

Effect of Yoga Practice With and Without Acupressure on Stress and Anxiety of High School Students

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The purpose of the study was to find out the effect of specific yoga practice with and without acupressure on stress and anxiety of High school students. At the initial stage 120 High school students representing four High schools of Kozhikode District, Kerala State were randomly selected as subjects. After the Pretest data collection, 30 male and 30 female students were finally selected as subjects for the study. There were two experimental groups namely Yoga with acupressure and Yoga without acupressure and one control group. Each group had 10 male and 10 female students and their age ranged between 14 to 15 years. The variables selected for the study were stress and anxiety. Self made stress and anxiety questionnaire was used for the study. The experimental groups underwent the experimental training programme for a period of twelve weeks with three training sessions in a week. Analysis of co-variance was used to find out the significant differences in means among the two experimental and control groups. The level of significance chosen was 0.05. It was found out that training on yoga with and without acupressure showed significant improvement and change on the stress and anxiety level of High school students. It was also found that there was significant difference exist between experimental groups such as Yoga with acupressure and Yoga without acupressure. Yoga with Acupressure training is more effective than Yoga without Acupressure. Keywords – Yoga, Acupressure, Stress and Anxiety

Effect of Yoga Practice With and Without Acupressure on Stress and Anxiety of High School Students

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Abstract

The purpose of the study was to find out the effect of specific yoga practice with and without acupressure on stress and anxiety of High school students. At the initial stage 120 High school students representing four High schools of Kozhikode District, Kerala State were randomly selected as subjects. After the Pretest data collection, 30 male and 30 female students were finally selected as subjects for the study. There were two experimental groups namely Yoga with acupressure and Yoga without acupressure and one control group. Each group had 10 male and 10 female students and their age ranged between 14 to 15 years. The variables selected for the study were stress and anxiety. Self made stress and anxiety questionnaire was used for the study. The experimental groups underwent the experimental training programme for a period of twelve weeks with three training sessions in a week. Analysis of co-variance was used to find out the significant differences in means among the two experimental and control groups. The level of significance chosen was 0.05. It was found out that training on yoga with and without acupressure showed significant improvement and change on the stress and anxiety level of High school students. It was also found that there was significant difference exist between experimental groups such as Yoga with acupressure and Yoga without acupressure. Yoga with Acupressure training is more effective than Yoga without Acupressure.

Keywords – Yoga, Acupressure, Stress and Anxiety

1.0. Introduction

Stress and anxiety have become common psychological challenges in school students due to fast-paced lifestyles, academic pressure, examination demands, and social family responsibilities. Prolonged stress and anxiety of students negatively affect both mental and physical health, leading to problems such as fatigue, insomnia, reduced concentration, high blood pressure, weakened immunity, psychosomatic disorders and poor performance in examinations. Therefore, adopting safe, natural, and holistic methods for managing stress and anxiety has become essential. Among such approaches, Yoga and Acupressure are widely recognized for their effectiveness in promoting mental calmness, emotional balance, and overall well-being.

Yoga is an ancient Indian system of holistic health that integrates physical postures (āsanas), breathing techniques (prāṇāyāma), relaxation, meditation, and ethical principles.

The primary aim of yoga is to achieve harmony between the body, mind, and soul. Regular practice of yoga helps reduce stress and anxiety by calming the nervous system, improving circulation, enhancing oxygen supply to the brain, and regulating hormonal secretion. Yogic practices such as slow breathing, mindfulness, and meditation activate the parasympathetic nervous system, which induces relaxation and reduces the stress response. As a result, yoga improves emotional stability, self-control, and mental clarity, making it an effective non-pharmacological intervention for stress and anxiety management.

Acupressure, a complementary therapy derived from Traditional Chinese Medicine, involves applying gentle pressure to specific points on the body known as acupoints. These points lie along energy pathways called meridians, through which vital energy or “Qi” flows. According to acupressure theory, stress and anxiety occur due to imbalances or blockages in this energy flow. By stimulating specific acupoints, acupressure helps restore energy balance, release muscular tension, improve blood circulation, and promote relaxation. Acupressure is simple, cost-effective, and non-invasive, making it suitable for self-care and daily practice.

The combined application of yoga and acupressure offers a holistic approach to managing stress and anxiety by addressing both psychological and physiological aspects of health. While yoga enhances internal awareness, breath control, and mental discipline, acupressure provides immediate physical relaxation and relief from tension. Together, these practices promote emotional balance, improve coping ability, and enhance quality of life. Hence, yoga and acupressure can be effectively used as preventive and therapeutic strategies for managing stress and anxiety in individuals of all age groups.

1.1 Importance of the study

Stress and anxiety of students during their study as well as in the performance of examinations and competitions are very crucial while considering the high level of competition demands. High school students are undergoing tremendous level of stress and tensions. These emotional conflicts need to be controlled and managed for better performance. If a student fails to control emotional state, that will be acting as a debilitating and deciding factor to lose in examinations. Stress and tensions are needed to be addressed effectively and efficiently. Emotional imbalance is directly related to stress and anxiety. When a person is undergoing tension and fears his heart rate and respiratory rate will also increase. So the elevated heart rate and respiratory rate cause imbalance in the physiology of a person. Sympathetic nervous system gets activated and extra energy is burned to cop up with stress reaction. Yoga and acupressure is useful to reduce stress and tensions. It can be useful to stimulate para-sympathetic nervous system. Hence a study on effect of specific yoga with and without acupressure techniques on stress and anxiety of high school going students are highly useful and the need of the hour.

2.0 Hypothesis

The following hypotheses were formulated for the present study.

- 1) There would be significant difference between pretest and post-test means of the two experimental groups namely Yoga with acupressure and Yoga without acupressure on the selected psychological variables stress and anxiety

- 2) There would be significant difference between the experimental groups namely Yoga with acupressure and Yoga without acupressure on the variables stress and anxiety

3.0 Review of related literature

Relevant information regarding the area of the present research study has been obtained from related books, journals, sport magazines and newspapers. Shafeer, R. K., (1998). conducted a study on stress in male and female of sedentary people and found out that stress is a debilitating factor of general health and well being . - Yoga Reduces Stress: A systematic review of 13 randomized controlled trials (RCTs) found that yoga significantly reduces stress in stressed adults, with low-quality evidence for short-term effects compared to passive control groups (SMD=-0.69, 95%CI=-1.12- -0.25). ¹

Acupressure Relieves Anxiety: Acupoint massage emerged as a safe and effective alternative therapy for anxiety relief, with a meta-analysis of 39 studies showing a significant reduction in anxiety (SMD = -5.39, 95% CI -5.61 to -5.17). ²

Yoga Improves Mental Health: A systematic review of 25 studies found that yoga improves mental health and well-being among nursing professionals and students, reducing stress, anxiety, burnout, and depression. ³

Yoga and Acupressure for Stress: Research suggests that yoga and acupressure can reduce stress and anxiety by activating the parasympathetic nervous system, promoting relaxation, and reducing cortisol levels. ⁴

Yoga for Anxiety: A systematic review of 7 studies found statistically significant results for the beneficial effect of yoga on anxiety. ⁵

Acupressure for Anxiety Relief: Acupressure demonstrated effectiveness in providing instant relief from anxiety related to multiple diseases with a medium effect size.

Yoga Reduces Work-Related Stress: A systematic review of 6 studies found that yoga had a significant effect on work-related stress.

Yoga Improves Quality of Life: Yoga improves quality of life, with moderate-quality evidence for short-term effects compared to passive control groups (SMD=0.86, 95%CI=0.72-1.00).

Yoga and Mindfulness: Yoga promotes mindfulness, increasing awareness of negative thoughts so that they can be recognized and managed more effectively.

Acupressure and Anxiety Management: Acupressure is a simple, non-invasive, and cost-effective therapy for managing anxiety, with potential benefits for patients with COVID-19.

4.0 Objective of the Study

1. The study would bring out the effect of specific yoga based training on reducing stress of high school students
2. The study would bring out the effect of specific yoga based training on reducing anxiety of high school students
3. The study would be useful to understand more about the combined specific acupressure based yoga training on reducing stress of high school students
4. The study would be useful to understand more about the combined specific acupressure based yoga training on reducing anxiety of high school students

5.0 Methodology

The purpose of the study was to find out the effect specific yoga practice with and without acupressure on stress and anxiety high school students. At the initial stage 120 High school students representing four high schools of Kozhikode district Kerala State were randomly selected as subjects. After the Pretest data collection, 30 male and 30 female students were finally selected as subjects for the study. There were two experimental groups namely Yoga with acupressure and Yoga without acupressure and one control group. Each group had 10 male and 10 female students. The age of the subjects ranged between 14 to 15 years. The variables selected for the study were stress and anxiety. Self made stress and anxiety questionnaire was used for the study. The experimental groups underwent the experimental training programme for a period of twelve weeks with three training sessions in a week. Analysis of Co-variance was used to find out the significant differences in means among the two experimental and control groups. The level of significance chosen for the study was 0.05.

5.1 Selection of Subjects

Initially 120 high school students representing four high schools of Kozhikode District of Kerala State were randomly selected as subjects. After the Pretest data collection, 30 male and 30 female students were finally selected as subjects for the study. There were two experimental groups namely Yoga with acupressure and yoga without acupressure and one control group. Each group had 10 male and 10 female students and their age ranged between 14 to 15 years

5.2 Selection of Variables and Tools

The variables selected for the study were stress and anxiety. Self made stress and anxiety questionnaire was used for the study. Questionnaire consist of 15 MCQ stress and anxiety based questions which have four choices. The subjects were asked to choose any appropriate choice among the given four choices. Choices have represented by scoring points from 3 points to 0. Higher the score more will be the stress and anxiety.

5.3 Training Programme on yoga and acupressure

Training programme consists of a combination of asanas, pranayamas and acupressure. Seven *asanas* such as Tadasana, Ardhakati Chakrasana, Pada Hasthasana, Ardha Chakrasana, Vajrasana, Sasankasana and Savasana and pranayamas such as Surya bedana, Chandra bedana and Nadisudhi pranayama with and without acupressure were selected for the study. Total duration of training session was one hour.

6.0 Analysis of Data and Results of the study

The pre and post test means of psychological variables such as stress and anxiety of experimental and control group were statistically analyzed by SPSS based Analysis of Co-variance to find out the significant differences in means among the two experimental and control groups. The level of significance chosen was 0.05.

6.1.0 Statistical analysis on Stress and Anxiety

Table-6.1.1

**ANALYSIS OF VARIANCE OF STRESS AMONG YOGA WITH ACUPRESSURE
AND YOGA WITHOUT ACUPRESSURE AND CONTROL GROUP**

Sources	Type II Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1783.216 ^a	3	594.405	158.721	.000
Intercept	3.923	1	3.923	1.047	.310
PRE	1503.582	1	1503.582	401.495	.000
GROUP	227.898	2	113.949	30.427	.000
Error	209.718	56	3.745		
Total	70810.000	60			
Corrected Total	1992.933	59			

*** Significant at 0.05**

Table 6.1.1 of general linear model uni variate analysis of variance on stress indicates a significant value of 0.310 and F value of 30.427 at the 0.05 level of significance.

Table-6.1.2

**ANALYSIS OF VARIANCE OF ANXIETY AMONG YOGA WITH ACUPRESSURE
AND YOGA WITHOUT ACUPRESSURE AND CONTROL GROUP**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1537.603 ^a	3	512.534	103.122	.000
Intercept	12.473	1	12.473	2.510	.119
PRE	1359.570	1	1359.570	273.546	.000
GROUP	211.578	2	105.789	21.285	.000
Error	278.330	56	4.970		
Total	68616.000	60			
Corrected Total	1815.933	59			

* Significant at 0.05 level

Table 6.1.2 of general linear model uni variate analysis of variance on Anxiety indicates a significant value of 0.119 and F value of 21.285 at the 0.05 level of significance.

Table-6.1.3

**POST HOC TEST TO ANALYSIS THE SIGNIFICANT DIFFERENCE ON
STRESS AMONG EXPERIMENTAL GROUPS YOGA WITH ACUPRESSURE AND
YOGA WITHOUT ACUPRESSURE AND CONTROL GROUP**

GROUPS		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
YOGA	ACUPRESSURE	.6000	1.73372	.731*	-2.8717	4.0717
YOGA	CONTROL	-4.2500*	1.73372	.017*	-7.7217	-.7783
ACUPRESSURE	CONTROL	-4.8500*	1.73372	.007*	-8.3217	-1.3783

*. The mean difference is significant at the 0.05 level.

Table-6.1.4

**POST HOC TEST TO ANALYSIS THE SIGNIFICANT DIFFERENCE ON
ANXIETY AMONG EXPERIMENTAL GROUPS YOGA WITH ACUPRESSURE
AND YOGA WITHOUT ACUPRESSURE AND CONTROL GROUP**

GROUPS		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
YOGA	ACUPRESSURE	.7000	1.74180	.689*	-2.7879	4.1879
YOGA	CONTROL	-4.2500*	1.74180	.018*	-7.7379	-.7621
ACUPPRESSURE	CONTROL	-4.9500*	1.74180	.006*	-8.4379	-1.4621

*. The mean difference is significant at the 0.05 level.

7.0 Result and Discussions

7.0.1 Finding on Stress

On the basis of the results of the study the following conclusions were drawn. Training of Yoga with acupressure and without acupressure showed significant improvement and change from pretest to post test means on psychological variable stress. Table 6.1.3 of LSD Post hoc test on Stress for differences in paired final means among the different Experimental and Control groups indicate significant values of .731 between Yoga without Acupressure and Yoga with Acupressure, 0.17 between Yoga and Control and 0.07 between Acupressure and Control. The findings indicate that the Yoga with Acupressure training programme is a more effective than Yoga without Acupressure.

7.0.2 Finding on Anxiety

On the basis of the results of the study the following conclusions were drawn. Training of Yoga with acupressure and without acupressure showed significant improvement and change from pretest to post test means on psychological variable anxiety. Table 6.1.4 of LSD Post hoc test on Anxiety for differences in paired final means among the different Experimental and Control groups indicate significant values of .689 between Yoga without Acupressure and Yoga with Acupressure, 0.18 between Yoga and Control and 0.06 between Acupressure and Control. The findings indicate that the Yoga with Acupressure training programme is a more effective than Yoga without Acupressure.

8.0 Recommendations

On the basis of the results of the study and the following recommendations are made.

Since this study was useful to found out the effect of yoga and acupressure practices for reducing the stress and anxiety of High school students, it is also recommended that yoga and acupressure practise can be incorporated in the curriculum of High school. It is also recommended that further study may be conducted to find out the effect yoga and acupressure training programme on various psychological variables of teaching as well as non teaching staff of schools and colleges as a coping strategy to overcome the stress and anxiety of occupational scenario.

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