

# Comparative Study Of Physical Fitness And Sports Achievements Of Academic And Physical Education College Students

Mehraj Ud Din Bhat<sup>1</sup>, Tawseef Ahmad Tantray<sup>2</sup>, Jahangir Hussain Bhat<sup>3</sup>

*1,2,3 Research Scholar, Khiram srigufwara anantnag j&k (India)*

## ABSTRACT

*The purpose of the study is to compare the physical fitness and sports achievements of academic and physical education collage students. For this 40 students were selected by simple random method. 20 students were taken from physical education collage and 20 students from academic college (N=20). The age group of students is 18-23 years. The data was collected by using Phillip JCR fitness test for physical fitness and self made questionnaire for sports achievements. The data was analyzed by using t-test with 0.05 level of significance. The results obtained (explosive leg strength  $t=2.86$ , shoulder strength  $t=6.80$  and agility  $t=4.34$ ) were significantly greater than table 't'=2.04. Also the sports achievements were obtained  $t=2.64$  was greater than 2.04. This shows that physical education students were having greater fitness and sports achievements than academic collage students*

*Hence, the researcher wishes to make a study about the physical fitness of the boys of the collegiate level, and have observed that this physical fitness plays an important role as far as their participation and achievement in various games and sports are concerned.*

**Keywords:** *Physical fitness, Sports achievements, Physical education, Collage students, Academic collage, Achievements, Shoulder strength, Leg strength, Agility, Students, Participation, Games and Sports.*

## INTRODUCTION

Physical education has been considered as an essential part of human life. Physical education is not a new word in Indian context. From time immemorial Indians have laid emphasis on 'yoga' and physical exercise not only to keep fit but to prevent and treat the physical ailments. The great ancient Rishis, Vedas and Purina's attached much emphasis on physical fitness, Meditation, dhayana and spiritualism. It is the movement by which one expresses the desire for hunger and thirst. Speech comes much later in one's life. Secondly, physical activity is also required for proper growth and development. Physical education helps teaching physical skills so as to develop neat, skilful, well controlled versatile movement. 'Physical' when combined with 'education' makes the education a complete process, which aims at the education of an individual through big muscle activity. .

One question is frequently asked, "What it meant by physical fitness?" Technically fitness involves measures and levels of muscular strength and endurance, muscle tone heart action and respond to activity, agility, balance coordinator and so on.

But fitness is also a personal thing. It is how we feel when we get up in the morning ,how tired or fresh we are after a hard day's work ,how eagerly we look forward doing those things which we all like to do for example, picnic and washing the floors .

During the Asian games of Seoul in 1986, the while playing against the Pakistan hockey (men) team, the performance of Indian players in second half was very poor. It was only due to lack of physical fitness, endurance and so on whereas at the same time the performance of Indian hockey (women) has put up a better show trained as well as each possesses the required physical fitness for the hockey competition .therefore, not only in hockey but in all other sports and game physical fitness of the team and of the individual in general should be seen from all the possible corners. At the time when our nation is enjoying the highest standard of living in the world, health problems are rising to epidemic proportion.

Hence, the researcher wishes to make a study about the physical fitness of the boys of the collegiate level, and have observed that this physical fitness plays an important role as far as their participation and achievement in various games and sports are concerned.

## II.METHODOLOGY

As every research demands a systematic method and procedure likewise the following procedure including information divided into following headings.

- Source of data
- Methods of sampling
- Selection of the test
- Administration of the test
- Collection of data

## III.STATISTICAL ANALYSIS AND INTERPRETATION OF DATA

In this the gathered data from academic and physical education collage students are presented in tables, figures and discussions and findings are also presented in this.

The purpose of this study was to find out the comparison of physical fitness and sports achievements of academic and physical education collage students . The data collected qualitatively on three different components i.e. power of legs, arm and shoulder strength and agility of academic students (N=20), and physical education students (N=20) were analyzed by using the 't' test to find out the significant difference among the selected components. The subjects were selected by using random sampling method.

### Level of significance:

To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

**Findings:**

The data collected on 40 male students of academic and physical education collage students. The power of legs, arm and shoulder strength and agility were analyzed by comparing the means of two groups and was again statistically analyzed by applying 't' test to check the significant difference among selected items. Therefore separate tables and graphs have been presented for each item as follows.

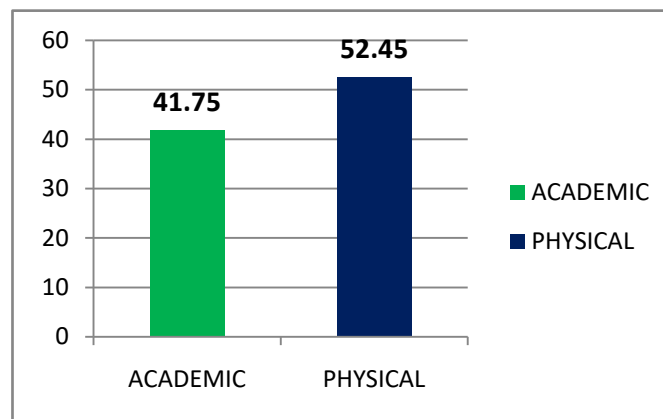
**Table-1****Table showing difference in mean value of vertical jump between academic and physical education collage students**

Group	Mean	S.D.	M.D.	D.F.	O.T.	Tabulated "t"
Academic	41.75	4.24	10.70	38	2.86	2.04
Physical Education	52.45	6.25				

**\*Level of significance=0.05**

**Tabulated 't' (0.05)= 2.04**

Table-1 reveals that there is significant difference between means of vertical jump of academic and physical education students, because mean of academic students is 41.75, less than mean of physical education students; which are 52.45, and this mean difference is 10.70. To check the significant difference between academic and physical education students the data is analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between academic and physical education students which is 4.24 and 6.25 respectively. After applying 't' test there is significant difference in vertical jump between academic and physical education students because value of calculated 't' (2.86) which is greater than tabulated 't' (2.04) at 0.05 level of significance, which shows improvement is found in physical education students which is shown in graph

**Graph 1****Graphical representation of vertical jump between means of academic and physical education students****Table-2****Table showing difference in mean value of Chin-ups between academic and physical education collage students**

Group	Mean	S.D.	M.D.	D.F.	O.T.	Tabulated "t"
Academic	12.45	1.96	7.95	38	6.80	2.04
Physical Education	20.40	4.42				

**\*Level of significance=0.05**

**Tabulated 't' (0.05)= 2.04**

Table-2 reveals that there is significant difference between means of chin-ups of academic and physical education students, because mean of academic students is 12.45, less than mean of physical education students; which is 20.40, and this mean difference is 7.95. To check the significant difference between academic and physical education students the data is analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between academic and physical education students which is 1.96 and 4.42 respectively. After applying 't' test there is significant difference in vertical jump between academic and physical education students because value of calculated 't' (6.80) which is greater than tabulated 't' (2.04) at 0.05 level of significance, which shows improvement is found in physical education students which is shown in graph 2.

Graph 2

Graphical representation of chin-ups between means of academic and physical education students

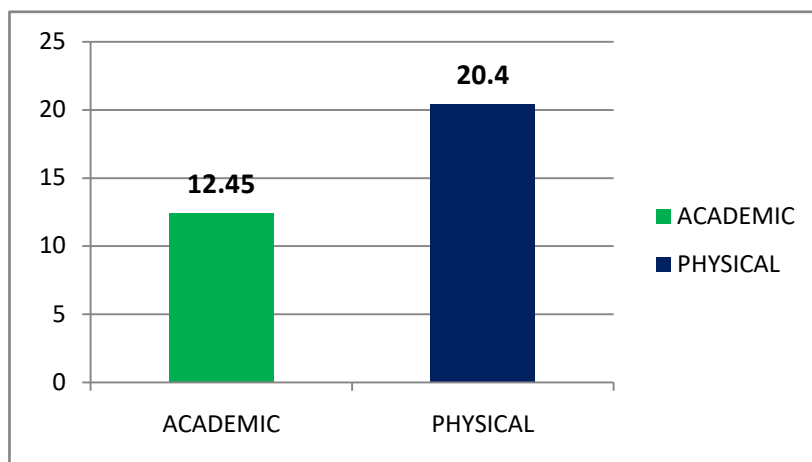


Table-3

Table showing difference in mean value of Shuttle run between academic and physical education collage students

Group	Mean	S.D.	M.D.	D.F.	O.T.	Tabulated "t"
Academic	11.55	0.92	1.43	38	4.34	2.04
Physical Education	10.12	0.93				

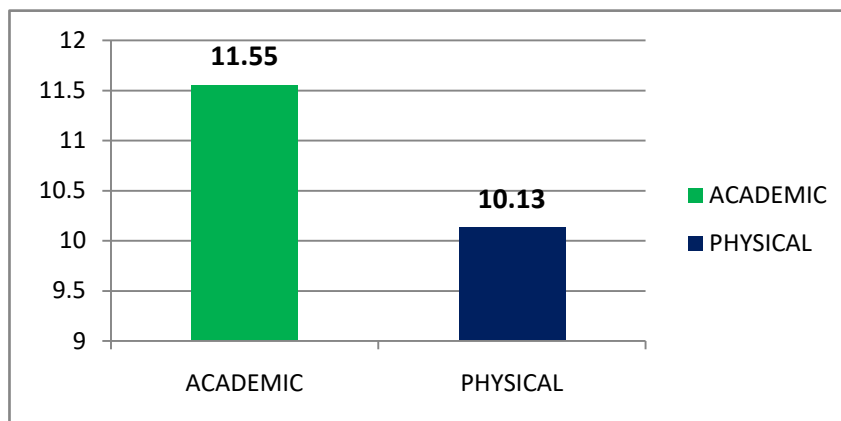
\*Level of significance=0.05

Tabulated 't' (0.05)= 2.04

Table-3 reveals that there is significant difference between means of shuttle run of academic and physical education students, because mean of academic students is 11.55, greater than mean of physical education student; which is 10.12, and this mean difference is 1.43. To check the significant difference between academic and physical education students the data is analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between academic and physical education students which is 0.92 and 0.93 respectively. After applying 't' test there is significant difference in vertical jump between academic and physical education students because value of calculated 't' (4.34) which is greater than tabulated 't' (2.04) at 0.05 level of significance, which shows improvement is found in physical education students which is shown in graph 3.

**Graph 3**

**Graphical representation of shuttle run between means of academic and physical education students**



**Table-4**

**Table showing difference in mean value of Sports achievements between academic and physical education collage students**

Group	Mean	S.D.	M.D.	D.F.	O.T.	Tabulated "t"
Academic	4.50	1.28	2.75	38	2.64	2.04
Physical Education	7.25	1.29				

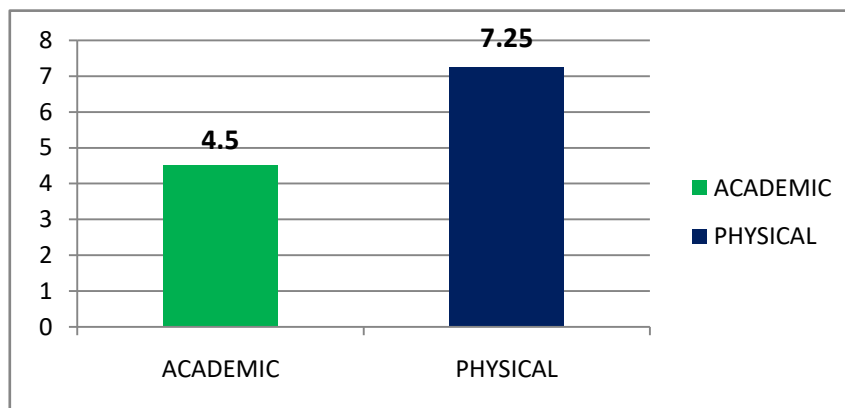
**\*Level of significance=0.05**

**Tabulated 't' (0.05)= 2.04**

Table-4 reveals that there is significant difference between means of sports achievements of academic and physical education students, because mean of academic students is 4.50, less than mean of physical education students; which are 7.25, and this mean difference is 2.75. To check the significant difference between academic and physical education students the data is analyzed by applying 't' test. Before applying 't' test, standard deviation is calculated between academic and physical education students which is 1.28 and 1.29 respectively. After applying 't' test there is significant difference in sports achievements between academic and physical education students because value of calculated 't' (2.64) which is greater than tabulated 't' (2.04) at 0.05 level of significance, which shows improvement is found in physical education students which is shown in graph 1.

**Graph 4**

**Graphical representation of sports achievements between means of academic and physical education students**



#### **Discussions on findings:**

It has been observed from the analysis of data that there is significant difference in physical fitness variables (vertical jump, chin-ups and shuttle run) and sports achievements of academic and physical education students.

#### **Justification of hypothesis:**

It was hypothesized that there would be significant difference between physical fitness and sports achievements of academic and physical education college students. On the analysis of data it was evident that physical education college students have more physical fitness and sports achievements than academic college students. Hence the hypothesis of the researcher is accepted.

### **CONCLUSION AND RECOMMENDATIONS**

#### **IV.CONCLUSION**

Under the conditions of this research work, it was reasonable to conclude that there may be a significant difference in physical fitness as well as in sports achievement of academic and physical education college students.

For this study, researcher hypothesized that there would be significant difference in physical fitness and sports achievements of academic and physical education college boys. The finding of research indicates that the hypothesis is accepted.

## V.RECOMMENDATIONS

Since the area of physical fitness is very wide more critical studies and research can be done to find out or to compare the physical fitness of various factors. Hence the researcher wishes to recommend some of the areas for the further research.

1. The similar test may be conduct on the players of various games and sports.
2. The study may be repeated by using different test on similar subject.
3. To make the study more authentic and valid, the study may be repeated on larger group.
4. A similar type of study may be taken up for the different age groups.

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