JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

COMPARATIVE ANALYSIS OF SELECTED PHYSICAL AND PHYSIOLOGICAL PARAMETERS BETWEEN THROWERS AND JUMPERS OF COLLEGE LEVEL MEN STUDENTS

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Abstract

The purpose of the study was to compare the selected physical and physiological parameters between throwers and jumpers. To achieve this purpose of the study, thirty men throwers and jumpers those who were studying in MITS College at Andhra Pradesh were selected as subjects at random. The number of subjects in each group was fixed to fifteen. The study was confined to those in the age group of 18 to 24years. The following criterion variables were chosen as physical and physiological parameters for this study. Breath holding time, (Holding the breath for maximum duration) resting pulse rate (pulse rate/min) leg strength (leg dynamometer muscular endurance (sit ups). The data were collected by administering respective tests. The collected data on selected criterion variables were statistically analyzed by independent T ratio to find out significant difference between throwers and jumpers.0.05 level of confidence was fixed, and the result of study was found that there was no significant difference between throwers and jumpers on the selected criterion variables.

Key words: Breath holding time, Resting pulse rate, Leg strength, Muscular endurance

Introduction

Everyone must recognize the importance of promoting talented players and to build sport facilities for the promotion of physical fitness of the entire population of our country. Physical fitness is the combination of strength, flexibility, agility, power, speed muscle endurance and cardiovascular endurance. It is the ability to enjoy our life and to achieve our goals without undue fatigue or stress. It is the protection against the degenerative disease and feeling of youthfulness, even when we are growing old

Performance in sports events depends on speed, strength, mobility, endurance, and co-ordination. It is recognized that the development of strength and endurance would serve to elevate the skill and sustain it. It is an elevated skill backed by great strength and endurance

that provides the way for better performance. Physiology is the most fascinating and ancient branch of science. It is fascinating because it unfolds the mystery of complicated functional aspects of individual organs in the body. It is ancient because it has existed every since the origin of life.

Methodology

The purpose of the study was to compare the selected physical and physiological parameters between throwers and jumpers. To achieve the purpose of this study, thirty male athletes were selected as subjects studying in MITS college, Andhra Pradesh and their ages ranged from 18 to 24 years. Further they were divided into two groups, such as throwers and jumpers. Before conducting the tests. The following were chosen as Physical and Physiological parameter for this study, Breath holding time, Resting Pulse rate, Leg Strength, Muscular endurance, all the subjects were oriented, and purpose of the procedures clearly explained to the subject, and the data were collected.

The present study was undertaken to analyze the selected physical fitness such as resting pulse rate, breath holding time, leg strength the muscular endurance of college aged throwers and jumpers. The collected data on selected criterion variables were statistically analyzed by using independent 't' ratio to find out the significant difference between throwers and jumpers. In all the cases, 0.05 level of confidence was fixed to test the significance, which was considered as appropriate.

Result of the study

The significant differences between throwers and jumpers on selected criterion variables were analyzed and presented below

Table- I

The Mean Standard Deviation and 'T' Ratio Values on Resting Pulse Rate of Throwers and Jumpers

Groups	Mean	Standard Deviation	The Obtained 't' ratio
Throwers	61.72	1.50	1.57
Jumpers	61.50	1.55	

(The table value required for significance at 0.05 level of confidence with df 28was 2.002)

Table I shows the mean values of jumpers and throwers of resting pulse rate 61.72± 1.50 and 61.50 ± 1.55 respectively. The obtained 't' ratio value of 1.57 was less than the required table value 2.002 for significance of 05 level of confidence with df.28 The results of the study showed that there was no significant difference that exists between throwers and jumpers on resting pulse rate.

Table – II

Mean Standard Deviation and 'T' Ratio Values on Breath Holding Time of Throwers and Jumpers

Groups	Mean	Standard Deviation	The Obtained 't' ratio
Throwers	54.11	1.25	1.46
Jumpers	54.15	1.45	

(The table value required for significance at 0.05 level of confidence with df 28was 2.002)

Table II shows the mean values of jumpers and throwers of breath holding time were 54.11 ± 1.25 and 54.15 ± 1.45 respectively. The obtained 't' ratio value of 1.46 was less than the required value 2.002 for significance of 05 level of confidence with df. 28. The results of study showed that were was significant difference that exists between throwers and jumpers on breath holding time.

Table – III
Mean Standard Deviation and 'T' Ratio Values on
Back Strength of Throwers and Jumpers

Groups	Mean	Standard Deviation	The Obtained 't' ratio
Throwers	96.55	6.39	2.00
Jumpers	95.11	6.16	

(The table value required for significance at 0.05 level of confidence with df 28was 2.002)

Table III shows the mean values of jumpers and throwers on the back were 95.11 ± 6.16 and 55.55 ± 6.39 respectively. The obtained 't' ratio value of 2.00 was less than the required value 2.002 for significant of .05 level of confidence with df. 28.The results of study showed that there was no significant difference that exists between throwers and jumpers on back strength.

Table – IV
Mean Standard Deviation and 'T' Ratio Values on
Muscular Endurance of Throwers and Jumpers

Groups	Mean	Standard Deviation	The Obtained 't' ratio
Throwers	48.73	1.91	1.59
Jumpers	48.26	2.88	

(The table value required for significance at 0.05 level of confidence with df 28was 2.002)

Table IV shows the mean values of jumpers and throwers on Muscular endurance were 48.26 ± 2.88 and 48.73 ±1.91 respectively. The obtained 't' ratio value of 1.59 was less than the required table value 2.002 for significance of .05 level of confidence with df. 28. The results of study showed that there was no significant difference that exist between throwers and jumpers on muscular endurance

Conclusions

Based on the results of the study the following conclusions were drawn:

1. There was no significant difference between the throwers and jumpers on resting pulse rate.
2. It was also concluded from the results of the study that there was no significant difference between the throwers and jumpers on breath holding time.
3. It was concluded that there was no significant difference exists between the throwers and jumpers on back strength
4. It was also concluded that these was no significant difference between the throwers and jumpers on muscular endurance.

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