

# RESEARCH ARTICLE

# COMPARATIVE STUDY DIFFERENT VARIABLES BETWEEN ATHLETES AND NON ATHELETES OF KASHMIR DIVISION

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## Manuscript Info

#### Abstract

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..... The objective of the present study was to access the "comparative study different variables between athletes and non athletes of Kashmir division". Physical fitness is a dynamic concept and is continuously growing in its importance to everyday life and health. Although being an attribute that has a genetic basis, it is also sensitive to changes in type and amount of physical activity, mortality and injury. The criterion measures selected for the study were, Explosive Leg strength, Speed, Agility, Resting pulse rate, Blood pressure (Systolic and dia-Systolic), Breath holding capacity. The Mean, Standard deviation and "T" value of Athletes and Non-Athletes was calculated. The results showed significant difference between Athletes and Non-Athletes (p<0.005) in case of Explosive Leg strength, Speed, Agility, Resting pulse rate and Blood pressure (Systolic), but no significant difference between Breathing capacity and Diastolic Blood pressure of Athletes and Non-Athletes was observed. It is therefore concluded that the athletes are at higher levels of their physical and physiological fitness levels which enhance their performance in sports and also in daily life activities.

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#### Introduction:-

Physical Education and Sports is one of the important yardsticks and also integral part of education for any country at any point of time. Thus each country should try to set out a framework of action plan for promotion and development of Physical Education and Sports Paradoxically, sports is witnessing a spectacular boom in the media spotlight all over the world including India while it is being seriously neglected within the educational system. Physical Education act as well as the provision of resources for the nation and in the construction of evaluation system in education developments and it proms the development physical education in a country. At present compare to earlier years and now we can come across the decline of physical education in education compare to present is one needs to overcome the hurdles and battles to improve the structure and infrastructure status in around to develop the overall discipline in physical education and sports.

#### Methodology:-

After due consideration of all the points, Simple Random Sampling Technique was employed and the sample size was targeted to 200 college Men studying in various Colleges in Kashmir division of Jammu and Kashmir. Considering the area of District Srinagar and Ganderbal (J&K), the researcher selected 08 Colleges from the both Districts with the help of Simple Random Lottery Method Sampling. College men ranged between the age group of

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21 to 25 years were selected randomly. In the total sample 50 were Athletes and rest 50 are Non-Athletes. The following equipments were used for collection of data during the test. Stop-Watch, Score Cards, Pencil, and 400 Meter/Minimum 200 Meter track, Clipper, Mat or Long Jump Pit, Measuring Tape, Marking Powder, Wooden blocks, Sphygmomanometer, Stethoscope. The variables, equipments and scoring are enlisted in the below table:

S.No	Variables	Equipments	Scoring
1.	Explosive leg strength	Long jump pit,	Distance
		Measuring tape	
2.	Speed	Minimum 200m track	Distance
3.	Agility	Marking powder	Time
		and wooden blocks	
4.	Blood pressure	Sphygmonmano meter	Percentage
	-		
5.	Resting Pulse rate	Sththoscope	Percentage
6.	Breath holding capacity	Nil	Time

# **Results:-**

 Table No.1:-Mean Standard deviation and "T" value of Athletes and Non-Athletes for the variables 60 yard dash.

S.No	Group	No.of	Mean	S.D	SD error	't' value
		students				
01.	Athlete	50	7.6946	.77638	.10980	
02.	Non-Athlete	50	8.7076	.60772	.08595	-7.265*

#### Significant at 0.05 level of confidence:

The speed of Athlete boys was found to be better than Non-Athlete boys in 60 yard dash and the significant difference between Athletes and Non-Athletes was found.

 Table No.2:- Mean Standard deviation and 'T' value of Athletes and Non-Athletes for the variables Standing Broad Jump.

S.No	Group	No.of	Mean	S.D	SD error	't' value
		students				
01.	Athlete	50	7.8480	.82391	.11652	
02.	Non-Athlete	50	7.0690	.85419	.12080	

#### Significant at 0.05 level of confidence:

The Explosive leg strength of Athlete boys were found to be better than Non-Athlete boys in standing broad jump and the significant difference between Athletes and Non-Athletes was found.

Table No.3:- Mean Standard deviation and	1 'T'	value of Athletes and	d Non-Athletes for the	variables Shuttle run
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S.No	Group	No.of	Mean	S.D	SD error	't' value
		students				
01.	Athlete	50	7.8272	.35890	.05076	-8.363*
02.	Non-Athlete	50	8.5636	.50882	.07196	

#### Significant at 0.05 level of confidence:

The Agility of Athlete boys were found to be better than Non-Athlete boys in shuttle run and showed the significant difference between Athletes and Non-Athletes.

Table No.4:- Mean Standard deviation and 'T' value of Athletes and Non-Athletes for the variables Pulse rate

S.No	Group	No.of students	Mean	S.D	SD error	't' value
01.	Athlete	50	59.6000	3.44046	.4865	-5.196
02.	Non-Athlete	50	63.2000	3.48759	.49322	

#### Significant at 0.05 level of confidence:

The pulse rate of Athlete boys was found to be better than Non-Athletes and showed the significant difference between Athletes and Non-Athletes.

**Table No.5:**-ean Standard deviation and 'T' value of Athletes and Non-Athletes for the variables **Breath Holding** capacity.

S.No	Group	No.of	Mean	S.D	SD error	't' value
		students				
01.	Athlete	50	33.6688	6.28336	.88860	1.184
02.	Non-Athlete	50	32.1812	6.27700	.88770	

#### Significant at 0.05 level of confidence:

There was no significant difference between Breathing capacity of athletes and non- athletes.

**Table No.6**:- Mean Standard deviation and 'T' value of Athletes and Non-Athletes for the variables **Blood pressure (Systolic).** 

S.No	Group	No.of students	Mean	S.D	SD error	't' value
01.	Athlete	50	123.000	10.35098	1.46385	-4.493
02.	Non-Athlete	50	134.800	15.41799	2.18043	

#### Significant at 0.05 level of confidence.

The **Blood pressure (Systolic)** of Athlete boys was found to be better than Non-Athletes and showed the significant difference between Athletes and Non-Athletes.

**Table No. 7**:- Mean Standard deviation and 'T' value of Athletes and Non-Athletes for the variables Blood pressure (Diastolic).

S.No	Group	No.of	Mean	S.D	SD error	't' value
		students				
01.	Athlete	50	83.8000	10.07928	1.42543	-1.726
02.	Non-Athlete	50	88.2000	14.94070	2.11293	

## Significant at 0.05 level of confidence:

There were no significant difference between Blood pressure (Diastolic) of athletes and non- athletes.

# **Discussion:-**

The aim of the speed test is to determine acceleration and also a reliable indicator of speed and quickness. The study conducted (<u>www.topend</u> sports .com>sprint-60 yards.) also revealed the same.

(Prakash, 1984) conducted a research programme on "Comparison of Selected Physiological and Physical Fitness Factors of Soccer and Cricket Players". The purpose of the study was to compare selected physiological and physical fitness components of soccer and cricket players. He concluded that soccer seems to have potential to develop muscular endurance and explosive leg power more than the cricketers

(Lamb, 1988) studied physical fitness and health related fitness as indicators of a positive health state. It is argued that measures of physical fitness are indicators of positive health and such measures are identified under their discrete headings of agility, flexibility, power, speed and reaction time.

(Tottle, 1931), "The use of the pulse Ratio Test for Rating Physical Efficiency". The technique he employed in relating physical efficiency by means of the pulse rate test in describing in detail.

The systolic blood pressure of Athlete boys was found to be better than Non-Athlete boys and showed the significant difference between Athletes and Non-Athletes. (Howard,1935) studied, "Physiological Background of professional students expecting to major in the Therapeutic Field". The purpose of the elaborate studies on blood pressure metabolism and the changing in the body fluids is to give these students a background for better evaluation

of the benefits that are to be derived from proper exercise or the harm that may come for improper or excessive exercise

Resting pulse rate of Athletes was better than Non-Athletes in athletes and showed the significant difference. (Chowdhary, 1980) ,had conducted study, "Comparison of selected Physiological Variables of Kho-Kho and Kabbadi Girls Team of Tripura State" ,the purpose of the study was to compare the Tripura state KhoKho & Kabbadi . All the subjects were tested in selected physiological variables i.e. resting pulse rate, B.P. Breath holding capacity. The level of significance was chosen at 0.05 level of confidence.

There were no significant difference between Breathing capacity and Diastolic Blood pressure of Athletes and Non-Athletes and no significant difference between Athletes and Non-Athletes was found.(Browing, 1970), studied," A Comparison of Sprint Distance Runners on Selected Anatomical and Physiological Parameters".16 volunteers of the 1963 Florida State university track squad were divided into groups. Subjects were tested on 40 parameters. The sprint group had significantly larger means than the distance group on weight, heart rate recovery ½.T-time following the sprint work boat, resting diastolic blood pressure

# **Conclusion:-**

The statistical analysis revealed that the parameters such as 60 yard dash, standing broad jump, shuttle run ,pulse rate and systolic blood pressure significantly differ at 0.05 level of significance between Athletes and Non-Athletes of Kashmir division, where as in the parameters breath holding and Diastolic blood pressure ,there shows no significant difference between Athletes and Non-Athletes of Kashmir division. The reason for above results is that the Athletes used to give more stress on their physical fitness and physiological variables as compared to Non-Athletes. Their daily workout helps them to make themselves fit for any kind of daily activity or physical activity. As the best example is Government College Of Physical Education Ganderbal.

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