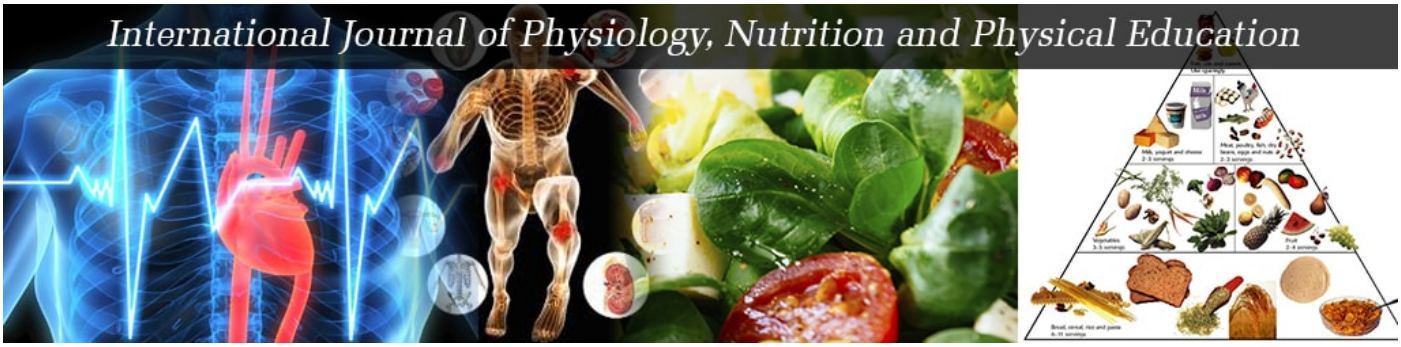

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Dr. Kuldeep Nara
Assistant Professor, Department of Physical Education, A.I.J at H.M. College, Rohtak, Haryana, India

Correspondence
Dr. Kuldeep Nara
Assistant Professor, Department of Physical Education, A.I.J at H.M. College, Rohtak, Haryana, India

A study of physical fitness between basketball and football players of Haryana

Dr. Kuldeep Nara

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Abstract
The present study was an attempt to find out the difference in physical fitness level between basketball and football players. The sample for this study consisted of 150 subjects each belonging to Basketball and football from Haryana, who had represented their schools and colleges in various state level tournaments were selected as the subjects for the study. The Criterion measures from AAPHER Physical fitness test have been chosen for this study. Mean, Standard deviation and 't' Test were used to analyse the data Findings of the study revealed that: (i) Football players was found better in 50-yard dash than basketball players; (ii) Basketball players are much better in Standing Broad Jump than football players; (iii) there is no significant difference in Pull-Ups between Basketball and football players; (iv) Football players were found better in Shuttle-run than basketball players; (v) There is no significant difference in Sit-ups of Basketball and football players and (vi) Football players were found better in six hundred yard run than basketball players.

Keywords: Physical fitness, basketball, football, players

Introduction
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. It is an evident fact that the statistics pointed out, while women and girls account for half of the world population (50 per cent) the percentage of their participation in sports varies from country to country and is far less than that of men and boys in our country. Despite a growing participation of women in sports and games in the recent years and also the increased opportunities for women to take effective participation in domestic and international fields on a significant representation of women in decision making process in sports has not taken place to occupy a conspicuous position. This results in unequal opportunities for women and girls in sports resulting the violation of constitutional mandate regarding "equality before law and equal protection of law in the territory of India". It has been widely accepted that women's experiences, values and attitudes can enrich, enhance and develop sports, so also participation in sports can enrich, enhance and develop women's personality in the society.

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.

There is a significant impact of modern technology on human living. His muscles, upon which he used to rely entirely for survival, are now used for less and less with inevitable results.

Many researchers in such divergent fields as medicine, psychology and physiology, however, attest to the fact that exercise with attendant development of fitness has far reaching effects on vital bodily processes and upon the functional realization of one's growth and capabilities.

Physical fitness is the sum of total five motor abilities namely strength, speed, endurance, flexibility and co-operative abilities. These five muter abilities and their complete forms are the basic prerequisites for human motor actions. Therefore the sports performance in all depends upon delete these abilities. The improvement and maintenance of physical fitness is perhaps the most important aim of sports training.

The performance of a sportsman in any game or event also depends on muscular strength, agility, power, speed and cardiovascular endurance. Along with these physical variables, physiological and psychological components also play an important role in the execution of the performance. Best suited activity and new training methods achieve excellence. The aim of the present study was to determine the differences in selected physical fitness characteristics between the individual game and team game athletes.

Components of Physical Fitness

Health is a state of complete mental physical and social well-being whereas fitness is the ability to meet the demands of a physical task. Basic fitness can be classified in 4 main components - Strength, speed, stamina and flexibility. However, exercise scientists have identified nine components that comprise the definition of fitness:

Strength: The extent to which muscles can exert force by contracting against resistance (e.g. holding or restraining an object or person.)

Power: The ability to exert maximum muscular contraction instantly in an explosive burst of movements. The two components of power are strength and speed (e.g. jumping or a sprit start)

Agility: The ability to perform a serious of explosive power movement in rapid succession in opposing directions (e.g. Zing Zap running)

Balance: The ability to control the body's position either stationary (e.g. handstand) or while moving (e.g. a gymnastic stunt)

Flexibility: The ability to achieve an extended range of motion without being impeded by excess tissue, i.e. fat or muscle (e.g. executing a leg split)

Local muscle Endurance: a single muscle's ability to perform sustained work (e.g. rowing or cycling)

Cardiovascular Endurance: The heart's ability to deliver blood to working muscles and their ability to use it (e.g. running long distance)

Strength Endurance: A muscle's ability to perform a maximum contrition time after time (e.g. continuous explosive rebounding through an entire basketball game)

Co-ordination: The ability to integrate the above. Listed components so that effective movements are achieved.

Of all the nine elements of fitness cardiac respiratory qualities are the most important to develop as they enhance all the other components of the conditioning equation.

Review of Literature

Gaurav and Singh (2011) [1] concluded that significant difference (p>0.01) found between the means of selected physical fitness variables such as speed, Coordinative ability and Endurance (except flexibility) between school level football and Basketball players. Singh (2011) [1, 4] found that Foot Ball Players have good Physical Fitness compare to Hand Ball Players. This study shows that the Foot Ball Players are good because they do good Physical Training compare to Hand Ball Players. Suresh and Prakash (2011) [5] found that Mysore district boys were found superior to physical fitness variables compared to the other district boys. Hassan district boys were performed better in physical fitness and stood second next to Mysore district. Mandya district boys were performed at the 3rd place in Physical Fitness compared to Mysore and Hassan Districts. Chamarajanagar district boys were found in inferior in fitness compared to all the other three district boys. Ghosh (2013) [2] found that the t-test was significant at 0.05 level of confidence among footballers and Basketball players in 50 yard dash, 600 meters run and walk, standing broad jump, shuttle run and medicine ball through but no significant difference was found in sit-up among footballers and Basketball players at 0.05 level of confidence. Kohli, Singh, Singh and Sharma (2014) showed that there was no significant difference in pull ups, sit ups, 50 m dash, and 600 m run, but there was a significant difference between the two groups on the basis of shuttle run performed by them. Karthi and Krishnakanthan (2014) [3] shows that basketball players were better speed comparing than the hockey and Football players. Cardio respiratory endurance was better football players comparing than the basketball and hockey players

Significance of study

1. The study might reveal some Interesting facts about physical fitness of Basketball and football players living at other states will be enlighten the general players.
2. The finding of this study will be add to the new knowledge in the area of physical fitness which will benefit the players and those who are concerned with coaching in games and sports.
3. The study may provide guidance to physical education teachers and Coaches in training athletics and players for different sports.

Statement of the problem

A Study of physical fitness between Basketball and football players of Haryana.

Objectives of the study

1. To find out the difference in 50 Yard Dash, Standing Broad Jump, Pulls-up, Shuttle, Sit-ups and 600 Yard dash/walk of Basketball and football players of Punjab.

Hypothesis

1. There is no significant difference in 50 Yard Dash, Standing Broad Jump, Pulls-up, Shuttle, Sit-ups and 600 Yard dash/walk of Basketball and football players of Punjab.

Sample
The sample for this study consisted of 150 subjects each belonging to Basketball and football from Haryana, who had represented their schools and colleges in various state level tournaments were selected as the subjects for the study.

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
- 600 yard run/walk.

Statistical Techniques
Mean, Standard deviation and 't' Test were used to analyse the data,

Analysis of data
The present study was conducted with the aim of examining the level of physical fitness basketball and football players of Haryana. The data of 150 (75 basketball and 75 football) players was analysed by calculating 't' test besides the descriptive statistics (mean and standard deviation).

Table 1: Mean, Standard Deviation and 't' value for means scores of 50 yard dash of Basketball and football players

S. No.	Variable	Group	N	Mean Score	S.D.'s	t-value
1.	50 yard dash	Basketball players	75	6.90	0.38	7.815**
		Football players	75	6.32	0.52	
2	Standing Broad Jump	Basketball Players	75	2.31	0.16	4.855**
		Football players	75	2.20	0.11	
3	Pull-Ups	Basketball Players	75	11.85	1.57	0.423^{NS}
		Football players	75	11.96	1.51	
4	Shuttle-run	Basketball Players	75	11.13	1.02	14.460**
		Football players	75	9.31	0.36	
5	Sit-ups	Basketball Players	75	38.18	3.26	0.829^{NS}
		Football players	75	38.62	3.23	
6	Six Hundred Yard Run	Basketball Players	75	1.37	0.21	6.986**
		Football players	75	1.16	0.14	

** Significant at 0.01 level; NS = Not significant
Tabulated Value: 1.96 at 0.05 level
2.58 at 0.01 level

Table and Figure 4.1 reveal that t-value (7.815) for the mean scores of 50 yard dash of Basketball and football players is significant at 0.01 level of significance. So it was found that the mean scores of 50-yard dash of Basketball players (6.90) is more than football players (6.32). It may therefore be concluded that Basketball players took more time in 50-yard dash than football players. Hence, it be concluded that football players were far better than Basketball players in 50 Yard dash.
Table further revealed that t-value (4.855) for the mean scores of Standing Broad Jump of Basketball and football players is significant at 0.01 level of significance. So it was found that the mean of Standing Broad Jump of Basketball players (2.31) is more than football players (2.20). It may therefore be concluded that Basketball players are much better in Standing Broad Jump than football players.
Table further revealed that t-value (0.423) for the mean scores of Standing Broad Jump of Basketball and football players is not significant at any level of significance. In this situation, the null hypothesis that "There is no significant difference in Pulls-up of Basketball and football players of Punjab" is retained. So it was found that the mean of pulls-up of Basketball players (11.85) is slight less than football players (11.96), but do not differ significantly.
Table further revealed that t-value (14.460) for the mean scores of shuttle run of Basketball and football players is significant at 0.01 level of significance. So it was found that the mean scores of shuttle run of Basketball players (11.13) is more than football players (9.31). It may therefore be concluded that Basketball players took more time in shuttle run than football players. Hence, it be concluded that football players were far better than Basketball players in shuttle run.
Table further revealed that t-value (0.829) for the mean scores of sit-ups of Basketball and football players is not significant at any level of significance. So it was found that the mean score of sit-ups of Basketball players (38.28) is slight less than football players (38.62), but do not differ significantly.
Table revealed that t-value (6.986) for the mean scores of six hundred yard run of Basketball and football players is significant at 0.01 level of significance. So it was found that the mean scores of six hundred yard run of Basketball players (1.37) is more than football players (1.16). It may therefore be concluded that Basketball players took more time in six hundred yard run than football players. Hence, it be concluded that football players were far better than Basketball players in six hundred yard dash.

Findings

1. It was found that there is a significant difference between Basketball and football players regarding 50-yard dash. It may therefore be concluded that Basketball players took more time in 50-yard dash than football players.
2. It was found that there is a significant difference between Basketball and football players regarding standing broad jump. Basketball players are much better in Standing Broad Jump than football players.
3. It was found that there is no significant difference in Pull-Ups between Basketball and football players.
4. It was found that there is a significant difference in Shuttle-run Basketball and football players. Basketball players took more time in Shuttle-run than football players.
5. It was found that there is no significant difference in Sit-ups of Basketball and football players.
6. It was found that there is a significant difference in six hundred yard run Basketball and football players. Basketball players took more time in six hundred yard run than football players.

References

1. Gaurav V, Singh A. Comparison of selected physical fitness variables of school level football and handball players, Asian Journal of Physical Education and Computer Science in Sports. 2011; 4(1):54-55.
2. Ghosh SS. A Comparative Study on Physical Fitness among State Level Footballers and Volleyball Players, Indian Journal of Applied Research. 2013; 3(8):618-619.
3. Karthi R, Krishnakanthan S. Comparative Analysis of Selected Physical Variables among Football Hockey and Basketball Players, PARIPEX - Indian Journal of Research. 2014, 157-158.
4. Singh S. A study on the physical fitness among hand ball and football players in Hyderabad, Asian Journal of Physical Education and Computer Science in Sports. 2011; 4(1):147.
5. Suresh NB, Prakash SM. Comparison of Selected Physical Fitness Variables of 18 to 25 Year Old Male Volleyball Players Belong to the Different Districts of University of Mysore, Journal of Arts and Culture. 2011; 2(2):34-36.