence of study subjects with pre-interventional level of stress scores of control and experimental group. Whereas no significant association was found between demographic variables i.e. gender and type of family with pre-interventional level of stress scores of control and experimental group.

1. Introduction

Nursing students are exposed to different stressors and are vulnerable to stressful situations from the student life. Nursing as a caring profession has been known to be a stressful profession.[1,2] Nursing students during their clinical posting exposed to clinical duties in different settings experience wide range stressors same as professional nurses. In addition, nursing students also have stress related to their education and personal or social experience.[3] Stress can be deleterious and can lead to physical and psychological distress to students. This psychological distress may hamper students' academic performance and hence impede their pursuit of the nursing career temporarily or permanently. Physical and psychological distress have negative effects on the workforce of nursing students.[4] There is various existing

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evidence that indicate nursing students have higher levels of stress than students in other disciplines but stress varies at different educational levels of nursing students and at different nursing programs.[5] Common sources of stress to nursing students basically include

1. Stress related to academic areas such as assignment workload, lack of knowledge regarding nursing, examination, teaching style.
2. Stress experienced during clinical practice, for example, lack of competency, assessment, supervision, shift changes, care of death and dying.[6]
3. Stress related to establishing relationships with others (clients, peers, teachers or other health professionals)
4. Stress due to personal factors such as gender, age, new surroundings away from home, family structure, financial burdens and job role.[7]

2. Materials and Methods

2.1. Research approach

In view of the nature of the problem under study and to accomplish the objectives of the study, quantitative research approach was found to be appropriate to assess the stress among 1st year B.Sc. Nursing students. This type of approach is based on the measurement of quantity. In this type of research, data is collected in numerical form and analyzed by using descriptive or inferential statistics.

2.2. Review literature

1. Kalavathi MB, Shabana S, Rajeswari H, Indira (2015) (n=60) to assess level of stress among the 1st year B.Sc. Nursing students at Narayana College of Nursing, Nellore, which showed significant relation of level of stress with demographic variables (mother's education, father's education, family income per month, type of family and awareness about nursing profession).
2. Lydia C, Anchala M, Hemamalini (2016)[(n=80) to assess the level of academic stress among nursing students at SRM college of nursing, Kattankulathur, which showed that there was a significant relationship of level of stress with demographic variables (age, type of family, participation in recreational activities).[1]
3. Mahfouz R, Alsahli H in (2016) (n=51) on perceived stress and coping strategies among newly nurse students in clinical practice in different hospitals, at the Nursing College, Princess Nourah University, which showed that there was significant relationship of level of perceived stress with demographic variables (age, type of family, education of mother, occupation of father, occupation of mother, distance, type of residence).[2]

2.3. Analysis

Distribution of study subjects according to the demographic variables:

This section deals with the distribution of study subjects according to their socio-demographic variables. The data obtained are described in terms of Age, Gender, Total monthly income of the family, Residence and Type of family.
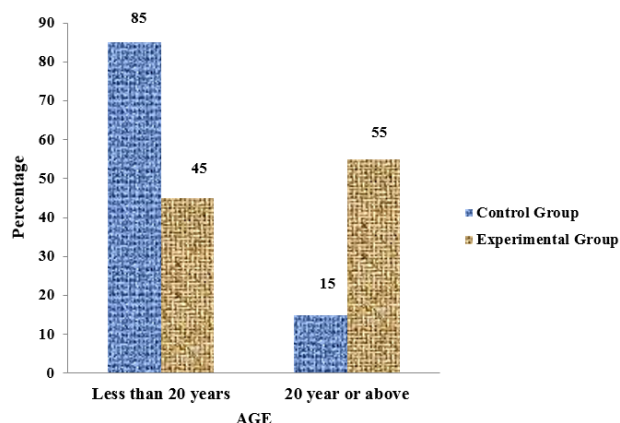
Fig. 1: Percentage distribution of the study subjects according to age

The data in the table (8) and figure (4) shows 17(85%) study subjects in the control group and 9(45%) study subjects in the experimental group were less than 20 years and 3(15%) study subjects in the control group and 11(55%) study subjects in the experimental group were 20 year and above.Table 2
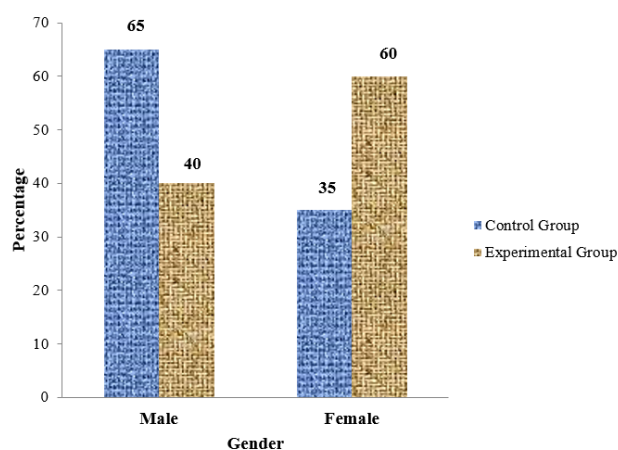
Fig. 2: Percentage distribution of the study subjects according to gender

The data presented in table and figure shows that 13 (65%) study subjects in the control group and 8 (40%) study subjects in the experimental group were Males and 7 (35%)

Table 1:

| Demographic Variables		Control (n₁ =20)	Control f (%)	Experimental (n₂ =20)	Experimental f (%)
Age	Less than 20 years	17	85	9	45
	20 year or above	3	15	11	55
Gender	Male	13	65	8	40
	Female	7	35	12	60
Total Monthly Income of the Family	Below Rs.10,000	11	55	6	30
	Rs.10,000-20,000	8	40	6	30
	Above Rs. 20000	1	5	8	40
Residence	Hostlers	3	15	14	70
	Day Scholar	17	85	6	30
Type of Family	Nuclear Family	15	75	17	85
	Joint Family	5	25	3	15

Table 2: Distribution of the study subjects as per their Age N=40

| Age	Control (n₁ =20)	Control f (%)	Experimental (n₂ =20)	Experimental f (%)
Less than 20 years	17	85	9	45
20 year or above	3	15	11	55

Table 3: Distribution of the study subjects according to Gender N=40

Gender	Control (n₁ =20)	Control f (%)	Experimental (n₂ =20)	Experimental f (%)
Male	13	65	8	40
Female	7	35	12	60

study subjects in the control group and 12(60%) study subjects in the experimental group were Females.Table 3
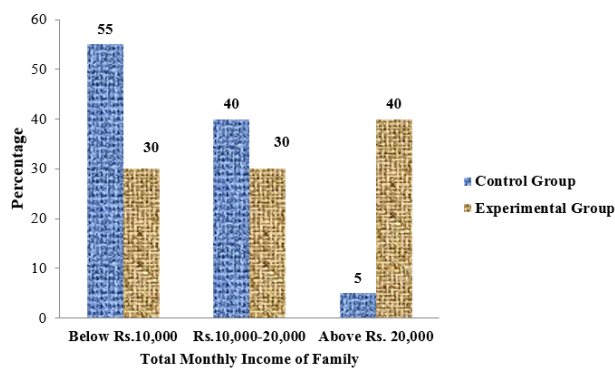
Fig. 3: Percentage distribution of the study subjects according to total monthly income of the family.

The data presented in table and figure shows that out of 40 study subjects 11(55%) in the control group and 6(30%) study subjects in the experimental group belonged to the group with total monthly income below Rs.10,000, Whereas 8 (40%) study subjects in the control group and 6(30%) study subjects in the experimental group belonged to group of Rs.10,000-20,000 of monthly income, 1(5%) study subjects in the control group and 8(40%) study subjects in the experimental group belonged to group of above Rs. 20,000 of monthly income.Table 4
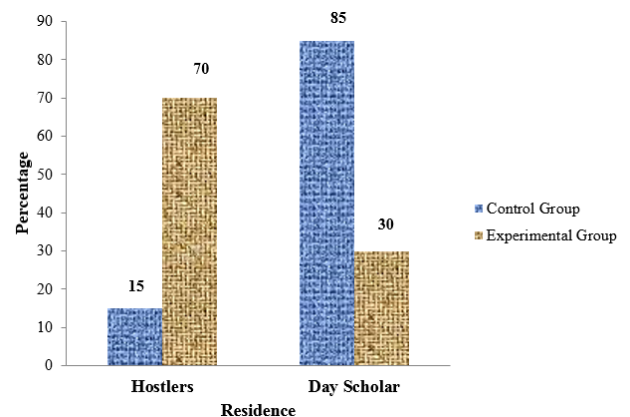
Fig. 4: Percentage distribution of the study subjects according to residence

The data presented in table and figure shows that 3 (15%) study subjects in the control group and 14(70%) study subjects in the experimental group were hostlers, 17 (85%) study subjects in the control group and 6(30%) study subjects in the experimental group were day scholars.Table 5

The data presented in table 6 and figure 5 shows that 15(75%) study subjects in the control group and 17(85%) study subjects in the experimental group belonged to the nuclear family whereas 5(25%) study subjects in the control group and 3(15%) study subjects in the experimental group

Table 4: Distribution of the study subjects according to total monthly income of the family. N=40

Total Monthly Income of Family	Control (n_1 =20)	Control f (%)	Experimental (n_2 =20)	Experimental f (%)
Below Rs.10,000	11	55	6	30
Rs.10,000-20,000	8	40	6	30
Above Rs. 20,000	1	5	8	40

Table 5: Distribution of the study subjects according to Residence. N=40

| Residence	Control (n_1 =20)	Control f (%)	Experimental (n_2 =20)	Experimental f (%)
Hostlers	3	15	14	70
Day Scholar	17	85	6	30

Table 6: Distribution of the study subjects according to Type of family. N=40

Type of Family	Control (n_1 =20)	Control f (%)	Experimental (n_2 =20)	Experimental f (%)
Nuclear Family	15	75	17	85
Joint Family	5	25	3	15

Table 7: Association of stress with demographic variables among nursing students **N=40**

Variables	Category	Number Study subject	Chi Test	P Value	df	Table Value	Result
Age	**Less than 20 years**	**26**	**7.033**	**0.008**	**1**	**3.841**	**S**
	20 year or above	**14**					
Gender	Male	21	2.506	0.113	1	3.841	NS
	Female	19					
Total Monthly Income of the Family	**Below Rs.10,000**	**17**	**7.201**	**0.027**	**2**	**5.991**	**S**
	Rs.10,000-20,000	**14**					
	Above Rs. 20,000	**9**					
Residence	**Hostlers**	**17**	**12.379**	**0.000**	**1**	**3.841**	**S**
	Day Scholar	**23**					
Type of Family	Nuclear Family	32	0.625	0.429	1	3.841	NS
	Joint Family	9					

S=Significant, NS=Non-Significant
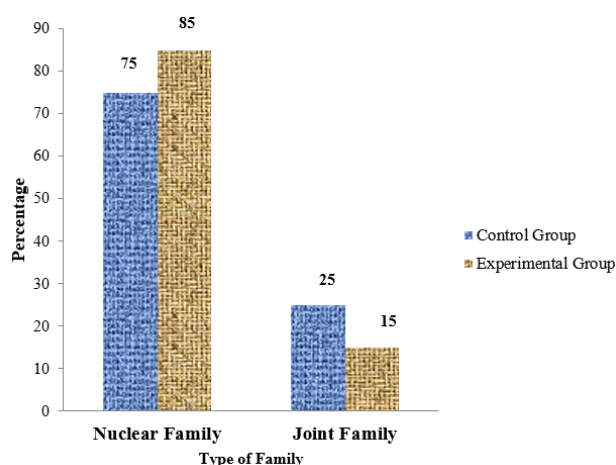
Fig. 5: Percentage distribution of the study subjects according to type of family.

belonged to the joint family.

The data in Table 1 presented in the table indicates that there was statistically significant association between stress level scores of subjects with their Age (p=0.008), Total monthly income of family (p=0.027) and Residence (p=0.000) while as no association was found with other demographic variables such as gender , and type of family of study subjects. Hence, the researcher rejected the null hypothesis (H0$_2$) which states that there is no significant association of level of stress scores in the control and the experimental group of Nursing students with demographic variables (age, total monthly income of the family and residence) and accepted the research hypothesis (H$_2$) which states that there is significant association of pre-interventional level of stress scores in the control and the experimental group of Nursing students with demographic variables (age, total monthly income of the family and residence). Also the researcher accepted the null hypothesis (H0$_2$) which states that there is no significant association of pre-interventional level of stress scores among Nursing students with demographic variables (gender and type of

family).

3. Results

The distribution according to age: 9(45%) study subjects in the experimental group and 17(85%) study subjects in the control group were less than 20 years and 11(55%) study subjects in the experimental group and 3(15%) study subjects in the control group were 20 year and above.

The distribution of study subjects according to gender: 8 (40%) study subjects in the experimental group and 13 (65%) study subjects in the control group were Males and 12(60%) study subjects in the experimental group and 7 (35%) study subjects in the control group were Females.

The distribution according to total monthly income of the family: 6(30%) study subjects in the experimental group and 11(55%) study subjects in the control group belonged to the group with monthly income below Rs.10,000, Whereas 6(30%) study subjects in the experimental group and 8 (40%) study subjects in the control group belonged to group of Rs.10,000-20,000 of monthly income, whereas 8(40%) study subjects in the experimental group and 1(5%) study subjects in the control group belonged to group of above Rs.20,000 of monthly income.

The distribution according to residence: 14(70%) study subjects in the experimental group and 3 (15%) study subjects in the control group were hostellers and 6(30%) study subjects in the experimental group and 17 (85 %) study subjects in the control group were day scholars.

The distribution of study subjects according to type of family: 17(85%) study subjects in the experimental group and 15(75%) study subjects in the control group belong to the nuclear family whereas 3(15%) study subjects in the experimental group and 5 (25%) study subjects in the control group belong to the joint family.

4. Conclusion/ Discussion

Findings of the present study revealed that there was statistically significant association of level of stress score in the control and the experimental group with the age, total monthly income of the family, and residence of the study subjects with (p=0.008),(p=0.027), and (p=0.000) respectively, while as no association was found between pre-interventional level of stress scores in the control and the experimental group with other demographic variables like

gender (p=0.113), and type of family (p=0.429) at 0.05 level of significance.

5. Conflict of Interest

The authors declare that there are no conflicts of interest in this paper.

6. Source of Funding

None.

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