



EFFECT OF TRAINING PROGRAMME ON SELECTED PHYSICAL FITNESS PARAMETER OF VOLLEYBALL PLAYERS

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ABSTRACT

The purpose of the present study was to find out the effect of 6 week training programme on selected physical fitness parameters of volleyball players. The study was conducted on 25 male national level volleyball players from Sports Authority of India Training Centre, Kurukshetra with age ranged between 18-25 years. The physical fitness parameters selected for testing the hypothesis were namely approach jump reach, block jump reach, standing broad jump, 10X4.5M Shuttle Run, 20M Dash and 1500M Run. Paired 't' test was employed for the present study and the level of significance was set at 0.05. The statistical test was computed by using SPSS 17. Analysis of the results indicated that 6 week training programme shows significant difference on physical fitness parameters namely approach jump reach, block jump reach, standing broad jump, 20M and 1500M of volleyball players and only 10X4.5M physical fitness parameters shows no significance difference of training programme on volleyball players.

Key words: Physical Fitness, Training Programme

INTRODUCTION

Physical fitness can be defined as a general state of health and well-being or more specifically as the ability to perform aspects of sports or occupations. Physical fitness is generally achieved through correct nutrition, exercise, hygiene and rest. It is a set of attributes or characteristics seen in people and which relate to the ability to perform a given set of physical activities.

In the last few decades sports have gained tremendous popularity all over the globe which is still increasing at a fast pace and this happy trend is likely to continue in the future also. When one looks at the history of the Modern Olympic Games one sees the number of sports for which competitions are held has increased steadily. The total numbers of participating countries and sportsmen have also increased. In addition to Olympic Sports, indigenous sports have also become popular in each country. Several new sports like Wushu, Taekwondo etc. also came into existence and are quite popular with the masses. The television and press are giving much more coverage to sports and have become effective medium to carry sports to millions and millions of people around the world. Performance sports aim at high sports performances and for that the physical and psychic capacities of sportsmen are developed to extreme limits.

This normally does not happen in other areas of human activity. As a result, performance sports yield valuable knowledge about the limits to which human performance and various performance factors can be developed. It also leads to discovery of means and methods for improving various physical and psychic capacities (performance factors) to exceptionally high levels. This knowledge can be fruitfully applied to other areas of sports and human activity. (Singh, 1995)

Volleyball is a team sport that requires great skill and can be very rewarding when played properly. Certainly considered to be both a competitive and leisurely activity, it can be played by school teams, professional athletes and families enjoying a day at the beach. Volleyball also develops key upper body muscles (especially the arms), improves sprint speed and agility due to the quick changes of pace and direction, and improves overall flexibility. Volleyball places a large number of demands on the technical and physical skills of a player. During the course of play, players are required to serve, pass, set, attack, block and dig the ball. Playing volleyball requires flexibility, good balance, upper and lower body strength and speed in order to be played effectively. The study was conceptualized to find out the effect of Training Programme on selected physical fitness parameters of Volleyball Players thus it was hypothesized that there would be significant effect of training programme on selected physical fitness parameters of volleyball players.

METHODOLOGY

In order to assess the effect of training programme, the study was conducted on 25 male volleyball players of Sports Authority of India Training Centre, Kurukshetra through purposive sampling with age ranged between 18-25 years and all the selected subjects were national player. On the basis of review of related literature, expert guidance and scholar own understanding the following variables were selected for testing the hypothesis-

Table 1

S. No.	Test	Criterion Measures
1	Approach Jump Reach	Max. reach with approach run by one hand (Recorded in centimetres)
2	Block Jump Reach	Max. reach without approach run by two hand (Recorded in centimetres)
3	Standing Broad Jump	Max. distance covered recorded in centimetres
4	10X4.5 M Shuttle Run	1/100 th of a second
5	20 M Dash	1/100 th of a second
6	1500 M Run	Time taken to complete the distance

The training programme was conducted six day a week and the test for the selected variables were administered to the subjects before and after the experimental period of six weeks. Pre test-post test (single group) Random group design was adopted for the present study. The instruments used for the study were workable condition as per the specification of the manufactures. In order to assess the significant difference of training programme between per test and post test means of selected players, Paired 't' test was employed as a statistical technique. To test the hypothesis the level of significance was set at 0.05 and the statistical technique was computed by using SPSS version 17.

RESULTS AND DISCUSSION

In order to assess the 6 week training programme on pre-post test means of the players, the t-ratio were presented in table 2.

Table 2

Significant Difference of Pre-Post Test Means of Volleyball Players

Tests	Pre-test		Post-test		't' ratio
	Mean	SD	Mean	SD	
Approach Jump Reach	336.5	5.27	339.7	4.78	3.18*
Block Jump Reach	318.2	5.32	319.8	4.75	2.93*
Standing Broad Jump	260.9	9.64	264.8	10.64	2.19*
10X4.5 M Shuttle Run	11.6	0.33	11.6	0.40	.34
20 M Dash	3.03	0.08	2.89	0.08	2.95*
1500 M Run	5.57	0.38	5.48	0.41	3.03*

*Significant at 0.05 level, Tab. $t_{0.05}(23) = 1.71$

The table 2 describes the means, standard deviation and mean difference values of selected physical fitness parameters. It was evident from the table 2 that the t-ratio of approach jump reach, block jump reach, standing broad jump, 20M and 1500M of selected players were found greater than the tabulated value at 0.05 level of significance. Appearance of such results indicates that there were significant difference between the pre-post test comparison of selected physical fitness parameters i.e. Approach jump reach, Block jump reach, Standing broad jump, 20M and 1500M. It was also evident from the table 2 that t-ratio of 10X4.5M of selected players was less than the required value at 0.05 level of significance and appearance of such result clearly indicate that the pre-post test comparison of selected physical fitness parameters i.e. 10X4.5M does not differ significantly. The graphical representation of pre-post test means value of selected physical fitness parameters were presented in figure 1.

Figure 1

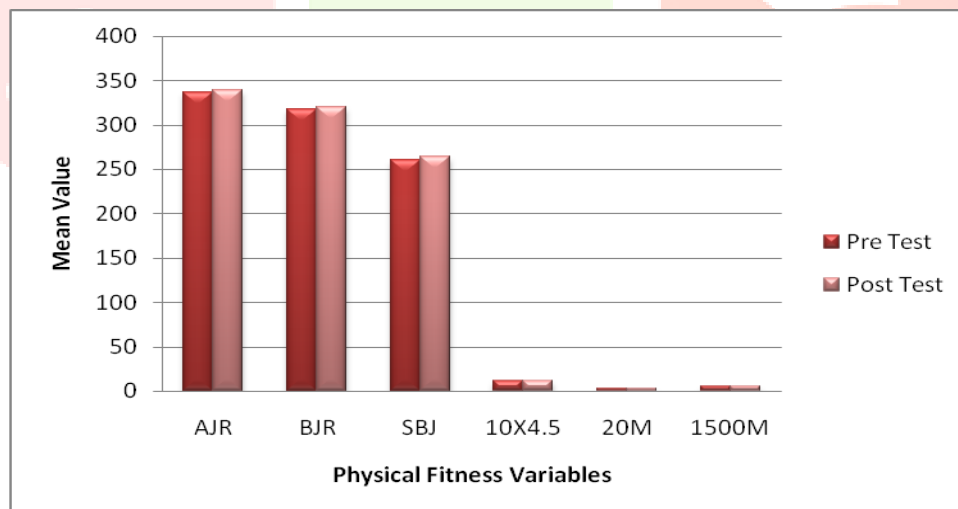


Fig. 1 Pre-post test means of selected Volleyball players

The game of volleyball has developed into a highly competitive sport which requires a high level of physical fitness. The improvement of these components of physical fitness and sequential maintenance of improvement largely depends upon the selected training methodology and frequency of training. Without physical attributes, it would not be possible for a volleyball player to develop his individual skills. In the competition situation when two teams are on a par technically, it is always the physically stronger that wins. So modern coaching needs multi-dimensional approaches for scientific training to the players because sports performance depends largely on physical fitness and without which sports performance is not possible.

From the above finding, it was revealed that after the 6 weeks training programme, physical fitness parameters namely approach jump reach, block jump reach, standing broad jump 20M and 1500M

were improved and there was significant effect of training programme. It may cause due to right selection of exercises with well designed training programme. It was also evident that 10 X 4.5M physical fitness parameter indicates no significance difference which may be due to insufficient amount of activities to improve this parameter. Finding of the present study was supported by the study conducted by G. Baquet et al (2004), Baquet et al (2001) also conducted the similar study which supported the finding of the present study, the finding was also supported the results obtained in the study conducted by Gabbett et al (2008). On the basis of the finding and scholar own understanding the hypothesis stated earlier there would be significant effect of training programme on physical fitness parameters of volleyball players was partially accepted and partially rejected.

CONCLUSION

Within the limitations and delimitations of the study it was concluded that there was significant effect of training programme on physical fitness parameters namely approach jump reach, block jump reach, standing broad jump, 20M and 1500M of volleyball players and there was no significant effect of training programme on physical fitness parameter i.e. 10X4.5M.

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