IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

COMPARING THE EXPLOSIVE SHOULDER STRENGTH OF COLLEGE STUDENTS INVOLVED IN SPORTS ACTIVITIES & THE STUDENTS NOT INVOLVED IN ANY PHYSICAL ACTIVITY DURING THE GRADUATION

[1]Rahul Manhas, [2]Vinay Manhas
[1]Masters in Physical education, [2]Head Dept. of Physical Education Gdck
[1]University of Jammu, Jammu, India

ABSTRACT
The purpose of this study was to compare the explosive shoulder strength of Under graduate students. The objective of the study was to find out significant difference on selected fitness component i.e. Explosive strength of shoulder of the students from Govt. Degree College Kilhotran (J&K). To achieve the purpose of the study, 20 inter-college male players were selected from Degree College. The age of the subject ranged from 18 to 25 years. For measuring explosive shoulder strength, simple medicine ball throw test was used. According to objectives for this study statistical procedure applied were mean, standard deviation and independent samples t-test. It was found that there was significant difference in the explosive shoulder strength of the students involved in sports activities and the students never participated in physical and sports activities in the college.

Keywords: Explosive strength, Degree College, male, medicine ball, t-test, etc.

INTRODUCTION

Games and sports hold a prominent place in modern life, millions of people participate in sporting activities watch and read about them, and spend money and time on sports related activities and equipment's. The impact of sports in modern society has made it clear that sport is a very legitimate field of academic study.

Now a days, the games and sports are not limited to self-satisfaction but it has got the wide range of importance. The most important aim of modern sports competition is to identify and diagnose the human ability at an early stage of life and then channelize it in the right direction to realize the achievements aimed at in a particular sport or game. In this paper the component of fitness under investigation is shoulder strength because from day-to-day life tasks like lifting or carrying things to even having a good upright posture, shoulders play a significant functional role in our day-to-day lives. Looking at the aesthetic aspects, the clothes we all wear tend to fit best on broad and rounded shoulder. Also, the test applied for investigation is easily administrable under most of the conditions.

Strength & Explosive strength

Strength is defined as the ability of the muscles to exert force or strength refers to the amount of force a muscle can produce with a single maximal effort. However, explosive strength is the combination of speed and strength. In short, the ability of the muscles to exert maximal force in minimal time is called as explosive strength. Explosive strength is actually the quickness at which one can use his/her strength. In other word, it is the ability to overcome resistance with high speed. Explosive strength is often referred to as power.

OBJETIVE OF THE STUDY

The primary objective of the study was to compare the significant difference in explosive shoulder strength between the students involved in sports activities and the students not involved in any sports activities during the graduation.

METHODOLOGY

In this study the subjects were confined to only one college and were selected from Govt. degree college Kilhotran (J&K). The sampling procedure adapted for selecting the sample was purposive sampling method. For the purpose of study total thirty (N=20) subjects were selected (10 physically active in sports & 10 non active). All the subjects selected were male players. The selected samples were between the age ranged from 18 to 25 years. The variable selected for the study was explosive shoulder strength.

CRITERION MEASURE

The criterion measure used for this study was medicine ball throw. This test was used to measure the power of arms and shoulder girdle. The medicine ball throw is a widely used test and very simple and easily administrable.

SCORE

The subject was given three trials for the medicine ball throw from a given marked place. The subject needed to throw the medicine ball overhead with both the hands without breaking the contact of feet from the ground. This little modification was made to make the test slightly tough and interesting. The longest distance measured provided the score of the test out of the three legal trials.

STATISTICAL TREATMENT

To find out the significant difference if any between the mean performances in the selected variable, independent t-test was employed to analyze the data with the help of IBM SPSS software.
Level of significance was fixed at 0.05.

TABLE-1: MEAN, STANDARD DEVIATION AND T-TEST FOR THE DATA ON EXPLOSIVE SHOULDER STRENGTH

T-Test

Group Statistics

	male	N	Mean	Std. Deviation	Std. Error Mean
Physical	Active in sports	10	12.8350	.65194	.20616
	Non-active	10	11.4650	1.01463	.32085

TABLE 1

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for equality of means							
	F	sig	t	df	Significance One sided P	Significance Two sided P	Mean difference	std.error difference	95% confidence interval of difference Lower	Upper
Physical Equal variances assumed	1.580	.225	3.592	18	.001	.002	1.37000	.38138	.56875	2.17125
Equal variances not assumed			3.592	15.349	.001	.003	1.37000	.38138	.55872	2.18128

Independent Samples Effect Sizes

		Standardizer[a]	Point Estimate	95% Confidence Interval	
				Lower	Upper
Physical	Cohen's d	.85279	1.606	.570	2.610
	Hedges' correction	.89051	1.538	.546	2.499
	Glass's delta	1.01463	1.350	.255	2.396

a. The denominator used in estimating the effect sizes.

Cohen's d uses the pooled standard deviation.

Hedges' correction uses the pooled standard deviation, plus a correction factor.

Glass's delta uses the sample standard deviation of the control group.

The result in table 1 depicts that the mean and standard deviation scores of explosive shoulder strength of the students who actively participated in sports and the students not involved in sports activities are 12.8350 (Mean) & 11.4650 (Mean) respectively. While the standard deviation scores are placed at 0.65194 & 1.01463 for both active & non-active students respectively.
However, the mean difference is 1.37 and standard error difference is 0.38138. The level of significance is fixed at 0.05 and both one sided P (0.001,0.001) & two sided P values (0.002, 0.003) combined together are less then the fixed value of 0.05, hence proving to be significant.

The mean differences have been picturesquely presented in Figure - 1.

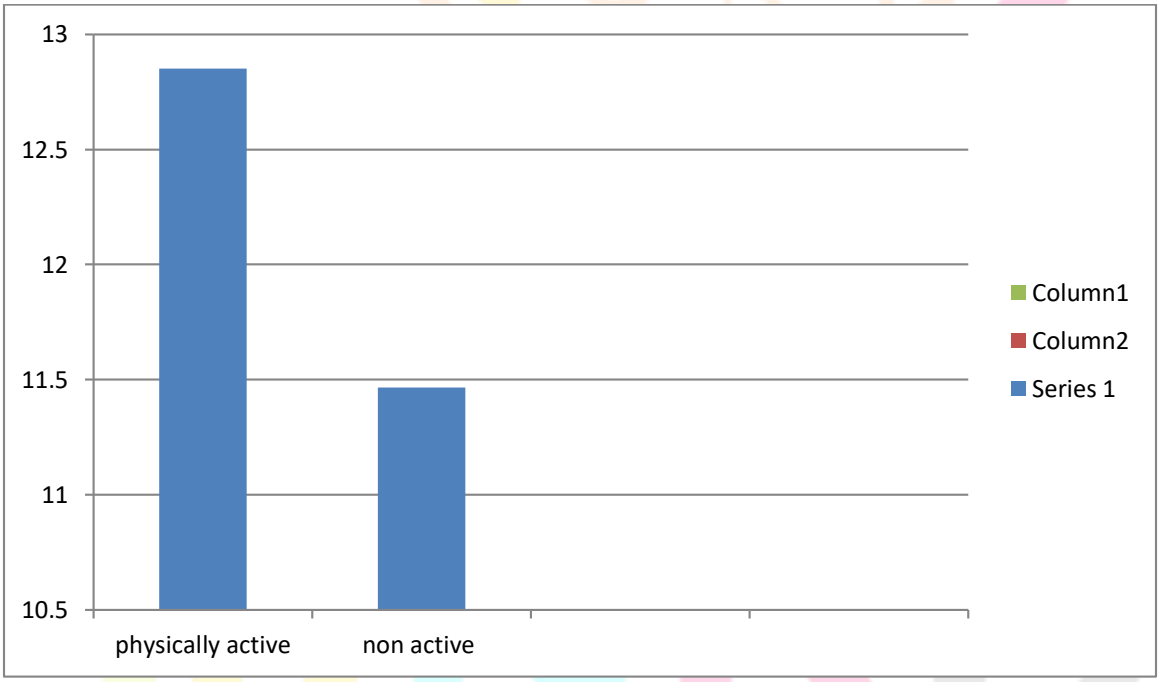

Fig.1 Graphical representation of Mean Difference of Explosive Shoulder Strength

DISCUSSION OF FINDING:
The study was conducted with objective of finding out whether there was a significant difference between explosive shoulder strength of the undergraduate students engaged in sports activities and those who were not physically active during graduation. The sample size selected for this study was 20. The data was analyzed using descriptive and comparative statistics and independent t-test.
On the basis of study it was concluded that there was significant difference in explosive shoulder strength of the selected undergraduate students of Govt. degree college Kilhotran.

CONCLUSIONS:
On the basis of the results, it can be concluded that there was a significant difference in explosive shoulder strength of college students involved in sports activities & the students not involved in any physical activity during the graduation.

REFERENCES:

1. https://www.verywellfit.com . How to Improve Muscular Strength and Definition.
2. https://lifestyle.livemint.com . Why you need to build big and strong shoulder muscles.