

**ISOLATED AND COMBINED EFFECTS OF YOGIC PRACTICES AND AEROBIC EXERCISE ON ANXIETY AMONG COLLEGE WOMEN BASKETBALL PLAYERS****Mrs. Ezhilarasi**

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ABSTRACT

To achieve the purpose of this study the investigator selected sixty college women Basketball players from affiliated colleges of University of Madras, Chennai, Tamilnadu. The subjects were selected randomly and their age was ranged from 18 to 21 years. They were assigned into four groups of which one group served as yogic practice group, second group served as aerobic exercises group, third group served as combined yogic practices and aerobic exercises group and the fourth group acted as control group. The experimental groups participated their respective training programmes for period of six weeks and the control group was not given any training except of their routine. The selected subjects were measured of their anxiety by Questionnaire before and after the training period of six weeks. The differences between the initial and final scores of anxiety were subjected to statistical treatment using Analysis of Covariance (ANCOVA). The results of this study proved that comparing with control group the experimental group's significantly decreased anxiety. The results further revealed that comparing with other groups, combined group significantly decreased anxiety. It was concluded that combined group was better than, Yogic practices group, aerobic exercise group and control group.

Keyword: Yogic practices, aerobic exercises, anxiety.



INTRODUCTION

Modern world is the outcome of many scientific inventions through centuries. Scientific instruments and machinery have helped to lead the daily life with ease and comfort. The modern man depends mostly upon the scientific equipment for his daily routine, involving mainly his mental powers to have a comfortable life, resulting in fall and deterioration in his physical health and capacity. Modern man need not toil like his forefathers in his daily life. Now the world is shrinking into a global village thanks to too many internet challenges. The word “yoga” comes from the Sanskrit root yuj, which means “union.” In the spiritual sense, yoga means union of the mind with the divine intelligence of the universe. Yoga aims through its practices to liberate a human being from the conflicts of duality, which exists in every living thing and from the influence of the gunas, the qualities of universal energy that is present in every physical thing (Muller, 2012).

Aerobic means with “air” or “oxygen”. Aerobic exercise (also known as cardio) is physical exercise of relatively low intensity that depends primarily on the aerobic energy-generating process (Sharon, et al. 2007). Aerobic literally means "living in air". And refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism (William, et al. 2006). Aerobic exercise not only keeps our body fit but also helps in maintaining our mind fresh for a longer period of time. It also increases the blood circulation of the body and prepares for the hard work, all day long. Aerobic exercise also can prevent chronic diseases and other health problems related to lungs and heart besides strengthening the heart. The muscle mass can be increased and the weight can be controlled (Ganesan, 2009).

Anxiety plays an important role in the acquisition of motor skills as well as in athletic performance. Anxiety can either enhance or inhabit performance whether its effect is positive or negative depends on how an individual athlete perceives the situation. People with low trait level have been known to perform better in selected motor skills than those with high or trait levels. There is also positive relationship between participants in athletic competition (Thelma, 1992).

OBJECTIVES OF THE STUDY

The objective of this study was to compare the isolated and combined effects of yogic practice and aerobic exercise on anxiety. Thus the objectives made for this study are as follows;

- ❖ To find out the isolated effect of yogic practices on anxiety among college women Basketball players.

- ❖ To find out the isolated effect of aerobic exercises on anxiety among college Women Basketball players.
- ❖ To find out the combined effect of yogic practices and aerobic exercise on anxiety among College women Basketball players.

STATEMENT OF THE PROBLEM

The purpose of the study was to find out the isolated and combined effects of yogic practices and aerobic exercises on anxiety among college women Basketball players.

METHODOLOGY

The purpose of the study was to find out the isolated and combined effects of yogic practice and aerobic exercises on anxiety among college women basketball players. To facilitate the study 60 college women basketball players from affiliated colleges of University of Madras, Chennai, Tamilnadu. The subjects were randomly selected as subjects and their age ranged between 18 to 21 years. The selected women Basketball players were assigned into four groups of which one group served as yogic practices groups (I), second group served as aerobic exercises group (II), the third group as combined aerobic exercises and yogic exercises group (III) and the fourth one acted as control group (IV). Pre tests were conducted for all the selected subjects on anxiety by Questionnaire.

TRAINING SCHEDULE

The experimental groups participated in their respective yogic practices, aerobic exercises, and combined aerobic exercise and yogic practice for a period of six weeks. The training programme was scheduled at 6.30 a.m. to 7.30 a.m. on all week days except Sundays. The posts were done on the selected dependent variable after six weeks.

STATISTICAL ANALYSIS

The differences between the initial and final test scores on anxiety were subjected to statistical treatment using Analysis of Covariance (ANCOVA). The Scheffe's post hoc test was used to find out the paired means significant differences.

RESULTS ON ANXIETY

The psychological variable, anxiety was measured through Questionnaire. The results on the effect of six weeks was yogic practices group, aerobic exercises group, combined group (yogic practices and aerobic exercises) and control group presented in Table-I .

Table -I
Computation of Analysis of Covariance of Anxiety

	YOGIC PRACTICES	AEROBIC EXERCISE	COMBINED GROUP	CONTROL GROUP	Source of Variance	Sum of Squares	df	Mean squares	F Ratio
Pretest Mean	38.67	37.93	38.80	37.87	Between	10.58	3	3.53	2.56
STD	3.09	2.87	2.93	3.14	Within	506.40	56	9.04	
Post test Mean	35.13	37.33	34.07	36.33	Between	90.85	3	30.28	3.24*
STD	3.31	3.35	2.63	2.87	Within	523.33	56	9.35	
Adjusted	34.88	37.61	33.72	36.66	Between	135.29	3	45.10	9.68*
					Within	256.10	55	4.66	
Mean gain	3.53	0.60	4.73	1.53					

Table F-ratio at 0.05 level of confidence for 3 and 56 was 2.76, 3 and 55 was 2.77.

*Significant at 0.05 level.

As shown in table VI the obtained F value on the scores of the pre test means 2.56 was the lesser than the required value 2.76, which proved that the random assignment of the subject were successful.

The post test scores analysis proved that there was significant difference between the groups, as they obtained F value 3.24 was greater than the required F value of 2.76. This proved that the differences between the post test means of the subjects were significant.

Taking into consideration the pre and post test scores among the group's adjusted mean scores were calculated and subjected to statistical treatment. The obtained F value of 9.68 was greater than the required F value of 2.77. This shows that there are significant differences among the adjusted means on the college basketball players.

Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in table –II.

Table- II**Scheffe's Confidence Interval Test Scores on anxiety**

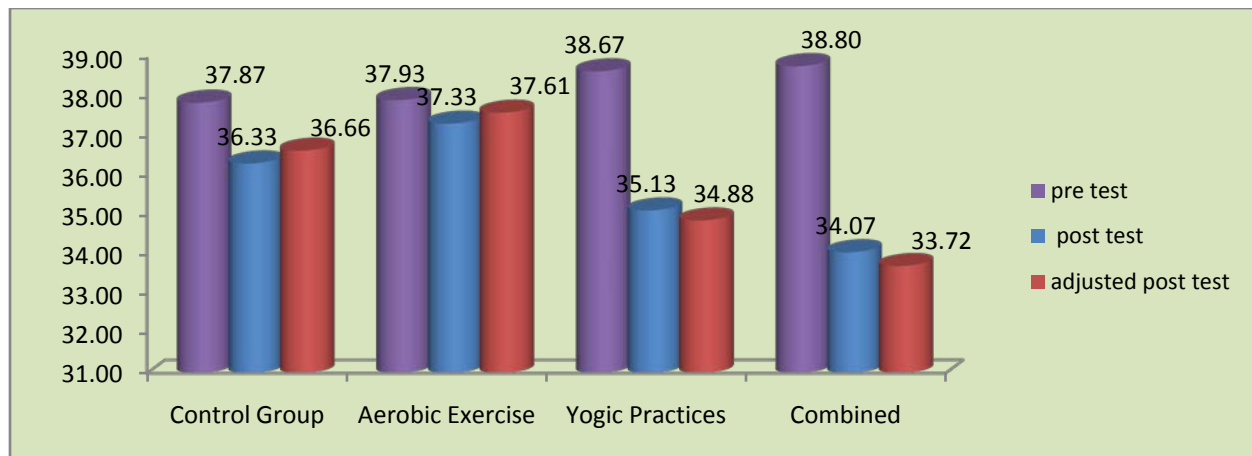
CONTROL GROUP	YOGIC PRACTICES	AEROBIC EXERCISE	COMBINED GROUP	Mean Difference	CI
36.66	34.88	---	---	1.78	2.28
36.66	---	37.61	---	0.95	
36.66	---	---	33.72	2.94*	
---	34.88	37.61	---	2.73*	
---	34.88	---	33.72	1.16	
---	---	34.88	33.72	1.16	

*indicates significance.

The post hoc analysis of obtained ordered adjusted means proved that there were significant differences between control group and combined group, yogic practices group and aerobic exercises group. As the confidence interval required to be significant at 0.05 levels was 2.28 and the obtained values were greater than the required value, it was found that experimental treatments, different yogic practices group, aerobic exercises group and combined group significantly improved anxiety. It was found that there was no significant difference between control group and yogic practices group, control group and aerobic exercises group, yogic practices group and combined group, aerobic exercises group and combined group.

The ordered adjusted means are presented through bar diagram for better understanding of the results of this study in Figure -1.

Figure -1
Bar diagram on Ordered Adjusted Means of anxiety



DISCUSSION ON FINDINGS OF ANXIETY

The results presented in Table II show the pre test means and post test means. Adjusted post test means are determined and analysis of covariance is done and the obtained F value 9.68 was greater than the required value of 2.78 and hence it was accepted. This shows that the interventional programme significantly decreased anxiety of the women basketball players.

The post hoc analysis of obtained ordered adjusted means prove that there are significant differences between control group and combined group, yogic practices group and aerobic exercises group. It was found that there was no significant difference between control group and yogic practices group, control group and aerobic exercises group, yogic practices group and combined group, aerobic exercises group and combined group.

CONCLUSIONS

It was concluded that the combined yogic practices and aerobic exercises group, yogic practices group significantly decreased anxiety level of women basketball players when compared to control group.

RECOMMENDATIONS

1. It was recommended that the coaches, physical educationists and sports persons may include aerobic exercises and yogic practices in their training schedule to improve the fitness and psychological preparations for better performance.
2. It was recommended that people with irrespective of age may practice yoga and aerobic exercises, to enhance their psychological factors to lead a healthy life.

REFERENCES

- Eskandar, Rahimi & Sosan Bavaqar (2013). Effects of yoga on anxiety and depression in women. *British Journals of Sports Medicine*, 44(1), PP.68-69.
- Javanbakth, M., Hejazi, R. Ghasemi, M. (2009). Effect of yoga on depression and anxiety of women, Psychiatry Department of Islamic Azad University, Iran.
- Karkare & Awasare (2012). Effect of selected yogic exercises on physical fitness of basketball players. *Applied Research and Development Institute Journal*, 5(1), pp.1-5.
- Mullur (2012). Influence of yoga practice on anxiety level of apparently healthy female subjects of Bijapur (Karnataka), *International Journal of Biomedical and Advance Research*, 03(08),PP.618-621.
- Oudejans, Karamat & Stolk (2012). Effects of Actions Preceding the Jump Shot on Gaze Behavior and Shooting Performance in Elite Female Basketball Players, *International Journals of Sports Science & Coaching*, 7. 2, pp.255-267.

- Padmadevi, S. (2007). Effect of yogic practices, physical exercises and combination of both the trainings on selected physiological and psychological variables of college girls. paper presented at the international conference on “*Metabolic Syndrome in Yoga and Naturopathy*” Alagappa University, Karaikudi.
- Parimlam & pushparajan (2013). Effect of specific basketball training program on physical fitness and skill performance variables of inter collegiate women basketball players. *International Journal of Advanced Life Sciences*,6(1), PP.33-35.
- Prabhakar, R.T. (2013). Effect of Yoga and Swimming in Reducing Anxiety: A Comparative Study, *Asian Journal Physical Education and Computer Science in Sports*, 8(1), pp.58-60.