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Effect of circuit based game specific training on selected skill performance variables of women volleyball players

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Abstract

This study was designed to investigate effect of circuit based game specific training on selected skill performance variables of women volleyball players. To achieve the purpose of the study 40 women volleyball players were selected from Bharathiar University Department, Coimbatore. The subjects were randomly assigned to two equal groups (n=20). Group- I circuit based game specific training (CBGST) and Group - II was act as a control group (CG). The respective training was given to the experimental groups for 3 days per week (Monday, Wednesday and Friday) days the period of eight weeks. The control group was not be given any sort of training except their routine. The selected skill performance variables were overhead pass (Brady volleyball test) and overhead service (Russell lounge volleyball test). The data collected from the subjects was statistically analyzed with 't' ratio to find out significant improvement if any at 0.05 level of confidence. The result of this overhead pass and overhead service improved significantly due to effects of circuit based game specific training with the limitation of (diet, climate, life style) status and previous training the result of the present study coincide findings of the investigation don by different experts in the field of sports sciences. Due to the effect of circuit based game specific training significantly improved selected skill performance variables of women volleyball players.

Keywords: Circuit based game specific training, volleyball, overhead pass and overhead service

Introduction

Circuit training is a fitness routine that involves repeatedly performing a series of exercises with a minimal rest in between. Circuit training often includes using a wide range of exercise equipment. A circuit is something that repeatedly returns to where it started. In circuit training, the entire collection of exercises is repeated a certain number of times. Circuit based game specific training is simply fitness and performance training designed specifically for athletic performance enhancement. If done correctly this type of training can be very beneficial for athletes however if it is not done properly it can be very detrimental. The concept of circuit based game specific training has evolved over time. Currently, its main purpose is to stimulate a movement or exercise in a weight room with the intent of it transferring to the playing field, court, etc. Depending on the sport, athletes will focus on training specific muscle groups and utilizing a specific energy system in order to strengthen their body and improve the skills used in their sport.

An overhead pass is a ball handling skill used to direct the ball to the target by contacting the ball with both hands. The ball is played up overhead using a setting type motion. Using the hands to play the ball is often preferred over passing with the forearms because the hands have greater ball control.

When it comes to the game of volleyball, it all begins with serving. In fact, serving is all about putting the ball into play. The serve is executed by a volleyball player who plays in the back right zone of the court. It's also important to know that the serve is executed from the service zone of the volleyball.

The overhand service are most common, and the two main overhand, or overhead, service are the topspin and the float. For all overhand service, you start with your dominant-side foot back and the ball held extended in your non-dominant hand.

Then you toss the ball up in front of you hitting hand. How you hit it depends on the type of overhand serve you want to create. The biggest difference between the types of overhand service is the server's body position, where contact is made on the ball, and the follow-through.

Materials and Methodology

This study was designed to determine the impacts of circuit based game specific training on selected skill performance variables of women volleyball players. To achieve the purpose of the study 40 women volleyball players were selected from Bharathiar University Department, Coimbatore. The subjects were randomly assigned to two equal groups, namely, game specific training (CBGST) group (n=20) and control group (n=20). The respective training was given to the experimental group the 3 days per week (alternate days) for the training period of eight weeks. The control group was not given any sort of training except their routine. The skill

performance variables were overhead pass (Brady volleyball test) and overhead service (Russell lounge volleyball test).

Criterion measures

Variables	Test items	Unit of measurements
Overhead pass	Brady volleyball test	In points
Overhead service	Russell lounge volleyball test	In points

Training programmed

The training programmed was lasted for 45 minutes for session in a day, 3 days (Monday, Wednesday, Friday) in a week for a period of 6 weeks duration. These 45 minutes included 10 minutes warm up, 25 minutes circuit based game specific training and 10 minutes warm down. Every two weeks of training 5% of intensity of load was increased from 65% to 80% of work load.

Table 1: Computation of t ratio on selected skill performance variables women volleyball players on experimental group and control group

Group		Mean	N	Std. Deviation	Mean difference	Std. Error Mean	T ratio
Experimental Group							
Overhead pass	Pre test	20.25	20	1.74	4.2	0.39	15.6*
	Post test	24.45	20	1.53		0.34	
Overhead service	Pre test	18.90	20	1.58	3.0	0.35	18.49*
	Post test	21.90	20	1.61		0.36	
Control Group							
Overhead pass	Pre test	20.30	20	1.72	0.30	0.38	0.56
	Post test	20.00	20	1.77		0.39	
Overhead service	Pre test	18.95	20	1.60	0.25	0.35	2.03
	Post test	18.70	20	1.65		0.37	

*significant level 0.05 level (degree of freedom 2.09, 1 and 19)

Table I reveals the computation of mean, standard deviation and 't' ratio on selected skill performance variables namely overhead pass and overhead service of experimental Group. The experimental group obtained 't' ratio on overhead pass and overhead service were 15.6 and 18.49 respectively. The

required table value was 2.09 for the degrees of freedom 19 at the 0.05 level of significance. Since the obtained t values were greater than the table value it was found statistically significant.

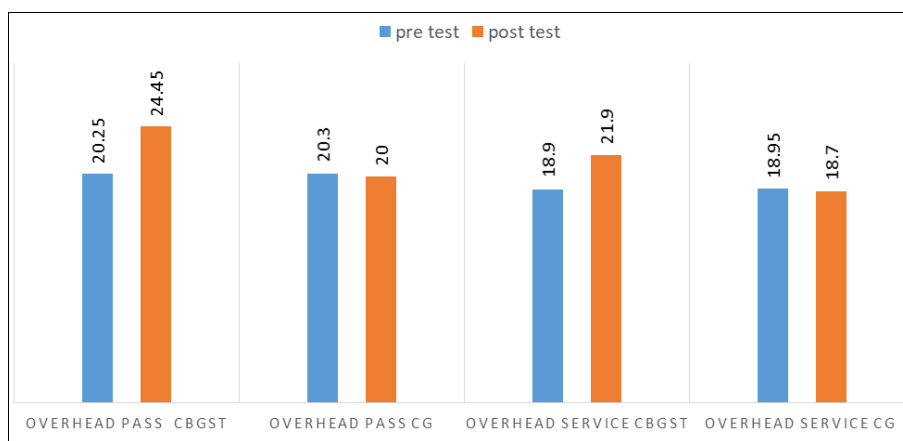


Fig 1: bar diagram showing the mean value on selected skill performance variables of women volleyball players on experimental and control group

Table I reveals the computation of mean, standard deviation and 't' ratio on selected skill performance variables overhead pass and overhead service of control group. The control group obtained 't' ratio on jump shoot and high dribble were 0.56 and 2.03 respectively. The required table value was 2.09 for the degrees of freedom 19 at the 0.05 level of significance. Since the obtained t values were lesser than the table value it was found statistically not significant.

Discussion and Findings

The present study experimental the impact of 8 weeks circuit based game specific training significantly improved the selected skill performance variables of the women volleyball players. The results of this study indicated that circuit based game specific training after is more efficient to bring out desirable changes over overhead pass and overhead service of the women volleyball players. The finding of the present

study had similarity with the findings of the investigators referred in this study. Dr. S Velkumar (2020) [7] Impact of Circuit Training With Pranayama Practices On Selected Motor Ability Components And Skill Performance Variables Among Inter Collegiate Level Women Volleyball Players. Dr. S Velkumar, Dr. K Rajesh Kumar. Impact of Circuit Training On Selected Physical Fitness Variables of Male Hockey Players.

Conclusion

It was concluded that there was a significant improvement in the skill performance variables of women volleyball players due to the influence of circuit based game specific training.

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