
COMPERATIVE STUDY OF VITAL CAPACITY BETWEEN SENIOR AND JUNIOR BASKETBALL PLAYERS OF AGRA

Isha Verma

(Research scholar) ,Department of Physical Education , Lucknow University, Lucknow.

Abstract:-The purpose of this study is to analysis the differences of vital capacity between senior and junior basketball players of Agra. This study was conducted on 30 basketball male players (15 senior and 15 junior male basketball players) from Agra. In This study vital capacity was measured by dry Spirometer and recorded in letters. For the analysis of result independent t-test was used. Results showed that there exists a significant difference between senior and junior basketball players of Agra. It showed that Vital Capacity is Higher in senior Basketball Male Players when statistically compared with junior basketball male players.

Keywords:Vital Capacity, Basketball, Players.

INTRODUCTION

Basketball is one of the most popular team based sports played and watched throughout the world. It is played by both males and females of all ages and fitness levels. It is a game played by two opposing teams on a court measuring 29 x 15 metres. The aim of the game is for each team to defend a goal area while trying to score baskets at the opposing end of the court. Each team consists of ten players of which only five may take the court at any one time during play. For optimal performance during play at an elite level a variety of areas must be addressed. These include the high skill level, flexibility, muscular strength, speed, agility and importantly the specific use of different physiological, body composition and psychomotor variables.

Vital capacity is the maximum volume of air exhaled in one single forceful expiration after forceful inspiration in normal person it is three to four litre and four litres and for sports person it will reach five to eight litres.

The main purpose of the present study was to compare the vital capacity between senior and junior basketball players of Agra

METHOD

Subjects

For the purpose of this study 30 basketball players of Agra (senior = 15, junior = 15) who played state tournament were considered as subjects.

Tools

For measuring the vital capacity of the players a dry Spirometer was used.

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Procedure

The amount of expired air that was read directly from the calibrated scale was the score of vital capacity and was recorded in liter.

Data Analysis

The data thus collected were given to statistical treatment computing ‘t’ ratio to find out the difference if any between the senior and junior basketball players of Agra in relation to vital capacity. The obtained results have been presented in the following table:

RESULT AND DISCUSSION OF FINDINGS

Mean, standard deviation and t- ratio of vital capacity between senior and junior basketball players of Agra are presented in table - 1

Table -1
Indicating the mean difference of Vital Capacity between Senior and Junior Basketball Players of Agra.

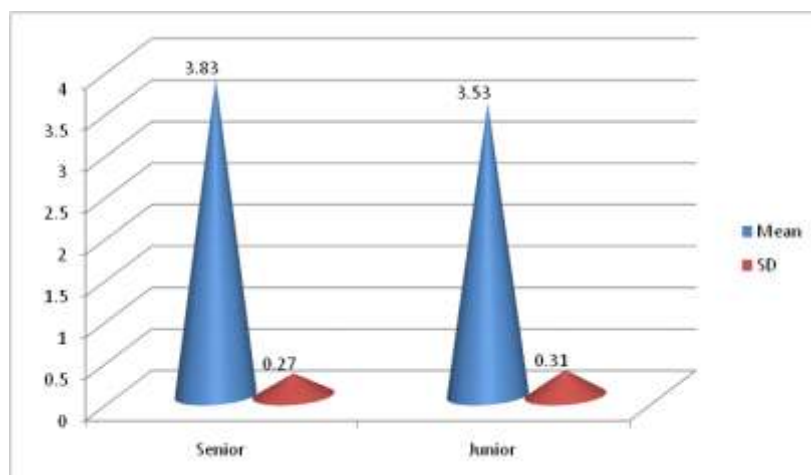
Groups	Mean	Standard Deviation	Standard Error	‘t’ ratio
Senior	3.83	.27	.072	2.77
Junior	3.53	.31	.080	

Tabled ratio of ‘t’ at 0.05 level of significance with 28 df = 2.02

It has been depicted in the table that there was significant difference between senior and junior basketball players of Agra in relation to vital capacity.

As, the calculated ‘t’ value (2.77) is higher than the tabulated ‘t’ value (2.02) at 0.05 level of confidence with 28 degree of freedom.

Graph-1
Graphical Representation of Mean and Standard Deviation of Vital Capacity between Senior and Junior Basketball Players of Agra



DISCUSSION

Result of the study reveals that significant difference was found senior and junior basketball players of Agra in relation to vital capacity.

The findings of Singh A et al. (2012) who investigate of physiological variables of basketball Players at different levels of competitions gave the similar conclusion that inter college basketball players and Under-19 School Basketball Players have unequal level of vital capacity.

Results of the study conducted by Bhardwaj S (2007) who investigated coordinative ability and physiological characteristics of badminton players of Delhi state at different levels gave the similar conclusion that senior and junior have unequal level of vital capacity.

Both of the studies suggest that senior and junior are unequal in vital capacity and also support the finding of present study. Also, the age and level of practice factors might have brought significant difference.

CONCLUSIONS

It was found that there was significant difference in vital capacity between senior and junior basketball players of Agra.

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