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Comparative study on performance related physical fitness among inter school level volley ball and hand ball players

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Abstract
Physical fitness is generally performance related sports and games various skills of abilities than an individual possesses in order to perform specific types of physical activity efficiently and effectively. Fitness includes the mental, emotional, social as well as the physical aspects and all these components of total fitness play a significant role for a full and happy life fitness achieving proficiency in the various motor skills some on who is not natural athlete still is extremely fit it. Includes five basic components they are cardio respiratory endurance muscular strength flexibility and body composition participating in sports activities improve these fitness components often requires certain motor skills like agility, balance, co-ordination explosive power, speed and reaction time. The purpose of this study was to compare the selected performance related physical fitness components on volleyball and handball at inter school zonal level players. To achieve the players purpose the investigator selected 30 inter school zonal level volleyball players and 30 inter school zonal level handball players. The performance related physical fitness variables were selected as criterion variables. All the subjects of both the groups were tested on the selected dependent variables by using standard tests. The independent "t" ratio was used to analyze the significant difference, if any between groups. The 0.05 level of confidence was fixed as the level of significance to test the "t" ratio obtained, which was considered as appropriate.

Keywords: Shoulder strength, leg explosive power

Introduction
Physical fitness is generally performance related sports and games various skills of abilities than an individual possesses in order to perform specific types of physical activity efficiently and effectively. Fitness includes the mental, emotional, social as well as the physical aspects and all these components of total fitness play a significant role for a full and happy life fitness achieving proficiency in the various motor skills some on who is not natural athlete con still be extremely fit it. Includes five basic components they are cardio respiratory endurance muscular strength flexibility and body composition participating in sports activities improve these fitness components often requires certain motor skills like agility, balance, co-ordination explosive power, speed and reaction time. (Borrow and MC: Gee 1974) [2].

Methodology
The procedure adopted for selection of test, selection of variables, instrument reliability, tester reliability, orientation of subject, the test administration to the volleyball and handball players.

Selection of Subjects
The purpose of the study is to compare the selected performance related physical fitness variables between shoulder strength and leg explosive power of Volleyball and Handball inter zonal school players. To achieve purpose of present study 30 subjects from each group and named group I consist of handball and group II consisting of Volleyball players. The subject selected from Government Higher Secondary School, Coimbatore. Tamilnadu The age of the subject ranged from the 16 to 18 years.

Selection of Variables

- Shoulder Strength
- Leg Explosive Power

Name of Variables and Tests

S.no	Variables	Test items	Unit of measurement
Physical fitness variables			
1	Shoulder strength	Pull – ups	Counts
2	Leg explosive power	Sergeant vertical Jump	Centimeter

Analysis of Data and Results

The purpose of study was to compare the Shoulder strength and leg explosive power of men handball and volleyball players. The data collected from the selected subjects were statistically analyzed in this chapter. The data collected for Shoulder strength and leg explosive power from the handball and volleyball players were analyzed by the statistical technique of 't' ratio. The level of significance was 0.05 level confidence. The results of the analysis are presented in Table – 1.

Table 1: Computation of 'T' Ratio between Handball and Volleyball Players on Shoulder Strength

Sholder Strength					
Group	**Mean**	**SD**	**MD**	**'t' Ratio**	**Table Value**
Hand ball	14.86	2.27	1.46	2.63	2.04
Volleyball	13.4	2.02			

*significance at 0.05 level of confidence

Table 1 reveals that the obtained 't' value 2.63is significant at 0.05 level for degree of freedom and the required value is 2.04. The obtained value 2.63*and is found to be higher than the table value of 2.04.Hence, it is inferred that the found among the players on Shoulder strength is statistically significant. It means the shoulder strength is more for Handball players than the Volleyball players. The same is shown in figure 1.

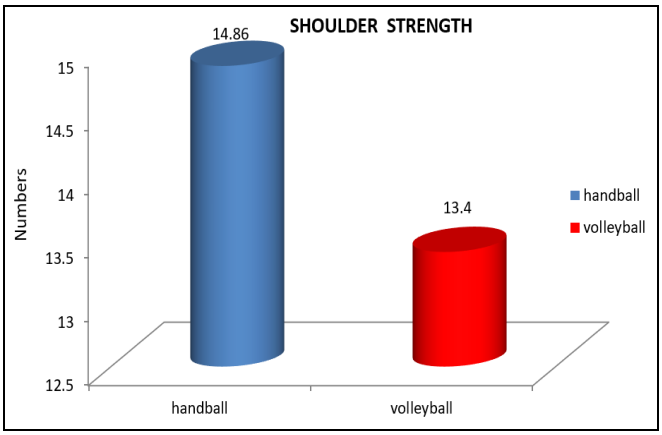

Fig 1: Bar Diagram Showing Mean Difference Of Shoulder Strength between Handball and Volleyball Players

Table 2: Computation of 't' ratio between handball and volleyball players on leg explosive power

LEG Explosive Power					
Group	**Mean**	**SD**	**MD**	**'t' Ratio**	**Table Value**
Hand ball	43.13	5.37	2.8	2.29	2.04
Volleyball	40.33	3.97			

*significance at 0.05 level of confidence

Table 2 reveals that the obtained 't' value 2.29and is significant at 0.05 level for degree of freedom and the required value is 2.04, Hence, the obtained value of 2.29 is found to be higher than the table value of 2.04. Hence, it is inferred that the changes in the leg explosive power is statistically significant. It means the leg explosive power in more for Volleyball players then the Handball players.

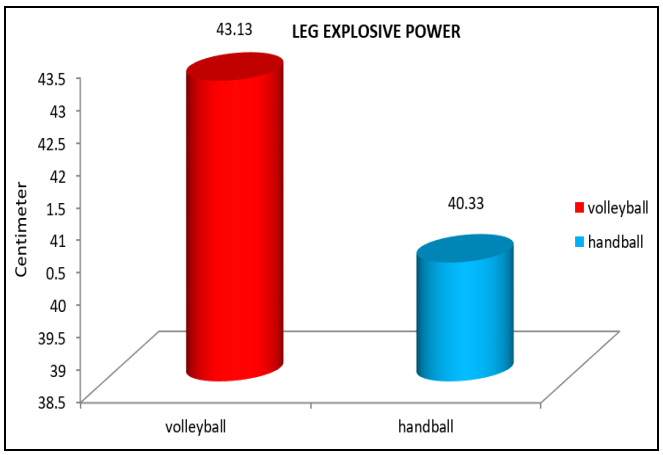

Fig 2: Bar Diagram Showing Mean Difference Of Leg Explosive Power between Handball and Volleyball Players

Discussion on Findings

1. The result of study showed that there is a significant difference on shoulder strength between handball and volleyball players.
2. The result of study showed that there is a significant difference on explosive power between handball and volleyball players.

Conclusions

Based on the results of the study, the following conclusions are drawn.

It was concluded that there is a significant difference between Leg Explosive Power, and Shoulder Strength between the two groups.

1. 1.It was concluded that volleyball players have more leg explosive power than the handball players
2. It was also concluded that handball players have more shoulder strength then the volleyball players

References

1. Bucher *et al*. 13th Edition management of physical education and sports TATA mggraw Hill (books), 2010, 147, 504, 505p.
2. Borrow MMC. man and movement principles of physical education Philadelphia lea and febiger, 1974.
3. Cox Kathy. Georgia performance standards framework for Physical Education, Georgia Department of Education Georgia, USA, P:1 (books), 2008.
4. Clark. Basic understanding of physical fitness. Physical fitness research digest, 1971, 254-255.
5. Dick Frank W. sports training principles London. LEPUS

(books), 1980.
6. Ghose Aloke. Handbook of sports medicine and physical fitness allied book agency Calcutta, 1980.
7. Jerrold S, George Barabee Myers O Kes. Physical fitness and wellness United States of Americamchampaign; pearson education, 2003, 6-511.
8. Singh Hardyal. Science of sports training, New Delhi. DVS Publications, 1991.