

**COMPARISON OF MOTOR FITNESS COMPONENTS BETWEEN BOXING AND WRESTLING PLAYERS****(Received on: 10 July 2013, Reviewed on: 16 Sep 2013 and Accepted on: 02 Oct 2013)**

**Dr. Jagdish Narayan Saini**, DPE,  
Govt. College Kaladera Jaipur (Raj.)

**Prof. Om Prakash Badana**,  
Rashtriya Sanskrit Sansthan, New Delhi.

**Sh. Vivek Bhardwaj**, DPE,  
Govt. College Malpura Tonk (Raj.)

**Abstract**

This study was conducted on different motor fitness components among University level Boxing and Wrestling male players. Main aim of the study was the comparison between Boxing and Wrestling players with different motor fitness components. The purpose of the study was to compare muscular strength, muscular endurance, explosive power, speed, flexibility, body composition and cardio muscular endurance of Boxing and Wrestling players. In present study investigator has taken a total of 16 players (08 Boxer & 08 Wrestler). For interpretation of data a comparative analysis of the selected variable, the 't' test was applied. The data of both groups were collected separately for both the variable. Statistic such as mean and standard deviation was computed. The level of significance was set at 0.05. It was found the Boxing and Wrestling players do not have significant difference between the variables: muscular strength, muscular endurance, explosive power, speed, flexibility, body composition and cardio muscular endurance.

**Keywords:** Muscular strength, muscular endurance, explosive power, speed, flexibility, body composition and cardio muscular endurance.

**Introduction**

Sports today are a worldwide phenomenon. In no time in human history was sports so popular and well organized as today. The reasons behind this immense popularity and proper organization of sports are many. One reason is evidently the recognition of the importance of sports by the modern civilization. Physical activity, Participation in sports and competition is a need of the modern society. As a result one section of the society is activity engaged in exploring various aspects of sports, physical exercise, competition etc., in order to give concrete information for carrying out sports and competition in a better way. Sports scientists, Physical education teacher Coaches etc form a part of this section of the society. According to George and Johnson (1979) general physical fitness is quality of life. It is the condition that a

help a person to look and feel well, to carry out his daily duties and responsibilities successfully and yet have enough reserves of physical energy to enjoy his other social, civic, cultural and recreational interests. In addition it enables him to meet unusual demand for extra energy such as cardio-respiratory endurance, strength, muscular endurance and flexibility are the basic components of physical fitness and cardio-respiratory fitness is the most essential all the physical fitness components. Physical fitness depends on several factors such as heredity, hygienic living, nutrition and body activity amongst these factors body activities play an important role. Individual and team games provide a great deal of opportunity to an individual to the body activities. The best contribution to physical fitness results from participation of the individual in different games.

Physical fitness is a general concept defined in many ways by differing scientists. Here two major categories are considered; general fitness (a state of health and well-being), and specific fitness (a task-oriented definition based on the ability to perform specific aspects of sports or occupations). Physical fitness is generally achieved through correct nutrition, exercise, hygiene, and rest. "Physical fitness has been defined as a set of attributes or characteristics that people have or achieve that relates to the ability to perform physical activity.

On the basis of above discussion it can be said that 'physical fitness' is the capacity to do prolonged hard work and recover to the same state of health in short duration of time. This is the result of the degree of strength, speed, endurance, agility, power and flexibility one possesses. Since physical fitness covers motor fitness, so the programme of physical fitness should involve development of certain basic elements like strength, speed, endurance, agility, power and flexibility. The physical fitness elements are useful for different games and sports. Strength is important in Boxing and Wrestling. Whereas endurance is important for distance runners. Degree of demand differs in different games as strength is different for a thrower than a wrestler.

Endurance is different for a long distance runner than a Hockey, Football players.

The game of the Boxing, Wrestling Volleyball and Basketball depend to a large extent on technical skill and tactics. Beside these the endurance, agility, reaction ability, flexibility, speed of movement are the other motor abilities which are important for achieving good performance in Boxing, Wrestling Volleyball and Basketball. As the optimum utilization of all the performance pre-requisites is not possible without a certain minimum of tactical efficiency. Therefore, this sport is placed in the group of game sports. All the sports in this group are classified by a high degree of tactical efficiency needed for good performance.

#### Objective of the Study

The study deals with immediate objectives and certain goals as follows.

To compare the muscular strength, muscular endurance, explosive power, speed, flexibility and cardio muscular endurance of Boxing and Wrestling players.

To find out the dominance of muscular strength, muscular endurance, explosive power, speed, flexibility and cardio muscular endurance between Boxing and Wrestling players.

#### Methodology

A sample of 16 male players were selected as subjects 08 Boxing 08 Wrestling players studying in University of Rajasthan Jaipur. The ages of the player were 19 to 25 years.

**Test Applied:-** The data were collected with the help of Pull ups Set ups, 50 Mts. race, percentage of body fat, vertical jump, cooper's twelve minute run/walk test sit and rich test as standard procedure.

**Methods of Analysis:-** To analysis collected data "T" test was applied to find out the significant difference.

#### Discussion of Findings

Table-1  
SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN BOXING AND WRESTLING PLAYERS ON THE MUSCULAR STRENGTH

Group	Sample	Mean	SD	"t"
BOXING	08	08.88	01.55	1.61
WRESTLING	08	09.75	01.39	

\*Significance at 0.05 level of significance i.e., = 2.14

A perusal of table -1 indicates that a mean and standard deviation values with regard to Boxing on Muscular strength variable were 08.88 and 01.55 whereas in case with wrestling the same were recorded as 09.75 and 01.39 respectively. These were no significant difference between Boxing and wrestling players found as the calculated t-value (1.61) was less than tabulation t-value (2.14) at 0.5 level.

Table-2  
SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN BOXING AND WRESTLING PLAYERS ON THE MUSCULAR ENDURANCE

Group	Sample	Mean	SD	"t"
BOXING	08	43.75	5.75	0.20
WRESTLING	08	41.88	6.53	

\*Significance at 0.05 level of significance i.e., = 2.14

The table -2 indicates that a mean and standard deviation values with regard to Boxing on Muscular endurance variable were 43.75 and 05.75 whereas in case with wrestling the same were recorded as 41.88 and 06.53 respectively. These were no significant difference between Boxing and wrestling players found as the calculated t-value (0.20) was less than tabulation t-value (2.14) at 0.5 level.

Table-3  
SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN BOXING AND WRESTLING PLAYERS ON THE SPEED VARIABLE

Group	Sample	Mean	SD	"t"
BOXING	08	07.30	0.43	0.70
WRESTLING	08	07.16	0.40	

\*Significance at 0.05 level of significance i.e., = 2.14

The table -3 indicates that a mean and standard deviation values with regard to Boxing on speed variable were 07.30 and 0.43 whereas in case with wrestling the same were recorded as 07.16 and 0.40 respectively. These were no significant difference between Boxing and wrestling players found as the calculated t-value (0.70) was less than tabulation t-value (2.14) at 0.5 level.

Table-4  
SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN BOXING AND WRESTLING PLAYERS ON THE FLEXIBILITY VARIABLE

Group	Sample	Mean	SD	"t"
BOXING	08	13.63	1.92	.026
WRESTLING	08	15.75	1.67	

\*Significance at 0.05 level of significance i.e., = 2.14

The table -4 indicates that a mean and standard deviation values with regard to Boxing on Flexibility variable were 13.63 and 01.92 whereas in case with wrestling the same were recorded as 15.75 and 01.67 respectively. These were no significant difference between Boxing and wrestling players found as the calculated t-value (.026) was less than tabulation t-value (2.14) at 0.5 level.

Table-5  
SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN BOXING AND WRESTLING PLAYERS ON THE EXPLOSIVE POWER VARIABLE

Group	Sample	Mean	SD	"t"
BOXING	08	20.50	01.77	01.07
WRESTLING	08	18.75	03.15	

\*Significance at 0.05 level of significance i.e., = 2.14

The table -5 indicates that a mean and standard deviation values with regard to Boxing on Explosive Power variable were 20.50 and 01.77 whereas in case with wrestling the same were recorded as 18.75 and 03.15 respectively. These were no significant difference between Boxing and wrestling players found as the calculated t-value (01.07) was less than tabulation t-value (2.14) at 0.5 level.

Table-6  
SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN BOXING AND WRESTLING PLAYERS ON THE CARDIO VASCULAR ENDURANCE

Group	Sample	Mean	SD	"t"
BOXING	08	2491.13	483.82	0.0052
WRESTLING	08	2247.75	373.41	

\*Significance at 0.05 level of significance i.e., = 2.14

The table -6 indicates that a mean and standard deviation values with regard to Boxing on Cardio Vascular endurance variable were 2491.13 and 483.82 whereas in case with wrestling the same were recorded as 2247.75 and 373.41 respectively. These were no significant difference between Boxing and wrestling players found as the calculated t-value (0.0052) was less than tabulation t-value (2.14) at 0.5 level.

Table-7  
SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN BOXING AND WRESTLING PLAYERS ON THE BODY COMPOSITION (FAT PERCENTAGE)

Group	Sample	Mean	SD	"t"
BOXING	08	13.34	3.88	0.12
WRESTLING	08	14.18	6.32	

\*Significance at 0.05 level of significance i.e., = 2.14

The table -7 indicates that a mean and standard deviation values with regard to Boxing on Body Composition (Fat Percentage) were 13.34 and 3.88 whereas in case with wrestling the same were recorded as 14.18 and 6.32 respectively. These were no significant difference between Boxing and wrestling players found as the calculated t-value (0.12) was less than tabulation t-value (2.14) at 0.5 level.

## Conclusion

The researcher had under taken study titled as "muscular strength, muscular endurance, speed, flexibility, body composition, cardio muscular endurance and explosive power between Boxing and Wrestling players a comparative study". There was no significant difference noticed. Therefore from the statically analysis the following inferences were derived: No significant differences were observed in the muscular strength of Boxing and Wrestling players. There were no significant differences noticed on the muscular endurance between Boxing and Wrestling players. There were no significant differences were observed in the Speed of Boxing and Wrestling players. There were no significant differences noticed on the Flexibility between Boxing and Wrestling players. There were no significant differences noticed on the Explosive Power between Boxing and Wrestling players.

## References

- Johnson, B.L. and Nelson, J.K. (1982), Practical Measurement for Evaluation in Physical Education 3<sup>rd</sup> edition, Surjeet Publication, New Delhi.
- Kansal, D.K., (1996), Test and Measurement in Sports and Physical Education, DVS Publication, New Delhi.
- Singh, H. (1984), Sports Training: General Theory and Methods NSNIS, Patiala, Punjab.
- Clarke, H. Harrison and Clarke, David H., Prentice Hall Inc., Englewoods Claffs, New Jersey, Sixth Edition 1982.
- Singh, Hardayal, (1995), Science of Sports Training, DVS Publication, New Delhi.
- Jones, Kenneth L. and W, Louis, Shainberg and Curtes, O'byer: (1972), Total fitness, Harper and Row Inc. San Francisco,.
- Johnson, Lean and Londire, Ben, (1972), "Motor Fitness Testing Manual for the Moderately mentally retarded". Reston.va: American Alliance for Health, Physical Education, Recreation and Dance.