

Effect of Six Week Training Programme of Physical Fitness of Basketball Players

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Abstract

The study was carried out to find out the effect of six week training programme on physical fitness of basketball players. The study was delimited to female basketball players upto the 15 years age group and 15 players were selected from Bandipora district of Jammu and Kashmir State. The basic aim of the study was to improve the physical fitness of basketball players for their performance through different training programmes i.e. shuttle run, 50 yard dash, standing broad jump, vertical jump, single limb balance. For improving the explosive strength, ability, speed and balance of basketball players, the training dosing was given in different categories. The data was collected by pre-test and post-test i.e. before the training and after six weeks training. The result of the study is greatly helpful for coaches, teachers and other sprinters for improving their performance and useful information for basketball players. The statistical analysis of data i.e. mean, S.D and t-test were computed through SPSS 17.0 programme by the investigator. There was significant difference in their vertical jump, agility, and standing broad jump, but insignificant differences existed among basketball players in some items that is single limb balance time and speed by utilized training programme of six weeks.

KEYWORDS: Basketball, Physical Fitness, Training programme

Introduction

Basketball is a team sport in which two teams of five active players, each try to score points against one another by placing a ball through a 10 feet (3.048m) high hoop (the goal) under organized rules. Basketball is one of the most popular and widely viewed sports in the world. Points are scored by throwing (shooting) the ball through the basket above, the team with more points at the end of the game wins. The ball can be advanced on the court by bouncing it (dribbling) or passing it between teammates. Disruptive physical contact (foul) is not permitted and there are restrictions on how the ball can be handled (violations). Through time, basket ball has developed to involve common techniques of shooting, passing and dribbling, as well as players' positions, offensive and defensive structures the tallest members of a team will play center or one of two forward positions, while shorter players or those who possess the best ball handling skills and speed, play the positions. The main purpose of the study is to find out the effect of six week training on basketball players.

Material and Methods

The sample consisted of fifteen female basketball players of Bandipora district of Jammu and Kashmir State were selected as the subjects of the study the age of the subjects was fifteen years old. The study was further delimited to

the specific physical fitness i.e. single limb balance, agility run, sprints, vertical jump and standing broad jump. The mean, S.D, t-test were computed through SPSS 16.0 programme by the investigator for the collection of data the difference in the mean gain for selected variables were tested for significance of difference by paired t-test the difference of pre-test and post-test scores were taken into account the level of significance was set as at 0.5.

Table 1

Descriptive statistics on pre-test and post-test of specific physical fitness of female basketball players.

Specific motor abilities	Pre-test		Post-test	
	Mean	S.D	Mean	S.D
Single limb balance(sec)	27.07	1.91	26.20	0.86
Agility run(sec)	5.71	0.91	6.73	0.73
Sprint(sec)	3.06	0.88	3.53	0.51
Vertical jump(cm)	42.33	3.92	60.07	3.42
Standing broad jump(cm)	231.81	9.79	240.33	8.77

The mean scores of various specific motor abilities i.e. single limb balance, agility and standing broad jump, vertical jump on pre-test and post-test of female basketball players.

Table 2

Significance difference between mean scores on specific physical fitness of female basketball players.

Variable	Sex	Mean	M.D	D.M	t-ratio
Single limb Balance	Pre-test	27.07	87	0.54	1.60
	Post-test	26.20			
Vertical jump	Pre-test	42.26	17.75	1.35	13.11*
	Post-test	60.01			
Agility run	Pre-test	5.71	1.02	0.31	3.27*
	Post-test	6.73			
Sprint	Pre-test	3.06	0.47	0.25	1.90
	Post-test	3.53			
Standing jump	Pre-test	231.87	8.46	3.38	2.50*
	Post-test	240.33			

It is clearly evident from table 2 that the statistically significant difference was found between pre test and post test mean score of female basketball players in their vertical

jump, agility run and standing broad jump as the obtained t-values of 13, 11, 3.27 and 2.50 were higher than the required $t_{0.5}(28) = 2.05$ to be significant no statistically significant difference between pre test and post test mean score of female basketball players in single limb balance time, and sprint run, as the obtained t values of 1.90 respectively were than required $t_{0.5}(28) = 2.05$

Findings and Conclusion

The result of descriptive analysis of data indicated that female basketball players had improved their results through the initial and final testing in the agility run, sprints, vertical jump and standing broad jump except single limb balance of physical fitness after six week training programme.

The result of the analysis of differences between the initial and final measuring by t-test indicated that the statistically significant differences were found among female basketball players between the initial and final measuring of explosive strength of legs through standing broad jump and vertical jumps and agility run but they didn't differ significantly between the initial and final testing of single limb balance time, speed results of the analysis also indicates that they had improved their results at some extent after the availing six week training programme.

Conclusion

Within the framework of investigation the following conclusions are drawn.

- Six week training programme have an effect on the statistically relevant increase in the explosive strength of leg muscles and agility, which in turn leads to an increase in the vertical jump, standing broad jump and agility run.
- By means of the analysis it has been established that the difference in the resulting vertical jump and standing broad jump is beneficently relevant for the female basketball players of 15 years old after six week training programme.
- Significant improvement was not seen in single limb balance sprints performance of female basketball players by means of six week training programme.

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