

# Impact of Yoga Therapy on Stress Level among Nursing Students

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## ABSTRACT

Nursing students experience a high level of stress and anxiety throughout their education. In fact, nursing students experience more anxiety, especially test anxiety, than students from any of the healthcare discipline. Yoga is more than just exercise. Its benefits can be realized from within the body and from without the body. A consistent yoga practice can have a positive impact on body chemistry, disease prevention, symptom reduction or alleviation, and emotional health. Yoga promotes a strong mind-body connection, which improves overall mood and well-being. A quasi experimental study was to assess the impact of yoga therapy on level of stress among nursing students. 60 students was selected using simple random sampling technique. The demographic characteristics and perceived stress scale was used to collect the data. The data was collected and analyzed using descriptive and inferential statistics. Pre-test level of stress among nursing students reveals that 3(5%) had mild stress, 51(85%) had moderate stress and 6(10%) had severe stress with an average mean of  $39.02 \pm 3.77$ . Post-test level of stress among nursing students reveals that 3(5%) had minimum stress, 56(93.3) had mild stress and 1(1.7%) had moderate stress with and average mean of  $19.88 \pm 2.98$ . Pre-test and post-test mean was statistically tested by using paired t-test, result reveals that t value ( $t=34.79$ ) and p value ( $p=0.000$ ) which was highly significant at 0.01 level of significance. The study concludes that yoga therapy was effective in reducing the stress level among nursing students. It is important to emphasize on coping to manage the stress among nursing students contributing to prevention and health promotion in improving the quality of life of students.

**Key Words:** Yoga therapy, Stress, Nursing students

## INTRODUCTION

Nursing is a profession which came into existence during the Crimean war and is continuing till date. Nursing students constitute the backbone of the nursing profession. Entering the world of nursing presents the new students with a formidable array of changes. Often still in their teens they are often asked to transform from adolescent to adult and from lay person to professional. <sup>[1]</sup>

Nursing is a profession within the health care sector focused on the care of individuals, families, and communities so they may attain, maintain, or recover optimal health and quality of life. Nurses may be differentiated from other health care

providers by their approach to patient care, training, and scope of practice. <sup>[2]</sup>

Nursing is the protection, promotion, and optimization of health and abilities; prevention of illness and injury; alleviation of suffering through the diagnosis and treatment of human responses; and advocacy in health care for individuals, families, communities, and populations. <sup>[3]</sup>

Nursing students experience a high level of stress and anxiety throughout their education. In fact, nursing students experience more anxiety, especially test anxiety, than students from any of the healthcare discipline. Students in nursing programs often have other competing priorities, which can lead to higher stress

levels. Because of decreased financial aid, many students struggle to pay for classes; therefore, they have to work while attending nursing school to make ends meet. Having to balance didactic and clinical courses while simultaneously balancing financial, family, and other life issues has the potential to exacerbate any stress or anxiety caused by the nursing program alone. The high rigor of nursing curricula also leads to stress and anxiety, because failure in either a course or a program results in lost time and investment in the student's education, which in turn causes a delay in future earning potential. [4]

Studies comprising medical students have shown that mental and physical exercises, including yoga, lessen mental distress and improve student well-being. [5]

Malathi and Damodaran have reported that there is a significant reduction in examination stress with better academic performance and sense of well-being in students practicing yoga. Studies comparing effects of yoga and exercise indicate that in both healthy and diseased populations, yoga may be as effective or better than exercise at improving a variety of health-related outcome measures. [6]

The undergraduate years for student nurses is a very vulnerable period wherein stress, depression, and anxiety can interfere with learning, affect academic performance, and degrade clinical practice performance. This could result in a temporary or permanent impediment to their pursuit of a nursing career. Continued stress causes mental disorders, substance abuse, eating disorder, sleep disorder, and drive the student to suicide. [7]

Yoga is more than just exercise. Its benefits can be realized from within the body and from without the body. A consistent yoga practice can have a positive impact on body chemistry, disease prevention, symptom reduction or alleviation, and emotional health. Yoga promotes a strong mind-body connection, which improves overall mood and well-being. Directing concentration inward to

body movements and breathing encourages stress reduction by forcing you to release your mind's hold on outside stressors. Yoga practice achieves goals not related to perfection, and the inward focus leads to improved self-acceptance and improved concentration. [8]

## MATERIALS AND METHODS

### Research Design

A quasi experimental study design, was adopted for this study

**Experimental group – O<sub>1</sub> X O<sub>2</sub>**

**Control group - O<sub>1</sub> O<sub>2</sub>**

O<sub>1</sub> -- Pretest

X -- Intervention (Yoga therapy.)

O<sub>2</sub> -- Posttest

### Research variable:

**Independent variables:** Yoga therapy

**Dependent variables:** Stress score of nursing students before yoga therapy.

### Research setting

The present study was conducted at SGRD College of Nursing, Vallah, Amritsar, Punjab. It is situated at Mehta Road, Vallah, Amritsar. Named after the fourth Sikh Guru, Ram Das, the founder of holy city of Amritsar, the Institute of Medical Science & Research was started in the year of 1997.

### Population

The study population comprised of nursing students was studying in SGRD college of Nursing Vallah, Amritsar, Punjab.

### Sampling Technique

Sample is a small portion of the population selected for observation and analysis. 60 samples were selected by simple random techniques (lottery method). Total 60 students were allocated in to three groups, each group contains 20 students.

**Inclusion criteria:-**The study included the students who were

studying in Sri Guru Ram Das College of Nursing, Vallah, Amritsar

Residing in nursing hostel.

Present during data collection and

Willing to participate in the study.

**Exclusive criteria:-**The study excluded students who were

Suffering from any medical or mental illness

Practice yoga or any other relaxation therapy

Students who are day scholars.

Not willing to participate in the study.

**Description of tool:**

**Part-A: - Socio-Demographic Variables.**

It Includes items for obtaining personal information's of students i.e Age, Year of course, Marital status, Educational status of father, Educational status of mother, Occupational status of father, Occupational status of mother, Family income monthly (in rupees), when stress which social system used, Source of recreation, Type of family, Habitat.

**Part -B: - Perceived Stress Scale – 14**

It was developed by Sheldon Cohen. Briefly, PSS-14 is a global scale and identifies the factors influencing or influenced by stress appraisal. It is a 14-item scale which measures the degree to which situations in one's life is appraised as stressful during the past month. There are seven negative and seven positive questions for which the samples were required to choose from a scale of 5 alternatives never, almost never, sometimes, fairly often, very often, relating to their feeling of being stressed on a 0-4 scale. The 7 positive items were reverse scored and added up to the 7 negative items to get the total score.

**Score interpretation of tool:**

Minimum - (0-14), Mild - (15-28), Moderate - (29-42) and Severe - (43-56).

**Description of intervention:**

The protocol for yoga intervention was developed and demonstrated for 60 students for one month. The study was carried out on 60 nursing students staying in hostel/campus at SGRD College of Nursing, Vallah, Amritsar. These students are selected by simple random techniques. The students allocated into three groups. Each group consists of 20 students. The students were given yoga therapy for one month (five days/week, one hour/day) under

supervision, in a prescribed manner. The schedule consisted of

**SUKSHMAKRIYA** -Suksham is excellent relaxation technique that promotes physical and mental calm. It is a form of yoga comprising of subtle exercise that are simple to practice yet highly effective.

**TADASAN** – Tadasan is form of exercise helps in improving posture and make the spine flexible.

**ARDHACHAKRASANA** - Ardhachakrasana is an effective posture for reducing stress and aiding posture by reversing the habitual pattern of slumping forward and rounding the shoulders. It helps to release the neck and shoulders, relieving tension.

**TRIKONASAN** - Increase mental and physical equilibrium, reduce anxiety and stress.

**PASCHIMOTTASANA** - Calms the brain and helps relieve stress and depression

**VAJRASAN** - It improve circulation in lower pelvic region and improve digestion.

**SARVANGASAN** - Sarvangasan influence the functions of all parts of your body. it maintain mental and physical health.

**SHAVASAN** - Done at the end of all asana. It rejuvenate the body, mind and spirit.

**PRANAYAMA** - it is practice of breathing technique that promote emotional, mental, and physical well-being.

**DEEP BREATHING** - Help in clean out the lungs, reduce anxiety, improve energy level, naturally pain killer, reduce stress, better blood flow, make you more mindful of your body

**ANULOM VILOM** - It is one of breathing exercise to cure mental problems like depression, anxiety and tension.

**BHRAMARI PRANAYAMA**-it is breathing technique helps to induce a chilled impact on the mind, reduce fatigue, mental stress.

**MEDITATION:**

Meditation can be defined as a practice where an individual uses a technique, such as focusing their mind on a particular object, thought or activity, to

achieve a mentally clear and emotionally calm state.

ventilated room sitting in a comfortable posture.

The students practice these exercises early in the morning and in a quiet, well

S.No	Intervention	Approximate time for practice	Schedule
1	Basic instruction	10 minute	First day
2	<b>SukshmaKriya-</b> Twisting, side bending, forward and backward bending, jogging	10 minute	Daily first week to 4 <sup>th</sup> week
3	<b>Asans (posture)</b> Standing asanas - Tadasanas Ardhachakrasana Triangel posture - Trikonasana Sitting posture -Vajrasan Paschimottasana Lying down posture - Sarvangasana Savasan	30 minute	Daily first week to 4 <sup>th</sup> week
4	<b>Pranayama-</b> Deep breathing exercise Anulom Bhramari pranayama Meditation	20 minute	Daily first week to 4 <sup>th</sup> week

## RESULTS AND DISCUSSION

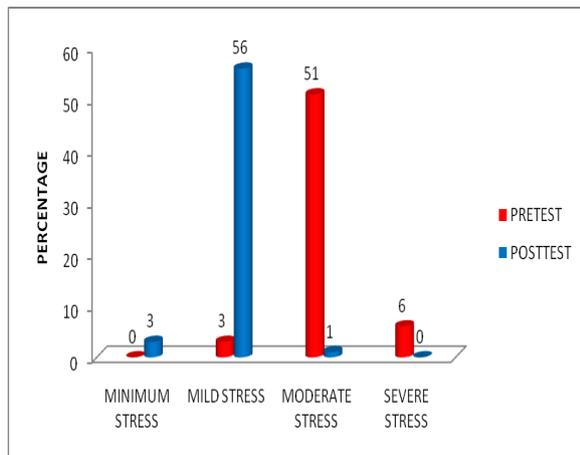
**Table 1: frequency and percentage distribution of demographic variables N=60**

S. No	Demographic variables	Frequency (f)	Percentage (%)
1	<b>Age in years</b>		
	18-20	26	43.3
	21-23	34	56.7
2	<b>Year of course</b>		
	2 <sup>nd</sup> year	31	51.7
	4 <sup>th</sup> year	29	48.3
3	<b>Marital status</b> a. Unmarried	60	100
4	<b>Educational status of father</b>		
	Primary	3	5
	Secondary	22	36.7
	Graduation	32	53.3
	Post-graduation & above	3	5
5	<b>Educational status of mother</b>		
	Primary	3	5
	Secondary	31	51.7
	Graduation	23	38.3
	Post-graduation & above	3	5
6	<b>Occupational status of father</b>		
	Government employee	28	46.7
	Private employee	8	13.3
	Unemployed	3	5
	Self-employed	21	35
7	<b>Occupational status of mother</b>		
	Government employee	8	13.3
	Private employee	9	15
	Housewife	38	63.3
	Self-employed	5	8.3
8	<b>Family income (in rupees per monthly)</b>		
	5001-10,000	7	11.7
	10001-15000	8	13.3
	15001-20,000	10	16.7
	>20,000	35	58.3
9	<b>when stress which social support system used</b>		
	Roommates	14	23.3
	Faculty	1	1.7
	Spiritual leader	16	26.7
	No one	29	48.3
10	<b>Sources of recreation</b>		
	T.V	15	25
	Social-media	43	71.7
	Reading books	2	3.3
11	<b>Type of family</b>		
	Nuclear family	47	78.3
	Joint family	13	21.7
12	<b>Habitat</b>		
	Rural	33	55.0
	Urban	27	45.0

**Table 2: Pre-test and post-test level of stress among nursing students N=60**

S. NO	LEVEL OF STRESS	Pre-test		Post-test	
		f	%	f	%
1	Minimum (0-14)	0	0	3	5
2	Mild (15-28)	3	5	56	93.3
3	Moderate (29-42)	51	85	1	1.7
4	Severe (43-56)	6	10	0	0

Table 2 reveals that, pre-test stress level among nursing students ranging out of 60 students 51(85%) had moderate stress, 6(10%) had severe stress and 3(5%) had mild stress level. In post-test stress level of nursing students 56(93.3%) had mild stress level, 3(5%) had minimum stress and 1(1.7%) had moderate stress. So there is significant difference between pre-test and post-test stress level among nursing students.

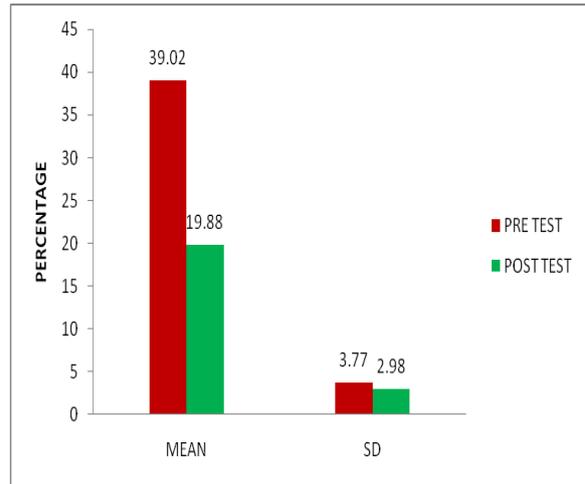


**Table 3: Impact of yoga therapy on stress level among nursing students.**

Level of Stress	Range	Mean	SD	Mean %	't' value	df	'p' value
Pre-test	26-44	39.02	3.77	69.68	34.79	59	0.000*
Post-test	11-29	19.88	2.98	35.50			

\* Level of significance p<0.001

Table 3 shows the effectiveness of yoga therapy on stress level among nursing students in pre-test mean score was 39.02 and SD was 3.77 and post-test mean score was 19.88 and SD was 2.98. There is statistically highly significant difference between pre-test and post-test stress level which was tested by paired 't' test (t=34.79, df=59, p=0.000) indicates that yoga therapy was effective in reducing the stress level among nursing students.



Mr. Rawal Rajesh et al. (2017) conducted a study on effectiveness of yoga meditation on perceived level of stress among nursing students at selected nursing institute in Mangalore. The results of the study revealed that the post-test stress scores were lower than the mean pre-test stress scores. There was significant difference between the pre and post-test stress scores of the participants after yoga meditation. (t=17.497, P<0.05). The study concluded that yoga meditation was found to be effective in reducing stress among nursing students. [9]

The results of association between pre-test level of stress among nursing students with demographic variables which was statistically tested using chi-square. The result reveals that Sources of recreation was significantly associated with pre-test level of stress at 0.05 level of significance. The other demographic variable was not significantly associated with pre-test level of stress among nursing students.

The results of association between post-test level of stress among nursing students with demographic variables which was statistically tested using chi-square. The result reveals that educational status of father and mother was significantly associated with post-test level of stress at 0.05 level of significance. The other demographic variables was not significantly associated with post-test level of stress among nursing students.

## **CONCLUSION**

The findings of the present study concludes that nursing students experience stress due to various reasons which affects their performance and activities carried out during their nursing programme may result in various physiological and psychological health problems. The study concludes that yoga therapy was effective in reducing the stress level among nursing students. It is important to emphasize on coping to manage the stress among nursing students contributing to prevention and health promotion in improving the quality of life of students.

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