

Effect of Training Program on Volleyball Skills of Inter-University level Volleyball Players

Sudhir Kumar* Jogiswar Goswami** Ajit Kumar***

*Research Scholar, ASPESS, Amity University, Noida, Uttar Pradesh (India).

** Assistant Director, ASPESS, Amity University, Noida, Uttar Pradesh (India).

*** Assistant Professor, ASPESS, Amity University, Noida, Uttar Pradesh (India).

(Received 29 February 2016 – Accepted & Published 9 March 2016)

Abstract

Background: The purpose of the study was to find out Effect of Training Program on Volleyball Skills of Inter-University level Volleyball Players

Methods: The participants for the study were 30 inter-university level male volleyball players whose age ranged between 18-23 years and were training thrice a week at SU Block Volleyball Coaching Center, Pitampura New Delhi. The players for the study were selected using the purposive sampling design. All the subjects attended a single training unit thrice a week i.e. on Mondays, Wednesday and Fridays.

Results: The effectiveness of training is evident in the improvement of performance which is clearly indicated by positive change in the mean scores of Brady's volleyball test & volleyball skills chosen in the study.

INTRODUCTION

According to Uppal (2013), the game of volleyball places very high demands on athletic ability of players. Small size of volleyball court requires different running pattern than in football, hockey & other games. There are 100 to 200 jumps with optimum height from relative short approach. Without jumping power, an effective smash is not possible, without adequate speed and agility the player cannot accomplish good performance on defense, without specific playing endurance it will not be possible to last long in tough competitions.

According to Singh (1991), whenever a sportsman does an action he has achieved some performance. During training a sportsman is regularly doing different types of exercises. An estimate of his performance in different exercises is indispensable for training and performance analysis.

Seeing the modern trend in Volleyball in terms of technique, it is evident that, powerful spike by back zone player, short balls spike, jump service, anticipatory double blocking & defense by Libero has become integral part of modern volleyball. It has been noticed that, team those who are consistently performing well at world level are able to block the opponent attack. All these skills require high level of fitness which can be improved by systematic & scientific training considering game situation & individual ability to perform. While spiking & blocking a player has to jump vertically in order to make contact with the ball from maximum height.

Sreejit (1988) compared Basketball, Volleyball and Badminton Players in selected psychomotor variables namely reaction time, speed of arm movement, multi limb coordination, arm hand steadiness and finger dexterity. The data was analyzed using one

way analysis of variance. The findings of this research work highlighted the following inferences:

1. The basketball and volleyball players had a marked difference in their hand reaction timings.
2. The basketball and volleyball players exhibited difference in their speed of arm movement but to a lesser extent as compared to their hand reaction time.
3. The basketball, volleyball and badminton players did not show any marked difference in their multi limb coordination, arm-hand steadiness and finger dexterity.

Selection of Subjects

The participants for the study were 30 inter-university level male volleyball players whose age ranged between 18-23 years and were training thrice a week at SU Block Volleyball Coaching Center, Pitampura New Delhi. The players for the study were selected using the purposive sampling design. All the subjects attended a single training unit thrice a week i.e. on Mondays, Wednesday and Fridays.

Selection of Variables

In order to grade the skill proficiency of the subjects, the following four skills were selected:

1. Spiking
2. Blocking
3. Digging and first pass
4. Service

In addition, volleyball playing ability was also evaluated using Brady Volleyball Skill Test.

Criteria Measure

1. The average score (out of ten) given by panel of three NIS volleyball coaches those evaluated the performance of each participant during the game situation before commencement of training programme & after successful completion of ten week training programme. The score was given out of ten to each participant for spiking, blocking, digging & first pass, service.
2. Brady volleyball test score i.e. number of volleys against the wall in rectangular area was the score of test. It was conducted twice pre training & post training.
3. Above mentioned Point No-1 & 2 composite score was taken into consideration in pre training & post training of subjects.

The main highlight of the study is the training programme, it was prepared keeping in view the essential fitness components required to be successful volleyball player. The same training programme was applied on interuniversity level volleyball players. The extensive training schedule is given below:

Age of players: 18-23 years;

Duration of Training: 60 Minutes;

Level of Players: Intermediate

Table 1: Training Program for University level Volleyball Players

S.NO.	Exercises	Distance (M)/Sets(S)/ Time (Sec/min.)	Repetition in Each Set	Rest in Between sets/Repetition (in seconds)
1	Jogging	2km		
2	Stretching of major Muscles			
3	Strides	60 M	4	45
Training Program Day-1				
1	Shuttle Run in Volleyball Court (running only facing the line)	9 M	4	60
2	Shuttle Run in Volleyball Court (Front & Back Running)	9 M	4	60
3	Boosting & floor touching with each ball contact	3 S	20	90
4	Side Line Touching with bent knees focusing on the top of the Net	3 S	10	90
5	Side Roll with extended Arm	3 S	8	90
6	Triangular Bating, Digging & Lifting	3 S	15	90
7	Upper arm service	3 S	10	30
8	Spiking from Zone No- 4 Targeting Zone No-4	2 S	10	30
9	Spiking from Zone No- 2 targeting Zone No- 2	2 S	10	30
10	Stretching of Major Muscles			
Training Program Day-2				
1	Straight Sprints	50 M	10	60
2	Alternate Vertical Jumps on stairs	3 S	50	120

Table 1 (Contd.)

3	Continuous Vertical Jumps standing at one place in a circle	3 S	30	90
---	---	-----	----	----

4	Blocking Action in pairs & clapping above the V.B net	3 S	10	90
5	File Formation Rotational Lifting with V.B	3 S	2 M	120
6	Standing Broad Jump	3 S	8	120
7	Spiking of Short ball, Running Ball & height ball	3 S	10	30
8	Stretching of Major Muscles	8 min	3	
9	Straight Sprints	50 M	10	60
10	Alternate Vertical Jumps on stairs	3 S	50	120
11	Stretching of Major Muscles/cool down	10 Minutes		
Training Program Day -3				
1	Long Running/ Jogging	30 Min		
2	Against the wall underhand Volleying	3 S	100	120
3	Front Diving over Judo mat	3 S	8	120
4	Half Squat Position hold	3 S	40 Sec	90
5	Lifting Overhead with fingers using Medicine ball	3 S	15	30
6	Push Up	3 S	20	60
7	Chin Ups (with wide arm grip)	*	30	60
8	Plank pose hold	3 S	30 Sec	60
9	Floor Crunches	3 S	30	60
10	Lying Back Extension	3 S	20	60
11	Lunges	2 S	10 steps	120
12	Stretching of Major Muscles	8 min	3	

*As per the capability of an individual he can perform 30 reps of chin ups in the maximum 5 sets. Those who can't perform 30 chin-ups, such players had performed 60 sec flexed arm hang in total 5 sets.

ANALYSIS OF DATA

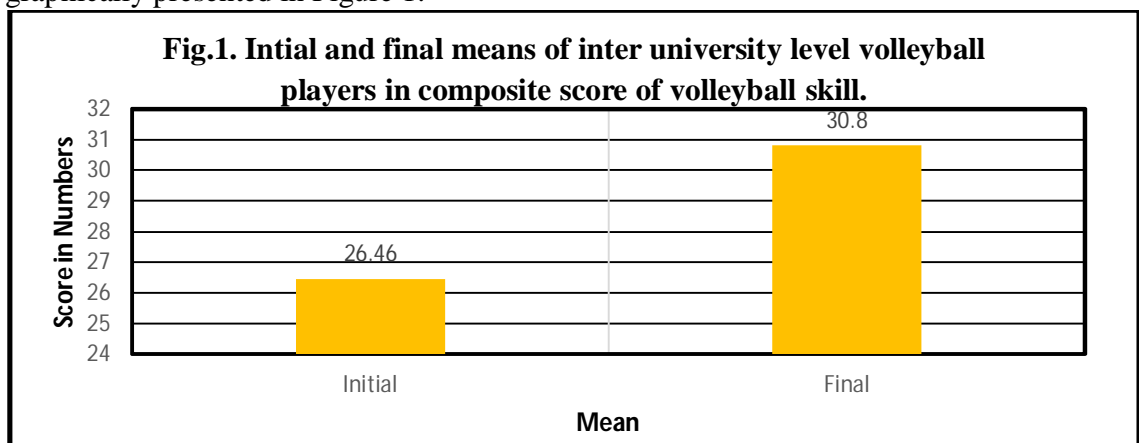
Table 2: Significance of Difference in the Means of Composite Score of Volleyball Skill Performance before and after Training

Data	Mean	Mean diff.	Standard Deviation	Standard Error	t ratio
Initial	26.46	4.33	2.28	0.359	12.042*
Final	30.80		2.24		

*Significant at 0.05 level $t_{0.05}(29) = 2.05$

Table 2 reveals that the difference in the means of composite score of volleyball skills before and after training is statistically significant at 0.05 level of confidence. The t-value of 12.042 is higher than the table value of 2.05 with 29 degrees of freedom.

The initial and final means with regard to composite score of volleyball skill are graphically presented in Figure 1.



Discussion on Finding

The training programme administered on participants also had technical inputs from experts in the discipline of science of sports training as well as in the area of volleyball coaching. The effectiveness of training is evident in the improvement of performance which is clearly indicated by positive change in the mean scores of Brady's volleyball test & volleyball skills chosen in the study. From the above finding it is evident that the training programme prepared by the scholar and administered following all the principles of science of sports training has been effective in bringing about a change in the status of subjects with respect to all the variables.

References:

- Singh, Hardyal.(1991) *Science of sports training*. D.V.S Publication, New Delhi.
 Sreejit, K.P. (1988) Selected Psychomotor Performance Variables among Players of Different Sports (*Unpublished Master's Thesis*, Jiwaji University, Gwalior).
 Uppal A.K. (2013) *Scientific basis of sports conditioning*. Friends publication India, Delhi.