



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2017; 4(6): 72-74
© 2017 IJPESH
www.kheljournal.com
Received: 15-09-2017
Accepted: 16-10-2017

R Ravichandaran
Physical Education Director,
Sri Ramakrishna Institute of
Technology, Coimbatore,
Tamil Nadu, India

E Rajalakshmi
Physical Education Director,
Sri Ramakrishna Institute of
Technology, Coimbatore,
Tamil Nadu, India

Correspondence
R Ravichandaran
Physical Education Director,
Sri Ramakrishna Institute of
Technology, Coimbatore,
Tamil Nadu, India

International Journal of Physical Education, Sports and Health

A comparative study of physical fitness in volleyball players and the players in football and Kabaddi

R Ravichandaran and E Rajalakshmi

Abstract

The purpose of this study is used to compare the physical fitness of volleyball players and the players in football and kabaddi. The study was conducted on 45 boys of Sri Ramakrishna Institute of Technology. The age group of the subject was ranged from 17 to 20 years. The subjects were tested with the help of the North Carolina physical fitness test battery (Sit-ups, Side –stepping, Standing broad jump, Pull ups) to find out the physical fitness test elements of kabaddi players and the players in football and volleyball in SRIT. For the study of mean value, standard deviation, t- test were applied to analyze the data, different steps in “t” test were used.

Keywords: Physical fitness, sit-ups, side –stepping, standing broad jump, pull ups

Introduction

Physical Education provides opportunities for students to learn and practice life skills and to be physically active. Fitness testing should provide summaries of an individual student’s performance on each component and provides suggestions about how to promote and maintain a high level of fitness.

Physical fitness testing should support the State Board of Education’s Healthy and Responsible Students priority and align with the North Carolina Essential Standards for Healthful Living. The purposes of fitness testing are for students to become independent learners; to know and understand their current health status and learn how to maintain or improve their health and fitness.

Physical fitness is a state of health and well-being and, more specifically, the ability to perform aspects of sports, occupations and daily activities. Physical fitness is generally achieved through proper nutrition, moderate-vigorous physical exercise, and sufficient rest.

Willgoose¹ defined physical fitness as the “capacity for an activity and that capacity must be enough to perform the given task”

John F.Kennedy² the late president of the United States found that most of the youth in America were physically unfit and emphasized the need for physical fitness.

Liebee³ says physical fitness as the “ability to participate and will to have a reservoir of endurance to meet the energies of life”. Fitness helps to enjoy physical activity, sustained skill learning and enhance performance on the athletic field.

Physical fitness components include speed, strength, endurance, power, agility and co-ordination. Physical fitness has forever been one of the foremost goals of physical education.

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. 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.

Football is a sport requiring high levels of physical fitness. The concept of physical fitness includes the elements of strength, muscular endurance, cardio-respiratory endurance and flexibility and freedom from obesity. A person doesn’t have to possess speed, agility, power, co-ordination etc. which provide success in athletics in order to physical fit.

Kabaddi a body contact game in which the person comes in contact with others creating reactions in the two persons in these acts. This reactions is both mental as well as physical, tackling, dashing, kicking, jumping, diving, holding of breath, pulling, pushing, blocking are the physical acts.

Statement of the Problem

The study under investigation was intended to find out the comparison of physical fitness of volleyball players and the players in football and kabaddi.

Methodology

The purpose of this study was to compare the physical fitness of volleyball players and the players in football and kabaddi. The subjects randomly selected 15 players in each game. All the students belong to the Sri Ramakrishna Institute of

Technology, Coimbatore, Tamilnadu to compare the Physical fitness variables were designed for this study.

- Sit-ups
- Side -stepping agility
- Standing broad jump
- Pull ups

Statistical Analysis

The following statistical procedures were followed to compare the physical fitness of volleyball players and the players in football and kabaddi. In each group containing 15 subjects calculations were done by raw score method. For the purpose of testing each test variables of different games was compared. Through the table “t” ratio is calculated.

Table 1: (Sit-ups) Comparison of sit-ups test scores of volleyball, football and kabaddi players.

S. No	Name	Sample size	Mean	SD	't'	Significance
01	Volleyball	15	23.60	1.99	1.45	Not significance
	Vs Football	15	22.53	2.09		
02	Volleyball	15	23.60	1.99	7.09	0.01
	Vs Kabaddi	15	18.00	2.33		
03	Football	15	22.53	2.09	5.59	0.01
	Vs Kabaddi	15	18.00	2.33		

The table shows that the obtained mean of volleyball players and football players on sit-ups items are 23.60 and 22.53. MD required 1.07. The 't' value at 0.05 level of significance is 1.99 and obtained 't' value is 1.45. So it is not significance. The obtained mean volleyball players and kabaddi players are 23.60 and 18.00. Mean difference required 5.60. The table 't'

value at the 0.05 level of confidence is 3.50 and obtained 't' value is 7.09. So it is highly significance.

The mean of football players and kabaddi players are 22.53 and 18.00. MD is required 4.53. The table 't' value at the 0.05 level of confidence is 3.50 and obtained 't' value is 5.59. So it is also significance.

Table 2: (Side stepping) Comparison of side stepping test scores of volleyball, football and kabaddi players.

S. No	Name	Sample size	Mean	SD	't'	Significance
01	Volleyball	15	12.86	3.48	1.82	Not significance
	Vs Football	15	11.13	1.25		
02	Volleyball	15	12.86	3.48	1.59	Not significance
	Vs Kabaddi	15	11.33	1.34		
03	Football	15	11.13	1.25	0.43	Not significance
	Vs Kabaddi	15	11.33	1.34		

The table shows that the obtained mean of volleyball players and football players are 12.86 and 11.13. MD required 1.73. The 't' value at 0.05 level of confidence is 1.99 and obtained 't' value is 1.82. So it is not significance. The obtained mean volleyball players and kabaddi players are 12.86 and 11.33. Mean difference required 1.53. The table 't'

value at the 0.05 level of confidence is 1.99 and obtained 't' value is 1.59. So it is also not significance.

The mean of football players and kabaddi players are 11.13 and 11.33. MD is required 0.2. The table 't' value at the 0.05 level of confidence is 1.99 and obtained 't' value is 0.43. So it is also not significance.

Table 3: (Standing Broad Jump) Comparison of Standing Broad Jump test scores of volleyball, football and kabaddi players.

S. No	Name	Sample size	Mean	SD	't'	Significance
01	Volleyball	15	212.33	6.54	3.10	0.05
	Vs Football	15	203.66	5.65		
02	Volleyball	15	212.33	6.54	4.77	0.01
	Vs Kabaddi	15	197.00	10.61		
03	Football	15	203.66	5.65	1.88	Not significance
	Vs Kabaddi	15	197.00	10.61		

The table shows that the obtained mean of volleyball players and football players are 212.33 and 203.66. MD required 8.67. The 't' value at 0.05 level of confidence is 1.99 and obtained 't' value is 3.10. So it is significance. The obtained mean volleyball players and kabaddi players are 212.33 and 197.00. Mean difference required 15.33. The

table't' value at the 0.05 level of confidence is 3.50 and obtained 't' value is 4.77. So it is also significance. The mean of football players and kabaddi players are 203.66 and 197.00. MD is required 6.66. The table't' value at the 0.05 level of confidence is 1.99 and obtained 't' value is 1.88. So it is not significance.

Table 4: (Pull ups) Comparison of Pull ups test scores of volleyball, football and kabaddi players.

S. No	Name	Sample size	Mean	SD	't'	Significance
01	Volleyball	15	11.33	1.61	2.26	0.05
	Vs Football	15	10.13	1.30		
02	Volleyball	15	11.33	1.61	0.12	Not significance
	Vs Kabaddi	15	11.40	1.54		
03	Football	15	10.13	1.30	2.44	0.05
	Vs Kabaddi	15	11.40	1.54		

The table shows that the obtained mean of volleyball players and football players are 11.33 and 10.13. MD required 1.2. The't' value at 0.05 level of confidence is 1.99 and obtained 't' value is 2.26. So it is significance.

The obtained mean volleyball players and kabaddi players are 11.33 and 11.40. Mean difference required 0.07. The't' value at the 0.05 level of confidence is 1.99 and obtained 't' value is 0.12. So it is not significance.

The mean of football players and kabaddi players are 10.13 and 11.40. MD is required 1.27. The 't' value at the 0.05 level of confidence is 3.50 and obtained 't' value is 2.44. So it is also significance.

Conclusion

On the basis of the outcomes and within the limitations of the current study, the following decision can be drawn.

In sit ups test volleyball players have better abdominal strength than the kabaddi players.

In side stepping test, there is no difference between players of volleyball, football and kabaddi.

The volleyball players are superior in standing broad jump, which measures the explosive power of the lower extremity than the football and kabaddi players.

In the items pull ups volleyball and football players are better.

Acknowledgement

First and foremost we thank Almighty for giving his blessing for completing our research work in successful manner.

We express our sincere thanks to our Managing Trustee, Joint Managing Trustee, beloved Principal Dr. M. Paulraj and Prof. K.R. Jothi, Professor In charge (sports) for inspiring encouragement and moral support.

We would like to express our deepest gratitude to our parents and friends.

References

1. Carl Willgoose E. Evaluation in health and physical education, New York Mc.Grow – Hill Book Company, 1961, 61.
2. John Kennedy F. The soft American, sports illustrated 13, 1960, 15-23.
3. Howard Liebee C. physical education hand book, Enlswood Cliffs, N.J. Prentics – Hall, Inc. 1959, 6.