

A STUDY ON THE EFFECT OF PHYSICAL EXERCISES AND YOGA ASANAS ON ANXIETY AMONG JUNIOR COLLEGE VOLLEYBALL PLAYERS

Vandana Sarvani¹, Dr.N.Vijay Mohan²

¹ Research Scholar, Department of Physical Education and Sports Sciences, Andhra University, Visakhapatnam.

² Professor, Department of Physical Education and Sports Sciences, Andhra University, Visakhapatnam.

ABSTRACT

The purpose of this study was to investigate the effect of physical exercises and yoga asanas combined with physical exercises on anxiety among junior college volleyball players. Sixty volleyball players aged between 16 and 18 years from junior colleges in Visakhapatnam District were randomly selected as subjects. The subjects were divided into three equal groups of twenty each: Physical Exercise Group (PEG), Yogic Practice Combined with Physical Exercise Group (YPCPEG), and Control Group (CG). The experimental groups underwent their respective training programmes for a period of twelve weeks, while the control group did not participate in any special training. Anxiety was selected as the dependent variable.

The pre-test mean values of anxiety for PEG, YPCPEG, and CG were 22.051, 20.951, and 21.101 respectively, and the obtained F-ratio of 0.847 was not significant at the 0.05 level of confidence. The post-test mean values were 20.051, 16.701, and 21.101 respectively, with an obtained F-ratio of 19.614, which was significant at the 0.05 level. The adjusted post-test mean values were 19.773, 17.157, and 20.923 respectively, and the obtained F-ratio of 43.484 was also significant. Scheffe's post hoc test revealed significant mean differences between PEG and CG (1.151), YPCPEG and CG (3.767), and PEG and YPCPEG (2.63), which were higher than the confidence interval value of 1.028.

The findings of the study concluded that both physical exercises and yoga asanas combined with physical exercises significantly reduced anxiety among junior college volleyball players. However, the combination of yogic practices with physical exercises was found to be more effective than physical exercises alone in reducing sports competitive anxiety.

Keywords: Yoga Asanas, Physical Exercise, Anxiety and Volleyball Players.

INTRODUCTION

Sports participation in the modern world is impacted by a number of physiological, psychological, and physical aspects. In addition to the players' physical health and well-being, this training places a greater focus on teaching the game's methods, techniques, and tactics as well as on the development of the various motor skills needed for it. Players today confront some special difficulties because the stakes are larger, the competition is tougher, and the standards are higher. Therefore, the ideal physical training to become more proficient and the psychological aspect is considerably more important.

Volleyball is a demanding and thrilling sport that has grown to become a top-tier intercollegiate and professional spectator competition. To fully appreciate competitive volleyball, one must be aware of its rules, techniques, and strategies. Volleyball is an action-packed game that calls for frequent situational adaptation from the entire team. Volleyball is a sport performed all over the world that demands strength, power, speed, agility, and fitness from its individual players in addition to these skills.

Yoga has been practiced for thousands of years and is considered a science. It is made up of antiquated principles, observations, and theories. regarding the link between the mind and body, which is now being demonstrated by contemporary medicine. Numerous studies have been done on the health benefits of yoga, specifically in relation to the asanas (or poses), pranayama (or breathing exercises), and meditation. The material on yoga poses and benefits is divided into three sections: impacts on the body, mind, and spirit. Here are a few particular and enormous advantages of yoga.

METHODOLOGY

SELECTION OF SUBJECTS

In order to carry out the study, sixty volleyball players at the junior college level, aged between 16 and 18, were chosen at random as subjects from junior colleges in the Visakhapatnam District. Only players who have competed for their individual college teams were included in the study, and each participant had at least three years of previous volleyball playing experience. Group I is called the Physical Exercise Group (PEG), Group II is called the Yogic Practice Combined with Physical Exercise Group (YPCPEG), and Group Control Group (CG) is called the Group II. Every group had twenty subjects. Every subject's pre- and post-test results were documented prior to and following the instruction. Exercise and yoga practice served as the study's independent variables.

SELECTION OF VARIABLES

Dependent variables

1. Anxiety

Independent variables

1. 12 Weeks Physical Exercise Group
2. 12 Weeks Yogic Practice Combined with Physical Exercise Group

EXPERIMENTAL DESIGN

Pre- and post-tests were included in the study, which was designed using a true random group design. Three equal groups of twenty boys each were randomly allocated to the subjects (N = 60). The groups were divided into three categories: control, combination of physical exercise and yoga practice, and physical exercise group. All sixty subjects took part in pre-tests on anxiety. For twelve weeks, the experimental groups engaged in their corresponding training. There was no training for the control group.

The aforementioned dependent variables were the subject of the post-test following a twelve-week training period. The training program is conducted on alternate days (Monday, Wednesday, and Friday) from 6:00 to 6:45 a.m. (yogic practices).

RESULT ON ANXIETY

Table – I EXAMINING THE CORRELATION BETWEEN THE CONTROL GROUP'S LEVEL OF ANXIETY AND THE PRE-, POST-, AND ADJUSTED POST-TEST MEAN VALUES OF PHYSICAL EXERCISE, YOGA, AND PHYSICAL EXERCISE

Test	Physical exercise group	Yogic practice combined with physical exercise	Control group	Source of variance	Sum of square	Df	Mean square	'f' ratio
Pre test	22.051	20.951	21.101	between	14.224	2	7.118	0.847
	2.5022	3.0519	2.8080	Within	479.71	57	8.417	
Post test	20.051	16.701	21.101	Between	211.234	2	105.618	19.614*
	2.3279	1.6891	2.8080	Within	306.96	57	5.386	
Adjusted post test	19.773	17.157	20.923	Between	145.487	2	72.744	43.484*
				Within	93.684	56	1.674	

Significance level at the confidence of 0.05 level

(The table values needed for 2 & 57 and 2 & 56 to be significant at the 0.05 level of confidence are 3.15 and 3.16, respectively).

The pre-test mean values for sports competitive anxiety in the physical exercise group, the yoga practice combined with physical exercise group, and the control group are, respectively, 22.051, 20.951, and 21.101, as indicated in table I. In terms of sports competitive anxiety, the acquired "F" ratio (0.846) for pre-test scores was less than the table value 3.15 for df 2 and 57 needed for significant at the 0.05 level of confidence. Yoga combined with physical exercise group, physical exercise group, and control group (YPCPEG) all had post-test mean values on sports competitive anxiety of 20.051, 16.701, and 21.101, respectively. The post-test scores' derived "F" ratio of 19.613 exceeded the 3.15 table value for df 2 and 57 needed for significance at the 0.05 level of confidence on confidence on sports competitive anxiety.

The physical exercise group, the yoga practice combined with physical exercise group, and the control group have adjusted post-test averages of 19.773, 17.157, and 20.923, respectively. The computed 'F' ratio of 43.483 for adjusted post-test means was more than that the table value of 3.16 for df 2 and 56 necessary for significant at 0.05 level of confidence on sports competitive anxiety. The study's findings showed that, in terms of sports competitive anxiety, there was a significant difference between the adjusted post-test averages of the physical exercise group, the yoga practice group combined with physical exercise group, and the control group.

In order to determine the paired mean difference, the Scheffe's test was used because the resulting "F" ratio value was significant. The results are shown in table -II

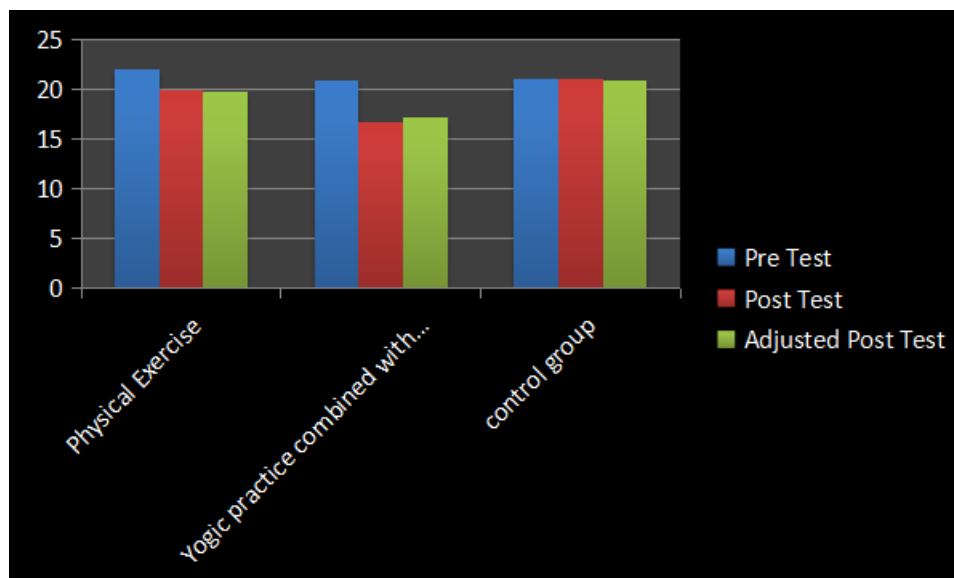
Table – II SCHEFFE'S TEST TO DETERMINE HOW THE ADJUSTED POST TEST PAIRED MEANS OF ANXIETY DIFFER FROM ONE ANOTHER

Exercise group (Score)	Experimental group (Score)	Control group (Score)	Mean difference	Confidence interval
19.773		20.923	1.151*	1.028
	17.157	20.923	3.767*	
19.773	17.157		2.63*	

Significance at 0.05 level of confidence

Table II displays the average difference values between the physical exercise group and control group, the yogic practice group and the control group, and the physical exercise group and the yogic practice group combined are 1.151, 3.767, and 2.63, respectively. Which are higher at the 0.05 level of confidence than the confidence interval value of 1.028?

The study's findings demonstrated a significant difference in sports competitive anxiety between the physical exercise group and control group, the yogic practice combined with physical exercise group and control group, and the physical exercise group and yogic practice combined with physical exercise group. The results also showed a significant difference between the groups that engaged in physical exercise and those that practiced yoga along with it. Physical exercise training alone is inferior to the combination of yoga and physical exercise practice. Figure VII shows the pre, post, and modified post test means values on sports competitive anxiety for the physical exercise group, the yogic practice combined with physical exercise group, and the control group.

Figure – I PRE- AND POST-ADJUSTED POST-TEST MEANS OF PHYSICAL ACTIVITY, YOGIC PRACTICE IN CONJUNCTION WITH PHYSICAL ACTIVITY, AND CONTROL GROUPS ON ANXIETY IN SCORES

CONCLUSION

The purpose of this study was to examine the effects of physical exercises and yoga asanas combined with physical exercises on anxiety among junior college volleyball players. The findings of the study revealed that both the Physical Exercise Group (PEG) and the

Yogic Practice Combined with Physical Exercise Group (YPCPEG) showed significant improvement in reducing anxiety when compared to the control group. The adjusted post-test mean values indicated lower anxiety scores for the experimental groups, and the obtained F-ratio was significant at the 0.05 level of confidence.

Further analysis through Scheffe's post hoc test showed significant differences among all the groups. The Yogic Practice Combined with Physical Exercise Group demonstrated greater reduction in anxiety compared to the Physical Exercise Group, indicating that the inclusion of yoga practices was more effective in managing sports competitive anxiety.

Therefore, it can be concluded that both physical exercise and yoga practices are effective in reducing anxiety among junior college volleyball players, while the combination of yoga with physical exercise produces superior psychological benefits. Coaches and trainers may incorporate yogic practices along with physical training programmes to enhance the mental well-being and performance of volleyball players.

REFERENCES

1. **Ashoke Mukherjee (2021)** "Anxiety in volleyball : gender differences during competition" Indian Journal of Yoga exercise & Sports Sciences and Physical Education 2021, Vol-8, Issue-2,
2. **Esakkiappan (2015)** "Effect of circuit and interval training on selected physical, physiological and psychological variables of Men volleyball players" A multi disciplinary refereed journal Vol:10, Special issue – 1, 2015. PP:46-52.
3. **Kala Mohan (2018)** "Effect of Yogic practices with resistance training and yogic practices with plyometric training on resting heart rate among volleyball players" Modern perspectives of sports sciences and yoga for the enhancement of sport performance, ISBN:978-93-5300-462-12, pp:163-175.
4. **Kumar Mohana (2018)** "Effect of specific yogic training and physical and physical exercise on selected physical fitness variables of body composition on obese persons" International Journal of Physiology, Nutrition and Physical Education 2018, 4:5, 1834-1841.
5. **Kumaran (2014)** :Effect of yogic practices and physical exercise on flexibility and resting heart rate among male cricket players" International Journal of Physiology, Nutrition and Physical education 2015; 4 (2) pp: 55-62.
6. **Logeswaran (2019)** " Effect of various Yogic practices on selected Motor fitness components of inter collegiate Badminton players"
7. **Mahendra Kumar Singh (2019)** " A Comparative study of selected Physical Fitness variables between Kabaddi and Kho-Kho male players" International Journal of Physical Education and Sports, Volume :1, Issue:2, pages 39-42, year 2019.
8. **Sinoj Joseph (2019)** "Effect of Yoga practices, Surya Namaskar and meditation on Psychological well being of Female school basketball players "Modern perspectives of sports Science and Yoga for the enhancement of sports performance, ISSN: 9799, pages 13-17.
9. **Srikanta Mishra (2016)** Effect of Yogic practice on Psychological variables between football and kho-kho players" International journal of Research and development, ISSN:2455-7839, vol:7, No3, (2016)