

# Effectiveness of Selected Interventions on Stress Level among Nursing Students

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**Abstract:** Nursing students are a group particularly prone to stress due to transitional nature of college life. **Purpose:** To assess effectiveness of selected interventions on stress level among nursing students of Bharati Vidyapeeth college of Nursing Pune, India. **Objectives:** - To assess the stress level of Nursing students before and after the selected interventions. To compare the stress level of nursing students before and after implementation of selected interventions. To associate the findings with selected demographic variables. **Methods:** This was a pre-experimental study of 40 Nursing students studying in Bharati Vidyapeeth College of Nursing Pune during the academic year of 2013-14. The assessment of symptoms and perceived stress were obtained from the students. A selected intervention includes Pranayama, Relaxation therapy, and music therapy was given to the students daily for one month. Post test taken after one month. **Results:** The result of the study showed that, majority of 65% of the nursing students had mild stress (Score 0-24) before selected interventions, 32.5% of them had moderate stress (score 25-48) and 2.5% of them had severe stress (score 49-72). In posttest, majority of 92.5% of them had mild stress (Score 0-24) and 7.5% of them had moderate stress (Score 25-48). This shows that there is remarkable decrease in the symptoms of stress level of the nursing students. Regarding the perception of stress, majority of 85% of the nursing students had moderate perceived stress (Score 14-26), 10% of them had severe perceived stress (score 27-40) and 5% of them had mild perceived stress (Score 0-13) before selected interventions. In posttest, majority of 75% of them had mild perceived stress (Score 0-13) and 25% of them had moderate perceived stress (Score 14-26). **Conclusion:** The current interventions (pranayama, relaxation therapy and music therapy) will assist in decreasing the stress among the nursing students.

**Keywords:** Effectiveness, Interventions, Stress Level, Nursing Students.

## 1. Introduction

The dynamic relationship between the person and environment in stress perception and reaction is especially magnified in college students. The problems and situations encountered by nursing students may differ from those faced by their non-nursing student's peers. The environment in which college students live is quite different. The literature shows that Nursing students are having stressed towards continue evaluation, clinical posting, and the pressure to earn good grades. Other potential source includes excessive assignments, relation with faculty members and time pressure. The amount of stress experienced may be influenced by the individual's ability to effectively cope with stressful events and situations.

## 2. Review of Literature

Health is a state of complete physical mental and social well being and not merely the absence of disease or infirmity. Psychological health can be broadly referred to as a state of absence of stress, anxiety depression etc. From that notion mental health is becoming more apparent where it determinates the overall well being of societies and country. Therefore for all individuals mental health is vital and crucial to their overall well being.

There are many purposes for reviewing the literature before conducting a research study: [8]

Stress has been identified as a 20<sup>th</sup> century disorder and has been viewed as a dynamic transaction between individuals and their environment. Stress can be regarded as a psychological threat, in which the individual perceives situation as a potential threat [1].

Moderate amounts of stress help to motivate students and, at times, increase their performance, while too high levels of stress interferes with academic performance. Thus an important factor to be considered when studying stress is to explore which sources of stress are motivating and beneficial, and which sources of stress are detrimental. The outcome of stress may be dependent up on its source and its severity [2].

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 [3]. This depression can lead to mental health problems, such as excessive corrupted interpersonal relationships [4].

Academic stress among college students has been a topic of interest for many years. College students, are prone to stress due to the transitional nature of college life For example, many college students move away from home for the first time, which can necessitate leaving all previously learned support systems such as parents, siblings and high school friends [5]. Stress among nursing students has been well documented; a study [6] found that nursing students suffer from long hours of study, multiple assignments, lack of free time, lack of timely feedback and lack of faculty response to

student needs [7]. Research studies on stress in nursing have identified a variety of stressors include poor working relationships between nurses and doctors and other health care professionals, demanding communication and relationships with patients and relatives, emergency cases, high workload, understaffing and lack of support or positive feedback from senior nursing staff, role conflict, home-work imbalance Stress has a cost for individuals in terms of health, wellbeing and job dissatisfaction, as well as for organizations in terms of absenteeism and turnover, which in turn may impact upon the quality of patient care [10], [11], [12], [13].

### 3. Materials and Methods

From August 2014 to January 2014, 40 Nursing students studying in Bharati Vidyapeeth College of Nursing Pune, participated in present study. The study population was determined by based on inclusion criteria. The inclusion criteria were Nursing students with poor performance, absenteeism, and health problems. Data were recorded in a questionnaire divided in to three parts. The first part covered with demographic information including age, gender, class, place of residence, grade of mark, health, reason for absenteeism. The second part consisted of assessment of symptoms of stress to assess the stress of students. A score of 0-24 indicates Mild stress, 25-48 moderately stressed and the 49-72 Severely stressed. The third part consisted of assessment of perceived stress. A score of 0-13 indicates Low stress, 14-26 indicates Moderate stress and 27-40 indicates High perceived stress. Data were statistically analyzed using t test and Fishers Exact statistical tests to evaluate the stress in relation to demographic information. A P value of less than 0.05 was considered significant

### 4. Result

The demographic information of students show that Majority of 80% of the nursing students were from age group 18-20 years, 80% of them were females and 20% of them were males, 80% of them had rented flat, 10% of them were staying in hostel, 5% of them were staying as paying guest and remaining 5% of them were Day scholar, 80% of them had average opinion about grade, 55% of them had average health, 40% of them were absent for 1-5 days in last term.

Shinde M in his study found that the way students cope with stress were by different methods like 50% students had positive thinking, 37% were from emotional support, 65% are having social support, 25% uses spiritual support, 30% students were reducing their stress by divertional activity. Only 13.6% had good coping ability & 70.9% students had moderate 15.5% are having poor coping [9].

**Table 1:** The stress level of nursing students before and after implementation of selected interventions, N=40

Stress	Pretest		Posttest	
	Freq	%	Freq	%
Mild (Score 0-13)	26	65.0%	37	92.5%
Moderate (Score 14-26)	13	32.5%	3	7.5%
Severe (Score 27-40)	1	2.5%	0	0.0%

In pretest, majority of 65% of the nursing students had mild stress (Score 0-24) before selected interventions, 32.5% of them had moderate stress (score 25-48) and 2.5% of them had severe stress (score 49-72). In posttest, majority of 92.5% of them had mild stress (Score 0-24) and 7.5% of them had moderate stress (Score 25-48). This shows that there is remarkable decrease in the stress of the nursing students.

**Table 2:** The Perceived stress level of nursing students before and after implementation of selected interventions, N=40

Stress	Pretest		Posttest	
	Freq	%	Freq	%
Mild (Score 0-13)	2	5.00%	30	75.00%
Moderate (Score 14-26)	34	85.00%	10	25.00%
Severe (Score 27-40)	4	10.00%	0	0.00%

In pretest, majority of 85% of the nursing students had moderate perceived stress (Score 14-26), 10% of them had severe perceived stress (score 27-40) and 5% of them had mild perceived stress (Score 0-13) before selected interventions. In posttest, majority of 75% of them had mild perceived stress (Score 0-13) and 25% of them had moderate perceived stress (Score 14-26). This shows that there is remarkable improvement in the perceived stress of the nursing students.

**Table 3:** Paired t-test for comparison of pretest and posttest stress scores of nursing students.

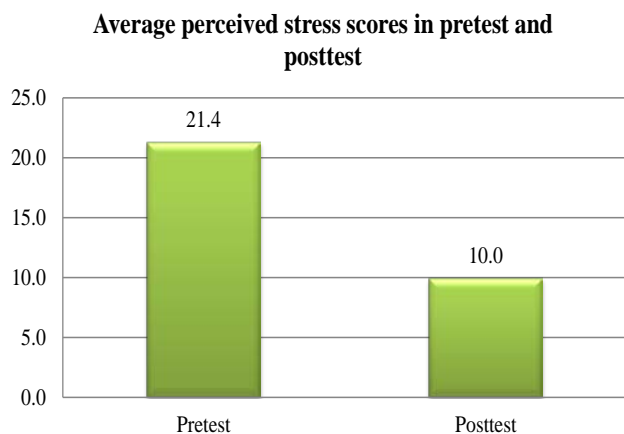
	Mean	SD	t	df	p-value
Pretest	23.1	11.6	9.5	39	0.000
Posttest	9.8	8.7			

Researcher applied paired t-test for comparison of stress scores of the nursing students in pretest and posttest. Average stress scores in pretest were 23.1 which were 9.8 in posttest. T-value for this comparison was 9.5 at 39 degrees of freedom. Corresponding p-value was 0.000, very small (less than 0.05). The null hypothesis was rejected. The selected interventions were significantly effective in decreasing the stress of the nursing students.

**Table 4:** Paired t-test for comparison of pretest and posttest perceived stress scores of nursing students.

	Mean	SD	t	df	p-value
Pretest	21.4	4.8	11.9	39	0.000
Posttest	10.0	5.8			

Researcher applied paired t-test for comparison of perceived stress scores of the nursing students in pretest and posttest. Average perceived stress scores in pretest was 21.4 which was 10 in posttest. T-value for this comparison was 11.9 at 39 degrees of freedom. Corresponding p-value was 0.000, very small (less than 0.05). The null hypothesis was rejected. The selected interventions were significantly effective in decreasing the perceived stress of the nursing students.



**Figure 1:** Bar diagram showing the average perceived stress scores in pretest and post test.

Since p-value corresponding to Absenteeism is small (less than 0.05), the null hypothesis is rejected. Absenteeism is the only demographic variable which was found to have significant association with stress of the nursing students

### Discussion

The result of the study showed that, majority of 65% of the nursing students had mild stress (Score 0-24) before selected interventions, 32.5% of them had moderate stress (score 25-48) and 2.5% of them had severe stress (score 49-72). In posttest, majority of 92.5% of them had mild stress (Score 0-24) and 7.5% of them had moderate stress (Score 25-48). This shows that there is remarkable decrease in the symptoms of stress level of the nursing students. Regarding the perception of stress,, majority of 85% of the nursing students had moderate perceived stress (Score 14-26), 10% of them had severe perceived stress (score 27-40) and 5% of them had mild perceived stress (Score 0-13) before selected interventions. In posttest, majority of 75% of them had mild perceived stress (Score 0-13) and 25% of them had moderate perceived stress (Score 14-26). This shows that there is remarkable decrease in the perceived stress of the nursing students after the interventions.

Mostafa et al conducted a study to assess the effect of biobehavioural interventions to reduce the anxiety level of Nursing students in Iran. The study showed that the student nurses were exposed to variety of academic, personal and environmental stressors. Biobehavioural interventions helped to decrease the anxiety level of students. Level of stress and effectiveness of interventions have been reported in the studies of Nursing students in western population.

The above findings support the findings of the present study, which indicates that pranayama, relaxation therapy and music therapy can help to reduce the stress among Nursing students.

### 5. Conclusion

The result of this study confirmed the presence of stress among Nursing students. In conclusion it is thought that the current interventions (pranayama, relaxation therapy and music therapy) will assist in decreasing the stress among the

nursing students. Furthermore, it is also thought that it can add to the literature and increase understanding of individual's reaction to stress.

### 6.Scope of the Study

So finding suggests that, this type of programme will helpful not only for the nursing student but we can plan for other professional students, nursing staff in clinical area, nursing professionals and will helpful for any individual who feels somewhere deviation of normal psychology. As we know Prevalence of chronic diseases due different type of stress is 88.37% in present scenario worldwide. If we decrease the stress level with Pranayama, relaxation therapy and music therapy ultimately stress will reduced, physical mental health will improved and percentage of chronic diseases will be deceased.

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