



COMPARITIVE STUDY OF SELECTED PHYSICAL FITNESS COMPONENTS BETWEEN TEAM PLAYERS AND INDIVIDUAL PLAYERS OF COLLEGE LEVEL MEN STUDENTS

Physical Education & Sports

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ABSTRACT

The aim of the present study was to compare the selected physical fitness components between team players and individual players of college level men students. The subjects for this study were confined to SRM Group of Institution college students. Their age s ranged from 20 to 25 years. 15 players were selected from football and hockey and 15 players from individual events (like throwing, jumping, and sprinting events). The study was conducted only for male students and the physical fitness components (arm strength, leg explosive strength, speed and endurance) were selected for this study. The mean (M) and the standard deviation (SD) of the collected data were computed. To find out the significance of difference between the two means, the 't' ratio was determined. The level of significance was fixed at 0.05 level of confidence.

KEYWORDS

Physical Fitness Components, Team Players, Individual Players

INTRODUCTION

The physical fitness is more essential for those who are involving the competitive sports activities. Physical fitness of an individual is mainly dependent on lifestyle related factors such as daily physical activity levels. Physical fitness is also considered as the degree of capacity to do a physical task under various ambient conditions (Basak & Dutta., 2016). "Physical fitness for track and field event consists of a number of interrelated qualities or components" (VC Rossum Rax 1986). The efficiency of physical efforts depends upon the mutual development of the muscular respiratory and circulatory system integrated and co-ordinate by the activity of the central nervous system. "Physical fitness as a quantitative expression of the physical condition of an individual" (Robert and Lewis 1993). The development of the body to a state or condition which permits the performance of a given amount of physical work, when desired, with a minimum of physical efforts.

The purpose of this study is to compare the selected physical fitness components between team players and individual players. The subjects for this study were confined from SRM Group of Institution College, Kattankulathur, Chennai, TN, India. Their age is ranged from 20 to 25 years as per their college records. 15 players were selected from football and hockey and 15 players from individual events (like throwing, jumping, and sprinting events). The study was conducted only for male students. It was hypothesized that there may be any significance difference between team players and individual players as selected physical fitness components (arm strength, leg explosive strength, speed and endurance).

Methodology

The following Variables and test will be taken for this study.

Test Administration

100 meters dash, after a short warm up period, the students takes a position behind the starting line. Best results are obtained when two students run at the same time for competition. The starter uses "are you ready?" and "go". The latter is accompanied by a downward sweep of the arm as a signal to the timer. The students' runs across the finish line and one trail are permitted. Pull ups, the bar is adjusted to such height that the student can hang free of the floor. The student should grasp the bar with his palms facing away from his body. The student should raise his body until his chain is over the bar and then lower it again to the starting position with his arm fully extended. Standing broad jump, the students stand behind a take off line with his feet several inches apart. Before jumping, the students' dips at the knees and swing the arms backward then jumps forward by simultaneously extending their knees and swing the arms forward. Three trails are permitted. Measurement is from shoe heel mark to the takeoff line.

Statistical Technique

The mean (M) and the standard deviation (SD) of the collected data were computed. To find out the significance of difference between the two means, the 't' ratio was determined. The level of significance was fixed at 0.05 level of confidence.

Results of the Study

Table I - Comparison of speed in 50 mts dash between team and individual players

Sl.No	Name of the Group	Mean	S.D	S.E	Mean Difference	't' ratio
1.	Team players	6.96	0.5882	0.1370	0.5357	3.911*
2.	Individual players	7.49	0.4355			

* Significant at 0.05 level of confidence. Required table value at 0.05 level is 2.030 for 28 degree of freedom.

Table II - Comparison of Shoulder Muscular Endurance in Pull ups between team and individual players

Sl.No	Name of the Group	Mean	S.D	S.E	Mean Difference	't' ratio
1.	Team players	9.30	2.423	0.5328	0.03	0.063*
2.	Individual players	9.33	2.186			

* Not Significant at 0.05 level of confidence. Required table value at 0.05 level is 2.030 for 28 degree of freedom.

Table III - Comparison of Explosive Strength of Leg in standing broad Jump between team and individual players

Sl.No	Name of the Group	Mean	S.D	S.E	Mean Difference	't' ratio
1.	Team players	7.633	11.56	2.9743	3.30	-1.110*
2.	Individual players	7.963	11.88			

* Not Significant at 0.05 level of confidence. Required table value at 0.05 level is 2.030 for 28 degree of freedom.

DISCUSSION ON FINDINGS

The findings of this study, The data was analyzed by the use of 't' ratio. The table - I results analysis of the data revealed that there was a significant differences in the performance of Speed for the team players better than individuals.

The team players were playing and practicing in the larger area during the game situation and training periods, may be this reason a considerable amount of difference in speed. The table - II results revealed that the shoulder muscular endurance was found to be significant difference between the team players and individual, the individuals was better than team players. The Table - III results shows significant differences in performance of explosive strength of leg between the team players and individual, the individuals was better than team players.

CONCLUSIONS

In conclusion, the results of this study shows,

1. The team players have more speed compared than the individual events athletes.
2. The individuals have more shoulder muscular endurance

- compared the team players.
3. Also the individual have more leg explosive power compared the team players.

REFERENCES

1. Basak S, Dutta S. A Comparative study of physical fitness parameters between general college student and training college students. *Int. J Exp Res Rev.* 2016; 4:26-30.
2. De Proft, et al. (1988), "The Relation between Muscular Strength and Kick Performance" *Science and Football*, T. Reilly, A. Lees, K. Davids, & W.J. Murphy, eds. 449-455, E & FN Spoon, 186-193.
3. Hoeger, W. W. K., & Hoeger, (2002), S.H. *Principles and Labs for Physical Fitness & Wellness*, (6th Ed.). Belmont, CA: Wadsworth, 31-34.
4. Johnson Barry L. and Nelson Jack K, "Practical Measurements for Evaluation in Physical Education", New Delhi: Surjeet Publication, Third Edition, Third Reprint 2012.
5. Robert Hockey, (1993), *Physical Fitness: The Pathway to Healthful Living*, (St. Louis, Missouri: Mosby-year book, Inc.), p. 2.
6. Trank, Robert and Lewi's (1993) Physical fitness quantitative expression of the physical condition of an individual. *Journal of strength & conditioning Jan* (8), 253-287. 12.
7. Vc Rossum Rax (1986) "Physical fitness for track and field event" *journal of strength & conditioning Research Aug* (4), p 41-45