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Research article

A study to assess the effectiveness of yoga therapy on stress reduction among GNM students studying at national institute of nursing, Sangrur

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Abstract

Background: Stress is a very common process and it affects each human being in the world. The physical, educational, economic, technological and social factors play a major role to develop stress among GNM students. **Aim:** The aim of this study was to find out the effectiveness of yoga therapy on stress reduction among GNM students studying at National Institute of Nursing, Sangrur, Punjab. **Materials and Methods:** A quantitative approach and one group pretest-posttest design were used in this study. Total 40 G.N.M students were selected by purposive sampling. The tool used was itemized rating scale. The results were described by using descriptive and inferential statistics. **Result:** Results showed that 38 (95%) students belonged to 17-21 years of age, 33 (82.5%) were Sikh, 17 (42.5%) of them had monthly family income between Rs. 5000- 10000, 39 (97.5%) were unmarried and 1 (2.5%) were married, 23 (57.5%) had listened to music and 4 (10%) had chatting as their leisure activity. 38 (95%) of students had moderate stress and 2 (5%) had severe stress in pre-test, after yoga therapy posttest reveals that 33 (82.5%) of them had mild stress, 7 (17.5%) of them had no stress. There was no association found between stress and socio-demographic variables such as age, religion, monthly family income, marital status and leisure activity. **Conclusion:** The study concluded that majority 38 (95%) of them had moderate stress in pre-test, where as in post-test majority 33 (82.5%) of them had mild stress. Hence yoga therapy was effective to reduce stress among students.

Key words: Effectiveness, Yoga Therapy, and Stress.

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1. Introduction

Stress in the twenty-first millennium is not something new, not anything unknown. Stress has been experienced since time is immemorial. The stress can be due to the inadequate home environment, disturbed interpersonal relationships, lack of social support, lack of economic resources etc. An annual survey of integrated disability management programs found that incidence of disability

is increasingly related to slowly developing work-induced stress.

Recent studies have reported that stress disorders are common in the nursing students. According to a national study, lifetime prevalence for the development of a stress disorder is 28.8% in nursing students [1].

Stress has a detrimental effect not only on the physio-psycho-social health of an individual but as well-being as a whole. Researchers have shown that excessive stress can be harmful to a student's academic performance [2, 3] welfare, and could interfere with learning a complex, psychomotor skill [4]. Furthermore, stress could result in deleterious symptoms such as alcoholism and drug dependence, eating disorder, indiscriminate use of illegal

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substances sleep disorder, suicide, absenteeism [5] mental health disorders [6] and even psychological symptoms [7, 8].

Thus, the undergraduate years for student nurses is considered as one of the most sensitive periods in their lifespan since learning during these years may be compromised due to stress reactions produced.

The state of the mind and that of the body are intimately related. If the mind is relaxed, the muscles in the body will also be relaxed. Stress produces a state of physical and mental tension [9]. Every year, student's worldwide feel burdened by stress. Stress is a part of everyday life in general [10]. Studies showed that the practicum portion of nursing education was identified by nursing students as more stressful than didactic courses. For nursing students, these *real-life* situations are stressful due to the fact that patients can be affected negatively or positively [11], fear of the unknown [12] a new clinical environment [13, 14] conflict between the ideal and real clinical practice [6, 15] unfamiliarity with medical history [16] lack of professional nursing skills, unfamiliar patients' diagnoses and treatments providing physical, psychological and social care to patients fear of making mistakes, giving medication to children and the death of a patient. Oermann [17] found that stress experienced by nursing students in clinical practice increased as they progressed through the program.

Empirical and anecdotal reports suggest that 80.6% student nurses having stress in the middle categories. There are many pieces of evidence that the students studying in private nursing colleges, the chances of occurrences of stress is more due to various factors such as excessive study load, clinical criteria submission, and extra study hours [18].

Yoga plays a vital role in combating the modern means of stress; it is cost-effective and is easy to implement [19]. According to yoga, stress is an imbalance between the mental and physical level. When stress and pain are relieved productivity and creativity are gained. This is the logic for bringing yoga into the study place [20]. Yoga has many emotional, psychological and biological effects. [21].

By reducing perceived stress and anxiety, yoga appears to modulate stress response systems. This, in turn, decreases physiological arousal; for example, reducing the heart rate, lowering blood pressure, and easing respiration. There is also evidence that yoga practices help increase heart rate variability, an indicator of the body's ability to respond to stress more flexible [22].

Despite the growing literature on stress among student nurses internationally, apparently little can be found in the literature highlighting experiences of Indian student nurses. Therefore this study was conducted to appraise the level of stress among enrolled student nurses in a private nursing school and to implement yoga therapy to find its effectiveness. The results that could be gained from this study would provide essential and useful information for nurse educators in identifying students'

needs, facilitating their learning both in the academic and clinical setting, and planning effective interventions and strategies to reduce stress in clinical education.

Statement of the problem

A study to assess the effectiveness of yoga therapy on stress reduction among GNM students studying at National Institute of Nursing, Sangrur

Objectives

The objectives of the study are:-

- To assess the level of stress among GNM students before yoga therapy.
- To implement yoga therapy among GNM students who were under stress.
- To assess the level of stress among GNM students after yoga therapy.
- To evaluate the effectiveness of yoga therapy on stress reduction among GNM students.
- To find out the association between stress and selected demographic variables.

Hypothesis

H₁: There will be a significant difference between stress score before and after yoga therapy.

H₂: There will be a significant association between stress and selected demographic variables.

Delimitation

The study will be delimited to:

- GNM students between the age group 17-36 years.
- GNM students who are having stress.

2. Methods and materials

The research design used in this study was one group pretest-posttest design. Total 40 G.N.M students were selected by purposive sampling. The tool used for the study was demographic variable and itemized rating scale. Part A consist 5 questions related to socio-demographic variables such as Age, Religion, monthly family income, marital status and leisure activity. Part B consists of an itemized rating scale of 20 questions related to stress. Ratings were based on self-report. Content validity was done by six experts which include experts in the field of community health nursing, child health nursing, psychiatric nursing, and Medical-surgical Nursing and obstetric and gynecological nursing. The reliability coefficient of the scale was found to be 0.978; hence, the tool was highly reliable.

3. Result and findings

Findings related to demographic variables

It was found that majority 38 (95%) of them belonged to age group of 17-21 years, 2 (5%) of them belonged to age group of 22-26 years and none of them belonged to age group of 27-31 and 32-36 years. Majority 33 (82.5%) of them were Sikh, 7 (17.5%) of them were Hindu and none of them were Muslim and Christian. A maximum number of students 39 (97.5%) were unmarried and only 1 (2.5%) were married one of them were separated, divorcee or widow. Majority 17 (42.5%) of them had monthly family income between Rs. 5000-10000, 15 (37.5%) had monthly family income between Rs.10001- 15000, 8 (20%) had monthly family income below Rs. 5000 and none of them had income above Rs.15001. Majority 23 (57.5%) of them had to listen to music as their leisure activity, 8 (20%) of them had to watch T.V as their leisure activity, 5 (12.5%) of them had read as their leisure activity, 4 (10%) of them had chatting as their leisure activity, none of them had any other leisure activity.

Table no 1: Findings related to frequency and percentage distribution of stress level among GNM students before and after yoga therapy

(N=40)

Pre-test			Post-test	
	Frequency	%	Frequency	%
No stress	0	0	7	17.5
Mild stress	0	0	33	82.5
Moderate stress	38	95	0	0
Severe stress	2	5	0	0

The table 1 reveals that In Pre-test, majority 38 (95%) of them had moderate stress, 2 (5%) had severe stress and none of them had mild stress. Whereas in post-test majority 33 (82.5%) of them had mild stress, 7 (17.5%) of them had no stress and none of them had moderate or severe stress. So there was significant difference found between stress score before and after yoga therapy hence, research hypothesis (H_1) was accepted.

Table no 2: Findings related to the association between pre-test stress level and selected demographic variables.

S.N	Variables	Category	Level of stress			Chi-square value
			Mild	Moderate	Severe	
1.	Age in years	17-21	0	36	2	P-12.592 df-6 0.11 NS
		22-26	0	2	0	
		27-31	0	0	0	
		32-36	0	0	0	
2.	Religion	Hindu	0	6	1	P-12.592 df-6 1.54 NS
		Sikh	0	32	1	
		Muslim	0	0	0	
		Christian	0	0	0	
3.	Monthly Family Income	below. 5000	0	8	0	P-12.592 df-6 0.53 NS
		Rs.5001-10000	0	16	1	
		Rs.10001-15000	0	14	1	
		Above Rs.15001	0	0	0	
4.	Marital status	Married	0	1	0	P-15.507 df-8 0.052 NS
		Unmarried	0	37	2	
		Married but separated	0	0	0	
		Divorcee	0	0	0	
		Widow.	0	0	0	
5.	leisure activity	Reading	0	5	0	P-15.507 df-8 5.38 NS
		Watching T.V	0	7	1	
		chatting	0	3	1	
		Listening to music	0	23	0	
		Others(specify)	0	0	0	

Table 2 reveals that there was no association found between stress and socio-demographic variables such as age, religion, monthly family income, marital status and leisure activity. Hence H_2 stating "There will be a significant association between stress and selected demographic variables" was rejected.

4. Discussion

Objectives:-

- To assess the level of stress among GNM students before yoga therapy.

- To assess the level of stress among GNM students after yoga therapy.
- To find out the association between stress and selected demographic variables.

Findings of the study shown in Pre-test, majority 38 (95%) of them had moderate stress, 2 (5%) had severe stress and none of them had mild stress. Whereas in post-test majority 33 (82.5%) of them had mild stress, 7 (17.5%) of them had no stress and none of them had moderate or severe stress. which is supported by a study conducted at Punjab to find out the effectiveness of yoga therapy on stress reduction among nursing students and result revealed that before starting therapy the level of stress was 60% and after therapy stress level was 20%. In a study by Mahajan (2010) to investigate the effect of Yoga exercises on nursing students, it was revealed that these exercises could significantly increase problem focus strategies [23]. Labrague [24] also found that student nurses experienced a moderate level of stress. A similar study done by Michael C [25] revealed that there was a significant difference in the pretest and posttest stress among nursing students in the experimental group and control group. There was no significant association found between demographic variables and stress. Many studies have reported that yoga is effective in the management of stress [26, 27, 28].

Another study was conducted in the department of psychology, Boston University, at the USA on the effectiveness of Yoga and meditation as an intervention for anxiety and mood symptoms in clinical samples. Meta-analysis was based on 39 studies totaling 1,140 participants receiving yoga and meditation for a range of conditions. The results suggest that yoga is a promising intervention for treating anxiety and mood problems [29].

A similar study was conducted at College of Education, Jalandhar to assess the effect of yoga on academic performance related to stress among 159 high-stress students. The results showed that the students, who practiced yoga performed better in academics [30].

A randomized comparative study of yoga and relaxation to reduce stress and anxiety was conducted by Smith [31]. The result of study shown that yoga appears to provide a comparable improvement in stress, anxiety and health status compared to relaxation.

A study about the effects of yoga on mood was examined in 13 psychiatric inpatients of New Hampshire hospital the USA, participants completed the profile of mood states (POMS) prior to and following participation in a yoga class. The results suggest that yoga was associated with improved mood and useful way of reducing stress during inpatient psychiatric treatment [32].

Yoga classes have positive psychological effects for high-school students, according to a pilot study by Jessica Noggle; Teens taking yoga classes had better scores on several of the psychological tests [33].

A study investigated the efficacy of two brief intervention programs-biofeedback and mindfulness meditation-on levels of state anxiety and perceived stress in second-year Thai nursing students as they began clinical training. Findings indicated that biofeedback and

Mindfulness meditation significantly reduced anxiety and lowered stress levels in nursing students [34].

Conclusion

The overall findings of the study clearly showed that stress was decreased in the group after yoga therapy. Hence there is a need for conducting interventions such as yoga therapy among nursing students so that their stress can be reduced; this was proved through this study. As the factors associated with stress are preventable through yoga which helps the students to reduce their stress level and prevent the occurrence of further complications.

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