



Effects of Circuit Training on Selected Skill Related Variables among Women Football Players

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ABSTRACT

This study was designed to investigate the effects of circuit training on selected skill related variables among women football players. Twenty women football players were randomly selected from Department of physical education, Bharathiar University, Coimbatore. The subjects age ranged from 21 to 27 years. They were divided into two equal groups. The group 1 is considered as experimental group (circuit training) and group 2 was considered as control group. pre-test was conducted on speed, Agility, Endurance and leg explosive power for both the groups and the reading were carefully recorded in their respective unit as pre-test score. After pre-test, experimental group was treated with specific circuit training, for duration of 45 minutes, three days per week for a period of six weeks. The control group was no treated with any special training. After six weeks of training post test was conducted and the reading were carefully recorded in their respective units as post test score. The pre and post-test were taken for analysis. The collected data on skill related variables due to six weeks circuit training was analysed by dependent 't' test with 0.05 level of confidences. From the results of the study, it was found that there was significant improvement on skill related variables among women football players.

Keywords: Circuit Training, Skill Related Variables and Women Football Players.

INTRODUCTION

A sport is an activity that is governed by a set of rules or customs and often engaged competitively. Sports commonly refers to activities where, the physical capability of the competitor are the sole or primary determinant of the outcome (winning or losing), but the term is also used to include activities such as mind sports (a common name for some card games and board games with little to no element of chance) and motor sports where mental acuity or equipment quality are major factors. Sports are commonly defined as an organized, competitive and skilful physical activity requiring commitment fair play. Some view sports as differing from games based on the fact that there are usually higher levels of organization and profit (not always monetary) involved in sports. Accurate records are kept and update for most sports at the highest levels, while failures and accomplishments are widely announced in sport news. The term sports are sometimes extended to encompass all competitive activities in which offense and defence are played, regardless of the level of physical activity. Both games of skill and motor sport exhibit many of the characteristics of physical sports, such as skill, sportsmanship, and at the highest levels, even professional sponsorship associated with physical sports.

Sport is all forms of physical activity which, through casual or organized participation, aim to use, maintain or improve physical fitness and provide entertainment to participants. Sport may be competitive, where a winner or winners can be identified by objective means, and may require a degree of skill, especially at higher levels. Hundreds of sports exist, including those for a single participant, through to those with hundreds of simultaneous participants, either in teams or competing as individuals. Some non-physical activities, such as board games and card games are sometimes referred to as sports, but a sport is generally recognized as being based in physical athleticism (Wuest, 1987).

STATEMENT OF THE PROBLEM

The purpose of this study is to find out "Effect of Circuit training on selected Skill Related variables of intercollegiate Women football players".

HYPOTHESES

- It was hypothesis that there was a significant change through circuit training from baseline to post treatment on selected skill related variables of intercollegiate women football players.
- It Was hypothesis that there was significant changes through circuit training on selected skill related variables of control group of women football players.

EXPERIMENTAL DESIGN

The selected twenty subjects were randomly divided into two equal groups consist of 10 each such an experimental group and control group. Pre-test was conducted on speed, Agility, Endurance and leg explosive power for the two groups and the reading were carefully recorded in their respective unit as pre- test score. After pre-test, experimental group was treated with specific circuit training, for duration of 45 minutes, three days per week for a period of six weeks. The control group was not treated with any special training. After six weeks of training post test was conducted and the reading were carefully recorded in their respective units as post test score. The pre and post-test were taken for analysis.

TRAINING PROGRAM

The training program is design for 60 minutes per session in a day, three days in weeks for a period of six weeks duration these 60 minutes included 10 minutes warm up and 10 minutes warm down remaining 40 minutes allotted for circuit training program. Every two weeks 10% intensity is increase from 50% to 60% of work load. The training load is increased from the maximum working capacity of the subjects during the pilot study.

STATISTICAL TECHNIQUE

The collected data on selected skill related variables due to effect of circuit training was analysed by using means and standard deviation. In order to find out the significant improvements if dependent't' test was applied 0.05 level of confidence was fixed to level of significant.

RESULTS

Table 1: COMPUTATION OF 't' RATIO BETWEEN PRE AND POST TEST MEANS OF CONTROL GROUP ON SKILL RELATED VARIABLES

Control Group					
Skill related variables	Pre/post test	mean	Std.Deviation	Std error mean	't'Ratio
Speed	Pre-test	7.91	.504	.159	1.48
	Post-test	7.75	.581	.183	
Agility	Pre-test	14.11	.390	.123	1.78
	Post-test	14.13	.396	.125	
Endurance	Pre-test	1780	271.57	85.88	2.04
	Post-test	1768	260.92	82.51	
Leg explosive power	Pre-test	1.55	11.40	36.06	2.18
	Post-test	1.49	13.36	42.25	

*Significant at 0.05 level of confidence (2.26), 1 and 9.

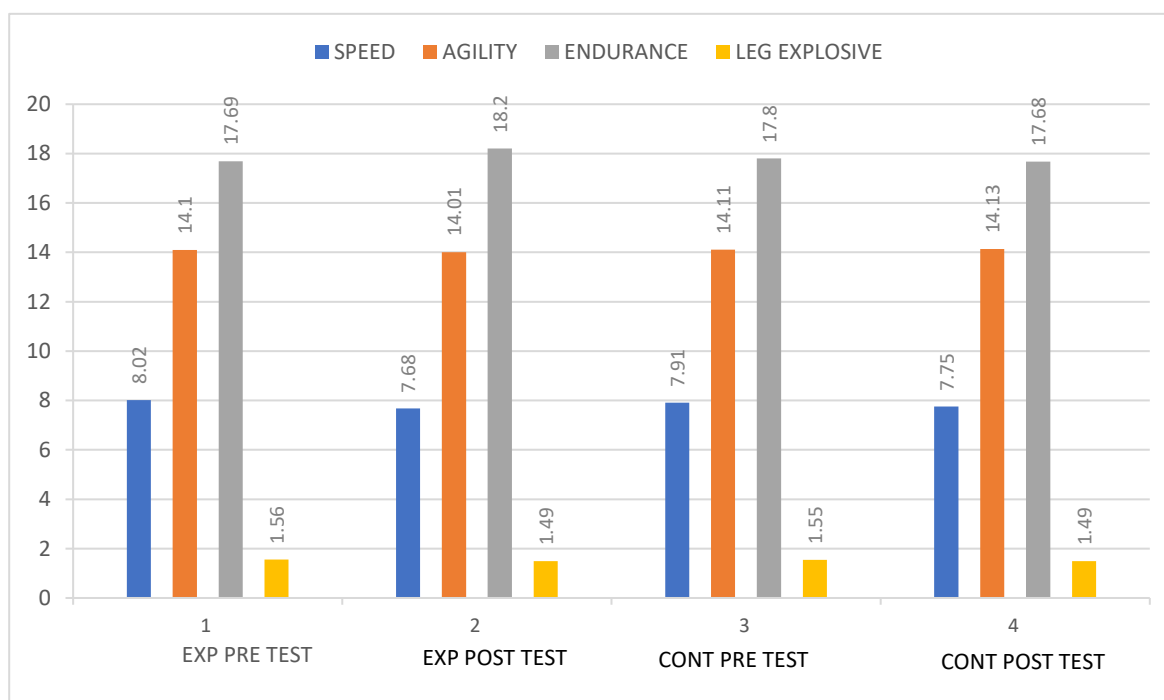
Table 1 reveals that the computation of 't' ratio between pre and post-test means of control group on skill related variables. The't' ratio on speed, agility, endurance and leg explosive power are 1.48, 1.78 2.04 and 2.18 respectively. The required table value was 2.26 for the degrees of freedom 9 at 0.05 level of signification. Since the obtained't' ratio values were lower than the table value, it was found statistically not significant.

Table 2: COMPUTATION OF 't' RATIO BETWEEN PRE AND POST TEST MEANS OF EXPERIMENTAL GROUP ON SKILL RELATED VARIABLES

Experimental Group					
Skill related variables	Pre/post test	Mean	Std.Deviation	Std error mean	't'Ratio
Speed	Pre-test	8.02	.484	.153	5.58*
	Post-test	7.68	.601	.190	
Agility	Pre-test	14.10	.403	.127	4.37*
	Post-test	14.01	.432	.136	
Endurance	Pre-test	1769	264.88	83.76	7.29*
	Post-test	1828	257.28	81.36	
Leg explosive power	Pre-test	1.56	12.94	40.96	5.95*
	Post-test	1.49	12.96	40.99	

*Significant at 0.05 level of confidence (2.26), 1 and 9.

Table 2 reveals that the computation of 't' ratio between pre and post-test means of experimental group on skill related variables. The 't' ratio on speed, agility, endurance and leg explosive power are 5.58, 4.37, 7.29 and 5.95 respectively. The required table value was 2.26 for the degrees of freedom 9 at 0.05 level of signification. Since the obtained 't' ratio values were greater than the table value, it was found statistically significant.



DISCUSSIONS ON FINDINGS

During the training period the experimental group underwent the training of selected suitable conditioning exercises for six weeks of period in addition to their daily routine activities as per the curriculum. Experimental group underwent training program on three days per week for period of six weeks. The maximum duration of training session in all the days lasted for 60 minutes approximately. All the subjects involved in this study were carefully monitored throughout training program. In the control group there is not significant different because they were not given any special treatment other their daily activity. The subjects chosen for the experimental group was not given any special physical exercise or any other conditional training than treatment factors. Thus, it was concluded that any improvement in their performance was on account of the treatment given. In the speed of obtained 't' ratio value was greater than the table 't' value, it shows that there was a significant difference that exists between pre-test and post-test on speed. In the agility of obtained 't' ratio value was greater than the table 't' value, it shows that there was a significant difference that exists between pre-test and post-

test on agility. In the endurance obtained 't' ratio value was greater than the table 't' value, it shows that there was a significant difference that exists between pre-test and post-test on endurance. In the Leg explosive power obtained 't' ratio value was greater than the table 't' value, it shows that there was a significant difference that exists between pre-test and post-test on leg explosive power. Hence there is the significant improvement on the variables such as speed, agility, endurance, leg explosive power by giving the circuit based training for 3 days in a week for the period of six weeks.

DISCUSSION ON HYPOTHESES

The hypothesis of this study stated that there would be significant improvement on skill related fitness components of women football players due to the influence of circuit based training. From the result of the present study, it was observed that there was a significant improvement in skill related variables due to circuit based training. Hence the researcher's hypothesis was accepted.

CONCLUSIONS

Based on the results of the study following conclusion have been arrived.

1. There was a significant improvement in speed of women football players due to the influence of Circuit based training.
2. There was a significant improvement in agility of women football players due to the influence of circuit based training.
3. There was a significant improvement in endurance of women football players due to the influence of circuit based training.
4. There was a significant improvement in leg explosive power of women football players due to the influence of circuit based training.

There was a significant improvement in endurance of women football players due to the influence of circuit based training.

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