



## Relationship of selected psychological variables on playing ability between Kerala departmental Volleyball Players

**Mr. Jijith<sup>1\*</sup>, Dr. S. Dhanaraj<sup>2</sup>, Dr. Babu.P<sup>3</sup>.**

<sup>1</sup>Research Scholar, Alagappa College of Physical Education, Karaikudi-630 003, Tamil Nadu, India

<sup>2</sup>Associate Professor, Alagappa College of Physical Education, Karaikudi-630 003, Tamil Nadu, India

<sup>3</sup> Assistant Professor(SG/DPE), Department of Physical Education, Sree Narayana Guru College, Coimbatore, Tamil Nadu, India

**\*Corresponding Author: Mr. Jijith**, Research Scholar, Alagappa College of Physical Education, Karaikudi-630 003, eMail-id: [jijith986@gmail.com](mailto:jijith986@gmail.com)

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### ABSTRACT

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The purpose of the study was to examine the relationship between selected psychological variables and volleyball playing ability of department volleyball players. For which thirty volleyball players were selected from Department of Physical Education, Calicut University, Kerala. The selected player's age was ranged from 18-28 years. The selected psychological variables were aggression, self-confidence, stress and it was measured by standardized questionnaire. Brady's volleyball skill test was used to assess the volleyball playing abilities of the selected subjects. Mean and Standard deviation were used as descriptive statistics. Pearson Product Moment Coefficient of correlation with significant level at 0.05 was used to examine the correlations between volleyball playing ability with were aggression, self-confidence, stress. The statistical analysed was carried out using SPSS 14 days trail version. The findings of the present study showed that there was significant relationship found in were aggression, self-confidence and stress in correlation between volleyball playing ability of department volleyball players.

**Keywords:** Volleyball, Aggression, Self-Confidence, Stress.

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### Introduction

Sports performance is the sum of numerous factors which can vary from individual



to individual, even if ultimately, they achieve similar results in competition. Deficient person can be compensated for being superior technique, inadequate sprinting speed by superior endurance or inferior technique by aggressiveness [1]. Dirix (1988) promoted that it has

become a necessity to identify and select a future elite athlete right in childhood or early adolescence. It takes many years of intensive and regular training till an international sports performance level is achieved [2]. The children who are selected for elite sports activities require suitable conditions, sports facilities, equipment of high quality, rational life style, the guidance of expert sports physicians and well educated and experienced coaches. Such conditions can be created for selected children at the right age to get the quality of performance. Therefore, the correct identification of selection and placement of young talent is becoming an important and challenging task everywhere in the modern competitive sports world [3].

Volleyball is a team game and there must be a good understanding and coordination among players to be effective as a group. To the extent motor components are concerned. Volleyball requires agility, coordination and reaction ability for playing and a good suspicion to lift and hit the ball [4]. In volleyball changes in the speed of game and scoring system the set finishes quickly, players need high level of agility, coordination and reaction ability. The individual not only physically fit but also possesses good motor control and body coordination in addition to excelling in the specific skills of his/her game of specialization [5].

The performance of players is influenced by many factors such as physical, physiological and psychological variables, technique, tactics, physique, body size, body composition and application of biomechanical principles [6].

Psychology is an academic and applied discipline that includes the study of mental functions and behaviour. Psychologists research phenomena such as vision, intellect, emotion, temperament, actions, and relationships. Psychology also refers to applying such knowledge to different spheres of human activity, including issues relating to daily life and the treatment of mental health problems [7].

The present study was done to correlate the selected psychological variables such as aggression, self-confidence and stress with the playing ability of volleyball players of department players. It was expected that there would be significant relationship in selected psychological variables with volleyball playing ability.

### **Methodology Selection of Subjects**



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For this study the researcher selected 30 male volleyball players were randomly selected from Department of Physical Education, Calicut University, Kerala. The selected player's age were ranged from 18-28 years.



### Selection of Variables

Keeping the feasibility criterion in mind, the researcher selected the following variables for the present study – selected psychological variables (independent variables) and volleyball playing ability (dependent variable). The selected psychological variables such as aggression, self- confidence, stress and it was measured by standardized questionnaire such as Aggression was measured by Smith's Aggression Questionnaire, Self- confidence was measured by Rekha Agnihotri Questionnaire and Stress was measured by Evenly and Gordano's Questionnaire. Brady's volleyball skill test was used to assess the volleyball playing abilities of the selected subjects.

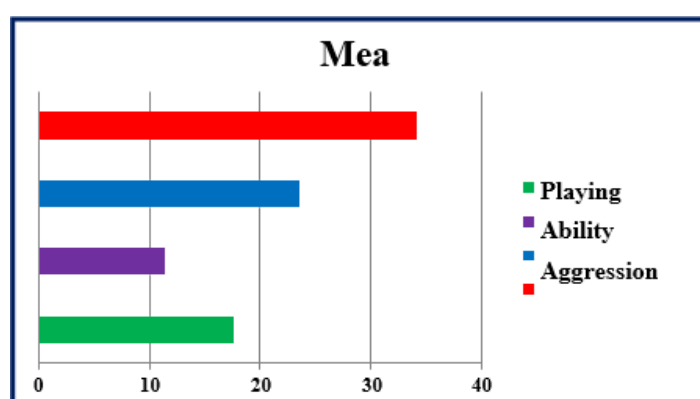
### Statistical Analysis

To find out the significance correlation between the selected psychological variables and volleyball playing ability the data were analyzed by applying descriptive statistics and Pearson Product Moment Coefficient test. The level of significance was set at 0.05. The statistical analysed was carried out using SPSS 14 days trail version.

### Results of the Study

**TABLE 1: Descriptive** analysis of selected psychological variables and playing ability of volleyball players

Variables	Mean	Std. Deviation
Playing Ability	17.61	1.05
Aggression	11.39	2.58
Self-confidence	23.54	3.21
Stress	34.10	6.47



**Mean values of selected variables among volleyball players**

**Table 2** Coefficients of Correlation of Volleyball Playing ability with psychological variables of Volleyball Players

Variables	'r' value	Sig. (2-
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			tailed)
Playing Ability	Aggression	.394*	.041
	Self- confidence	.418*	.039
	Stress	.463*	.037

**\*Level of confidence significance at  $r_{0.05}(2, 28) = 0.361$**

The above table reveals that the calculated 'r' value of aggression ( $r = .394$ ), self-confidence ( $r = .418$ ) and stress ( $r = .463$ ) of an individual correlates maximum with volleyball playing performance. These variables have significant relationship with volleyball playing performance at 0.05 level of significance.

### Discussion of the Study

The present study examined the relationship between psychological variables—aggression, self-confidence, and stress—and the playing ability of volleyball players. The results, as presented in Tables 1 and 2, provide insights into how these psychological traits correlate with players' on-court performance.

### Descriptive Analysis of Psychological Variables and Playing Ability

The descriptive statistics in Table 1 indicate that, on average, volleyball players scored the highest in self-confidence (Mean = 23.54), followed by stress (Mean = 34.10), playing ability (Mean = 17.61), and aggression (Mean = 11.39). The standard deviations reveal a relatively low variation in playing ability and self-confidence (1.05 and 3.21, respectively), indicating that players in the sample tend to have similar levels of these traits. In contrast, aggression and stress exhibit higher variability (2.58 and 6.47, respectively), suggesting that there is more individual difference in these psychological variables among the players.

### Correlation Between Psychological Variables and Playing Ability

As shown in Table 2, the correlation analysis reveals that all three psychological variables—aggression, self-confidence, and stress—are positively correlated with volleyball playing ability. The **r values** for aggression ( $r = 0.394$ ), self-confidence ( $r = 0.418$ ), and stress ( $r = 0.463$ ) indicate moderate positive relationships between these factors and players' performance. All correlations are statistically significant at the 0.05 level, meaning that the relationships observed are not due to random chance.

- **Aggression** ( $r = 0.394$ ) shows a moderate positive correlation with playing ability, suggesting that players who are more aggressive may have a higher level of performance on the court. This could be due to aggression fostering a competitive mindset, leading players



to push harder during games.

- **Self-confidence** ( $r = 0.418$ ) has a slightly stronger correlation with playing ability, which aligns with existing literature that highlights the importance of belief in one's abilities for peak performance. Self-confident players are often more assertive in their actions and decision-making, which could translate into better performance during volleyball matches.
- **Stress** ( $r = 0.463$ ) shows the highest correlation with playing ability among the three variables. While stress is typically viewed as a negative psychological factor, it could be that a certain level of stress serves to heighten focus and motivation. Moderate stress may act as an energizer, improving alertness and concentration, which could positively influence players' performance. However, it's important to note that excessive stress may lead to burnout or anxiety, which could harm performance.

### Implications for Practice

The findings suggest that psychological factors play a significant role in volleyball performance, with stress, self-confidence, and aggression all contributing positively to playing ability. Coaches and sports psychologists might focus on helping players manage their stress levels to ensure that it remains productive rather than detrimental. In addition, enhancing self-confidence through positive reinforcement and mental skills training could be an effective strategy for improving players' overall performance. Aggression, while beneficial to a certain extent, should be carefully managed to ensure it translates into competitive energy without leading to negative behavior on the court.

The findings of the study indicates that the aggression, self-confidence, stress is significantly related to the performance of volleyball playing ability. It was also supported by Singh & Mal, (2016) conducted the study on relationship between selected specific physical fitness variables and playing ability of the college level kabaddi players [8]. Ramzaninezhad, Keshtan & Shahamat, (2009) analysed the relationship between collective efficacy, group cohesion and team performance in professional volleyball teams [9]. Pradhan (2016) evaluated the performance indicators of inter university volleyball players in terms of their playing positions [10].

### Conclusion of the Study

Overall, the results of this study indicate that psychological factors, particularly aggression, self-confidence, and stress, have a significant impact on volleyball players' ability to perform. The moderate positive correlations observed in the analysis highlight the



importance of mental readiness and emotional regulation in sports performance.

□ On the basis of findings following conclusions have been made Significant relationship found in volleyball playing ability of volleyball players in relation to aggression ( $r = .394$ ,  $p < 0.05$ ). Significant relationship found in volleyball playing ability of volleyball players in relation to self-confidence ( $r = .418$ ,  $p < 0.05$ ). Significant relationship found in volleyball playing ability of volleyball players in relation to stress ( $r = .463$ ,  $p < 0.05$ ). Future research could explore the causal relationships between these psychological traits and playing ability, and investigate the effectiveness of psychological interventions aimed at enhancing these variables for improved athletic performance.

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