



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 Issue: IV Month of publication: April 2023

DOI: <https://doi.org/10.22214/ijraset.2023.50846>

www.ijraset.com

Call:  08813907089

E-mail ID: ijraset@gmail.com

Relationship of Speed in Relation to the Playing Ability of Female Basketball Players

Gargi Sharma¹, Yeshbeer Singh²

DAV University, Jalandhar, DAV University, Jalandhar

Abstract: *In this study, relationship of selected physical fitness variable with playing ability of female basketball players was examined. For the purpose of selection of the subjects, around one hundred and fifty two (N=152) female basketball players (state level position holders) of age group 18-25 years from Punjab region were chosen to act as subjects. The physical fitness variable, considered to be the independent variable chosen was: speed. The playing ability which was taken as the performance factor i.e. dependent variable was subjectively assessed by qualified basketball coaches. The present study consists of four dependent variables namely: speed shot shooting test, passing test, control dribble test and defensive movement test. The subjects were selected on the basis of purposive sampling technique as the female basketball players of state level position holders from Punjab region were selected. The inter relationship among the selected physical fitness variables and basketball playing ability were calculated using Pearson product-moment correlation. The results showed that speed was significantly correlated with playing ability defensive movement test and was negatively correlated with speed shot shooting, passing test and control dribble test.*

Keywords: *Physical Fitness variables, Speed, Dependent variables, Correlation, Basketball players.*

I. INTRODUCTION

For the purpose of selection of the subjects, around one hundred and fifty two (N=152) female basketball players (state level position holders) of 18-25 years of age group from Punjab region were chosen to act as subjects. The chosen subjects were the volunteers to participate in the study. Keeping in mind the objectives of the study and availability of standard instruments for measurements, the physical fitness variable selected among the female basketball players was speed. The test item selected for agility was 50-yard dash. The dependent variables selected for the study were: speed shot shooting test, passing test, control dribble test and defensive movement test. The subjects were selected on the basis of purposive sampling technique, as the female basketball players of state level position holders from Punjab region were selected. The purpose of the study was to find out the relationship of selected physical fitness variable in relation to the playing ability of female basketball players.

Physical fitness is the most important factor required for a good health, in order to carry on daily routine activities, even under the condition of fatigue and to tackle unexpected happenings. Fitness relates to physical fitness components and health related components. Physical fitness consists of speed, agility, power and reaction time, whereas health related components consists of muscular strength, muscular endurance, cardiovascular endurance, body composition and flexibility. According to Clarke (1971) it is the skill or energy possessed by an individual, to carry out daily routine tasks, with enough or more than enough energy to spend free time and to tackle unexpected happenings. Generally bodily fitness depends upon the nature of hobby performed by means of an character i.e. A sportsman required absolutely different sort of bodily fitness level as examine to a everyday layman, alternatively a baby required different sort of bodily health level as compare to adult and older. Every character has different form of duties in their each day ordinary and their bodily health stage depends upon their work. Physical fitness divided into fitness associated health or skill related health (Caspersen et al., 1985).

II. RESEARCH METHODOLOGY

Around one hundred and fifty two (N=152) female basketball players (state level position holders) of age group 18-25 from Punjab region were chosen to act as subjects. The chosen subjects were the volunteers to participate in the study. The independent variable selected was: speed and dependent variables selected were: speed shot shooting test, passing test, control dribble test and defensive movement test. The test items selected for agility was shuttle run. The objectives and importance of the study were described to the players prior to the measurements to motivate them and to get their cooperation during the tests. The study was delimited to the selected Physical Fitness and AAHPERD (American Alliance for Health, Physical Education, Recreation and Dance) Basketball Skill Test Variables. 0.05 was considered an appropriate level of confidence to test significance.

III. STATISTICAL TECHNIQUE

- 1) Statistical analysis was performed using SPSS version 16.0 for windows (SPSS Inc, Chicago, IL, USA).
- 2) Karl Pearson's product moment co-efficient of correlation was computed to assess the relationship of physical fitness variables with various basketball skill abilities among the basketball players.

IV. RESULTS AND DISCUSSIONS

Relationship of selected physical fitness variable in relation to playing ability of female basketball players:

TABLE 1. TABULAR PRESENTATION of RELATIONSHIP of SPEED in RELATION to the PLAYING ABILITY of FEMALE BASKETBALL PLAYERS:

S. No.	Variables	N	Speed Shot Shooting		Passing Test		Control Dribble Test		Defensive Movement Test	
			Pearson Correlation	Sig. (2-tailed)	Pearson Correlation	Sig. (2-tailed)	Pearson Correlation	Sig. (2-tailed)	Pearson Correlation	Sig. (2-tailed)
1.	Speed	152	-0.090	0.270	-0.040	0.621	0.086	0.290	0.188	0.021

The results showed that the physical fitness variable (speed) selected was significantly correlated with defensive movement test but was not significantly correlated with speed shot shooting, passing test and control dribble test. The physical fitness variable i.e. speed has significantly positive relation with playing ability parameter defensive movement test (0.188) but has negative correlation with speed shot shooting (-0.090), passing test (-0.040) and control dribble test (0.086).

V. GRAPHICAL REPRESENTATION

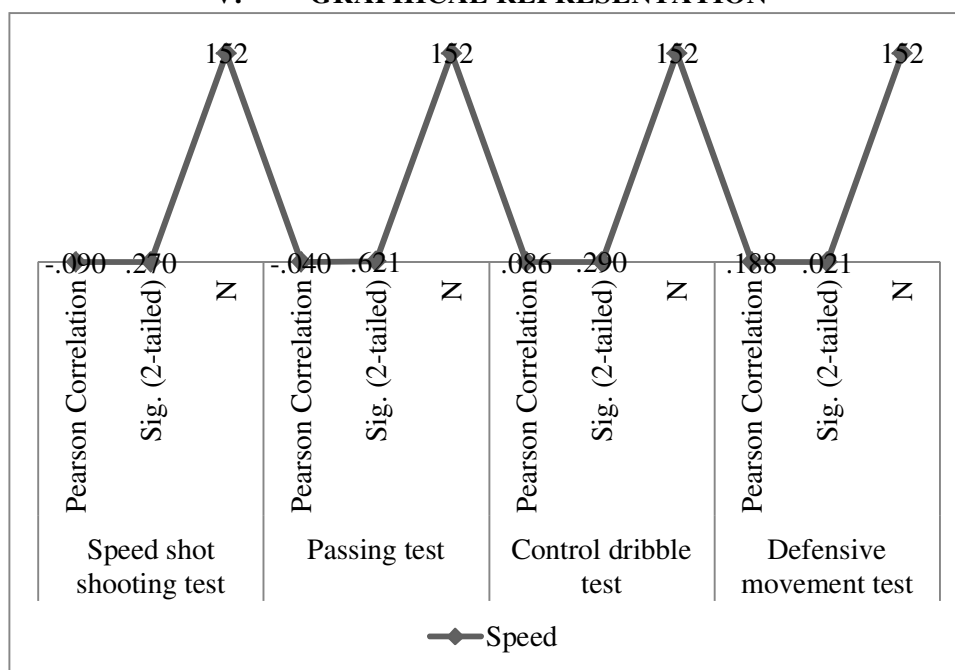


Fig.1 Graphical presentation of relationship of speed in relation to the playing ability of female basketball players

VI. CONCLUSION

From the above results, we can conclude that the physical fitness variable i.e. speed has significantly positive relation with playing ability parameter defensive movement test but has negative correlation with speed shot shooting, passing test and control dribble test. Therefore, this parameter might be trained in order to get performance of the players.



VII. RECOMMENDATIONS

- 1) This study will help to get the knowledge about the Physical Fitness characteristics of Female Basketball Players.
- 2) This study will help in identifying the Physical Fitness variables that may add to the Playing Ability of Female Basketball Players.
- 3) The results will help the Coaches, Instructors and Administrators to select appropriate Basketball Players.
- 4) This study will help the Coaches, Instructors to select and provide the appropriate Training Method in accordance to their present level of Physical Fitness variables.
- 5) The study will help in motivating the Players to excel more by knowing the present status of their Physical Fitness variables.

REFERENCES

- [1] J. Caspersen, E. Powell and M. Christenson, Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. Public Health Report, vol. 100(2), pp. 126-131, 1985.
- [2] H. Clarke, Basic understanding of physical fitness. Physical fitness research digest, series: 1 no. 1, 1971.
- [3] P. Dinh-Van, C. Chien-Lung, P. Ren-Hao, Y. Nan-Ping, H. Hsiu-Chen, T. Hsien-Wei and K. Robert, A Study of the Effects of Daily Physical Activity on Memory and Attention Capacities in College Students. Journal of Healthcare Engineering. 2018.
- [4] B. Louis, I. Kirk and T. Liu-Ambrose, A Review of the Effects of Physical Activity and Exercise on Cognitive and Brain Functions in Older Adults. Journal of Aging Research, 2013.



10.22214/IJRASET



45.98



IMPACT FACTOR:
7.129



IMPACT FACTOR:
7.429



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089  (24*7 Support on Whatsapp)