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Influence Of Functional Training On Selected Batting Skills Among Women Cricketers

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Abstract: The purpose of the study was to find out the effect of functional training on selected batting skills among women cricketers. To achieve this study, thirty women Cricket players have been randomly selected from University College of Engineering, BIT Campus, Anna University, – Tiruchirappalli-24, Tamilnadu, India. The age of subjects was ranged from 18 to 21 years. The past experience of the subject at least two years in cricket and represented for the college teams. The test was carried out on the basis of subjective rating (two skills in batting) was carried out on each participant. The subjects were randomly assigned into two groups of fifteen each, such as one experimental group and a control group. The experimental group participated functional training for 3 days a week, one session on every alternate day and for 12 weeks. Each session persisted up to 60 minutes excluding warm up and cool down. The control group carried out their daily routine activities and there was no special training was given to them. The subjects of the two groups were tested on selected variables, prior and immediately after the training period. The collected data were analysed statistically through analysis of covariance (ANCOVA) to find out the significance difference, if any between the groups. The 0.05 level of confidence was fixed to test the level of significance difference, if any between groups. The results of the study showed that there was significant level differences exist between Functional training group and control group. Functional training group showed significant improvement on batting when compared to control group.

Index Terms – Functional Training, Subjective Rating, Front Foot Drive, Back Foot Drive, Batting

1. INTRODUCTION

Functional training is performed to make the body better at performing those movements that one can use in a particular sport or in daily life. It is at the cutting edge of preparing athletes for competition (Bob Bridle, 2011). Functional training attempts to adapt or develop individual specific exercises, which allow individuals to perform the activities of daily life more easily and without injuries (Lee Cherry, 2010). One of the most recent and so-called sports training is “functional training”. Although this topic has been addressed and taught for many years in sports training and rehabilitation. (Siff, 2002). Functional training is a system that encourages the training of balance and the balancing training. It is characterized by actions such as squatting and lunging or pushing and pulling (Boyle, 2004). Functional training is designed to improve stability and mobility through specific movement patterns. It is believed this type of training will provide a better foundation of neuromuscular input to improve the efficiency of the kinetic linking system (Gambetta & Clark, 1998). Functional movement is the ability to produce and maintain a balance between mobility and stability along the kinetic chain while performing fundamental patterns with accuracy and efficiency (Mills and Taunton, 2005). Functional training programmes have been used in a variety of rehabilitation settings with documented success. Based on this success, the concept of functional training has gained popularity in applied fitness settings to enhance sports performance (Thompson et al., 2007). A proactive, functional training approach that decreases injury through improved performance efficiency will enhance overall wellness and productivity in many active populations (Cook et al., 2006). The basic idea of a functional-training regimen is to strengthen and stabilize the body's core spinal and abdominal regions while speed improving sharpening, agility and balance. Rather than isolating muscles the way weights do, the routines

engage multiple parts of the body by going through actions (Weinstein, 2004). Functional training is defined as movements or exercises that improve a person's ability to complete their daily activities or achieve a specific goal (Charles, 2011).

2. PURPOSE OF THE STUDY

The purpose of the study was to find out the effect of functional training on selected batting skills among women cricketers.

3. METHODS

To achieve the purpose of the study, thirty women cricketers have been selected from University College of Engineering, BIT Campus. Anna University, Tiruchirappalli-24, Tamilnadu, India. The age of subjects was ranged from 18 to 21 years. The subjects had past experience of at least two years in cricket and only who those represented the college teams were taken as subjects. The test was carried out on the basis of subjective rating. Cricket experts rated the subjects for two batting skills namely front foot drive and back foot drive. The subjects were randomly assigned into two groups of fifteen each, such as experimental group and control group. The experimental group participated functional training for 3 days a week, one session on every alternate day and for 12 weeks, each session lasted for 60 minutes excluding warm up and cool down. The control group maintained their daily routine activities and no special training was given. The subjects of the two groups were tested on selected variables, prior and immediately after the training period. The collected data were analyzed statistically through analysis of covariance (ANCOVA) to find out the significance difference, if any between the groups. The 0.05 level of confidence was fixed to test the level of significance difference, if any between groups.

TABLE-I
CRITERION MEASURES

S.No	Criterion measure	Test items	Unit of measurement
1	Batting skill	Front foot drive	In numbers
2	Batting skill	Back foot drive	In numbers

TABLE – II
DESCRIPTIVE ANALYSIS OF SELECTED BATTING SKILLS AMONG CONTROL AND EXPERIMENTAL GROUPS

S. No	Variables	Group	Pre-Test Mean	SD (±)	Post –Test Mean	SD (±)	Adjusted Mean
1	Front foot drive	FTG	6.67	0.58	8.18	0.50	8.26
		CG	6.51	0.56	6.56	0.61	6.59
2	Back foot drive	FTG	5.39	0.52	7.68	0.46	7.85
		CG	5.21	0.53	5.50	0.77	5.61

FTG= Functional training group, CG= Control group

In Tables-II, pre-test means, post-test means, standard deviations and adjusted means on Front foot drive and Back foot drive of women cricketers were numericaly presented. The analysis of covariance on selected variables of Functional training and control group is presented in table III.

TABLE – III
ANALYSIS OF COVARIANCE COMPUTED FOR FUNCTIONAL AND CONTROL GROUP FOR SELECTED DEPENDENT VARIABLES

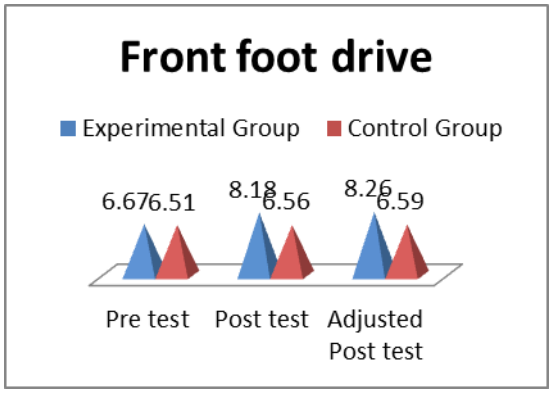
S.No	Variables	Source of Variation	SS	df	MS	F ratio
1	Front foot drive	Groups	4.32	1	4.32	11.38*
		Error	10.26	27	0.38	
2	Back foot drive	Groups	18.07	1	18.07	17.89*
		Error	27.27	27	1.01	

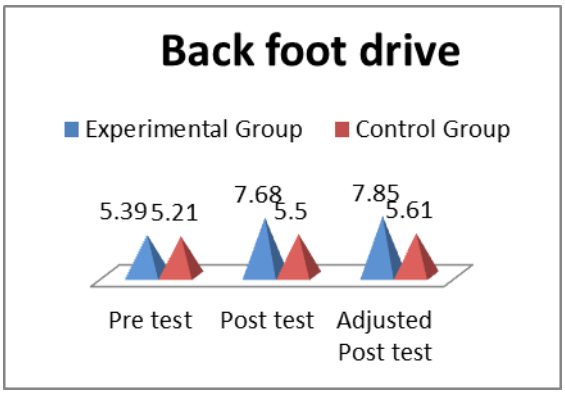
*Significant at 0.05 level of confidences. (Table value for df 1 and 27 was 4.21)

The obtained F-ratio of 11.38 for adjusted mean was greater than the table value 4.21 for the degree of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant level difference among control and experimental groups on front foot drive.

The obtained F-ratio of 17.89 for adjusted mean was greater than the table value 4.21 for the degree of freedom 1 and 27 required for significance at 0.05 level of confidence.

The result of the study indicates that there was a significant level difference among control and experimental groups on back foot drive.





The pre, post and adjusted mean values of front foot drive and back foot drive of experimental and control group are graphically represented.

4. DISCUSSION OF FINDINGS

F (Isalm Sariful and Thirumalaikumar, 2014), conducted the study for 60 football players on functional training and found significantly improved fitness variables namely agility, explosive power, and playing ability of the Football players (S.Smith, et.al:, 2012), found the result similar to the present study said that, significantly improved on chair stands and 6 minutes' walk. (Hallage Tatiane et. al., 2010), organised 12 week training programme for elderly people and found significant improvement in functional fitness. (Gretchen D Oliver and Ro Brezzo, 2009), Organised functional balance training for women athlete and found significant improvement in single leg squat. (Lamberth.John et. al., 2013), conducted six week training for golf players and found significant improvement in bench press and leg press. Sannicandro (2015) investigated different adaptations and the different effects of functional training and aerobic training and found increasing flexibility, walking speed and dynamic balance. (Shaikh Alauddin and Mondal Samiran, 2012), found out functional training has significantly improved speed, endurance, muscular endurance, strength, explosive power, flexibility and agility by conducting eight weeks functional training exercises for college men. (IsalmSariful and Thirumalaikumar, 2014), conducted 12 weeks of step aerobics training and found significant improvement on their functional fitness.

The results of the study indicate that the experimental group which underwent Functional training group showed significant improvement on front foot drive and back foot drive. The control group did not show significant improvement in front foot drive and back foot drive.

5. CONCLUSIONS

From the analysis of data, the following conclusions were drawn.

The experimental group women Cricketers showed significant improvement in front foot drive and back foot drive. The control group women Cricketers did not show significant improvement in any of selected variables.

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