



ISSN: 2456-0057

IJPNPE 2021; 6(2): 172-173

© 2021 IJPNPE

www.journalofsports.com

Received: 10-06-2021

Accepted: 12-07-2021

Dr. Hitesh Dayabhai Rathod
M.P. Ed., Ph.D. Principal, Saket
College of Physical Education,
Gondia, Maharashtra, India

Harjinder Kaur
M.P.Ed., D.Y.S. Lecturer, Brij
Kaushal Yoga Mahavidyalaya
Gondia, Gondia, Maharashtra,
India

Investigating cardiovascular fitness level between sportsperson and non-sportsperson

Dr. Hitesh Dayabhai Rathod and Harjinder Kaur

Abstract

The research paper carried out to assess the cardiovascular abilities between sportsperson and non-sportsperson. The sample of the study is 100. The sample has selected using purposive sample technique consist of 50 sportsperson and 50 non-sportsperson of Women's University students, to get the appropriate data Harvard cardiovascular test was conducted. The calculated the data has applied to statistical technique, the calculated Mean, SD, score of Sports women after the rest period is 58.70, SD is 5.80 and Non- Sports women Mean 84.85 and SD is 7.005 respectively. And calculated "t" value is 12.15 it is greater than the table value, hence formulated hypothesis accepted and null hypothesis is rejected. It can conclude that it is due to regular participation in Sports and training there will be improvement in cardiovascular fitness.

Keywords: cardiovascular, fitness, sportsperson, non-sportsperson etc

Introduction

Sport is not purely a physiological phenomenon but a complex interplay of the mind and body. It is now becoming more and more competitive and has also become a career with an emphasis on monetary gains and the desire to win at any cost. Therefore, it is important to find solutions to the changing sports scene of today. A sports person needs four basic qualities: Speed, Skill, Strength and Stamina. To achieve these in professional sports, the daily life of a sports person calls for discipline in training, a balanced diet, a balanced lifestyle and an inner focus and determination. Sport training is a planned and controlled process in which, achieving a goal, change in complete motor performance, ability to act and behavior are made through measures of content, methods and organization.

Objectives of study

To assess the influence of sports participation on cardiovascular fitness abilities among the sportsperson and non-sportsperson.

Methodology

The present paper made an attempt "To assess the impact of sports participation on cardiovascular fitness between sportsperson and non-sportsperson" is in framework of empirical research. The particulars of the samples, tools, collections of the data and statistical techniques are given as under. The toll samples consists of 100 sportsmen and non-sportsperson samples selection made randomly and the age level ranging from 20 to 25.

Table 1: Showing distribution of sample

Variables	Sex
Sportsperson	50
Non-sportsperson	50
Total	100

Tools

Harvard Bench Step Test was used to collect the pulse rate of sportswomen and non-sportsperson.

Corresponding Author:

Dr. Hitesh Dayabhai Rathod
M.P. Ed., Ph.D. Principal, Saket
College of Physical Education,
Gondia, Maharashtra, India

Statistical tool

To assess the cardiovascular ability of sportswomen and non-sportswomen 't' test was applied.

Discussion and analysis of the result

The main objective of the study is to measure the Cardiovascular endurance among the sportswoman and non-sportswoman because participation and physical activities and sports brings significant changes in the cardiovascular and fitness among the participants.

To measure the general capacity of the body and especially heart and circulatory system to adopt and recover from hard work is depends upon cardiovascular endurance. Various studies proved that regular practice and training of the sports develops cardiovascular fitness of the sportsperson.

Hence, researcher here made an attempt to assess the significant influence of participation in sports and non-participation on cardiovascular fitness.

Table 2: Showing the Mean, SD, and 't' Values of the Resting Pulse rate of the Sports women and Non-Sports Women

Harvard Steps Test, Resting Pulse Rate Per Minute	Sports Women	Non-Sports Women
Mean	58.70	84.85
SD	5.80	7.005
't' Value	12.15	

*Significant at 0.05 level

The formulated hypothesis is that there is significant difference in Endurance abilities among the participants on the rational that involvement in Physical activities and sports to develops Cardio-vascular and fitness, among participants and also develop general fitness, capacity among Sports women. Hence, collected data was applied to the statistical techniques to find out the influence of the participation, the Mean, SD, score of Sports women is 58.70 Sd is 5.80 and Non- Sports women Mean 84.85 and SD is 7.005 respectively. And calculated 't' value is 12.15 it is greater than the table value, hence for formulated hypothesis accepted and null hypothesis is rejected. It can conclude that it is due to regular participation in Sports and training.

Table 3: Showing the Mean, SD, and 't' Values of Sports Women and Non-Sports Women at Conducting the Harvard Step Test for one minute

Harvard Step Test, Ability Per Minute	Sports Women	Non-Sports Women
Mean	63.5000	37.500
SD	6.5646	4.76252
't' Value	15.50	
*Significant at 0.05 level		

The Table reveals that mean, SD, and 't' value of the sportswomen while recording pulse tare after the performance of 1½ minute's, and collected data was applied to the statistical techniques to find out the influence of the participation, the Mean, SD, score of Sports women is 63.5000 SD is 6.56546 and Non-Sports women mean, 37.4500 and SD is 4.76252 and calculated 't' value is 15.50, it is greater than the Table value. Hence formulated hypothesis accepted and null hypothesis is rejected, it was concluded that it is due to regular participation in sports and training. (Sportswomen performed more steps than the Non-sportswomen)

Table 3: Showing the Mean, SD, and 't' Values of Pulse Rate Recorded after 1 Minutes of Sports Women and Non-Sports Women

After 1 Minute Pulse Rate	Sports Women	Non-Sports Women
Mean	88.20	112.10
SD	5.845	9.634
't' Value	10.53	

* Significant at 0.05 levels

The Hypothesis is formulated that there is significant difference in Endurance abilities among 20 Sports Women and 20 Non-Sports Women on rational that the participation in Physical activities and Sports to develop Cardio-vascular and Fitness, among participants and also develop general fitness, capacity among sports women, hence collected data was applied to the statistical techniques to find out the influence of the participation, the Mean, SD, score of Sports Women is 88.20 SD is 5.845 and Non-Sports Women Mean, and SD is 9.634 and calculator 't' value is 10.53 it is greater than Table value, hence formulated hypothesis accepted and null hypothesis is rejected, It is due to regular participation in Sports and training.

Conclusion

The present study reveals that participation of sports activities effects development of physical development and cardiovascular fitness among the participants, Hence study suggest that incorporate the physical education curriculum in the syllabi of school and college.

References

1. Yadav Devraj. Physical Fitness and Wellness, Angel Publication, New Delhi
2. Kumari Sheela *et al.* Fitness, Aerobics and Gym Operations, Khel Sahitya Kendra, New Delhi 2006.
3. Kumaraswamy. A Comparative Study of Physical Fitness of Rural and Urban High School Boys in Malur Taluk (Unpublished Masters Thesis, Bangalore University) 2003.
4. Dabas Sunil, Dabas Rakesh. Physical Activities and Health, Sports Publication, New Delhi.
5. Modak Pintu. Physical Fitness for Children, Sports Publication, New Delhi.
6. Gupta AK. Fitness and Health, Sports Publication, New Delhi.
7. Mehta Geeta. Essential of Physical Fitness in Sports, Angel Publication, New Delhi.