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A Comparative Study of Personality Factors of University Level Basketball, Volleyball and Handball Players

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1.0 Introduction

Sports play a great in everyone's busy life especially for students. Everyone should involve themselves in the sports activity even for a small time all through the day. Sports are necessary because it brings physical and mental fitness to the person involved in this on regular basis. Being involved in sports activities benefits a person in many ways. It does not provide only physical strength however it increases mental power too. The importance of sports and games is being increasingly recognised in India, from both the educational and social points of view. More and more funds are being allocated for encouraging sports in schools, colleges and universities; in fact, sports have become an essential part of the curricula. Moreover, today the will to win at different level has made the sports psychology very important for the sports management teams as well as the sports coaches. Sports psychology is the study of how psychology influences sports, athletic performance, exercise and physical activity. Some sports psychologists work with professional athletes and coaches to improve performance and increase motivation. Other professionals utilize exercise and sports to enhance people's lives and well-being throughout the entire lifespan.

Sport psychologists have conducted significant research in regard to sports performance and the five-factor model of personality. Singh and Manoj (2012) found that the personality factor neuroticism was significantly positively correlated with wrestling performance as well as the personality factor neuroticism was a significant positive predictor of wrestling performance in male university level players. Kovacs (2008) reported that conscientiousness and neuroticism have a direct correlation to athletic performance. Aidman and Schofield (2004) reported that agreeableness and openness are not correlated with sport performance. Taylor & Doria (1981) extraversion has been found to predict sport performance, particularly in team athletes.

The psychological fitness plays a very big role in the development and performance of the sportsperson. As a personality factors have both positive as well as negative impacts, it is necessary to assess their role in the overall performance of the players (in this study focusing on the Basketball, Volleyball and Handball players). Moreover, the balance in these attributes can help the sportspersons in improving their performance. It has been reported that psychological condition is a key construct in many decisions. In addition to this the relationship between sports performance and psychological status has been studied extensively for many years, yet researchers still have only an incomplete understanding of the relation between the two. In view of this, present investigation was carried out to examine the relationship between personality traits and sport performance among basketball, volleyball and handball players.

2.0 Methodology

2.1 Selection of Subject

The subjects were selected from Nagpur and Wardha Districts of Vidarbha. A total of 300 (100 each players of basketball, Volleyball and handball games) players belonging to age group 18 to 25 years were selected for data collection.

2.2 Research Design

The three group design was adopted for comparative assessment of the sports personality traits of basketball, volleyball and handball players

2.3 Collection of Data

The data were collected for each variable. The tests used were explained to the subjects prior to their administration. Data was collected for each variable personally. A reliable and valid questionnaire was used to assess the sports personality traits of the basketball, volleyball and handball players.

2.4 Sports Specific Personality

Based on psychological aspects and the sports personality traits, and with the discussion of experts and scholar's own understanding, following variables were selected for the purpose of the study. The sub factors of personality included i) Sociability Level, ii) Dominance Level, iii) Extroversion Level, iv) Conventionality Level, v) Self-Concept Level, vi) Mental Toughness Level and vii) Emotional Stability Level. Sports Specific Personality Test developed by Agya Jit Singh & H. S. Cheema was used for generating the necessary data.

2.5 Statistical Analysis of Data and Significance Level

Analysis of data was done with the help of suitable statistical tests. The descriptive statistics, such as mean, standard deviation, mode, frequency, percentage, minimum and maximum, etc. were determined from the collected data. The comparative assessment was done using one way ANOVA procedure, and the relationship between different variables was studied using Pearson's product moment correlation coefficient determination. The significance level was chosen to be 0.05 (or equivalently, 5%). The data generated during the study was processed using various statistical tests with the aid of Statistical Package for Social Sciences (SPSS) 18.0 software.

3.0 Personality factors

3.1 Sociability factor

Table 1: Sociability factor of University level basketball, volleyball and handball players

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Game	N	Mean	SD	Sociability level	Min	Max	F ratio	Р
Basketball	100	56	±5.2	Above average performance	52	59	2.346	<0.05
Volleyball	100	56	±3.6	Above average performance	53	60		
Handball	100	48	±6.8	Average performance	42	54		

N: Sample Size; SD: Standard deviation; Min: Minimum; Max: Maximum; P: Probability

Above Table 1 presents results pertaining to the sociability factor of the University level Basketball, Volleyball and Handball players. The results indicated that the mean sociability factor

score of the Basketball players is 56±5.2. Furthermore, the mean sociability factor score of the Volleyball players is 56±3.6. In addition to this, the results regarding mean sociability factor score of Handball players is 48±6.8.

3.2 Dominance Factor

 Table 2: Dominance factor of University level basketball, volleyball and handball players

Game	N	Mean	SD	Dominance Level	Min	Max	F ratio	Р
Basketball	100	46	±4.2	Above average performance	40	49	2.419	<0.05
Volleyball	100	37	±2.9	Average performance	33	45		
Handball	100	45	±4.1	Above average performance	38	51		

N: Sample Size; SD: Standard deviation; Min: Minimum; Max: Maximum; P: Probability

Above Table 2 presents results pertaining to the dominance factor of the University level Basketball, Volleyball and Handball players. The results indicated that the mean dominance factor score of the Basketball players is 46±4.2. Furthermore, the mean dominance factor score of the Volleyball players is 37±2.9. In addition to this, the results regarding mean dominance factor score of Handball players is 45±4.1.

3.3 Extroversion Factor

Table 3: Extroversion factor of University level basketball, volleyball and handball players

Game	N	Mean	SD	Extroversion Level	Min	Max	F ratio	Р
Basketball	100	39	±3.3	Inferior performance	35	42	2.037	<0.05
Volleyball	100	47	±2.4	Above average performance	42	50		
Handball	100	41	±2.8	Average performance	35	46		

N: Sample Size; SD: Standard deviation; Min: Minimum; Max: Maximum; P: Probability

Above Table 3 presents results pertaining to the extroversion factor of the University level Basketball, Volleyball and Handball players. The results indicated that the mean extroversion factor score of the Basketball players is 39±3.3. Furthermore, the mean extroversion factor score of the Volleyball players is 47±2.4. In addition to this, the results regarding mean extroversion factor score of Handball players is 41±2.8.

3.4 Conventionality Factor

 Table 4: Conventionality factor of University level basketball, volleyball and handball players

Game	Ν	Mean	SD	Conventionality Level	Min	Max	F ratio	Р
Basketball	100	42	±3.2	Average performance	38	45	2.913	<0.05
Volleyball	100	46	±2.6	Above average performance	42	49		
Handball	100	37	±2.7	Inferior performance	32	42		

N: Sample Size; SD: Standard deviation; Min: Minimum; Max: Maximum; P: Probability

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Above Table 4 presents results pertaining to the conventionality factor of the University level Basketball, Volleyball and Handball players. The results indicated that the mean conventionality factor score of the Basketball players is 42±3.2. Furthermore, the mean conventionality factor score of the Volleyball players is 46±2.6. In addition to this, the results regarding mean conventionality factor score of Handball players is 37±2.7.

3.5 Self-Concept Factor

Table 5: Self-Concept factor of University level basketball, volleyball and handball players

Game	N	Mean	SD	Self-Concept Level	Min	Max	F ratio	Р
Basketball	100	46	±2.9	Above average performance	42	50	1.219	NS
Volleyball	100	47	±3.4	Above average performance	43	49		
Handball	100	45	±3.6	Above average performance	42	48		

N: Sample Size; SD: Standard deviation; Min: Minimum; Max: Maximum; P: Probability; NS: Not Significant

Above Table 5 presents results pertaining to the self-concept factor of the University level Basketball, Volleyball and Handball players. The results indicated that the mean self-concept factor score of the Basketball players is 46±2.9. Furthermore, the mean self-concept factor score of the Volleyball players is 47±3.4. In addition to this, the results regarding mean self-concept factor score of Handball players is 45±3.6.

3.6 Mental Toughness Factor

Table 6: Mental Toughness factor of University level basketball, volleyball and handball players

Game	NO	Mean	SD	Mental Toughness Level	Min	Max	F ratio	Р
Basketball	100	45	±4.1	Above average performance	40	48	0.894	NS
Volleyball	100	44	±3.2	Above average performance	41	49		
Handball	100	43	±3.6	Above average performance	40	49		

N: Sample Size; SD: Standard deviation; Min: Minimum; Max: Maximum; P: Probability; NS: Not Significant

Above Table 6 presents results pertaining to the mental toughness factor of the University level Basketball, Volleyball and Handball players. The results indicated that the mean mental toughness factor score of the Basketball players is 45±4.1. Furthermore, the mean mental toughness factor score of the Volleyball players is 44±3.2. In addition to this, the results regarding mean mental toughness factor score of Handball players is 43±3.6.

3.7 Emotional Stability Factor

Table 7: Emotional Stability factor of University level basketball, volleyball and handball players

Game	N	Mean	SD	Emotional Stability Level	Min	Max	F ratio	Р
Basketball	100	38	±2.6	Average performance	35	43	2.314	<0.05
Volleyball	100	43	±2.5	Above average performance	39	47		
Handball	100	44	±2.3	Above average performance	40	48		

N: Sample Size; SD: Standard deviation; Min: Minimum; Max: Maximum; P: Probability

Above Table 7 presents results pertaining to the emotional stability factor of the University level Basketball, Volleyball and Handball players. The results indicated that the mean emotional stability factor score of the Basketball players is 38±2.6. Furthermore, the mean emotional stability factor score of the Volleyball players is 43±2.5. In addition to this, the results regarding mean emotional stability factor score of Handball players is 44±2.3.

4.0 Conclusions

Personality factors

• Sociability factor: Specifically, the results revealed that the Basketball and Volleyball players have above average performance while Handball players have average performance on the sociability factor of personality dimension. Furthermore, the comparative assessment showed that there is significant (P<0.05) difference in the sociability level of the University level Basketball, Volleyball and Handball players.

• Dominance Factor: The results revealed that the Basketball and handball players have above average performance while volleyball players have average performance on the dominance factor of personality dimension. Furthermore, the comparative assessment showed that there is significant (P<0.05) difference in the dominance level of the University level Basketball, Volleyball and Handball players.

• Extroversion Factor: Specifically, the results revealed that the volleyball players have above average performance; handball players have average performance while basketball players have inferior performance on the extroversion factor of personality dimension. Furthermore, the comparative assessment showed that there is significant (P<0.05) difference in the extroversion level of the University level Basketball, Volleyball and Handball players.

• **Conventionality Factor**: Specifically, the results revealed that the volleyball players have above average performance; handball players have inferior performance while basketball players have average performance on the conventionality factor of personality dimension. Furthermore, the comparative assessment showed that there is significant (P<0.05) difference in the conventionality level of the University level Basketball, Volleyball and Handball players.

• **Self-Concept Factor:** Specifically, the results revealed that the volleyball players, handball players and basketball players have above average performance on the self-concept factor of personality dimension. Furthermore, the comparative assessment showed that there is no significant difference in the self-concept level of the University level Basketball, Volleyball and Handball players.

• Mental Toughness Factor: Specifically, the results revealed that the volleyball players, handball players and basketball players have above average performance on the mental toughness factor of

personality dimension. Furthermore, the comparative assessment showed that there is no significant difference in the mental toughness level of the University level Basketball, Volleyball and Handball players.

• Emotional Stability Factor: Specifically, the results revealed that the basketball players have average performance while volleyball and handball players have above average performance on the emotional stability factor of personality dimension. Furthermore, the comparative assessment showed that there is significant (P<0.05) difference in the mental toughness level of the University level Basketball, Volleyball and Handball players.

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