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Assessment of training impacts on competition anxiety of college level students

Dr. Dilip BiswasDOI: <https://doi.org/10.22271/journalofsport.2024.v9.i1a.2870>**Abstract**

The World Health Organization (WHO) describes overweight as one of the today's most important public health problems, which is escalating as a global epidemic. The purpose of the present study was an endeavor to the best method of handling overweight. Out of 96 selected participants from fluvio coastal zone of west Bengal, India on the basis of BMI, 80 overweight girls (average age:20) were consider for the study. The subjects were divided into four groups (20 for each group) randomly namely Weight Training Group (WTG), Aerobic Training Group (ATG), Graded Circuit Training Group (GCTG) and Control Group (CG). Separately designed 12 weeks training programme for WTG, ATG and GCTG was applied on the subjects at morning between 8.00 am to 9.15am for three alternative days per week. After every four weeks, total load was increased. Pre and post-test on the groups were conducted to measure the training effect on Sports competition Anxiety of the subjects. The collected data were statistically analyzed by using the analysis of Co-variance ($p<0.05$) to determine differences, the LSD test was applied as a post hoc test to find out the paired mean differences.

Keywords: Overweight, overweight, weight training, aerobics, graded circuit training, Sports competition anxiety

Introduction

Anxiety is one of greatest problems of modern society. Students are not the exception from this social problem. Anxiety denotes that emotional state of mind where a fear of danger or loss of suffering is the main feature. It usually rises as a consequence of fear of something unidentified which creates tension and trouble. Anxiety is an emotion that is difficult to define and even more difficult to reliably detect in sports performance. In sports field, Coaches should be alert about his worried players who are under pressure but cannot explain any explicit cause but feel tension. Fear is the most serious level of competition anxiety. It is a state in which the anxiety has become so great that the sports person loses control fully on himself and the situation. The athlete who is able to discover the source of his anxiety will seek out to recover himself. Competition anxiety creates lack of self-confidence. Sigmund Freud and Thomas A. Tutko are in the opinion then anxiety can be so power full the athlete who is gripped by anxiety often loses constructive and may attempt to handle competition anxiety by denying the need to work hand. This leads to poor work habit and loses of sports technique and confidence. To sustain internal balance, the organism must function with certain level of anxiety always present. It is related to the bodies alarm system and provides for vigilance against disruptive forces in the environment. The effect of competition anxiety on performance depends directly on the type of task considered. In most cases heightened arousal state has been found to facilitate simple performance such as fingers tapping, eyelid conditioning and verbal memory task. On the other hand, as competition anxiety reaches a certain level, a breakdown of psychological and physiological integrative mechanisms in occur, resulting in less efficient performance is more complex tasks. Competition anxiety has a temporal relationship to performance. The level of competition anxiety demonstrated prior to performance may be unlike from excitement during performance. During performance anxiety is often lessened, since the individual must concentrate on his own actions rather than on his internal fears.

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Statement of the problem

The intention of the research work was to find out the effects of 12 weeks separately designed three different types of training:

1. Weight Training.
2. Aerobics Training.
3. Graded Circuit Training on Sports competition Anxiety and compare the results to identify the impacts of those training on Overweight College girls.

Materials and Method

96 overweight female students of “Fluvio-Coastal morphological zone” at Purba Medinipur district of West Bengal, India, were chosen randomly from Bajkul Milani Mahavidyalaya, Kadmbini Women’s College of Education, Vivekananda College of Education, and Sri Ramkrishna College of Education. 18-22 years old subjects were selected using B.M.I of the subjects. Out of 96 chosen overweight students eighty were finalised as “selected subject” and their average age was 20 years. 4 groups namely - WTG, ATG, GCTG and CG were formed at random and there have 20 girls in each group. Students underwent Weight Training (WT), Aerobics (AT) and Graded Circuit Training (GCT). All the tests of Sports competition Anxiety were conducted in the gymnasium of Bajkul Milani Mahavidyalaya before the beginning of the training (Pre-Training), after every four weeks to assess and determine the rate of increment of load and at the end of training (Post Training). The training programmed was scheduled at 8.00 A.M to 9.15 A.M including warm up and cool down in order to minimize the effect of diurnal variation. Separately designed 12 weeks training programmes for all the independent variables were applied on subjects for three alternative days per week. Sports competition Anxiety test questionnaire (SCAT) by Rainer Martens (SCAT, Martens, 1990) [4] was used for testing the variables. After every 4 weeks of the experimental period, further load was increased by considering individual ability through test-retest method for all the experimental groups.

The SCAT questionnaire was administered to all the subjects. Each subject was asked to answer all the 15 items of the tests was instructed to express the choice most honestly. The SCAT has fifteen items out of which five are spurious questions, which have been added to the questionnaire to diminish biased responses. The subjects were instructed to respond to each item according to how they generally feel in competitive sports situations. Every statement had three possible responses as mentioned below:

- a) Hardly ever.
- b) Sometimes.
- c) Often.

The ten test items, which were taken for scoring purpose, are 2, 3, 5, 6, 8, 9, 11, 12, 14 and 15. The y remaining items were spurious items, which were not taken for scoring purpose are 1, 4, 7, 10 and 13. The scholar scrutinized the completed questionnaire in order to ensure that the subject had responded to every item and there was no question left unanswered. The items 2, 3, 5, 8, 9, 12, 14 and 15 were evaluated in a uniform manner using the following key: hardy ever-1, sometimes-2 and often-3. In case of items 6, 11 scoring were carried out using the following key: often-1, sometimes - 2 and hardy ever-3. However, spurious question i.e. 1, 4, 7, 10 and 13 were not scored out as suggested by Rainer Martens. Scores obtained by each subject on each statement. The subjects were asked to choose the word that described the best opinion that they usually feel while participating in sports and games. After end of 12 weeks’ training programme, Sports competition Anxiety data was collected. Co-variance (ANCOVA) was used to analyse the collected data to determine the differences (if any) among the groups of dependent variables. LSD test is applied for post hoc test to identify difference between paired mean. 0.05 level of confidence was set as the level of significance.

Result of the study

Table 1: Analysis of co-variance on sports competition Anxiety of overweight college girl students

Test		WTG	ATG	GCTG	CG	Source of Variance	Sum of Square	Degree of Freedom	Mean Square	F
Pre test	MS	37.12 ±	37.37 ±	36.02 ±	36.19 ±	AMG	26.8182	(K-1) = 3 (N-K) = 76	8.9394	0.8638
	SD	3.0709	3.4153	2.8149	3.5173	WI	786.4332		10.3478	
Post test	MS	33.12 ±	33.09 ±	31.89 ±	36.50 ±	AMG	236.7904		78.9301	0.9233
	SD	4.2290	3.0504	2.6336	3.4633	WI	6496.776		85.4838	
Adjusted Post-test MS		32.80317	32.58737	31.42036	36.85782	AMG	273.7851	(K-1) = 3	91.26171	1.1250
						WI	6083.814	(N-K-1) = 75	81.11752	

* Significant table value: $F_{0.05}(3, 76) = 2.72$; $N = 80$ ($N =$ subjects’ number); $F =$ ‘F’ ratio; $Ms =$ Means; $S D =$ Standard Deviation; $AMG =$ Among; $WI =$ within.

Above table presented the evidence that the Pre-Test “F” ratio ‘0.8638’ was found lower than table value [$0.8638 < tab_{0.05}(3, 76) = 2.72$]. The Post Test “F” ratio ‘0.9233’ was also lower

than table value [$0.9233 < tab_{0.05}(3, 76) = 2.72$]. The calculated Adjusted Post Test Mean “F” value ‘1.1250’ was not found statistically significant [$F_{0.05}(3, 75) < 1.1250$].

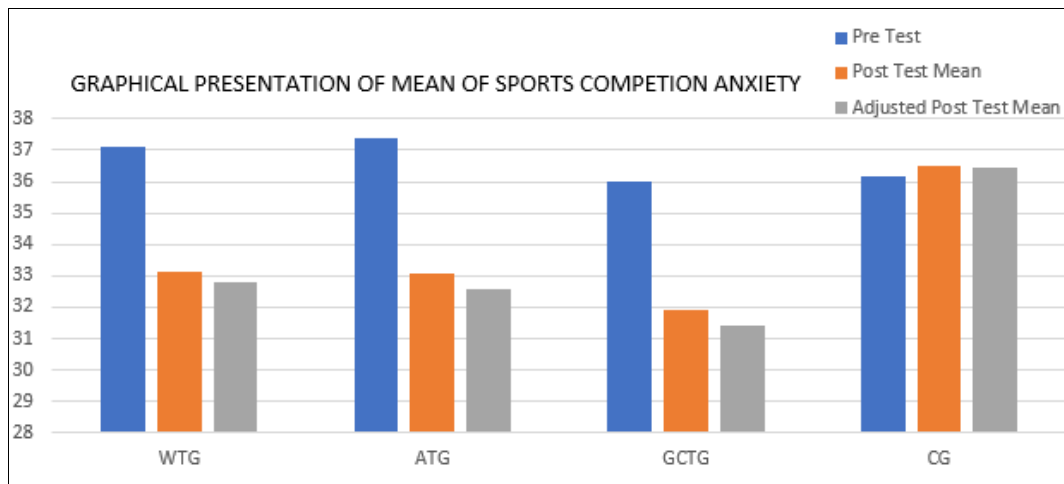


Fig 1: Mean of sports competition anxiety on different training groups of Overweight college girl students

Discussion of the findings

Finding of this research work has revealed that (Table. 1) the differences between WTG and CG, ATG and CG, GCTG and C G were not significant. Besides, the results were assisted by some related findings of various researchers. Twelve weeks of strength training appeared to exert no specific effect on trait anxiety. No statistically significant differences between the EXE or CON groups' baseline values were detected, showing the groups were similar (Silvano Zanuso, John C. Sieverdes, Nicholas Smith, Attilio Carraro, Marco Bergamin-2012) [12]. Petruzzello, Landers, Hatfield, Kubitz, & Salazar, 1994 [6]; Wipfli *et al.* 2008 [7] showed that their findings were not consistent with previous studies which indicated benefits of exercise with a reduction in anxiety. Circuit training was associated with increased positive affect and self-esteem, and decreased state anxiety and negative affect. (Gordon, B.R., McDowell, C.P., Lyons, M. *et al.*). Another research of Mousa Jalili [1, 3] who reported that significant difference was shown among anxiety between two sexes (groups) and also suggested that people make great use of physical activities as a good means of decreasing anxiety but the effects of general physical activity (like Aerobics) is doubtful. Overall, the results of the current study imply that weight training, circuit training and aerobics can promote a modest improvement of the anxiety level of an overweight female student with the improvement of other physiological variables but the sports competition anxiety is mainly associated with the student-player who directly participate in any competition. So general anxiety and competition anxiety is little bit different with each other. On the other hand, no significant difference in sports competition anxiety has been identified between the Training Groups may be due to the trainings applied for all the different groups were almost identical.

Conclusion

From the obtaining result, it was concluded that weight training, aerobics and graded circuit training are found not to be effective for improving the competition anxiety of overweight college girls.

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