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Combined effect of yoga ball training and psychological intervention training on anxiety among college athletes

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Abstract
The purpose of the study was to find out the combined effect of yogaball training and psychological intervention training on anxiety among college athletes. To achieve this purpose of the study, sixty college athletes were selected as subjects who were from the Govt. First Grade College, Malur, Karnataka. The selected subjects were aged between 18 to 22 years. They were divided into four equal groups of fifteen each, Group I underwent yoga ball training, Group II underwent psychological intervention training, Group III underwent combined training and Group IV acted as control that did not participate in any special training apart from their regular curricular activities. The subjects were tested on selected criterion variable such as anxiety prior to and immediately after the training period. The selected criterion variable such as anxiety was determined through using taylor manifest anxiety scale. The analysis of covariance (ANCOVA) was used to find out the significant differences if any, between the experimental group and control group on selected criterion variable. In all the cases, 0.05 level of confidence was fixed to test the significance, which was considered as an appropriate. The result of the present study has revealed that there was a significant difference among the experimental and control group on anxiety.

Keywords: yoga ball training, psychological intervention training, combined training, anxiety, college athletes

1. Introduction

Yoga balls are used in Yoga, Pilates and fusion exercise programs to strengthen and firm abs, back and buttocks. These yoga balls are made from durable vinyl, they are designed to support up to 600lbs of pressure. It is most often used in physical therapy, athletic training and exercise. It can also be used for weight training. The ball, while often referred to as a swiss ball, is also known by a number of different names, including balance ball, birth ball, body ball, fitness ball, gym ball, gymnastic ball, physio ball, pilates ball, naval mine, Pezzi ball, stability ball, Swedish ball, therapy ball, or yoga ball. Yoga balls are versatile and fun exercise tools that, despite their name, can be applied to so much more than the practice of yoga. You'll find them a regular fixture in fitness classes, rehabilitation centers and gyms. They're just as effective for core training in pilates, and will leave you with a stronger and firmer abdomen, back and butt. We also carry yoga balls made of a thicker material that resists bursting if they are punctured. These balls are ideal for studios that have heavy usage of their equipment or certain fitness classes that incorporate a lot of active movement and weights. Like the traditional versions, they also come in four different sizes to suit many heights. Thera-Band Exercise Balls can be used for exercise, but are specially designed for rehabilitation. They help strengthen the muscles that support good posture, which in turn eases back pain. We carry these balls in sizes as small as 45 centimeters and as big as 85 centimeters. Give yourself a challenging workout with the Dome Yoga Ball, a deceptively simple-looking piece of equipment that will leave your abs sore in a good way! Pick the version with straps for an additional upper-body workout. As an introduction to exercising on the ball, it is often recommended that one simply sit on one for 30 minutes a day and bounce lightly, continually finding and maintaining balance on the ball. Sports training are done for improving sports performance. The sports performance, as any other type of human performance, is not the product of total personality of sports person. The personality of person has several dimensions e.g. physical, physiological, social and psychic. In order to improve sports performance, the social and psychic capacities of the sports of the sport person also have to be improved in addition to the physical and psychological ones. In other words, the total personality of a sportsman has to be improved in order to enhance his performance. Sports training, therefore directly and indirectly aim at improving the personality of the sportsman. No wonder, therefore sports training is an educational process. Researchers found that several methods of psychological preparations and regulations are programmed by coaches, sports administrators, physical educationists etc. these psycho regulative programme include yogasanas, autogenic training, relaxation techniques, mental health trainings, etc.

Psychology (from Greek word, "breath, life, soul", and logia) is an academc and applied discipline involving the scientific study of emntal functions and behavior. Psychologists study such phenomena as perception, cognition, emotion, personality, behavior, and interpersonal relationships. Psychology also refers to the application of such knowledge to various spheres of human activity, including issues related to everday life (e.g. family, education and employment) and the treatment of mental health problems. Psychologists attempt to understand the role of these functions in individual and social behavior, while also exploring the underlying physiological and neurological processes. Psychology includes many sub-fields of study and applications concerned with such areas

as human development, sports, health, industry, media and law. In this modern era of competition, the psychological preparation of a team is as much important as teaching the different skills of a game on the scientific lines. The teams are prepared not only to play the games, but to win the games. And for winning the game, it is not only the proficiency in the skills which bring victory buut more important is the spirit of the players with which they play and perform their best in the competition. Within a short span of time, sports psychology has taken gaint strides. Not it does claim to be a full-fledged discipline in the sense that no training of sportsman is considered complete without adequate emphasis on "psychological conditioning" which plays an extremely important role in competitive sports. Competitive sports reflect cultural aspirations of a people and they have now become an in extricable past of all civilizations. Recreative sports are mainly concerned with man's well-being where as competitive sports aim to measure and enhance human "potentiality and performance". All other things being equal in two opponents, in sports, the one with better "psychological training or mental conditioning will always have an upper edge over the other". Psychology of sports in an application of psychology in the field of sports and games. In other words, it is the psychological approach to sports and games, in order to make them efficient, fruitful and interesting. Psychology of sports is a branch of Psychology that examines various aspects of activities and physical culture. It also studies the psychological aspects of athlete's personality.

2. Materials and Methods

In the present study all the students studying in Govt. First Grade College, Malur, Karnataka. were considered as population for the study. A representative sample of 60 college students in the age of 18-22 years was chosen as sample for the study. The selected participants were divided into four groups. Group I underwent yoga ball training, Group II underwent psychological intervention training, Group III underwent combined training and Group IV acted as control that did not participate in any special training apart from their regular curricular activities. The experimental groups underwent twelve weeks of training in their particular workout. For this study dependent variable is anxiety. Pre-test data were collected two days before the training program and post-test data were collected two days after the training program. The collected data treated with ANCOVA. Level of confidence was fixed at 0.05. If obtained 'F' ratio significant scheffe's post hoc test were used.

2.1 Measurement of anxiety

Purpose

To find out anxiety of college athletes, standardized taylor manifest anxiety scale (TMAS) was used. The anxiety consists of 38 statements, each statement was given true or false.

Procedure

Taylor manifest anxiety scale has subsequently been used as a general indicator of anxiety as a personality trait. Taylor thought that personality drive level would be reflected in the intensity of "manifested anxiety", and measured it using true/false responses. Items judged by clinicians as being indicative of manifest anxiety.

Scoring

True – false responses are used for each item, and the replies indicating anxiety are counted, giving a score from 0 to 38 with the higher the score representing a high level of anxiety. 0 to 38 with the higher the score representing a high level of anxiety.

2.2 Statistical Technique

The following statistical procedure was followed to find out the combined effect of yoga ball training and psychological interventions on anxiety among college athletes. The researcher used Analysis of covariance (ANCOVA) for interpreting the results as recommended by Clarke and Clarke. In analysis of covariance, the final means were adjusted for difference in initial means and the adjusted means are tested for significance. A further advantage of this method is that analysis of variance is first computed for the differences between initial means. In this variance, a non-significant F ratio will provide confidence that the initial samples came from the same population-and are devoid of sampling bias. Scheffe's post hoc test was used to find out the paired adjusted mean difference when the study was significant.

The data were analyzed with the computer using 'SPSS' (11.5) statistical package. The level of confidence was fixed at 0.05 level of confidence. A simultaneous test of significance resolves this issue; analysis of variance indicates whether or not differences within the whole distribution of sample means could have occurred by chance.

3. Results and Discussion

The statistical analyses of anxiety due to yoga ball training, psychological intervention training, combined training and control group have been presented in Table I.

Table 1: Computation of Analysis of Covariance on Anxiety

Test	e.g. i	e.g. ii	e.g. iii	c.g.	f
Pre-Test	32.48	32.4	32.64	32.52	1.42
Post Test	28.68	28.52	27.64	32.48	4.72*
Adjusted Post Test	28.54	28.46	27.58	32.46	7.68*

The table I show that the pre-test values on anxiety for yogaball training, psychological intervention training, combined training and control groups were 32.48, 32.4, 32.64 and 32.52 respectively. The obtained 'F' ratio value of 1.42 for pre-test score of yogaball training, psychological intervention training, combined training and control groups on body composition was less than the required table value of 2.70 for significance with df 3 and 56 at 0.05 level. The post-test means of anxiety for yogaball training, psychological intervention training, combined training and control groups were 28.68, 28.52, 27.64 and 32.48 respectively. The obtained 'F' ratio value of 4.72 for post-test scores of yogaball training, psychological intervention training, combined training and control groups was more than the required table value of 2.70 for significance with df 3 and 56 at 0.05 level. The adjusted post-test means of anxiety for yogaball training, psychological intervention training, combined training and control groups were 28.54, 28.46, 27.58 and 32.46 respectively. The obtained 'F' ratio

value of 7.68 for adjusted post-test scores of yogaball training, psychological intervention training, combined training and control groups were higher than the required table value of 2.72 for significance with df 3 and 55 at 0.05 level. The results of the study indicate that there is a significant difference between anxiety for yogaball training, psychological intervention training, combined training after respective training for a period of 12 weeks, Scheffe's post-hoc test was applied and the results are presented in Table – II.

Table 2: Scheffe's Test for the Adjusted Post-Test Paired Means of Anxiety

Adjusted Post-Test Means				Mean Diff.	Class Interval
YT	PIT	CT	CG		
28.54	28.46			0.08	2.49
28.54		27.58		0.96	
28.54			32.46	3.92*	
	28.46	27.58		0.88	
	28.46		32.46	4.00*	
		27.58	32.46	4.88*	

The results presented in table II shows that the mean difference between yogaball training group and control group was 3.92, psychological intervention training group and control group was 4.00 and combined training group and control group was 4.88, which were higher than the required confidence interval value of 0.15. However, all the experimental groups have significant difference when compare to the control group and also there was no significant difference between the experimental groups.

The adjusted post-test mean values of yogaball, psychological intervention, combined training groups and control group on anxiety were graphically represented in Figure I.

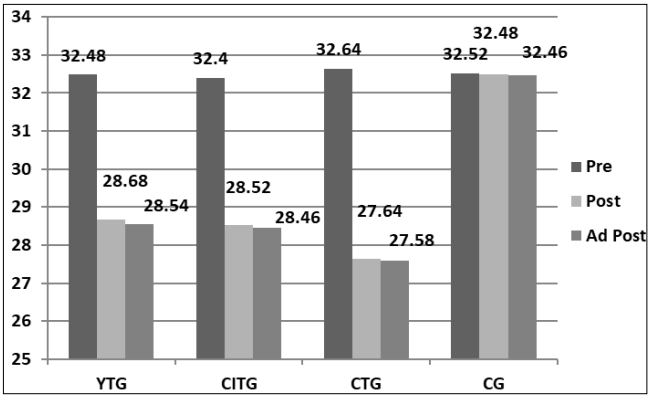

Fig 1: Mean Values of Yogaball Training, Psychological Intervention Training, Combined Training and Control Groups on Anxiety

The results of analysis of covariance on anxiety showed that there was a significant difference existed between control group and yogaball training, psychological intervention training and combined training groups. Thus, twelve weeks of experimental treatment influences in anxiety of the college students compared to control group, and it was found there wouldn't any significant difference between the experimental groups. The above findings are in consonance with the study conducted by Jong-Shyan Wang and others, Gamit, Carranque and others and Fatemeh Ahadi and others.

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