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A study of physical fitness between Haryana and Delhi players of volleyball

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Abstract
The purpose of the study was to find out the relationship among physical fitness components between Volleyball male players of Haryana and Delhi. Total three hundred male volleyball players (Haryana 150 and Delhi 150) of 16-24 years were randomly selected from different volleyball academies, schools and colleges in various state level tournaments were selected as the subjects for the study in Haryana and Delhi state. Only selected physical fitness components i.e. the speed, explosive strength, agility, endurance and flexibility were measured by using respective techniques and equipment. *significant at 0.05 level

Keywords: physical fitness, speed, strength, flexibility, agility, volleyball players

Introduction
Physical fitness has always been a concern of man from pre historic time. Indeed it was survival for the fittest. Throughout human evolution, man has been nomad, a hunter and a farmer. His body has a high degree of adaptability for walking, running, jumping and throwing etc. In today's world due to industrialization, automatisation and motorization the physical activities have been reduced to a great extent, as a result of which a number of so called Hypo kinetic diseases have lowered the degree of physical fitness of the people. Therefore, there is an utmost need to develop the physical fitness of the people through different scientific training means such as weight training, circuit training, interval training, fartlek training etc. along with actual participation in games and sports. Sports as an activity offer an opportunity of gaining self-knowledge, self-expression, fulfillment, personal achievement, skill acquisition and demonstration of ability, social interaction, enjoyment, good health and well-being. It promotes involvement, integration and responsibility in society, and contributes to the development of society, especially when sports activities have been accepted as an integral part of the culture and tradition of every society and every nation.

Physical fitness is one of the main factors in an athlete's success. It has been shown that a high level of the elements of physical fitness such as cardiovascular endurance, muscular strength, endurance, flexibility and speed are useful and effective in achieving success in a different sport. Nowadays before sending to competitions, teams are given a test for the evaluation of the physical status of their members (Zarl *et al.*, 2008) [1]

According to Thomas Kirt Cureton, Jr. Said, "Above the years, I have come to look upon Physical Fitness as a trunk of a tree that supports the many branches which represent all the activities and make life worth living: intellectual life, spiritual life, occupation, love life and social activities".

According to Charles A. Bucher and Williams, E. Prentice, Fitness for College and Life, Fitness is a broad term denoting dynamic qualities that allow a person to satisfy his or her own needs as mental and emotional stability, social consciousness and adaptability, spiritual and moral figures and organic health consistence with person heredity. Fitness is that state which characterizes the degree to which a person is able to function efficiently. Fitness is an individual matter. It implies the ability of each person to live most effectively within his potentialities.

Objective of the study
To analyses that relationship among physical fitness component between Haryana and Delhi volleyball male players.

Sample
The sample for this study consisted of 150 subjects each volleyball players belonging to Haryana and Delhi state (Haryana 150 and Delhi 150 =Total 300), who had represented their academic, schools and colleges in various state level tournaments were selected as the subjects for the study. Only selected physical fitness components i.e. the speed, explosive strength and agility were measured by using respective techniques and equipments.

Statement of the problem
A Study of physical fitness between Haryana and Delhi players of volleyball.

Tool used
The Criterion measures from AAPHER Physical fitness test have been chosen for this study.

- 50 yard dash
- Shuttle run
- Sit ups
- Pull ups
- Standing broad jump
- 400 yard run/walk.

Results and Interpretation

This table show there were significant relationship between speed and other component of physical fitness namely explosive strength and agility, whereas there were insignificantly relationship between speed and other component of physical fitness namely endurance and flexibility of the male volleyball players of Haryana and Delhi state. Table -1 indicates that the coefficient of correlation between speed with explosive strength and agility were r =.271 and r =.216 respectively, whereas no coefficient of correlation were found between speed with endurance and flexibility r =.036 and r =.002. The graphical representation of data has been shown in figure – 1

Table 1: Coefficient Of Correlation Between Speed And Other Component Of Fitness Between Haryana And Delhi Volleyball Male Players

S.No	**Components Correlated**	**(r)**
1	Speed with strength	.271**
2	Speed with Endurance	.036NS
3	Speed with Agility	.216**
4	Speed with Flexibility	.002NS

*significant at 0.05 level

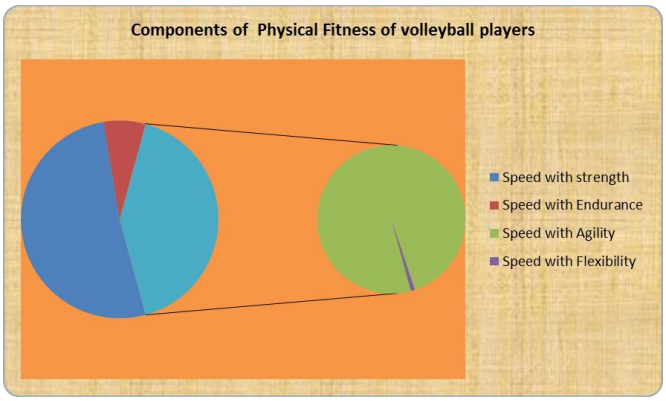

Fig 1.

Table 2: Coefficient of correlation between agility and other component of fitness of Haryana and Delhi volleyball male players

S.No	**Components Correlated**	**(r)**
1	Agility and Strength	.271**
2	Agility and Speed	.216 NS
3	Agility and Endurance	.007NS
4	Agility and Flexibility	.023NS
**Significant at 0.05 level; NS = No significant		

This table – 3 show that there is significant relationship between agility speed, whereas there were no significant relationship between agility and other component of physical fitness namely explosive strength, endurance and flexibility of the male volleyball players of Haryana and Delhi. This table show that the coefficient of correlation between agility with explosive strength is r =.271, whereas no coefficient of correlation were found between agility with explosive speed, endurance and flexibility are r =.0216,.007 and.023 respectively.

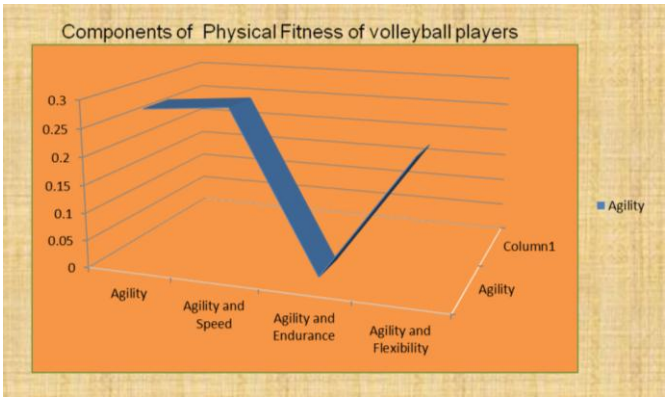

Fig 2: Show that graphical representation of data.

Table 3: Coefficient of correlation between explosive strength and other component of fitness between Haryana and Delhi Volleyball male players

S. No	**Components Correlated**	**(r)**
1	Strength and Agility	.035NS
2	Strength and Speed	.06NS
3	Strength and Endurance	.11NS
4	Strength and Flexibility	.58NS
NS= Not Significant		

This table-3 show that there were no significant relationship between strength and other component of physical fitness namely agility, speed, endurance and flexibility of the male volleyball male players of Haryana and Delhi. This table indicates that the coefficient of correlation between explosive strength with agility, speed, endurance and flexibility were r =.035, r =.006, r =.011 and r =.058 respectively. It is concluded that explosive strength has no relationship with agility, speed, endurance and flexibility.

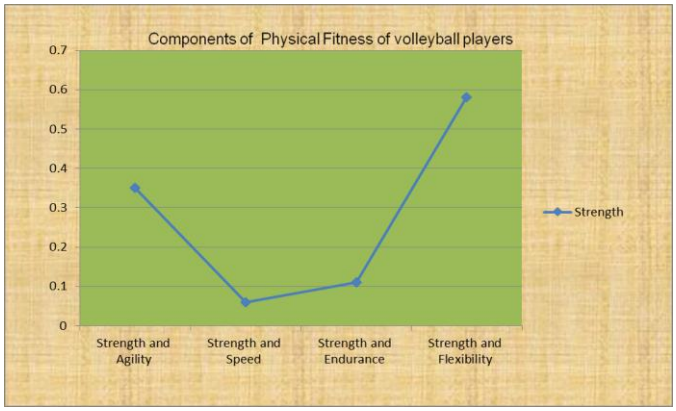

Fig 3: Show that graphical representation of data

Table 4: Coefficient of correlation between flexibility and other component of fitness of Haryana and Delhi volleyball male players

S. No	**Components Correlated**	**(r)**
1	Flexibility and Agility	.023NS
2	Flexibility and Speed	.02NS
3	Flexibility and Endurance	.130NS
4	Flexibility and Strength	.58NS
NS= Not Significant		

Table - 4 that there were significant relationship between flexibility and explosive strength, whereas there were no significant relationship between flexibility and other component of physical fitness namely explosive strength, agility and endurance of the male volleyball players of Haryana and Delhi. Table - 4 indicates that the coefficient of correlation between flexibility with speed were r =.02 whereas no coefficient of correlation were found between flexibility with explosive strength, agility and endurance r =.013, r =.023 and r =.058. It is concluded that flexibility has relationship with explosive strength, but no significant relationship were found between flexibility and other components (speed, agility and endurance) of physical fitness.

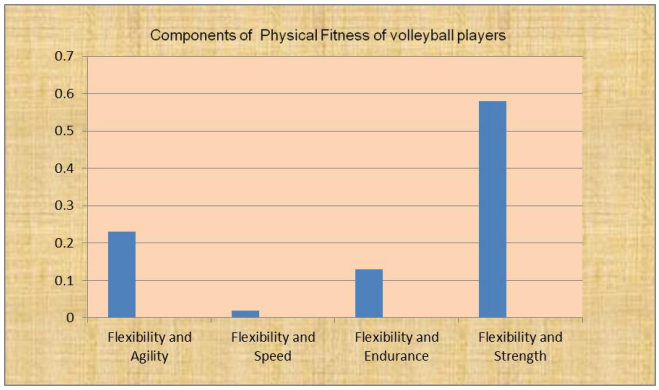

Fig 4: show that graphical representation of data.

Table 5: Coefficient of correlation between endurance and other component of fitness of Haryana and Delhi volleyball male players

S.No	**Components Correlated**	**(r)**
1	Endurance and Agility	.07^{NS}
2	Endurance Speed	.035^{NS}
3	Endurance and Strength	.11^{NS}
4	Endurance and Flexibility	.58^{NS}

NS= Not Significant

Table - 5 Show that coefficient of correlation between endurance with explosive strength, agility speed and flexibility were r = -.011, r =.006, r =.035 and r = -.058 respectively. Table – 5 show that there were insignificant relationship between endurance and other component of physical fitness namely explosive strength, agility, speed and flexibility of the male volleyball players of Haryana and Delhi.

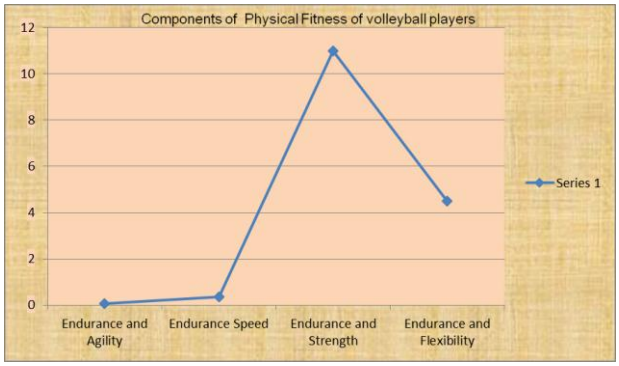

Fig 5: show that graphical representation of data.

Conclusion

Table – 1 show that there were significant relationship between speed and other component of physical fitness namely explosive strength and agility, whereas there were insignificantly relationship between speed and other component of physical fitness namely endurance and flexibility of the male volleyball players of Haryana and Delhi. Where speed is do not show any statistically significant coefficient of correlation with agility of Haryana and Delhi volleyball male players.

Table – 2 show that there were significant relationship between agility speed, whereas there were no significant relationship between agility and other component of physical fitness namely explosive strength, endurance and flexibility of the male volleyball players of Haryana and Delhi.

Table - 3 Show that there were no significant relationship between explosive strength and other component of physical fitness namely agility, speed, endurance and flexibility of the male volleyball players of Haryana and Delhi. Where agility did not show any statistically significant coefficient of correlation with arm and shoulder strength of Haryana and Delhi volleyball male players.

Table - 4 Show that there were significant relationship between flexibility and explosive strength, whereas there were no significant relationship between flexibility and other component of physical fitness namely explosive strength, agility and endurance of the volleyball players of Haryana and Delhi.

Table - 5 show that there were insignificant relationship between endurance and other component of physical fitness namely explosive strength, agility, speed and flexibility of the volleyball players of Haryana and Delhi.

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