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## STUDY OF SELECTED PSYCHOLOGICAL VARIABLES WITH PLAYING ABILITY OF BASKETBALL AND VOLLEYBALL PLAYERS

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### ABSTRACT

The main purpose of this study was to determine the relationship of selected psychological variables with playing ability of Basketball players and Volleyball players. The other purpose of this study was to compare the selected psychological variables between the Basketball and Volleyball players. For the purpose of this study 20 female intercollegiate Basketball Players and 20 female intercollegiate Volleyball Players of Degree College of Physical Education, Amravati were selected by adopting purposive sampling method and the age of the subjects was ranged from 18 to 25 years.

The selected psychological variables were Will to Win, Sports Aggression and Sports Competition Anxiety. Will to Win and Sports Aggression were assessed with the help of related questionnaires developed by Anand kumar and P. S. Sukla. Sports Competition Anxiety was also assessed by applying Sports Competition Anxiety Test (SCAT) questionnaire developed by Reiner Martin. Playing ability of Basketball players and Volleyball players were measured by applying Johnson Basketball test and Modified Brady Volleyball test respectively and their scores were recorded accordingly. It was hypothesized that there might be significant relationship in the selected psychological variables with playing ability of Basketball and Volleyball Players. It was further hypothesized that there might be significant difference in the selected psychological variables between the Basketball and Volleyball players.

To establish the relationship between the selected psychological variables and playing ability of Basketball and Volleyball players, Pearson's Product Moment Co-efficient Correlation was employed and to determine the significant difference in the selected psychological variables between the Basketball and Volleyball players independent "t" test was employed. The level of significance was set at 0.05 for testing the hypothesis. The findings of the statistical analysis revealed that no significant relationship was observed between Volleyball playing ability and selected psychological variables. Basketball playing ability was negatively correlated with Sports Aggression, whereas Will to Win and Sports Competition Anxiety were found insignificant. It also revealed that no significant difference was observed in any of the selected psychological variables.

**Key Words-** Will to Win, Sports Aggression, Sports Competition Anxiety, Playing Ability, Basketball and Volleyball.

## Introduction

Sports have become inseparable phenomena of our social life. It has made its own place at the apex of human civilization because of its tribal competition event and ever improving nature. The acquisition of new knowledge for betterment of performance of human organism in relation to physical, motor and psychological and enlist certain psychological parameters which do influence sports performance.

Psychology of sports means applying psychological theories to aspects of sports, such as coaching and teaching. The sports psychologist uses psychological assessment techniques and achieves their optimal performance. Sports psychology is concerned with analyzing human behavior in various types of performance.

Basketball and Volleyball are played by millions of people around the world. In many countries these games have been ranked as the top level competitive sport.

## Significance of the Study

1. The findings of this study would help to know the relationship of playing ability with selected psychological parameters of Basketball and Volleyball players.
2. The findings of the study may be helpful to Trainers and Coaches to improve the playing ability in Basketball and Volleyball games by improving the desired level of psychological variables.

The study would further help to determine the difference in the selected psychological -variables. between the Basketball and Volleyball players.

## Hypothesis

On the basis of literatures, discussion with the experts and scholar's personal experience it was hypothesized that:-

H1: there might be significant relationship in the selected psychological variables with playing ability of Basketball and Volleyball Players.

H2: It was further hypothesized that there might be significant difference in the selected psychological variables between the Basketball and Volleyball players.

## Methodology

20 female intercollegiate Basketball Players and 20 female intercollegiate Volleyball players were selected as subjects from Degree College of Physical Education (DCPE), Amravati through purposive sampling method. The age of the subjects was ranged from 18 to 25 years.

## Selection of Variables

The researcher had selected the following psychological variables:

- I) Will to Win
- II) Sports Aggression
- III) Sports Competition Anxiety

## Selection of Tools

Will to win was assessed by using will to win questionnaire developed by Anand Kumar and P.S.Sukla. Aggression in sports was measured by administering Sports Aggression Inventory Questionnaire developed by Anand Kumar and P.S.Sukla. Anxiety in sports competition was assessed by using Sports Competition Anxiety Test (SCAT) questionnaire developed by Reiner Martin. Johnson Basketball test was used to measure Basketball playing ability and Modified Brady Volleyball test for college women was used to measure Volleyball playing ability.

## Collection of Data

The necessary data pertaining to the study were collected by using the above mentioned selected tools and tests.

## Analysis of Data

To establish the relationship between the selected psychological variables and playing ability of Basketball and Volleyball players, Pearson's Product Moment Co-efficient Correlation was employed and to determine the significant difference in the selected psychological variables between the Basketball and Volleyball players independent "t" test was employed. The level of significance to test the hypothesis was set at .05. The findings of the statistical analysis have been described in the following tables.

**Table -1**

### Relationship of Selected Psychological Variables with Playing Ability of Basketball Players

Variables Correlated	Coefficient of correlation (r)
Will to Win and Playing Ability	-0.000747@
Sports Aggression and Playing Ability	-0.789*
Sports Competition Anxiety and Playing Ability	0.036@

\* Significant at 0.05 level

Tabulated  $r_{0.05}(18) = 0.444$

The findings of Table-1 indicates that the psychological variable of sports aggression negatively correlated with the playing ability of Basketball women players, as the calculated r-value of -0.789 is quite higher than the tabulated r-value of 0.444 at 0.05 level for the 18 degrees of freedom, hence the correlation in between sports aggression and playing ability is statistically significant. The findings also shows that playing ability of Basketball women players dose not correlate with will to win ( $r = -0.000747$ ) and sports competitive anxiety ( $r = 0.036$ ) significantly, because both the calculated r-values are quite less than the tabulated r- values of 0.444 at .05 for the 18 degrees of freedom.

Table - 2

**Relationship of Selected Psychological Variables with Playing Ability of Volleyball Players**

Variables Correlated	Coefficient of correlation (r)
Will to Win and Playing Ability	-0.000747@
Sports Aggression and Playing Ability	-0.789*
Sports Competition Anxiety and Playing Ability	0.036@

\* Not Significant at 0.05 level

Tabulated  $r_{0.05(18)} = 0.444$ 

The findings of Table-2 shows that playing ability of Volleyball women players does not correlate significantly with the selected psychological variables of will to win ( $r = -0.204$ ), sports aggression ( $r = 0.215$ ) and sports competitive anxiety ( $r = 0.241$ ) because all the calculated r-values are quite 1Qs than the tabulated r-values of 0.444 at .05 for the 18 degrees of freedom.

Table - 3

**Description of Mean, Standard Deviation and t-ratio for the Data on Will to Win of Basketball and Volleyball Women Players**

Groups	Mean	Standard Deviation	Mean Difference (MD)	Standard Error of MD	t-ratio
Basketball	8.95	2.43	0.75	0.658	1.14@
Volleyball	8.2	1.66			

@ Not Significant at .05 level

Tabulated  $t_{0.05(38)} = 2.0252$ 

It is evident from the finding of above Table-3 that there is no significant difference between the means of Basketball and Volleyball Players in the variable of Will to Win as the obtained t-value of 1.14 is quite lower than the tabulated t-value of 2.0252 required to be significant at .05 level for the 38 degrees of freedom.

Table - 4

**Description of Mean, Standard Deviation and t-ratio for the Data on Sports Aggression of Basketball and Volleyball Women Players**

Groups	Mean	Standard Deviation	Mean Difference (MD)	Standard Error of MD	t-ratio
Basketball	12.45	2.01	0.90	0.5988	1.50@
Volleyball	11.55	1.77			

@ Not Significant at .05 level

Tabulated  $t_{0.05(38)} = 2.0252$

It is evident from the finding of above Table-4 that there is no significant difference between the means of Basketball and Volleyball Players in the variable of Sports Aggression as the obtained t-value of 1.50 is quite lower than the tabulated t-value of 2.0252 required to be significant at .05 level for the 38 degrees of freedom.

**Table -5**

**Description of Mean, Standard Deviation and t-ratio for the Data on Sports Competition Anxiety of Basketball and Volleyball Players**

Groups	Mean	Standard Deviation	Mean Difference (MD)	Standard Error of MD	t-ratio
Basketball	18.85	2.61	0.1	0.75	0.13@
Volleyball	18.75	2.11			

@ Not Significant at .05 level

Tabulated to<sub>.05 (38)</sub> = 2.0252

It is evident from the finding of above Table-5 that there is no significant difference between the means of Basketball and Volleyball Players in the variable of Sports Competition Anxiety as the obtained t-value of 0.13 is quite lower than the tabulated t-value of 2.0252 required to be significant at .05 level for the 38 degrees of freedom.

**Discussion of findings**

Findings of correlation statistics showed negative significant relationship in between Sports Aggression and Basketball playing ability, it may be because aggression is such psychological trait which affects neuro-muscular co-ordination badly, where by basketball game is highly co-ordinated skilled game which require sophisticated neuro-muscular co-ordination that is why result showed that a player possess higher aggression indicates poor performance and vice versa. Hence such result might have occurred in this study.

Findings of independent t-statistics revealed that there were no significant mean differences in the selected psychological variables between the Basketball and Volleyball Players: it may be attributed to the nature of the games as well as level of competitions from where the subjects were chosen. Mainly subjects were selected from Degree College of Physical Education who used to teach different sports events as well as scientific literature, and continuously winning the championship since last few years and showing their dominance over the others which might have moulded the desired levels of Will to Win, Sports Aggression and Sports Competitive Anxiety among the women players of both the games. Therefore insignificant differences might have occurred in the selected psychological variables in between Basketball and Volleyball players in the study.

**Discussion of Hypothesis**

In the beginning of this study it was hypothesized that there might be significant relationship of selected psychological variables with playing ability of Basketball and Volleyball Players but only sports aggression showed significant relationship with Basketball playing ability and no other variables were found significantly correlated to playing ability of Basketball and Volleyball players. Hence, the hypothesis earlier stated is rejected except sports aggression and Basketball playing ability.

It was also hypothesized that there might be significant difference in the selected psychological variables in between Basketball and Volleyball women players, but statistical results showed insignificant difference between the two selected groups in the selected variables, hence hypothesis stated earlier is rejected.

## Conclusions

Recognizing the limitations of this study and on the basis of statistical findings the following conclusion may be drawn:

1. Negative significant relationship was observed in between Basketball playing ability and Sports Aggression.
2. There was no significant relationship of Basketball playing ability with Will to win and Sports Competitive Anxiety.
3. Insignificant relationship was found in between the Volleyball playing ability and selected psychological variables of Will to win, Sports Aggression and Sports Competitive Anxiety.
4. There was no significant difference between the means of Will to win of Basketball and Volleyball women players.
5. There was no significant mean difference in the psychological variables of Sports Aggression between the Basketball and Volleyball women players.
6. Insignificant mean difference was found in the variable of Sports Competitive Anxiety between the Basketball and Volleyball women players.

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