

A Comparative Study On Selected Motor Fitness Among Service And Repeated Volley Performance Of Collegiate Men Volleyball Players Of Bidar And Raichur Districts**Dr. Vishal Sajjan**

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Introduction

In volleyball performance depends on well developed physical qualities, which are agility, acceleration, strength, and vertical jumping, and superior anticipation and decision-making skills. Volleyball performed on an area requires high-speed whole body movements. Many of these are in response to the motion of a ball, opposition players, or team-mates. Thus, volleyball is an intermittent sport that combines active and passive phases of play and requires players to compete in frequent short bouts of high-intensity exercise, followed by periods of low-intensity activity. Also, volleyball is an intermittent sport that vertical jump is a fundamental part of the spike, the block, and the topspin and floating serves. The most effective spike in volleyball is likely dependent on vertical jump height and the body position adopted before ball contact. Specifically, a high vertical jump in volleyball is a critical component in hitting and blocking. Indeed, the vertical jump is a common tool used to assess explosive strength in volleyball athletes. During volleyball competitive players are involved in defensive and offensive jumping activities where power, strength, agility, and speed are required.

Generally, athletic performance coaches are responsible for the improvement of these movements. Speed, agility, and power are important components of sport performance. Agility performance has been determine many ways, including “the whole body quick/accurate movement in response to a stimulus” and “the ability to change direction, as well as to start and stop quickly”. Also, agility has been reported to be

influenced by explosive strength, balance, muscular coordination, and flexibility. Agility deals with the changes in direction and the ability to effectively couple eccentric and concentric actions in ballistic movements

Objectives Of The Study:

The following are the major objectives of the study.

1. To analyze the effect of physical fitness parameters on the service and repeated volley performance of collegiate Volleyball players of bidar and raichur district
2. To analyze the effect of motor fitness factors on the service and repeated volley performance of collegiate Volleyball players of bidar and raichur district

Hypotheses Of The Study:

1. There would be significant effect of physical fitness parameters on the service and repeated volley performance of collegiate Volleyball players of bidar and raichur district
2. There would be significant differences in the performances of service and repeated volleys of six district collegiate Volleyball players of bidar and raichur district

Limitation Of The Study:

1. This study was limited to two districts of Bidar and raichur districts..
2. This study was limited to Collegiate Volleyball players of Bidar and raichur districts.

Review Of Related Literature

Shantanu Singh Kakran (2016), the aim of this study is to find out the significant difference of coordinative abilities between male Softball players and Cricketers. A group of forty(N=40) male subject aged between 18-25 years, who participated in interuniversity competitions from Jiwaji University volunteered to participate in this study were selected for this study. The purposive sampling technique was used to attain the objectives of the study. All subject, after having been informed objective of the study, gave their consent and volunteered to participate in this study. They were further divided into two groups of 20 each (i.e., N1=20; Cricket players and N2=20; softball players). The independent sample t – test was applied to find out the significant difference of coordinative abilities between male softball players and cricketers. To test the hypotheses, level of significance was set at 0.05. The result revealed significant difference between cricket players and softball players on the sub variables i.e. reaction ability, orientation ability and differentiation ability. However insignificant differences were noticed with regard to the sub- variable i.e. rhythmic ability.

Artur Struzik, et.al (2015), Purpose: Body balance, as one of the coordination abilities, is a desirable variable for basketball players as regards the necessity of efficient responses in constantly changing situations on a basketball court. The aim of this study was to check whether physical activity in the form of running and jumping influences variables characterizing the process of keeping body balance of a basketball player in the standing position. Methods: The research was conducted on 11 young basketball players. The measurements were taken with a Kistler force plate. Apart from commonly registered COP displacements, an additional variable describing the process of keeping body balance by a basketball player was ankle joint stiffness on the basis of which an “Index of Balance–Stiffness” (IB-S) was created.

Results: Statistically significant differences were obtained for the maximum COP

displacements and ankle joint stiffness between measurements of balance in the standing position before and after the employed movement tasks whereas there were no statistically significant differences for the aforementioned variables describing the process of keeping balance between measurements after running and after jumping.

Conclusions: The research results indicate that the employed movement activities brought about significant changes in the process of keeping balance of basketball player in the standing position which, after the run performed, remain on a similar level to the series of jumps being performed. The authors attempted to establish an index based on the stiffness which yields a possibility to perceive each basketball player as an individual person in the process of keeping balance.

Sample Design

DISTRICTS	VOLLEYBALL PLAYERS		TOTAL
	HIGH	LOW	
Bidar	30	30	60
Raichur	30	30	60

Tools Used:

1. Selected Physical Fitness Tests: 30 Meter Dash, 505 Agility Test, Sit and Reach Test .
2. Bhargava’s Achievement Motive Test

The top score for 3 trials is recorded. On the serve, points accumulated in the best trial are **Selected Physical Fitness Tests:**

1. Vertical Jump Test (Sargent Jump, Vertical Leap):

This procedure describes the method used for directly measuring the vertical jump height jumped. There are also timing systems that measure the time of the jump and from that calculate the vertical jump height.

Purpose: to measure the leg muscle power

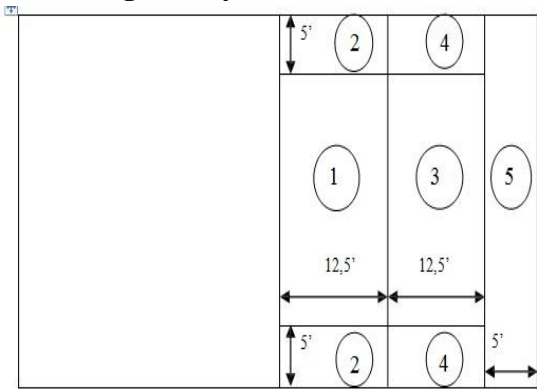
Equipment required: measuring tape or marked wall, chalk for marking wall (or Vertec or Jump mat).

Investigator collecting data during vertical jump test

Procedure: The athlete stands side on to a wall and reaches up with the hand closest to the wall. Keeping the feet flat on the ground, the point of the fingertips is marked or recorded. This is called the standing reach height. The athlete then stands away from the wall, and leaps vertically as high as possible using both arms and legs to assist in projecting the body upwards. The jumping technique can or cannot use a countermovement. Attempt to touch the wall at the highest point of the jump. The difference in distance between the standing reach height and the jump height is the score. The best of three attempts is recorded.

Scoring: The jump height is usually recorded as a distance score.

2. **Russel-Lange Volleyball Test:**



Test Objective: To measure volleyball playing ability

Equipment: Volleyballs, stop watch, scoring material, wall and floor marking.

Administration and Directions:

Includes two tests

1. Volley: Marked on wall at net height of 7.5 feet from floor (line is 10 feet wide). A parallel line of same length is marked 3 feet from wall. On an audible signal the student, starts the test with an underhand movement to toss the ball against the wall from behind the restraining line. The ball is repeatedly volleyed for 30 seconds. The action may

be restarted at any time from behind the restraining line.

2. Serve: Figure to right reflects marking. From the serving area behind the end line, student completes two trials of 10 legal serves.

Scoring:

For the volley, the number of legal volleys that hit on or above the wall line is counted if they are contacted from behind the restraining line. recorded as the final score.

Serves in which foot faults occur are given a zero and balls landing on a line are given the score of the higher value.

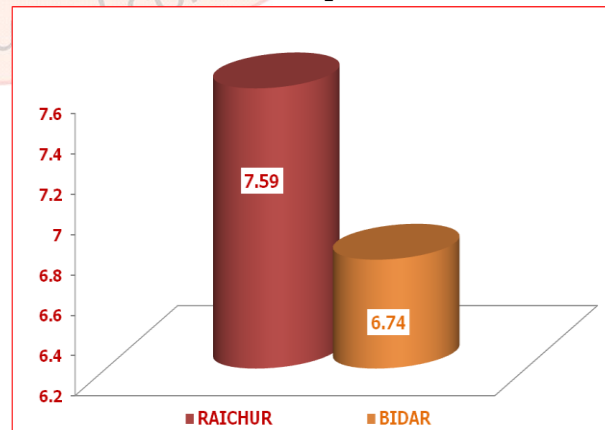
Statistical Analysis:

1. **Descriptive statistics:** Included a mean and standard deviation for selected Coordinative abilities and Leg explosive strength of tall and short Volleyball players.
2. **Paired t-test:** For comparison of Collegiate Volleyball players with respect to Physical fitness, Psychological and Performance.

Analysis of physical fitness level among inter-collegiate Volleyball players of Bidar and Raichur Districts

DISTRICTS	VOLLEYBALL PLAYERS		TOTAL
	HIGH	LOW	
Bidar	30	30	60
raichur	30	30	60

Graph



Summary And Conclusions

Based on the objectives of the present study the following methods were used to collect the data.

- Design of the Study
- Selection of Subjects
- Sample Design
- Selection of variables
- Criterion Variables
- Selection of Tests
- Instrument Reliability
- Reliability of the Data

The Analysis Of Data And Interpretation Of Results Are Done Based On The Following Steps,

1. Comparison of Volleyball playing ability among high and low physical fitness level inter- collegiate Volleyball players of Bidar and Raichur Districts
2. There is significant difference in Russel Lange Volleyball test between high and low achievement motivation and self confidence inter-collegiate Volleyball players of Bidar and Raichur districts

Recommendations:

Based on the findings and results of present study the following recommendations were drawn,

1. It is recommended that based on the study results coaches and trainers can prepare scientific training programmes for Volleyball players for better performance.

2. The data and results can be used by concerned public instruction departments of Hyderabad Karnataka region for the improvement of performances in the Volleyball players.
3. Similar kind of studies on various games can be studied for effective performance.

Bibliography:

1. Collins, D. R., and Hodges, P. B. (2001). A Comprehensive Guide to Sports Skills Tests and Measurement (2nd ed.). Lanham, MD: Scarecrow Press. Page 288-290.
2. Collins, D. R., and Hodges, P. B. (2001). A Comprehensive Guide to Sports Skills Tests and Measurement (2nd ed.). Lanham, MD: Scarecrow Press. Page 288-290.
3. Crapo RO, Morris AH (1981). Standardized single breath normal values for carbon monoxide diffusing capacity. Am Rev Respir Dis 123: 185-189.
4. Crapo RO, Morris AH, Clayton PD, Nixon CR (1982). Lung volumes in healthy nonsmoking adults. Bull Eur Physiopathol Respir 18: 419-425.
5. Crapo RO, Morris AH, Gardner RM (1981). Reference spirometric values using techniques and equipment that meet ATS recommendations. Am Rev Respir Dis 123: 659-664.
6. David K. Millar. T. Earl Allen. Fitness a lifetime commitment. University of North Karoline at Wilmington. 2nd edition. Surjeet Publication. New Delhi.1989.