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## Personality characteristics of elite male and female gymnasts

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### Abstract

The purpose of the study was to compare the elite male and female gymnasts with respect to five personality traits namely Extraversion, Agreeableness, Openness, Conscientiousness, and Neuroticism. The subjects for the study were male (N= 18) and female (N=12) elite level gymnasts, whose ages ranged between 18 to 25 years. In order to collect data pertaining to male and female elite gymnasts, Big Five Inventory developed and standardised by Oliver P. John, was used. The test consisted of 44 brief personality descriptors to which the test-taker responded with degree of agreement or disagreement on a 5-point Likert scale. The analysis of data clearly revealed that elite male and female gymnasts do not differ in any of the personality traits namely Extraversion, Agreeableness, Openness, Conscientiousness and Neuroticism.

**Keywords:** personality characteristics, Elite male and female gymnasts

### Introduction

Over the years the sports competitions at different levels of performance are getting tougher day by day. The sportspersons of today are well prepared with respect to all aspects of performance i.e. motor components (physical), technical and tactical preparation and also with respect to psychological characteristics that include level of motivation, attitude, aggression, anxiety, as well as personality traits. The personality traits of both male and females sportspersons that influence performance are to be given due attention so that sportspersons can achieve a level of performance corresponding to the characteristics they possess.

The sports teams and individual sportspersons are prepared today not only to play the game but to win, therefore the psychological characteristics especially the personality characteristics of the elite sportspersons have a direct bearing, not only to make an appropriate choice of the sport but to a great extent in deciding who is likely to excel and face challenges that invariably come up during competitions.

The study conducted by Teshome *et al.* (2015) is an endeavour to explore the relationship between personality trait and sport performance of Jimma town national league male football players. The population of the study consisted of all Jimma town National league male football players (N=47) and all coaches (N=4). The study employed a Cross-sectional design. The descriptive co-relational method was employed for analysis of data. Personality was assessed by using the NEO-Five Factor Inventory, and athlete's Sport performance was assessed by coach's rating. The findings on the personality dimensions and sport performance indicated that from among personality trait only Conscientiousness has positive significant correlation with sport performance ( $r = .897, P < 0.01$ ).

Bawa and Debnath (1989) [1] conducted a comparative study of extroversion/introversion on national level female gymnasts, cyclists, and badminton players. It was observed that badminton players differed significantly from gymnasts and cyclists on introversion/extroversion scale. Badminton players were found to be significantly more introvert than gymnasts and cyclists. "Contrary to this, Sinha and Verma (1989) administered Eysenck Personality Questionnaire (1978) on 50 high achieving 50 low achieving female athletes between the age group of 18 to 26 years and found that high achieving female athletes are more extrovert, dominating, helpful and aggressive in comparison to low achieving female athletes."

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**Methodology**

The subjects for the study were male (N= 18) and female (N=12) elite level gymnasts, whose ages ranged between 18 to 25 years. In order to collect data pertaining to male and female elite gymnasts, Big Five Inventory developed and standardised by Oliver P. John, was used. The test consisted of 44 brief personality descriptors to which the test-taker responded with degree of agreement or disagreement on a 5-point Likert scale. The inventory was given to the subjects a day before so that they could go through each statement carefully and get clear on each aspect of the questionnaire before filling it up. On the next day the players were again assembled in a hall where they filled up the questionnaire in the presence of the research scholars. To enable the subjects to provide a correct response their doubts were cleared. The questionnaire was analysed with the help of the details provided in the questionnaire manual. Means and standard deviations with respect to each personality trait were computed and uncorrelated t-test was employed. The data pertaining to each personality trait i.e. Extraversion, Agreeableness, Openness, Conscientiousness, and Neuroticism are presented in tables 1 to 5.

**Findings**

**Table 1:** Significance of Difference in the Means of Extraversion between Elite Male and Female Gymnasts.

Group	Mean	Mean Difference	SD	S.E	t-ratio
Male	28.56		3.36		
		0.14		1.24	0.11*
Female	28.42		3.32		

\*Not Significant at 0.05 level  
\* $t_{0.05} (28) = 2.05$

The analysis of data pertaining to extraversion of elite male and female gymnasts clearly reveals that a difference of 0.14 in the means of the two groups is statistically not significant at 0.05 level of confidence. The t-value of 0.11 is less than the table t-value of 2.05 with 28 degrees of freedom.

**Table 2:** Significance of Difference in the Means of Agreeableness between Elite Male and Female Gymnasts.

Group	Mean	Mean Difference	SD	S.E	t-ratio
Male	32.17		5.38		
		-2.25		1.73	-1.30*
Female	34.42		4.08		

\*Not Significant at 0.05 level  
\* $t_{0.05} (28) = 2.05$

The results in Table 2 clearly indicate that a difference of - 2.25 in the means of the two groups is statistically not significant at 0.05 level of confidence. The t-value of -1.30 is less than the table t-value of 2.05 with 28 degrees of freedom.

**Table 3:** Significance of Difference in the Means of Conscientiousness between Elite Male and Female Gymnasts

Group	Mean	Mean Difference	SD	S.E	t-ratio
Male	33.61		6.43		
		-0.14		2.04	-0.07*
Female	33.75		4.75		

\*Not Significant at 0.05 level  
\* $t_{0.05} (28) = 2.05$

The analysis of data pertaining to Conscientiousness of elite male and female gymnasts clearly reveals that a difference of

-0.14 in the means of the two groups is statistically not significant at 0.05 level of confidence. The t-value of -0.07 is less than the table t-value of 2.05 with 28 degrees of freedom.

**Table 4:** Significance of Difference in the Means of Neuroticism between Elite Male and Female Gymnasts

Group	Mean	Mean Difference	SD	S.E	t-ratio
Male	19.83		3.84		
		-2.5		1.44	-1.74*
Female	22.33		3.87		

\*Not Significant at 0.05 level  
\* $t_{0.05} (28) = 2.05$

The findings in above table pertaining to the variable neuroticism of elite male and female gymnasts clearly shows a difference of -2.5 in the means of the two groups is statistically not significant at 0.05 level of confidence. The t-value of -1.74 is less than the table t-value of 2.05 with 28 degrees of freedom.

**Table 5:** Significance of Difference in the Means of Openness between Elite Male and Female Gymnasts

Group	Mean	Mean Difference	SD	S.E	t-ratio
Male	34.61		3.33		
		0.53		1.28	0.41*
Female	34.08		3.48		

\*Not Significant at 0.05 level  
\* $t_{0.05} (28) = 2.05$

The above statistical analysis pertaining openness of elite male and female gymnasts reveals that a difference of 0.53 in the means of the two groups is statistically not significant at 0.05 level of confidence. The t-value of 0.41 is less than the table t-value of 2.05 with 28 degrees of freedom.

**Discussion of findings**

The analysis of data clearly reveals that elite male and female gymnasts do not differ in any of the personality traits namely Extraversion, Agreeableness, Openness, Conscientiousness and Neuroticism. The reason for no difference between elite male and female gymnasts could be that they all had good standard of performance and were among the outstanding performers and had the opportunity to represent at international and national levels. In as much as they were outstanding in the sport and had been participating at a very high level in the sport of gymnastics, they probably had more or less identical personality traits which are essential to excel in the sport.

Research studies already completed that compare male and female gymnasts with respect to motor components indicate that male gymnasts are significantly superior to that of the female gymnast, however, with respect to psychological characteristics the difference between male and female performers significant difference has not been observed.

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