

COMPARISON OF SELECTED PHYSICAL FITNESS AMONG HIGH SCHOOL BOYS OF DIFFERENT ETHNIC GROUPS

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Abstract : Religion is a practically universal establishment in human culture. It is found in all social orders. Religion is any cultural arrangement of assigned practices. Children belonging to different ethnic groups vary in their fitness due to their culture, physical activity, food intake and heredity. In the article the researcher compares the selected physical fitness variables of high school boys studying in Government secondary schools belonging to different ethnic groups in Tumkur District, Karnataka. The purpose of the investigation is to know the physical fitness and compare the physical fitness of high school boys of different ethnic groups. To achieve this, 150 high school boys of different ethnic groups (each ethnic group contains 50 subjects) studying in government secondary schools of Tumkur District were selected randomly and the age ranging from 13 to 15 years. The variables such as Speed (30 Meters Flying Start, in secs.); Leg Explosive Power (Standing Broad Jump, in cms.) and Muscular Endurance (Bent Knee Sit Ups, in Nos.) were selected for data collection. The One-way Analysis of Variance (ANOVA) was used to find out the significant differences in the criterion variables among different ethnic groups. The Scheffe's Post Hoc test was used to find the significant difference in the paired means. The result concludes that there exists significant difference in the speed, explosive power and muscular endurance of high school boys of different ethnic groups. The students belonging to Muslim community had better speed & endurance and students belonging to Christian had better explosive strength. These findings will help to understand the strength, speed and endurance status of children which can help to plan sports specific training for different ethnic groups.

IndexTerms - Physical Fitness, Speed, Explosive Strength, Muscular Endurance, Ethnic Groups, High school boys

1. INTRODUCTION

Fitness is the term, which is widely used in the present day health conscious society. People have realized the importance of fitness in the day-to-day routines and also for achieving high performance in sports. Fitness denotes a person's status of physique in relation to its physical gains. Physical fitness is the most important factor for the progress in an individual life.

Physical fitness is important for making progress in sports and without high level of physical fitness, an individual won't have the capacity to withstand the anxiety created to the body by different games and sports. To make progress in the global rivalries and to achieve high sports performance predominance, physical fitness is an absolute necessity and it involves various components.

The present high sports performance levels are attributed to the superior physical fitness all over the world in all the levels of competition. Physical Fitness is highly essential in all the team and individual games. Strength, speed and endurance are the important abilities for the successful performance in games. The dominant ability is the ability for a particular sport which requires a higher contribution of that ability. Most of the sports require peak performance at least two abilities.

Singh; Singh and Singh (2014) looked at explosive strength between inter collegiate volleyball and basketball players and demonstrates that explosive strength through vertical jump of the volleyball players was better than that of basketball players. Thakur and Kumar (2013) analyzed speed and explosive power among state level footballers and volley ball players from Murshidabad District and concluded Football groups were better than volleyball teams in 50 meters dash and volleyball gathering were better than Football teams in standing broad jump. Datt and Mane (2013) studied speed, strength and agility of inter collegiate basketball and volleyball players and found difference in the said motor fitness components between volleyball and basketball players. From the studies the importance of physical fitness for sports performance can be observed.

Religion is a practically universal establishment in human culture and is found in all social orders. Religion is any cultural arrangement of assigned practices. Children belonging to different ethnic groups vary in their fitness due to their physical activity, food intake and heredity. In the article the researcher compares the selected physical fitness variables of high school boys studying in Government secondary schools belonging to different ethnic groups in Tumkur District, Karnataka.

2. OBJECTIVE OF THE STUDY

The purpose of the study is to know the physical fitness and also compare the physical fitness of high school boys of different ethnic groups (Hindu, Muslim and Christian).

3. HYPOTHESES OF THE STUDY

It was hypothesized that there was no significant difference in the selected Physical Fitness variables (Speed, Leg Explosive Power and Muscular Endurance) of the high school boys of different ethnic groups (Hindu, Muslim and Christian).

4. METHODOLOGY

4.1 Selection of Subjects

One hundred and fifty high school boys of government secondary schools from different ethnic groups (each ethnic group of 50 subjects) of Tumkur District with the age ranging from 13 to 15 years were selected randomly.

4.2 Selection of Variables and criterion measures

The following variables were selected for the study

1. Speed : 30 Meters Flying Start (In secs.)
2. Leg Explosive Power : Standing Broad Jump (In Cms.)
3. Muscular Endurance : Bent Knee Sit Ups (In Nos.)

4.3 Statistical Technique

The One-way Analysis of Variance (ANOVA) was used to find the significant difference among the different ethnic groups. The Scheffé's Post Hoc test was used to find the significant difference in the paired means.

5. RESULTS OF THE STUDY

The One-way ANOVA (F test) results on the selected Physical Fitness scores of the High school boys of different ethnic groups are presented in the following tables.

Table-1

Table shows One-Way ANOVA Analysis on the selected Physical Fitness scores of the high school boys of different ethnic groups.

Physical Fitness Variables	Groups	Sum of Squares	df	Mean Squares	F Value	Level of Sig.
Speed (In Secs.)	Between Groups	3.938	2	1.969	6.07	Sig. at 0.01
	Within Groups	47.659	147	0.324		
	Total	51.596	149			
Leg Explosive Power (In Cms.)	Between Groups	9264.973	2	4632.487	10.80	Sig. at 0.01
	Within Groups	63045.800	147	428.883		
	Total	72310.773	149			
Muscular Endurance (In Numbers)	Between Groups	1305.160	2	652.580	31.20	Sig. at 0.01
	Within Groups	3075.080	147	20.919		
	Total	4380.240	149			

Groups: Hindu, Muslim & Christian (N=150)

Table value at 0.05(df-2, 149); 3.06; Table value at 0.01(df-2, 149) =4.75

The table-1 shows that the obtained 'F' values of 6.07, 10.80 and 31.20 for speed, leg explosive power and muscular endurance were greater than the table value of 4.75 for df '2 and 149' required for significance at 0.01 level of confidence. The results of the study indicated that "there was a significant difference in the speed, leg explosive power and muscular endurance among the high school boys of the different ethnic groups." To determine the significant difference in the said criterion variables among these paired means, the Scheffé's Post Hoc analysis was applied and the results were presented in Table-2.

Table-2

Scheffé's Post Hoc Analysis on the Physical Fitness scores of the high school boys of different ethnic groups.

Physical Fitness Variables	Ethnic Groups			Mean Difference	Critical Difference
	Hindu	Muslim	Christian		
Speed	4.932	4.641	-	0.291*	0.282
	-	4.641	5.020	0.379*	
	4.932	-	5.020	0.088	
Leg Explosive Power	172.700	180.860	-	8.160	10.247
	-	180.860	191.880	11.020*	
	172.700	-	191.880	19.180*	
Muscular Endurance	15.080	20.340	-	5.260*	2.263
	-	20.340	13.420	6.920*	
	15.080	-	13.420	1.660	

*Significant at 0.05 level.

The table shows the significant paired mean differences on the Physical Fitness of Speed between Hindu & Muslim; and Muslim & Christian groups of high school boys and the mean differences were 0.291 and 0.379 respectively which were greater than the critical difference at 0.05 level of confidence. It concludes that there was significant difference in the speed between Hindu & Muslim; and Muslim & Christian groups of high school boys, but no different exists between the Hindu & Christian

groups of high school boys as the mean difference 0.088 which is less than the critical difference at 0.05 level of confidence. The Muslim high school boys had better speed than the Hindu and Christian groups.

The table shows the significant paired mean difference on the Physical Fitness of Leg explosive power between Muslim & Christian; and Hindu & Christian groups of high school boys and the mean differences were 11.020 and 19.180 respectively which were greater than the critical difference at 0.05 level of confidence. It concludes that there was significant difference in the leg explosive power between Muslim & Christian; and Hindu & Christian groups of high school boys, but no difference exists between the Hindu and Muslim groups as the mean difference 8.160 which is less than the critical difference at 0.05 level of confidence. The leg explosive power of Christian high school boys had better power than the Muslim and Christian groups.

The table further shows the significant paired mean differences on the Physical Fitness of muscular endurance between Hindu & Muslim; and Muslim & Christian groups of high school boys and the mean differences were 5.260 and 6.920 respectively which were greater than the critical difference at 0.05 level of confidence. It concludes that there was significant difference in the muscular endurance between Hindu & Muslim; and Muslim & Christian groups of high school boys, but no different exists between the Hindu & Christian groups as the mean difference 1.660 which is less than the critical difference at 0.05 level of confidence. The Muslim high school boys had better endurance than the Hindu and Christian groups. The following Bar graph shows comparison of the mean scores of selected Physical Fitness scores of High school boys of the different ethnic groups.

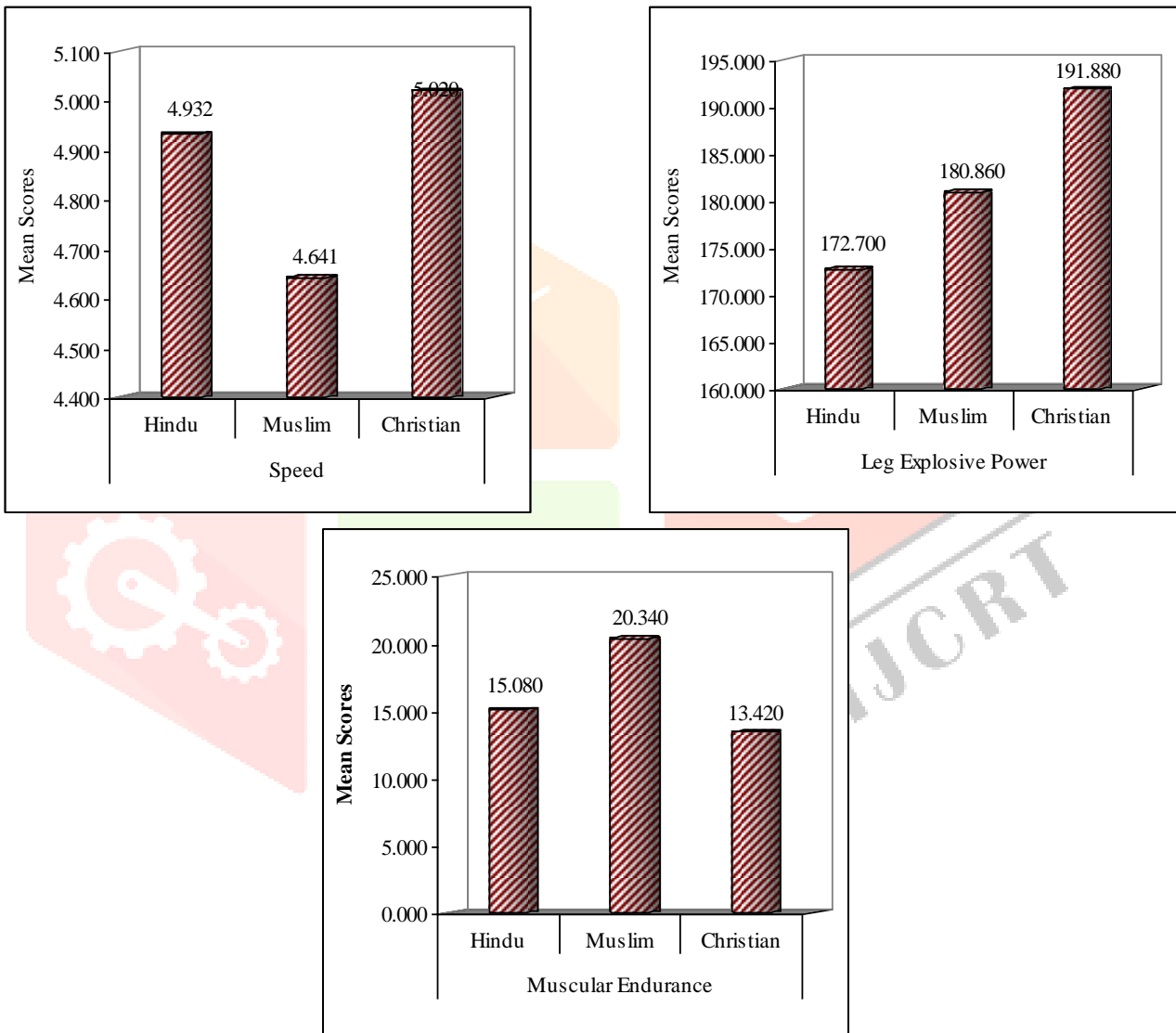


Fig.1: Comparison of mean scores of the selected Physical Fitness among high school boys of different ethnic groups.

6. DISCUSSION OF FINDINGS

From the F test it was found that there was significant difference in the speed belonging to Hindu, Muslim and Christian community. The high school boys from Muslim community (M=4.641) would do well with speed when contrasted with Hindu (M=4.932) and Christian (M=5.020). Likewise the high school boys from Muslim community (M=20.340) would do well with endurance when contrasted with Hindu (M=15.080) and Christian (M=13.420). The high school boys from Christian community (M=191.880) would do well with leg explosive power when contrasted with Muslim (M=180.860) and Hindu (M=172.700). This might be expected nature of physical activity; way of life, physical teachers and parents should underscore the significance of physical movement for wellbeing of students and furthermore endeavour to fabricate character and consciousness of children towards fitness and wellbeing.

7. CONCLUSION

The result concludes that there was significant difference in speed, explosive power and muscular endurance. Students belonging to Muslim community had better speed and endurance and students belonging to Christian had better explosive strength. These findings will help to understand the strength, speed and endurance which can help to plan sports specific training for different ethnic groups. Their training schedule opted aimed to improve the physical fitness as well as health and wellness for achieving better learning attainment and to reach future ambitions. This might be because of the kind of physical movement, varieties in the preparation plan, ways of life, socio-cultural elements and ethnicity. Thus, the physical instructors ought to give molding practices in view of ethnicity of students.

8. REFERENCES

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