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Comparative Study of Selected Components of Physical Fitness between Rural Tribal and Rural Non-Tribal Students at College level

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Abstract

Fifty tribal and fifty non tribal college male students were selected as the subjects for this study .Average age of the students was 22 years. Criteria measures were selected as 50mt. run, standing board jump, 4x30ft., Shuttle run pull-ups, one minute sit up and 600mt.run.

Student `t` test was used to find out the existence of significant differences in aforesaid components of physical fitness between rural tribal and non tribal college male students.

Significant difference in 600 mt. run and walk (cardio respiratory endurance) and pull-ups (arm and shoulder girdle strength) were found between rural tribal and non-tribal college male students.

Keywords : Physical fitness components, rural tribal male players, rural non-tribal male players.

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INTRODUCTION

Technology permeates every aspects of life and sports are no exception to it. Sports science has enabled modern youth to develop physical capacities beyond any time imagined. Sports have become highly competitive and records are being broken with greater rapidity.

As sports has developed into a distinct scientific discipline in itself and each nation is vying with the other to produce top class players to win laurels in international competition, considerable research is devoted to identify factors that will be predictive of achieving high level of skill in a given sport with proper coaching.

Vigorous activity is basically meant for increasing the efficiency of body and human beings need to be fit and efficient throughout their lives .The cell is considered to be the basic unit of organism, it is the seat of life ,it is the basis of life as well as it, like other organism ,breathes, eats and eliminates waste products. When cell gain strength and power ,we say ,they have become efficient.

Physical fitness is admired as very important pre-requisite factor for good health and top sports performance .Many research works are in progress to investigate the effectiveness of such factor, Hereditary predisposition is estimated to be two –third of the basic of top performance.

In modern days in search of potential candidates in the field of sports, the sports authority of India (SAI) has given special attention to the racial traits. The tribal people are visually selected for scientific training in order to manifest their potentiality at the top level of performance.

It is further assumed that India can produce champion athletes in

near future ,if due importance is given to be tribal communities of Assam, Madhya Pradesh, Manipur, Nagaland, Orissa and West Bengal in selection of potential candidates and at early age and in imparting right type of training in unfolding their potentialities at the highest possible range.

REVIEW OF RELATED LITERATURE

- Drake studied the effect of physical conditioning on speed and strain in the performance of selected ICC Hockey skill. The subject was divided into two equal groups on the basis of the initial shot velocity test. The experimental group underwent a five weeks isometric exercise programme. The experimental groups showed significant gains on the post test both for the shots and six of the eight strength measures.

- Flaherty studied the effects of weight training on selected Basket Ball skills. Thirty Six varsity and junior varsity players were selected as subjects and were divided into control and experimental groups. The experimental groups showed significant improvement in home to first and accuracy throw measure.

- Jha administered the effect of warm up on the college level soccer players at Lakshmibai National College of Physical Education, Gwalior. The result showed that there was significant improvement in the mean timing of group dribbling performance at .05 level of confidence.

- Malhotra and Subramaniam study indicated that compared to pre competitive trainimng, the off season training had a significant effect on the general physical fitness and skill in basketball player. The study also indicated that the combined training (Training for the general fitness, the

specific fitness and techniques and tactics) did not result in any improvement in strength, agility, flexibility or explosive power. On the contrary it resulted in drop in values of most of the test, specially flexibility and speed endurance to a significant level. Only the endurance running, there was an observe improvement. On the other hand there was significant improvement in speed, endurance, strength, flexibility, explosive power and dynamic strength of arm and shoulders as a result of the off-season training.

- Pritipal and others conducted a study to know the effect and strength improvement on technical skill at basketball players. They found that improvement in strength in case of poorly and moderately conditioned sportsmen was a significant positive effect on other components at physical fitness and also on simple technical skill like passing in basketball.

- Singh and other conducted a study to know the effect of strength improvement on technical skill of Basketball player. They found that improvement in strength in the case of poorly and moderately conditioned sports. There was a significant positive effect on other component of physical fitness and also on simple technical skill like passing in basketball.

- Uppal carried out a study on fifty five girl students studying in Ninth, Tenth, Eleventh classes aged between fourteenth to seventeenth years to see the effect at varied frequency of six weeks experimental period, the following conclusions were drawn:

  I. To bring about significant improvements in sprinting at least three training units per week planned on alternate days are required.

II. For the development of sprinting speed training thrice a week was found to be as effective as training five days a week.

III. Speed performance can be improved by training three or five days in a week on systematic programme of acceleration runs.

- Srivastava conducted a study to determine the comperative effects of intensive and extensive interval running methods on Aerobic and anaerobic capacities in high school boys. Students were divided into three groups i.e. Two experimental groups and one control group. Aerobic capacity was measured by the distance covered by a subject in cooper's 12 minute run and walk test as per procedure laid out in manual of the test. An Aerobic capacity was measured by the explosive work done by subject in leaping through eight stairs in two steps covering an vertical distance of 1.60 meters as pronounced by Margaria power test. The analysis of data revealed that both intensive and extensive running method proved to be effective in improving both aerobic and anaerobic capacities within an experimental period of six weeks.

SIGNIFICANCE OF THE STUDY

- It is in common view that the tribal people differ from non-tribal people in respect to physical, psychological, physiological, and sociological performance aspects. Many environmental and hereditary factors may be responsible for such reason.

- Especially in the field of sports performance when various type of aerobatic and coordinative movements are

considered as the prerequisite and essential factors for top performance, in such cases, the tribal people show theirs superiority in various forms of activities, which differ from the people of general categories.

- In order to investigate the subject matter of this thought and in order to study the degree of its logical genuineness in accepting the same as the established fact, such study has been undertaken.

- The result of the study may be helpful to learn the existence of physical fitness of tribal and non tribal college male students.

- The relative knowledge may be helpful to physical education teachers and coaches in selection of potential candidates in sports field.

OBJECTIVES OF THE STUDY

- To find out the differences in physical fitness component between rural tribal male and rural non tribal male students.

METHODOLOGY

- Fifty tribal and fifty non tribal college male students were selected as the subjects for this study. Average age of the students was 22 years.

- 50 mt. Run (speed),standing board jump(leg power),4x30 ft. shuttle run(agility),pull-ups(arm and shoulder girdle strength), one minutes sit up(abdominal muscle strength)and 600 mt. run(cardio-respiratory endurance) were selected as criterion measure.

- Students `t` test was used to find out the existence of significant differences in physical fitness components between tribal and non tribal college male students.

RESULT

The result of the study is presented in Table-I & Figure-I

TABLE-I

Significant of difference between the means of physical fitness components of rural tribal and rural non tribal college male students.

Sl no.	Event	Rural tribal mean± SD	Rural non Tribal± SD	Mean Difference	S.E	't' Ratio
1	50mt. dash (speed)	7.634±0.41	7.67±0.489	0.036	0.90222	0.399
2	4x30 Ft. shuttle run (agility)	9.857±0.518	10.02±1.06	0.163	0.16687	0.9768
3	Pull-ups (arm&shoulder girdlestrength)	7.92±4.69	6±4.34	1.92	0.9038143	2.124*
4	Sit ups(abdominal muscle strength)	25±3.32	24±3.03	1	0.6357577	0.57293
5	600mt. run(Cardio respiratory endurance)	119.60±12.935	130.54±17.78	10.94	3.1099473	3.5177*
6	Standing board jump(leg power)	2.047±0.197	2.03±0.176	0.017	0.0373644	0.45488

Significant at 0.05/0.01 level.

At 0.05 level of confidence `t` value required to be significant with 98 degree of freedom is 1.98.

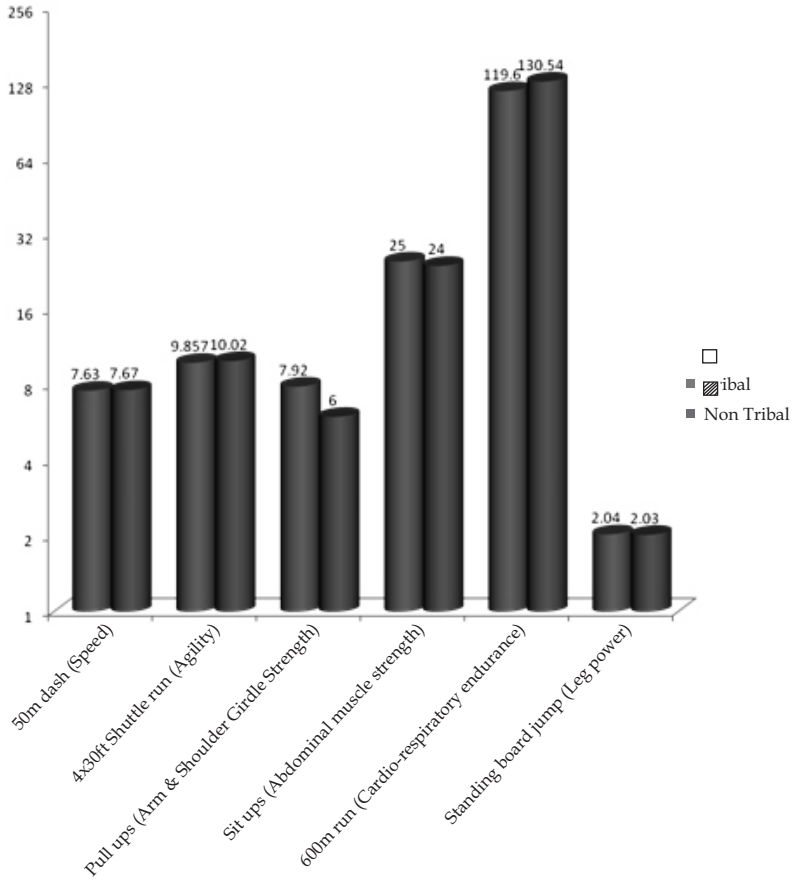

Fig.1: Physical fitness components differentiating the rural tribal and non-tribal college male students

Table I and Figure I reveals significant differences in 600 mt run and walk (Cardio-respiratory endurance) and pull ups (arm & shoulder girdle strength)between rural tribal & rural non tribal college male students. The mean values of rural tribal college male students are found to the better than that of rural non tribal college male students in pull-ups whereas in 600 mt. non tribal mean value is better.

On the other hand no significant differences in 50 mt. dash speed,

standing board jump (leg power), 4x30 ft. shuttle run (agility),one minute sit up (abdominal muscle strength) are noticed in which cases also the mean values of rural tribal college male students are found the better than that of rural non tribal college male students.

DISCUSSION

In this study the mean values in physical fitness components of rural tribal college male students are found be better then rural non tribal college male student in majority of the areas..

Usually the rural tribal are very much sound in their body structure and functional abilities, perhaps due to their sound heredity factors and the nature of their regular and hard daily life activities then that of non tribal.

Probably because of such aforesaid factors the rural tribal college male students are found to the better in physical fitness component than that of rural non tribal college male students.

CONCLUSION

It may be concluded that the rural tribal college male student are better in physical fitness components than that of rural non tribal college male students.

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