International Journal of Physical Education, Sports and Health 2018; 5(6): 116-118

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2018; 5(6): 116-118

www.kheljournal.com
Received: 12-09-2018
Accepted: 18-10-2018

Nisar Ahmad Hurah
Research Scholar, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, India

Firdous Ahmad Lone
Lecturer, Youth Services and Sports, Jammu and Kashmir, India

Correspondence
Nisar Ahmad Hurah
Research Scholar, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra, India

A comparative study of breath holding capacity among volleyball and kabaddi players of Srinagar city

Nisar Ahmad Hurah and Firdous Ahmad Lone

Abstract
Purpose: The purpose of this study was to Compare Breath Holding Capacity of Volleyball and Kabaddi Players of Srinagar City.
Methodology: The study was carried out on 240 male college level students, 120 volleyball players and 120 kabaddi players of Srinagar city Jammu and Kashmir State. The age of the subjects ranged between 18 to 26 years. After due consideration of all the points, purposive sampling technique was employed. A total number of 240 samples were selected. The Breath Holding Capacity of kabaddi players (group-I) and volleyball players (group-II) was measured. The data was analyzed and compared with the help of statistical procedures in which mean, standard deviation (S.D.), and t-test were employed. The level of significant was set up at 0.05 level.
Result: It was determined that Volleyball players had the low mean score of Breath Holding Capacity and kabaddi players had high total mean score. Examining the difference between the mean scores of Volleyball players and kabaddi players, the statistically insignificant difference was found (t=0.051).
Conclusion: On the basis of the findings of present study, it was concluded that there is no significant difference between kabaddi and Volleyball male players in relation to Breath Holding Capacity.

Keywords: breath holding capacity, kabaddi players, volleyball players

Introduction
Today, sport has become cultural phenomenon of great magnitude and complexity. Its scope is awesome; nearly everybody has become involved in some or other way in it. It has got mass participation. Various research studies conducted by experts in physical education and sports have emphasized the importance of investigating the specific structures, co-related with the various sports activities, for the selection and development of talent in sports and for better performance at different levels of sports competition. There are numerous factors which are responsible for the performance of a sportsman. These are physical, mental, technical and tactical. Among them, physical abilities are most important. Performance also depends on skills, training, motivation and physiological factors. The poor performance of Indian athletes and sportsmen at the international competition has been of great concern, especially to the coaches, physical educationists and sports scientists. Efforts have been made to improve the standards of our sportsmen since long; how-ever, little success has so far been achieved in this respect. Kabaddi is basically a combative sport and its origin dates back to pre-historic times played in different forms. Kabaddi is played for a period of 40 minutes with a 5 minutes break (20-5-20). The core idea of the game is to score points by raiding into the opponent's court and touching as many defense players as possible without getting caught on a single breath. There has been a gradual but significant change in the trends of the game since the past 50 years. What was once considered a game of brawn is not so now. Volleyball is one of the most popularly played games in the world. It is the game of power agility as well as speed. Physical fitness is of para-mount importance in this game. Hence, the health-related aspects play a crucial role in the performance of the players. So, this present study was undertaken to measure certain basic physical fitness component like Breath Holding Capacity of volley ball players and kabaddi players to find out the gaps in the physical fitness level so that we can come up with some valuable suggestions to improve the performance level of kabaddi and volleyball players. With this in mind a study was undertaken to assess and compare the Breath Holding Capacity of kabaddi and volleyball players of college team (players playing in college level tournament) in Srinagar city of Jammu and Kashmir.

Material and Methods

The purpose of the present study was to determine the difference in Breath Holding Capacity kabaddi players and of Volleyball players. To conduct the study 120 male college level Volleyball players and 120 male Kabaddi players of Srinagar City. To collect the data pertaining to the present study the Breath Holding Capacity was measure in between 9:00 am to 5:00 pm. Surprisingly very few studies on Breath Holding Capacity have been carried out on male kabaddi and volleyball players in Srinagar; hence the present study planned to fill this gap by employing purposive sampling and selected male college level kabaddi and volleyball players as subjects. Participation in the study was voluntary and informed written consent was taken from all subjects. To determine the differences between two groups the t-test statistical technique was employed and the level of significance was observed at 0.05 level of confidence.

Breath Holding Capacity

Procedure: Subjects were asked to sit down and take a natural breath in and natural breath out and then hold your breath and hold your nose with fingers in order to stop air from entering lungs and time was recorded in seconds until the subject felt the first sign of air hunger. The higher of the two breath holding times was recorded in seconds as the score.

Results and Discussion

Table 1: Mean score, standard deviation and t-value of selected physical fitness component with respect to Breath Holding Capacity between inter college level Volleyball and Kabaddi Players

Group	Sample size	Mean	SD	t-value
Volleyball players	120	0.92	0.41	0.051
Kabaddi players	120	0.78	0.38	

* = Significant at .05 level. (t = 1.65), $P < 0.05$

From the Table No- 1 it is observed that the calculated t value of 0.051 is less than the tabulated t (1.65). Hence, there is no significant difference of means between college level kabaddi players and volleyball players with respect to Breath Holding Capacity. The mean difference is shown in figure- 1.

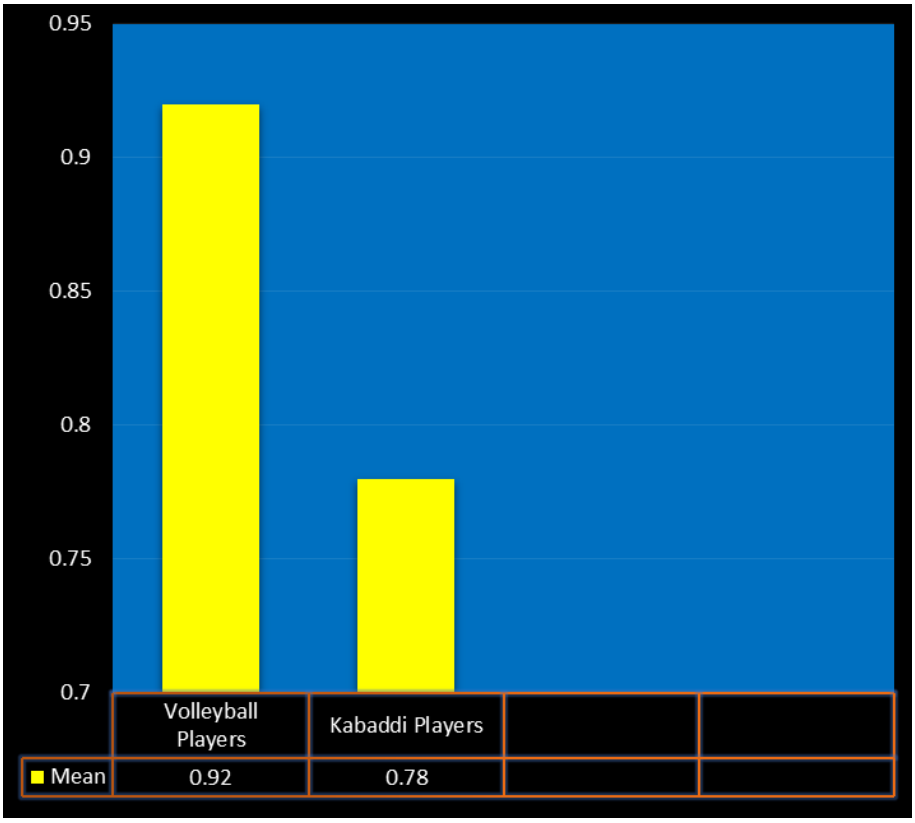

Fig 1: Showing the graphical presentation of Mean Scores of Breath Holding Capacity of Volleyball players and Kabaddi players

Discussion of Findings

From the table no. 1 it was observed that there was significant difference of Breath Holding Capacity between Volleyball players and Kabaddi players (0.051< 1.65).

It had been hypothesized that, there would be no significant difference of Breath Holding capacity between inter college level Volleyball and Kabaddi Players of Srinagar city. The results revealed that no significant difference of Breath Holding capacity was found (t= 0.051, P <0.05) between kabaddi and volleyball player, Dhanaraj, Aubert (1994) studied the effect of yoga and the 5 BX fitness plan on selected physiological parameters. The results indicated increases in basal metabolic rate, tidal volume in basal state, Vital capacity, and chest expansion, breath holding time and flexibility after yogic training.

M Velmurugan (2015) says the breath holding time depends on one factor only: the breathing pattern of the person. In sick people breathing is deep (up to 700-900 ml of air per breath) and frequent (about 15-20 breaths per minute). In healthy people, breathing is shallow (400-600 ml per breath) and slow (8-12 breaths per minute). While most modern people believe in deep breathing myth, hundreds of medical studies proved that chronic hyperventilation or over breathing reduces body oxygenation, as we see it in sick people and causes abnormalities in the immune, nervous, hormonal and other systems of the human body, he studied on comparison of breath holding time between men and women kabaddi and Kho-Kho players. Raj Kumar (2016) conducted on a study

effect of 6 weeks circuit training on breath hold time of badminton players and result show exercising is a great way to increase lung capacities, which also include the Breath Hold time. A similar type of results were obtained in the work of Pushpendra Kumar Yadav and Harsh Kumar Yadav (2017) who conducted A comparative study on selected physiological parameter between players of Kabaddi and Kho-Kho and The study found that kabaddi players have greater vital capacity in comparison to Kho-Kho players whereas there is insignificant difference in relation to breathe holding capacity.

Conclusion

Within the limitation of the study and procedure following conclusion was arrived at: There was no significant difference of Breath Holding Capacity between Kabaddi and volleyball players.

References

1. Bijlani RL. Pulmonary function tests. In: Understanding Medical Physiology. A Textbook for medical students. (4th ed.) Jaypee Brother's Medical Publishers 2011, 259-260.
2. Verma SK, Sidhu LS, Kansal DK. Aerobic work capacity in young sedentary men and active athletes in India. British Journal of Sports Medicine 1979;13:98.
3. Dhananjay Kumar, Arjun Singh. Relationship of selected physical and physiological variables to the performance in long jump, Internat. J Phy. Edu 1994, 2010, 3(1, 2).
4. William D, Katch I, Katch L. Exercise physiology. Computerized meal plan and exercise questionnaire 1991, 825.
5. Craig FN, Cain SM. Breath holding after exercise. Journal of Applied Physiology 10(1).