

**INDEXED BY:**

INTERNATIONAL SCIENTIFIC INDEXING (ISI) -UAE  
ADVANCED SCIENCES INDEX (ASI) -GERMANY  
INTERNATIONAL SOCIETY FOR RESEARCH ACTIVITY (ISRA) -INDIA  
SCIENTIFIC JOURNAL IMPACT FACTOR (SJIF) -INDIA @AUGUST2023IRJPSS

IRJPSS Research Journal Impact Factor (ISRA & SJIF): 7.436  
Research Unique Number (RUN): 16.09.2022.2034  
Website: [www.sportjournals.org.in](http://www.sportjournals.org.in)

**HEALTH RELATED PHYSICAL FITNESS COMPONENTS AMONG SPORTS PERSON AND NON-SPORTS PERSON**



**Dhadwal Manoj Kumar<sup>1</sup>**

<sup>1</sup>Assistant Director of Physical Education Babasaheb Bhimrao Ambedkar University, Lucknow, UP, INDIA  
E. Mail: [apsingh0013@gmail.com](mailto:apsingh0013@gmail.com)

**ABSTRACT**

The main objective of the study was to the health related Physical Fitness components among Sports Person and Non-Sports Person. Sixty female students studying in Babasaheb Bhimrao Ambedkar University, Lucknow, U.P, India, were selected as subjects for the present study. Out of Sixty (60) subjects, thirty subjects were from College/School/Faculty level players for the academic year 2021-2022 i.e. 10 from Basketball, 10 from Kho-Kho, and 10 from Kabaddi, they were considered as Sports person. Remaining thirty Non-Sports Persons selected randomly from the BBAU for this study having no sports background. The subject's age ranged from 18 to 25 years. The variables for study were Cardio-Vascular Endurance, Agility, and Muscular Endurance. To Compare the selected health related physical fitness components between Sports Person and Non-Sports Person mean difference method (t ratio) 't' test was used. The level of significance was set at 0.05 levels. Results of the study clearly indicate significant difference in selected Health related Physical Fitness Components (Cardio-Vascular Endurance, Agility, and Muscular Endurance) between Sports Person and Non-Sports person.

**Keywords:** Health related Physical Fitness, Sports Person & Non-Sports Person.

**INTRODUCTION**

Physical fitness is an important part of our life in general, it is not only important for competitive sports but also for day to day life. Every Nation now a day is giving importance to physical fitness for its citizens, recognizing that physical fitness improves health and happiness. It also improves the muscular performance of the human being; it is the performance enhancer in competitive situations and also develops

ISRA JIF INDIA

Scientific Journal Impact Factor

TOGETHER WE REACH THE GOAL INDIA

INTERNATIONAL Scientific Indexing UAE

ADVANCED SCIENCE INDEX GERMANY

emotional stability, endurance, strength, agility, speed, flexibility and co-ordination. Therefore, regular physical activity stimulates growth and development of an individual. The five components of physical fitness are often use to measure the fitness level of an individual they all together make up total fitness that can be defined by how well the body performs in each one of the components of physical fitness as a whole. These are:

Cardiovascular endurance is the ability of the heart and lungs to work together to provide the needed oxygen and fuel to the body during sustained workloads. Examples would be jogging, cycling and swimming. The Cooper Run is used most often to test cardiovascular endurance. Muscular strength is the amount of force a muscle can produce. Examples would be the bench press, leg press or bicep curl. The push up test is most often used to test muscular strength. Muscular endurance is the ability of the muscles to perform continuous without fatiguing.

Examples would be cycling, step machines and elliptical machines. The sit up test is most often used to test muscular endurance. Flexibility is the ability of each joint to move through the available range of motion for a specific joint. Examples would be stretching individual muscles or the ability to perform certain functional movements such as the lunge. The sit and reach test are most often used to test flexibility. Body composition is the amount of fat mass compared to lean muscle mass, bone and organs. This can be measured using underwater weighing, Skinfold readings, and bioelectrical impedance. Underwater weighing is considered the “gold standard” for body fat measurement, however because of the size and expense of the equipment needed very few places are set up to do this kind of measurement.

#### **DESIGN OF THE STUDY**

The purpose of the present study was to compare the selected health related physical fitness components between Sports Person and Non-Sports Person. Sixty (60) female students studying in Babasaheb Bhimrao Ambedkar University, Lucknow, UP, India, were selected as subjects for the present study. Out of Sixty (60) subjects, thirty subjects were College/School/Faculty level players of the BBAU for the

academic year 2021-2022 i.e. 10 from Basketball, 10 from Kho-Kho, and 10 from Kabaddi, these were considered as Sportsperson. Remaining thirty subjects, who were neither the players nor having any background of sports, were considered as Non-Sportsperson. The selected subject's age ranged from 18 to 25 years.

**VARIABLES**

**Following Physiological variables were selected:**

**Cardio-Vascular Endurance:** Cardio-Respiratory Endurance was measured by the 12 mints run/walk and the score was recorded in kilometer.

**Agility:** Agility was be measured by using 4 x 10 m shuttle run. The score was recorded to the nearest tenth of a second.

**Muscular Endurance:** Muscular Strength was measured with the help of sit ups and the number of sit ups in one minute was taken as the score.

**STATISTICAL ANALYSIS**

Mean difference method (t ratio) 't' test was used to Compare the selected Health related Physical Fitness components between Sports Person and Non-Sports Person. The level of significance was set at 0.05 levels.


**RESULTS AND DISCUSSION**

**Table No-1**  
**Mean Comparison of Cardio-Vascular Endurance among the Sports Person and Non-Sports Person**


	Sports Person	Non-Sports Person	"t" ratio
Mean	1650	1150	30.079
SD	50.85476	50.85476	

Significant t 0.05 (58) = 2.000


The table-1 reveals the significant differences of Cardio-Vascular Endurance between Sports Person and Non-Sports Person, as the calculated value of 't'= 30.079 is less than the tabulated t.05 (58) = 2.000



**INDIA**



TOGETHER WE REACH THE GOAL **INDIA**



**UAE**



**GERMANY**

**INDEXED BY:**

INTERNATIONAL SCIENTIFIC INDEXING (ISI) -UAE

ADVANCED SCIENCES INDEX (ASI) -GERMANY

INTERNATIONAL SOCIETY FOR RESEARCH ACTIVITY (ISRA) -INDIA

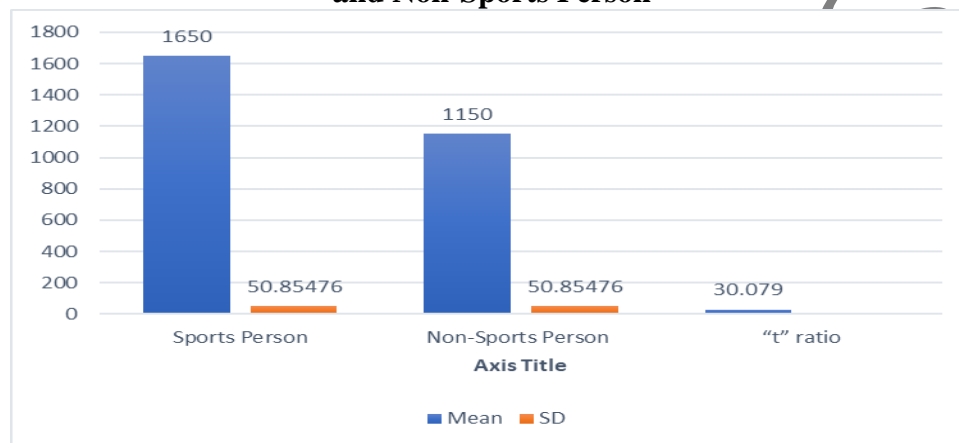
SCIENTIFIC JOURNAL IMPACT FACTOR (SJIF) -INDIA @AUGUST2023IRJPSS

IRJPSS Research Journal Impact Factor (ISRA & SJIF): 7.436

Research Unique Number (RUN): 16.09.2022.2034

Website: www.sportjournals.org.in

**Fig. 1: Graphical Representation of Cardio-Vascular Endurance of Sports Person and Non-Sports Person**



**Table No-2**

**Mean Comparison of Agility among Sports Person and Non-Sports Person**

	Sports Person	Non-Sports Person	“t”
Mean	12.500	15.500	22.847
SD	.50855	.50855	

Significant  $t_{0.05}(58) = 2.000$

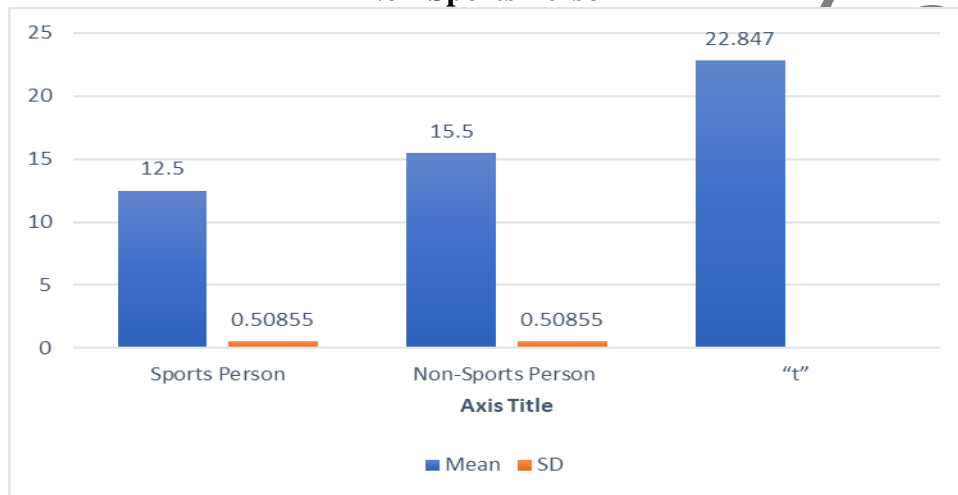
The table-2 reveals the insignificant differences of Agility between the Sports Person and Non-Sports Person, as the calculated value of ‘t’= 22.847 was less than the tabulated  $t_{0.05}(58) = 2.000$ .



TOGETHER WE REACH THE GOAL INDIA



**Fig. 2: Graphical Representation of Agility among Sports Person and Non-Sports Person**



**Table No-3**  
**Mean Comparison of Muscular Endurance among the Sports Person and Non-Sports Person**

	Sports Person	Non-Sports Person	"t" ratio
Mean	22.500	16.500	45.695
SD	.50855	.50855	

Significant  $t_{0.05(58)} = 2.000$

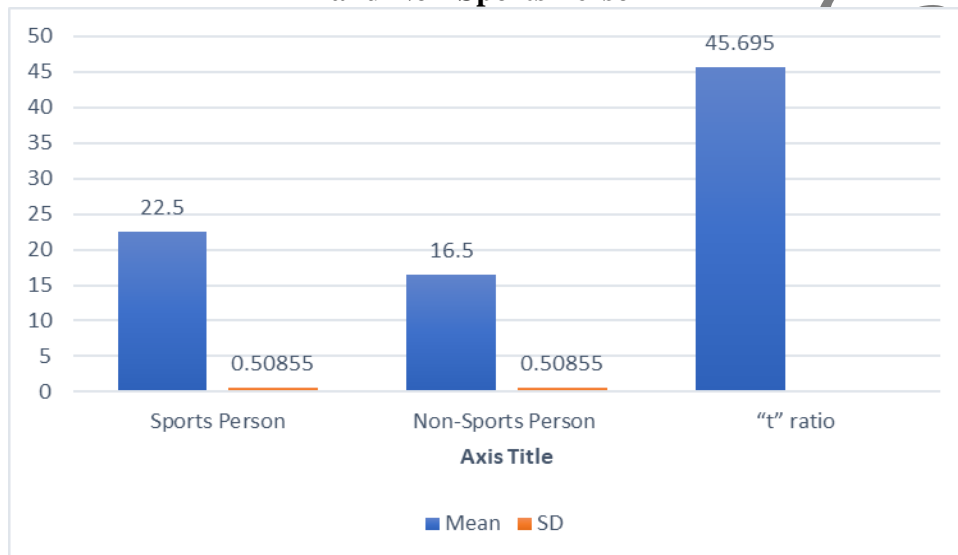
The table-3 reveals that there is a significant difference of Muscular Endurance between the Sports Person and Non-Sports Person, as the calculated value of 't' = 45.695 was less than the tabulated  $t_{0.05(58)} = 2.000$

**INDEXED BY:**

**INTERNATIONAL SCIENTIFIC INDEXING (ISI) -UAE**  
**ADVANCED SCIENCES INDEX (ASI) -GERMANY**  
**INTERNATIONAL SOCIETY FOR RESEARCH ACTIVITY (ISRA) -INDIA**  
**SCIENTIFIC JOURNAL IMPACT FACTOR (SJIF) -INDIA @AUGUST2023IRJPSS**

**IRJPSS Research Journal Impact Factor (ISRA & SJIF): 7.436**  
**Research Unique Number (RUN): 16.09.2022.2034**  
**Website: www.sportjournals.org.in**

**Fig. 3: Graphical Representation of Muscular Endurance between Sports Person and Non-Sports Person**



**CONCLUSIONS**

The findings of the study revealed that there were significant difference of Cardio-Vascular Endurance, Agility, and Muscular Endurance between sports person and non-sports person of the Babasaheb Bhimrao Ambedkar University, Lucknow, UP, India, Sports person i.e. college level female players of basketball, Kho-Kho and Kabaddi for the academic year 2021-2022 of Babasaheb Bhimrao Ambedkar University, Lucknow, U.P., India.

**REFERENCES**

1. Charles A. Bucher, “Function of Physical Education” (Saint Louis, the Mosby Company 1986), P. 223.
2. Dabas Sunil, Dabas Rakesh, Physical Activities and Health, Sports Publication, New Delhi.
3. Gupta AK, Fitness and Health, Sports Publication, New Delhi.
4. H.Harrison Clarke, “The Physical Fitness Value” SNIPES Journal (January 1981) Pg.60.
5. John E. N. Nixon and Ann E. Jewett, an Introduction to Physical Education (Philadelphieas W.B. Sounder’s Company, 1969), P. 196.
6. John Walsh, “The First Book of Physical Fitness” (New York: Franklin Walts Inc. 1966).
7. Modak Pintu, Physical Fitness for Children, Sports Publication, New Delhi.
8. Nixon, Eugne and Fredrick W. Cadezens, “An Introduction of Physical Education”, (5th Education Revised by W. B. Sounder’s Company, 1956).
9. Rash J. Hoffmann, “Health Related Physical Fitness Research Quarterly” V.57 (Nov.1986) P. 54.
10. Robert V, Hockey, Physical Fitness (Saint Louis: The C.V. Mosby Company, (1973).