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Physical Fitness among Sports and Non-Sports Persons- A Comparative Study

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ABSTRACT

The present study was an attempt to find out the physical fitness among Sports persons and Non-sports persons of District Srinagar Kashmir. The sample for the present study comprised of 157 Sports persons and 145 Non Sports Persons who were in the age group of 15-28 years. The data was collected at different schools and coaching camps/stadiums. Shuttle Run to measure the Coordinative abilities, 50 Yards Dash/Run to measure the speed capacity, Pull-Ups to measure the muscular strength and Modified Sit & Reach to measure Flexibility, in order to find general physical fitness of the students/players. The data was analyzed by using mean, S.D and t test. Significant mean differences were found in physical fitness levels of Sports persons in comparison to Non-sports persons. The result indicated that Sports persons were found to have higher fitness levels than Non-sports person.

1. Introduction

Physical fitness is a fundamental necessity for any activity. Motor qualities such as speed, strength, endurance, and flexibility are essential for general fitness of an individual as well as for excellence in Sports/Games.Being physically fit has been defined as the ability to carry out daily tasks with vigor and alertness without any undue fatigue and with ample energy to enjoy leisure time pursuits and to meet unforeseen emergencies. Physical fitness is a set of traits that people have to achieve.*'Physical fitness or condition is sum total of five motor abilities namely, Strength, Speed, Endurance and Coordinative abilities. These five variables are measurable components of Physical fitness'.*Hardayal (1995).

Since some studies have been conducted on sports and games, and it was reported that sports activities has a profound effect on physical fitness of an individual. Hence it was decided to study the physical fitness of sports and Non-sports persons of District Srinagar, Jammu & Kashmir.Some Researchers like *Das & Mishra (2015), Das and Beg (2015), Sharma &Dhapola(2015), Yadav & Rohilla (2014), Awati (2014), Singh et al(2014), Kumar (2014), Shahid et al (2013), Sheikh & Khan(2012),*etc have studied Selected Physical Fitness Components, fitness Variables and Performance Ability, Effect of Speed, Agility, etc. These studies highlight the Research Gap in the area of *physical education and sports* and signify the need of the study to be taken in relation to physical fitness. Few studies have been conducted on physical fitness, but no major study has been conducted in this regard in Kashmir. Thus it is hoped that this study may contribute to the literature.Hence it acted as a great motivating force to conduct research in this area.

2. Objective

- To identify Sports and Non-sports Persons of District Srinagar.
- To study the Physical fitness profile of Sports Persons with a view to determine the extent to which sports participation influences the changes in the components of Physical fitness of the subjects.
- To compare different Physical fitness components between Sports persons and Non-sports persons.

3. Hypotheses

- Sports Persons and Non Sports Persons differ significantly so far as their Physical fitness is concerned.
- Physical fitness components such as Speed/ Endurance, Strength, Flexibility and Agility (Coordinative ability) of Sports Persons and Non-sports Persons differ significantly.

4. Operational Definition of the Terms used

Physical Fitness: For the purpose of present study, Physical Fitness is operationally defined as the total number of scores gained by the sample subjects while performing Pull Ups, 50-Yard Dash, Shuttle run, and Modified sit and reach tests involving different muscles, to determine Strength, Speed, agility and flexibility respectively.

Sports Persons: Those subjects were considered as Sports Persons who had participated in different sports competitions from Inter School level to the National level competitions organized by Youth Services & Sports Department or Sports Council of J & K State which are recognised by School Games Federation of India/ All India Council of Sports.

Non-Sports Persons: Those subjects who had not participated in Sports Competitions organised by Department of Youth Services & Sports or Sports Council of J & K State which is recognised by School Games Federation of India/ All India Council of Sports, were considered as Non-sports persons.

5. Plan and Procedure

The sample for the present study comprised of **302** Sports and Non-sports persons. They were randomly selected from different schools and Colleges of districts Srinagar and were in the age group of 15-28 years.

6. Tools Used for the Present Study

1. **Shuttle Run** to measure Agility/Coordinative abilities
2. **50 Yards Dash/Run** to measure the speed capacity of the subject.
3. **Pull-Ups** to measure the muscular strength.
4. **Modified Sit and Reach** to measure Flexibility.

Description of the Tools

1. Shuttle Run (4 x 10 Meters):

Shuttle Run Agility Test

Diagram of the course used in the agility test

Purpose: To measure the agility (Coordinative Ability) of the subject.

Equipments: Even Ground, two wooden Blocks (2x2x4 inches), Stop Watch, Clapper, whistle, Score-card.

Description: For administration of test, 10 meter distance was measured on the ground, marked with lime on both sides On the sound of clappers, subject starts running from starting line and crossing the line on other side (restraining line), picking- up one wooden block and returning back to the starting line like this subject runs again to pick another wooden block completing total 40 meters as quick as possible.

Score: time taken to complete 4 x10m was recorded and entered in the result sheet, was considered as the measure of agility.

2. 50 Yards Dash/Run:

50-Yard Dash

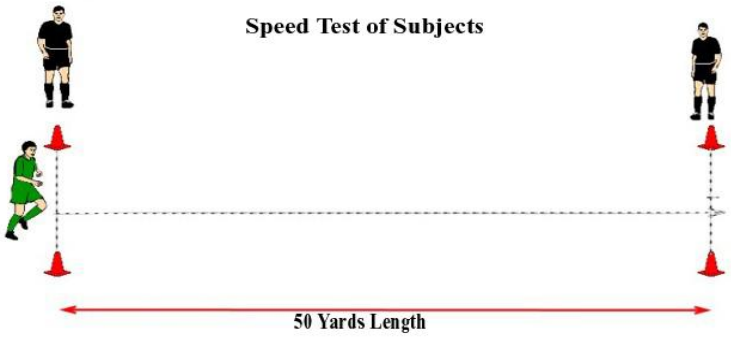

Diagram of the course used in the Speed test

Purpose: To measure the speed capacity of the subject.

Equipments: Flat Ground, measuring tap, two Stop Watches, Clapper, whistles, score card, instructor,

Description: Two lines were marked on the ground 50 yards apart. The subject was asked to take position behind the starting line.

Score: The time keepers recorded time of each subject at the finishing line. Three trials were given to each subject with proper rest in between the trials. Total time taken nearest to 1/100 second) was recorded as the scores of the subject.

3. Pull-Ups *(Also known as Chin-Ups)*

Sports Persons (Urban Area)

Sports Persons (Rural Area)

Purpose: To measure the strength of the student.

Equipments: Horizontal wooden or metal Parallel Bar, score card and pen.

Description: The height of the bar was kept so that when subject handed from it with fully extended arms, his feet does not touch the ground. From the hanging position, the subject raised his body by the arms until the chin of the subject crosses parallel bar. The subject was asked to lower his body to a fully extended hang position as shown in the picture above. Only one trial was given unless it was obvious that subject was not given fair chance.

Score: Total number of completed pull ups was recorded as the score of the subject.

4. Modified Sit and Reach

Modified Sit & Reach flexibility*Test*

Subjects waiting for the test

Purpose: To measure the flexibility of the subjects.

Equipments: modified sit and reach wooden cubical or wooden box (or alternatively a makeshift ruler and box may be used), score card, pen.

Description: The subject was asked sit on the floor with both the legs out straight ahead and knees flat against the ground/floor, and place the feet against the Vertical pillar. Subject was asked to lean forward slowly as far as possible and place and cross both hands side by side over his toes without jerk.

Score: Holding full reach position for two-three seconds, when the distance of hands reached beyond toes, score of the subject was recorded by measuring scale to the nearest centimetre. Each subject was given three trials and highest score was recorded.

7. Statistical Analysis

Statistical analysis of the data was done by employing ***t-test*** in order to get an understanding of physical fitness levels of both Sports and Non-sports persons.

Showing the mean difference between Sports and Non-sports PersonsOn Shuttle Run of Agility dimension level

Group	N	Mean	S.D.	t-value	Level of Significance
Sports	157	9.538	1.175	6.718	0.01*
Non-Sports	145	10.589	1.508		

Table 1

*Note: *Significant at 0.01*

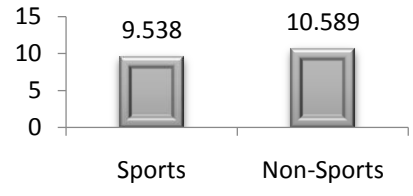

Figure 1

Showing the mean difference between Sports and Non-sports Persons On 50 Yard Dash of Speed dimension level

Group	N	Mean	S.D.	t-value	Level of Significance
Sports	157	7.044	0.928	8.989	0.01*
Non-Sports	145	8.250	1.348		

Table 2

*Note: *Significant at 0.01*

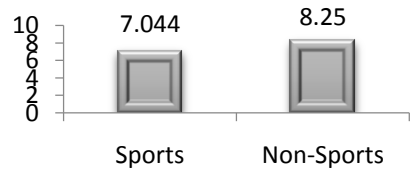

Figure 2

Showing the mean difference between Sports and Non-sports Persons On Pull Ups of Strength dimension level

Group	N	Mean	S.D.	t-value	Level of Significance
Sports	157	10.478	4.019	8.683	0.01*
Non-Sports	145	6.694	3.510		

Table 3

*Note: *Significant at 0.01*

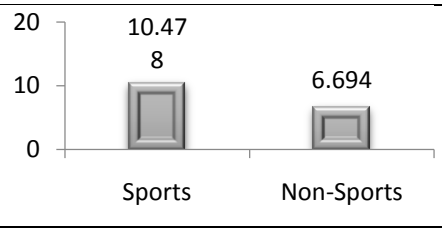

Figure 3

Showing the mean difference between Sports and Non-sports Persons On Modified Sit & Reach of Flexibility dimension level

Group	N	Mean	S.D.	t-value	Level of Significance
Sports	157	19.580	5.708	8.139	0.01*
Non-Sports	145	14.372	5.386		

Table 4

*Note: *Significant at 0.01*

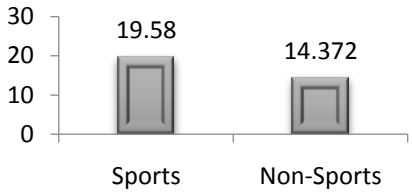

Figure 4

8. Discussion and Interpretation

The perusal of the **table 1**shows mean difference between Sports and Non-Sports persons on variable of Shuttle run, Agility component of physical fitness scale. The table reveals that there is significant mean difference between the two groups. The difference was found significant at 0.01 level. Sports persons were found to be more agile than their counterparts. A glance at the above table with regard to Agility component of motor fitness shows that Sports Persons were agile and had good coordinative abilities because of participation ingames/sports. Sports persons perform stretching exercises regularly in order to make their body ready and prepared for competitive sports events. It is revealed to a great extent that sports and Games involve efficient foot work and quick changes in body positions.

The result of the **table 2**shows mean difference between Sports and Non-sports persons on variable of 50 Yard Dash, speed component of physical fitness scale. The table reveals that there is significant mean difference between the two groups, and the difference was found significant at 0.01 level, which indicates that sports persons have more speed than their counterparts in 50-Yard Dash sprints. The descriptive statistics shows Sports persons have demonstrated significantly better on the variable of speed than the Non-sports persons. They perform quick muscular movement to cover maximum distance in shortest possible time. This indicates that the sports persons are sprinters hence have good speed. In contrary Non-sports persons were not habitual runners. They experience breathlessness and second wind due to lack of fitness during running. Today, hundreds of young and old sports persons are seen running, practicing strenuous exercises and morning jogging in public parks, on streets, roads or wherever it can be. It has a positive effect on their body and enhances their speed.

The **table 3**shows mean difference between Sports and Non-sports persons on the variable of Pull ups, strength component of physical fitness scale. The table reveals that there is significant mean difference between the two groups. The difference was found significant at 0.01 level. The sports persons were found to have more strength than their counterparts. The descriptive statistics shows that sports persons have demonstrated significantly better on the variable of strength than Non-sports persons. Results may be due to the weight trainings they do to make their body strong. The importance of weight-lifting and weight training to develop muscular strength in the body cannot be ruled out in most sports of course

The result of the **table 4** shows mean difference between Sports and Non-sports persons on Modified sit and Reach, flexibility component of physical fitness scale. The table

reveals that there is significant mean difference between the two groups. The difference was found significant at 0.01 level. The sports persons were found to have muscular and great joint flexibility than their counterparts. The descriptive statistics shows that Sports persons demonstrated better on the variable of flexibility than Non-sports Persons because regular and long term muscular flexibility trainings and practice has a positive effect on total body flexibility. The flexible body not only makes them fit to play but the injury chances to their body gets minimal also. On the other hand Non-sports persons were unable to attain the optimum level of flexibility due to their sedentary life style.

The results presented in tables 1 to 4 respectively analyzed, interpreted and discussed above, are in line with the findings of the studies conducted earlier by, *Manjit (2014)* ,Sandhu, (1988), *Vats Aarti (1998),et al.* They reported thatPhysical education students were found to be superior on motor fitness components as compared to non-Sports persons.

In light of the above findings and with the support of above studies the hypotheses No: 1 and 2, which reads as:

- *Sports Persons and Non Sports Persons differ significantly so far as their Physical fitness is concerned",* and
- *All the Physical fitness components such as Speed, Strength, Flexibility and Agility (Coordinative ability) of Sports Persons and Non Sports Persons differ significantly",* Stands accepted.

9. Conclusions

1. It has been found that there is significant mean difference between Sports and Non-sports persons on factor Shuttle Run (Agility, a measurable component of Physical fitness scale). Sports persons were found to posses' agile body, having good coordinative abilities and flexibility as compared to Non Sports persons who were found to posses' stiff body.
2. It has also been found that there is significant mean difference between Sports and Non-sports persons on factor 50 Yard Dash test, (Speed, a measurable component of physical fitness scale). Sports persons were found have more speed than their counterparts. Sports persons were found to be habitual runners. On the other hand Non Sports persons experience breathlessness and second wind due to lack of fitness and speed.
3. It has been found that there is significant mean difference between Sports and Non-sports persons on variable of Pull-Ups test (strength, a measurable component of physical fitness scale). Sports persons were found to posses' muscular body. Their upper body was found to have good shoulder strength. In the contrary, Non-sports persons were found to have weak upper body.
4. It has been found that there is significant mean difference between Sports and Non-sports persons on variable of Modified Sit and Reach test (flexibility, a measurable component of physical fitness scale). Sports persons were found to have flexible body. On the other hand Non Sports persons have stiff muscles in their body.

10. Educational Implications

1. To enhance the physical fitness of young people, the sports activities need to be initiated intensively at pre-school and school level. During this period, children should get opportunity to take part in various sports and co-curricular activities during schooling to develop their overall physical fitness and get well adjusted in the society.
2. The educational administrators and policy makers should focus more on non- scholastic aspects so as to encourage the students to take part in it.
3. Remedial coaching for Non-sports persons should be conducted to see its effects on their physical fitness levels.

References

1. Das Provash, and Mishra Piyali (2015).A comparative study on selected fitness components of 13-19 years female basketball and volleyball players. International Educational E-Journal,Vol. 5(2). pp. 43-51.
2. Das Suprakash and Bag Ajoy, (2015). Comparative Study on Selected Strength between Non Sports Performer and Sports Performer College Student of Jamboni Block of West Bengal. *Journal of Sports and Physical Education.* Vol. 2, (4), pp.12-14.
3. Hardayal Singh, (1995). *Science of Sports Training,* D.V.S. Publication New Delhi, p.115.
4. Sharma Sandeep, Mahesh Singh Dhapola (2015). Effect of Speed, Agility, Quickness (SAQ) Training Programme on Selected Physical Fitness Variables and Performance Ability in Basketball University Players.*International Educational E-Journal*, Vol. 4(3). pp.14.
5. Yadav Maya and Kanta Rohilla (2014). A comparative study of physical fitness among sportsmen and non-sportsmen students in Bhiwani district of Haryana.*International Journal of Multidisciplinary Research and Development*. vol. 1(5). pp. 177-178.
6. Sandhu, Kiran (1988). A comparative study of sports women and non-sports women in selected psychological and sociological variables. *Ph.D Dissertation, IGIPESS Library University of Delhi.*
7. Sanjaya Kumar Awati, (2014). A comparative analysis on physical fitness of rural and urban high school students: a case of bagalkot.*New man International journal of multidisciplinary studies*, Vol.1(4), pp.122-134.
8. Manjit Singh, et al., (2014). A Comparative Analysis of Motor Fitness Components of Sprinters: A Key to Towards Success. *Research Journal of Physical Education Sciences,* Vol. 2(9), pp. 9-12.
9. Kumar Amit (2014). A Comparative Study of Endurance and Agility between Rural and Urban Male Basketball Players.*International Journal of Physical Education, Sports and Health*, 1 (2): 25-27.
10. Shahid Bashir and Rajkumar P. Malipatil (2013). *A Comparative study of Cardiovascular Fitness between*

Sportsperson and Non Sportsperson, Research Journal of Physical Education Sciences, Vol. 1(5), 11-13.

11. Sheikh Shafioddin & Khan Nazma (2012). A Comparative of Physical Fitness among Athletes and Non-Athletes*. International Journal of Health, Physical Education and Computer Science in Sports*,Vol.5(1). pp.6-7.
12. Vats Aarti (1998). Comparative study of Motor Fitness Components among the Physical Education and Non-Physical Education students.*Dissertation, IGIPESS Library Delhi University.*

