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Effect of Functional Core Training on Selected Skill performances among Basketball Players

Siby Lukose[1] & Dr.P.K.Senthilkumar[2]

[1]Ph.D Scholar (Part Time), Department of Physical Education, Tamilnadu Physical Education and Sports University, Chennai, Tamil Nadu, India.
[2]Assistant Professor, Department of Exercise Physiology, Tamilnadu Physical Education and Sports University, Chennai, Tamil Nadu, India.

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Abstract

The purpose of the study was to find out the effect of functional core training on selected skill performances among basketball players. To achieve the purpose of the present study, thirty men basketball players from Ernakulam district, Kerala state, India were selected as subjects at random and their ages ranged from 18 to 25 years. The subjects were divided into two equal groups of fifteen subjects each. The subjects (N=30) were randomly assigned to two equal groups of fifteen subjects each. Pre test was conducted for all the subjects on selected skill performances. This initial test scores formed as pre test scores of the subjects. The groups were assigned as Experimental Group and Control Group in an equivalent manner. Experimental Group was exposed to functional core training and Control Group was not exposed to any experimental training other than their regular daily activities. The duration of experimental period was 12 weeks. After the experimental treatment, all the thirty subjects were tested on their skill performance variables. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to dependent 't' test. In all cases 0.05 level of significance was fixed to test hypotheses. The functional core training had positive impact on shooting, passing and dribbling among college basketball players.

Keywords: Functional Core Training, Shooting, Passing, Dribbling, Basketball.

Introduction

Basketball involves approximately 450 million registered participants from over 200 national federations belonging to the Federation Internationale de Basketball (FIBA). Basketball which originated from America and has been most popular in that country has now become a game of international repute. It is played nearly everywhere in the world. Basket ball is a game much similar to the one played in ancient times by Mayas of Mexico. Basketball was invented by Dr.James Naismith in 1891. The first tournament was conducted in the year 1892. The first professional league was formed in the United States in 1899. A soccer ball was earlier used. By 1941, in was changed to the present day molded ball. The courts have also undergone many changes. The courts were small and irregular in the beginning. In 1915, the National Joint rules committee was formed to set up single code governing the game. The basketball is a ball game played by two teams of 5 players, plus 7 substitutes in each team. The players may pass, throw, roll bat or dribble the ball. The main aim of a basketball player is to obtain points by putting the ball into the basket of the opponent team's court. A goal is considered when the ball enters into the basket from above and passes through or remain in the net. In case score of both the teams are equal at the end, extra periods of 5 minutes each are provided to break the tie. The match is won by the team scoring greater number of points, or when the opponent team refuses to play, or declared winner by referee due to any other reason (Arias, 2012).

Functional core training is about power, strength and stabilization. Core muscles create a solid base for your body, allowing you to stay upright and stand strong on your two feet. Core work allows you to stabilize your spine, which improves and controls your posture. Functional core training allows you to practice movement that provides optimal motion for daily tasks. Challenging your core not only improves balance and functional movement, but it creates that toned look that so many people crave (Stephenson & Swank, 2004).

Correspondence
Siby Lukose,
E-mail: siby.lukose@live.in, Ph: +9199955 55644

Methodology

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scores formed as pre test scores of the subjects. The groups were assigned as Experimental Group and Control Group in an equivalent manner. Experimental Group was exposed to functional core training and Control Group was not exposed to any experimental training other than their regular daily activities. The duration of experimental period was 12 weeks. After the experimental treatment, all the thirty subjects were tested on their skill performance variables. This final test scores formed as post test scores of the subjects. The pre test and post test scores were subjected to dependent 't' test. In all cases 0.05 level of significance was fixed to test hypotheses.

Results

The findings pertaining to analysis of dependent 't' test between experimental group and control group on selected skill performances college basketball players for pre-post test respectively have been presented in table I to II.

Table I. Significance of mean gains & losses between pre and post test scores on selected variables of functional core training group

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Shooting	29.13	32.33	3.20	2.07	0.53	5.96*
2	Passing	28.00	32.60	4.60	1.80	0.46	9.87*
3	Dribbling	11.12	9.98	1.14	0.26	0.06	16.63*

An examination of table-I indicates that the obtained't' ratios were 5.96, 9.87 and 16.63 for shooting, passing and dribbling respectively. The obtained't' ratios were found to be greater than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be significant. The results of this study showed that statistically significant and explained its effects positively. The graphical representation of data has been presented in figure I.

Figure I. Comparisons of pre – test means and post – test means for experimental group in relation to physiological variables

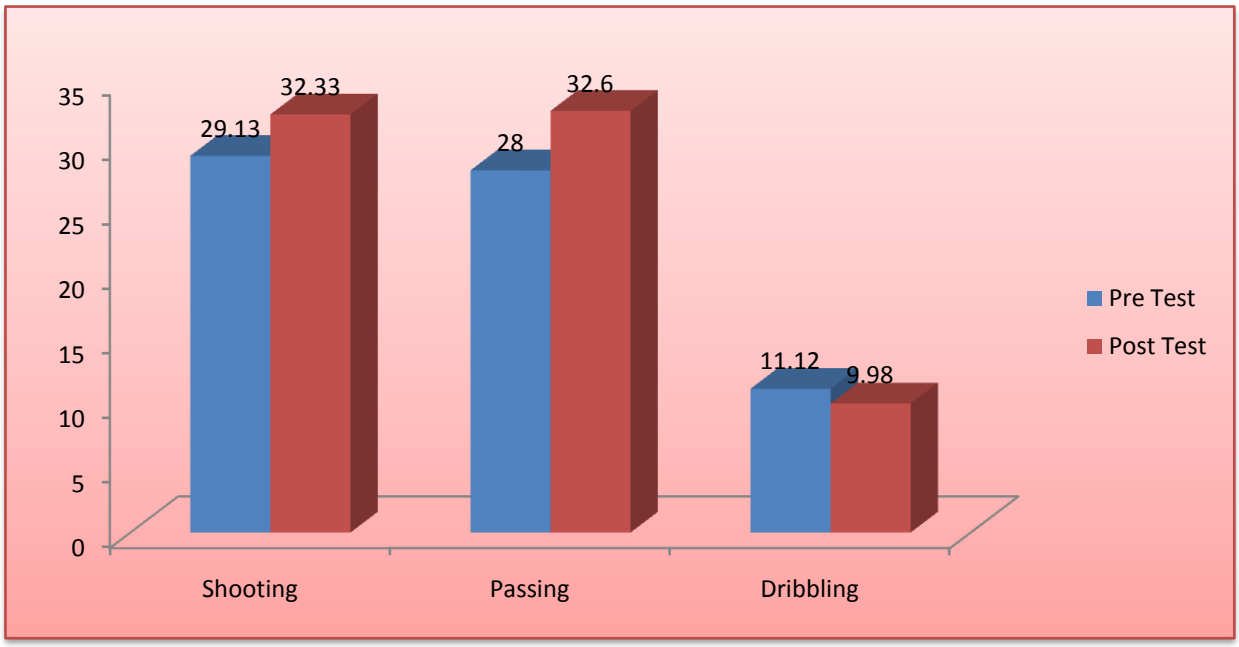
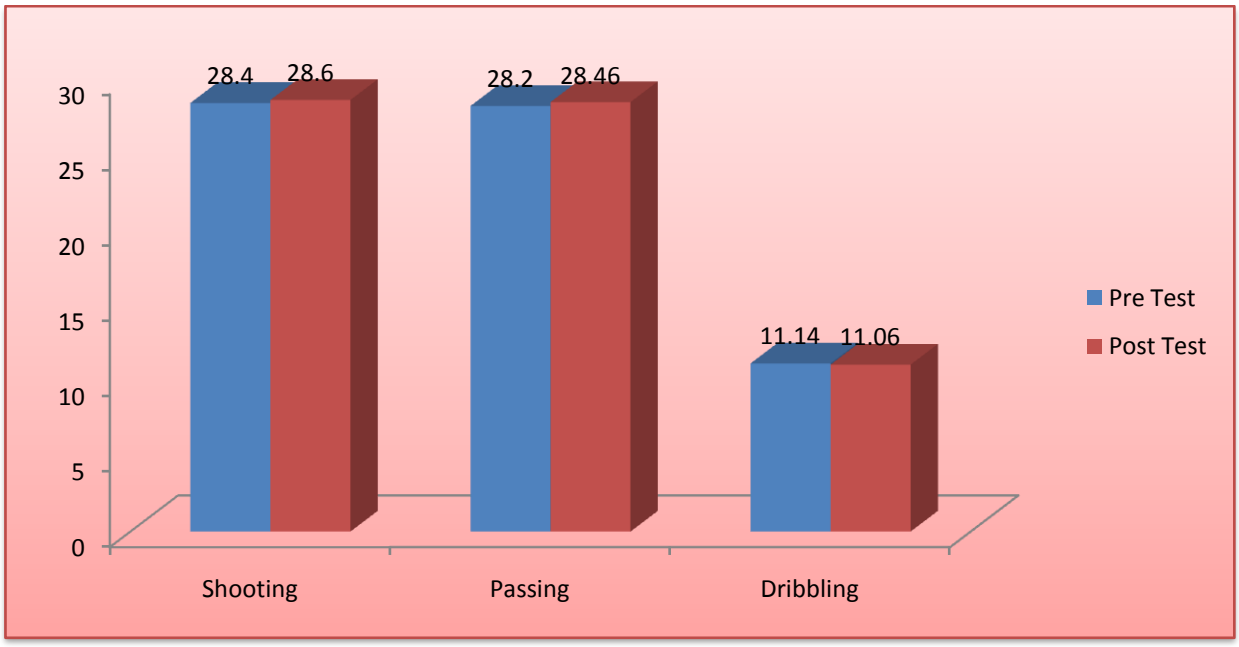


Table II. Significance of mean gains & losses between pre and post test scores on selected variables of control group

S.No	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	Std. Dev (±)	σ DM	't' Ratio
1	Shooting	28.40	28.60	0.20	0.94	0.24	0.82
2	Passing	28.20	28.46	0.26	1.66	0.43	0.61
3	Dribbling	11.14	11.06	0.08	0.16	0.04	1.92

An examination of table-II indicates that the obtained't' ratios were 0.82, 0.61 and 1.92 for shooting, passing and dribbling respectively. The obtained't' ratios were found to be lesser than the required table value of 2.14 at 0.05 level of significance for 14 degrees of freedom. So it was found to be insignificant. The graphical representation of data has been presented in figure II.

Figure II. Comparisons of pre – test means and post – test means for control group in relation to physiological variables



In case of skill performances i.e. shooting, passing and dribbling the results between pre and post test has been found significantly higher in experimental group in comparison to control group. This is possible because due to regular functional core training which may also bring sudden spurt in skill performances in basketball players. The findings of the present study have strongly indicates that functional core training of twelve weeks have significant effect on selected skill performances i.e., shooting, passing and dribbling of college basketball players.

Conclusions

On the basis of findings and within the limitations of the study the following conclusions were drawn:

1. The functional core training had positive impact on shooting, passing and dribbling among college basketball players.
2. The experimental group showed better improvement on shooting, passing and dribbling among college basketball players than the control group.

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