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# Correlations of Selected Physical Variables with Playing Ability among College Level Handball Players

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**Abstract**

*The purpose of the study was to investigate the correlations of selected physical variables with playing ability among college level handball players. Twenty eight players from Annamalai University, Chidambaram, Tamilnadu were selected. The age of the subjects ranged from 18 to 25 years. The subjects had past playing experience of at least three years in handball were taken as subjects. Physical variables namely speed, agility, explosive power and muscular strength were assessed by 50 metres run, shuttle run, standing broad jump and sit ups. Data were analyzed using SPSS (Statistical Package for Social Science) version 15.0. Descriptive statistics and correlations were used. The level of significance was fixed at 0.05. The result of the study reveals that the agility, muscular strength and speed has significant correlation with playing ability.*

**Keywords:** Physical Variables, Correlation, Handball, Playing Ability.



## Introduction

Handball is one of the fastest indoor sports. It has developed from a number of similar games, which were in existence at the start of the 20th century. Handball is a popular team sport played at International level and has been played by both men and women throughout the world. In year of 1898 the Dane Holger Nielson drew up the rules and regulation for modern Handball and published them in 1906, who is known as the "Father of Handball" and he invented the game. Technique and elegance combine with courage and physical strength, anthropometric characteristics, physiological parameters and psychological status, the dynamic nature of this manly sport makes it exciting to watch. Handball can be played by everybody and everywhere, nothing more being needed than a ball, a playing-field and two goal posts. Handball is not an expensive sport. They need small playing fields or gymnasiums may be used, there is a comparatively smaller number of players and a simple outfit will do. Basically it is a game played by two teams of seven (six ground player and one goal keeper) whose object is to score goals by throwing a small ball towards a goalkeeper into the goal. The ball is passed around by players using their upper body only - any contact with the ball below the knee is a foul (Povoas et al. 2012).

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## Methods

The purpose of the study was to investigate the inter-relationship of selected physical variables with playing ability among college level handball players. Twenty eight players from Annamalai University, Chidambaram, Tamilnadu were selected. The age of the subjects ranged from 18 to 25 years. The subjects had past playing experience of at least three years in handball were taken as subjects. Physical variables namely speed, agility, explosive power and muscular strength were assessed by 50 metres run, shuttle run, standing broad jump and sit ups. Data were analyzed using SPSS (Statistical Package for Social Science) version 15.0. Descriptive statistics and correlations were used. The level of significance was fixed at 0.05.

## Results and Discussion

The descriptive statistics for physical variables for all players are presented in the table below,

**Table I.** Mean and Standard Deviation of physical variables on University Handball Players

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|---|---|---|---|---|
| Playing Ability | 28 | 3.85 | 8.74 | 6.74 | 1.23 |
| Speed | 28 | 6.74 | 7.12 | 6.89 | 0.78 |
| Agility | 28 | 10.12 | 11.24 | 10.67 | 0.97 |
| Explosive Power | 28 | 1.45 | 1.87 | 1.68 | 0.09 |
| Muscular Strength | 28 | 37 | 45 | 41.12 | 2.45 |

**Table II.** Correlation Matrix of Selected physical variables and playing ability in Handball Players

| | Playing Ability | Speed | Agility | Explosive Power | Muscular Strength |
|---|---|---|---|---|---|
| Playing Ability | 1 | -.429* | .686** | .330 | .666** |
| Speed | | 1 | -.315 | -.133 | -.353 |
| Agility | | | 1 | .336 | .416 |
| Explosive Power | | | | 1 | .027 |
| Muscular Strength | | | | | 1 |

*Significant at 0.05 level ** Significant at the 0.01 level

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It was evident from the above table –II correlation exists among the physical variables with playing ability. The result of the study reveals that the agility, muscular strength and speed has significant correlation with playing ability.

**Conclusions**

From the present study it is concluded that, the playing ability has significant correlation with agility, muscular strength and speed.

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