

A Comparative Analysis of Physical Fitness Between Male and Female Basketball Players

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Abstract

Physical fitness is the tone of the core preconditions of health. The physical fitness of young people is different from that of the aged. Physical fitness means different things to different people. Physical fitness has been of extraordinary significance in the lives of human beings from time immemorial. In pre-historic times, Physical fitness was the key element of the survival of human beings. Physical fitness is measured based on some devices and many scientific tests and then compared to the ideal level of fitness and determined the ability of the individual and fitness efficiency. The purpose of the present study was to compare and analyze the physical fitness level of male and female basketball players. 30 male players and 30 female players were selected randomly from Kailash-Prakash sports Stadium, Meerut who have done their training regularly under the Coach in the evening. The age range of the subjects was from 18 to 20 years and all were university players. To measure their physical fitness level, the AAPHERD youth physical fitness test was applied. The test items consisted of the AAHPERD youth fitness test are pull-ups, bent-knee sit-ups, shuttle run, standing broad jump, 50 yards dash and 600-yard run. To compare the physical fitness of male and female basketball players, the independent 't' test was used at a 0.05 level of significance. The findings of the study revealed that there was a significant difference in pull-ups, sit-ups, standing broad jump, shuttle runs, 50-yard dash and 600-yard run variables. There was no significant difference in height between the two groups. Results showed male basketball players are better compared to female basketball players. Male basketball players are superior in all test items in comparison to female basketball players. Based on the results, the investigator concluded that male players were better in strength, agility, speed, and endurance in comparison to female players. Both the groups are approximately the same in height.

Keywords

Physical fitness, basketball players, AAPHERD test.

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Introduction

Physical fitness is the prerequisite for the ability to perform any motor tasks in day-to-day life as well as in sport. It has been considered one of the most important aspects of human existence. We have become a mechanically mobile society, relying on machines rather than muscles to get around. Physical fitness is that state of the body in which a person can carry out his daily duties and responsibilities efficiently and with the energy left he can enjoy hobbies and other recreational activities and can meet the unusual. Physical fitness has been of great significance in the lives of human beings from time immemorial. In pre-historic times, Physical fitness was the key element of the survival of human beings. Physical fitness is measured based on some devices and many scientific tests and then compared to the ideal level of fitness and determined the ability of the individual and fitness efficiency. In other words, Physical fitness can be defined as the state of the body in which a person can do work for a longer duration without undue fatigue. Physical fitness is not only a state for younger's but is a reality for all ages. Physical fitness is influenced by age, sex, heredity, personal habits, exercises and eating habits, diets, attitude towards life, etc.

Physical fitness is the product of physical exercise and exercise is very much related to health and wellbeing. Physical fitness is very necessary for participating in any sports. Without fitness, no one can perform efficiently in games and sports. In many sports like basketball, physical fitness is a very important element of performance. Basketball players require excellent strength and power, running speed, balance and agility as well as a good level of aerobic endurance fitness. But the development of science and technology has discouraged human beings from doing vigorous activities as a result of various physical and mental diseases the nation to participate in Games and Sports. So the investigator has decided to administer the present study to compare and analyze the physical fitness level of male and female players in basketball.

The Objective of The Study

To compare and analyze the physical fitness level of male and female basketball players.

Hypothesis

There will be significant differences appearing in physical fitness variables of male and female basketball players.

Sampling Materials and Methodology

The present study was experimental. So 30 male and 30 female basketball players were selected randomly from Kailash-Prakash Sports Stadium,

Meerut who have done their training regularly under the Coach in the evening. All players were regularly used go for physical fitness classes and training sessions. The age range of the subjects was from 18 to 20 years old and all were University basketball players. The random sampling method was used for the investigation. AAHPERD youth fitness tests were administered to measure the physical fitness level of male and female basketball players. Instruments used for the present study were a Measuring Tape, Stop Watch, and Stadiometer. AAHPERD Youth fitness test includes the following test items.

Sr. No.	Test Item	Measure Element
1	PULL-UPS	Arm and shoulder strength
2	BENT KNEE SITUPS	Abdominal strength
3	STANDING BROAD JUMP	Explosive strength and power
4	SHUTTLE RUN	Coordinative ability
5	50 YARD DASH	speed
6	600 YARD RUN	Endurance

Procedure

The investigator has interacted with male and female subjects personally who were to be tested and explained to them the purpose and procedure of the present investigation. He demonstrated to them all the test items concerning the AAHPERD youth fitness tests. After that, he administered the test at 6 am on the stadium ground and collected all the data from 30 male and 30 female basketball players.

Statistical Analysis

To compare the physical fitness level of male and female basketball players, the independent'' t- test was used at a 0.05 level of significance.

Analysis of Data

The data was analyzed using the following statistical techniques:

1. Computation of mean.
2. Computation of standard deviation.
3. Computation of standard error of the difference between the means.
4. Computation of 't' ratio.

The level of significance chosen was 0.05 level of significance.

Table-1 Mean and t-ratio of AAHPERD Youth Fitness Test Variables

Sr. No.	Variable	Male Mean	Female Mean	Mean Difference	t-ratio
1	Height	55.0	54.40	0.58	1.46
2	Pull Ups	8.39	7.68	1.71	6.18*
3	Sit Ups	21.90	20.80	1.10	3.14*
4	S B Jump	33.82	29.13	4.67	10.60*
5	Shuttle run	8.44	8.15	0.29	3.12*
6	50-yard dash	9.44	8.45	0.77	6.76*
7	600-yard run	8.39	7.68	1.71	6.18*

Showed from Table 1 that male and female basketball players are the same age approximately the same in their height. There is no significant difference existed between male and female basketball players in terms of height.

It appeared that there is a significant difference shown in selected physical fitness variables of Pull ups, Sit ups, Standing Broad Jump, Shuttle Run, 50 Yard Dash and 600 Yard Run. The table represented that there were significant differences in all the Physical fitness variables of male and female basketball players respectively which were significant at a 0.05 level of significance.

Discussion & Conclusion

Based on the result of the present study, the following conclusions may be drawn.

- Both the groups are approximately the same in height because basketball players have long heights according to the nature of this game and long-height players have remained successful mostly.
- Male basketball players were better in arm and shoulder strength in comparison to female players because of their anatomical structure and muscular framework. So on Pull-ups variable male basketball players were more strengthening in comparison to female basketball players.
- It appeared that male basketball players are better in abdominal strength in comparison to female basketball players. There was a significant difference appeared in the sit-ups variable.
- It revealed that Male basketball players are better in explosive strength in comparison to female basketball players. There was also a significant difference appeared in the standing broad jump variable.
- It appeared that Male basketball players were better in coordinative ability in comparison to female basketball players but it also appeared that both have very less difference in shuttle run variable because female basketball players also have the good coordinative ability.

- It showed that Male basketball players are better in speed in comparison to female basketball players because male players were thin in weight in comparison to female players. So there was also a significant difference that appeared on the 50-yard dash variable.

- It explored those male basketball players who were better in endurance in comparison to female basketball players. So there was also a significant difference that appeared on the 600-yard run variable.

So it was concluded by an investigator that male basketball players were more efficient and physical fitness in comparison to female basketball players in terms of the AAHPERD youth fitness test.

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