THE COMPARISON OF FIVE PERSONALITY FACTORS BETWEEN ATHLETE AND NON-ATHLETE STUDENTS

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ABSTRACT

The purpose of this study is the comparison of five personality factors between athlete and non-athlete students. It is a causative-comparative study and the necessary data is collected via field research. For assessing these personality traits NEO-FFI Inventory (the short and revised form), designed by Costa & McCrea (1992), has been used. In this study 263 male athlete students (mean= 23, SD 2.5) and 263 male non-athlete students (mean= 23, SD 2.5) are chosen and completed the questionnaire. For making sure of the normality of data distribution Kolmogrov-Smirnov test and for comparing five personality factors between male athlete and non-athlete students Multivariate Analysis of Variance (MANOVA) have been used. The result of this study showed that athlete students in extraversion, agreeableness and conscientiousness have achieved a higher score than non-athlete students, while in neuroticism their score was lower than non-athlete students.

KEYWORDS: Personality, Neuroticism, Extraversion, Openness to Experiences, Agreeableness, Conscientiousness, Athlete Students, Non-Athlete Students.

Physical traits are an important concept that through the history has always been accompanied with the concept of personality (Habibian, 2000). From long ago there was a prevalent idea among people that fat people are happy and communicative while thin people are shy, stressful and hysterical and athletes are spiritually sane people (Shamloo, 1999). This idea that there is a relationship between the physical features of people and their behavior and psychology has existed long before the advent of modern scientific psychology (Hagh-Shenas, 1999). By the appearance of the science of psychology researchers started to study and analyze the personality differences among different races of human beings, therefore, different subdivisions of professional psychology in the general psychology of personality were invented and after decades of research and study the personality psychologists are getting closer to a unanimity related to humans' personality traits. The understanding of the concept of personality is the final goal and the most complicated achievement of psychology. In fact personality is an umbrella term that includes all psychology. From long ago, to evade from the diversity of the terms related to personality, psychologists have tried to limit this diversity by defining specific personality morphologies; the oldest and the most famous of these morphologies is Hippocrates' system of four temperaments.

In 1921, Kertchmer published his theory about the physique and character. In his theory, Kertchmer divided people to different morphologies, for example, the tall, thin asthenic type, the more muscular athletic type, the rotund pyknic type and dysplastic type; then he defined specific personality traits for each group. For example the first group was supposed to be happy, sociable and communicative, while the second group almost had opposite traits with those of the first group. During the first decades of the previous century character study tests became more scientific. Sheldon (1927) analyzed the main components that are responsible in shaping different layers of personality. Sherly (1931) in a sequential study studied the first two years of some infants. He noticed that each of these infants had some personality traits that are almost fixed. 17 years later, Nylone (1948) found 15 of those children who had been Sherly's samples; he studied them and compared the studies with those of Sherly. He found out that most of the personality traits of these children during their adulthood are the same ones as those of their childhood. Cattell, Allport, Eysenck, McCrea, Goldberg, et al. continued this study and several other scientists did laborious researches related to the previous ones and some of them even made some questionnaires to evaluate personality (Nikbaksh 2008).

At the present time most of the psychologists believe that human personality is shaped by five general traits (Mohammadi, 2008). All people deal with these five factors and their personality profile could be depicted by them. Based on this model, human personality is made of five main factors including neuroticism (N), extraversion (E), openness to experiences (O), agreeableness (A) and Conscientiousness (C) (De Fruyt et al. 2004). From these five factors extraversion and agreeableness are related to the personality traits that
have interpersonal identity. The conscientiousness mainly contains the purposeful behavioral traits and impulse control in a way that is socially acceptable (McGhee, Ehler, & Buckhalt, 2007). In neuroticism the emotional stability is exposed to a wide range of negative emotions such as sadness, irritability, tension, etc., and openness to experiences is related to person's width, depth and complexity of thoughts and mind and its experiences (Saulsman, & Page 2004).

A dozens of researches in different languages done by various methods, tools and samples have proved the significance of these five factors; they also have showed that all these five factors enjoy the convergent and individual validity between tools and observer and through the evolution of person they are somehow constant. All of these traits are of one dimension; they are not of any kind or type (like personality type), namely each person's difference in each aspect or component is a quantity or degree based difference (De Fruyt et al. 2006). In this model each personality factor consists of six components those points to its different covered characteristics. There are different factors that might influence these five personality aspects some of which could be gender, social roles, family upbringing, age, genetics and its related hormonal features and even person's sport preferences (Mohammadi, 2008). As a result, a wide range of conducted researches in the field of sport psychology have studied the different personality traits between athletes and non-athletes, whereas none of these researches have studied the differences between athletes and non-athletes using the five-factor personality criterion, and even if they have used this model their samples were not among athletes and non-athletes. Related to this point, Kajtna et al. (2004) via the personality five-factor criterion studied the personality of high-risk sport athletes (Alpine mountain climbing, ski, paragliding, white water rafting, mountain biking, motorcycling, ski jumping and extreme skiing) and that of low-risk sport athletes (swimming, track and field, sailing, mountain climbing, Nordic ski, karate and flat water rowing) and found out that high-risk sport athletes gained higher scores in their emotional stability while their scores in such factors as conscientiousness and openness to experiences were lower in comparison with low-risk sport athletes. Also, in agreeableness there was not any difference between these two groups. Although the aforementioned research has been done using the five personality factor model, quite against the present study it has not studied the differences between athletes and non-athletes. In another research Filho et al. (2005) studied the personality traits of Brazilian non-athletes and talented athletes (volleyball, basketball, judo and swimming). The result of their study showed that athletes in four personality traits including lawsuit, health concerns, frankness and irritability had higher scores while in emotional prevention, bad-temper or petulance, rape or affront and impatience received lower scores. Also Besharat's (2007) study indicated that in comparison with team-sport athletes, the individual sport athletes have higher Conscientiousness and self-following while in comparison with the same group have lower agreeableness and sociability. Nikbakhsh (2008), too, showed that professional basketball players whose number of being absent is more than others in sociability, agreeableness, and Conscientiousness have lower scores comparing with other players. In this model the five-factor personality model has been used.

As it can be observed the personality traits between athletes and non-athletes have been studied, but in none of them five-factor personality criterion have been used to compare the differences between athlete and non-athlete groups, whereas most of psychologists believe that the main structure of human's personality could be identified using five-factor personality criterion (Mohammadi, 2008). Furthermore, when the five-factor personality criterion was used, the differences between athletes and non-athletes were not the basis of the conducted research. Therefore, studying the differences between athletes and non-athletes using the aforementioned model seems crucial.

RESEARCH METHODOLOGY

Participants

The participants of the present study were 263 male athlete students (mean = 23, SD 2.5) and 263 male non-athlete students (mean = 23, SD 2.5).

MATERIALS AND METHODS

The present study is a causative-comparative research. The primary data of this study was collected as a field research using NEO-FFI inventory (the short and revised inventory of five big personality factors) that was prepared by Costa and McCrae (1992). The validity of NEO-FFI personality inventory standard, in Costa and McCrae research (1992), for quintuplet indexes of neuroticism, extraversion, openness to experiences, agreeableness and Conscientiousness were alternatively 85%, 78%, 87%, 90% and 83%. Besides, for assessing the stability of indexes and the amount of internal consistency of items, that form indexes, first 30 inventories, before the main ones, were completed by
30 athlete and non-athlete students, among the aforementioned groups, then the internal items that formed indexes were assessed using Cronbach's alpha and after making sure of appropriate stability of indexes they were used collecting data. The amount of Cronbach's alpha in all indexes in this study was beyond 79% that is acceptable.

**DATA PROCESSING**

For analyzing the data, after making sure of the normality of data distribution using Kolmogrov-Smirnov test, Multivariate Analysis of Variance (MANOVA), at the significance level of 0.05 was used in order to determine the differences between the study groups.

Table: The Study of Mean Difference between Research Groups in the Personality Trait of Neuroticism

<table>
<thead>
<tr>
<th>Circumstantial evidence/factor</th>
<th>Sum of Squares (Type III)</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F amount</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>neuroticism</td>
<td>73.034</td>
<td>1</td>
<td>73.034</td>
<td>54.771</td>
<td>0.001</td>
</tr>
<tr>
<td>extraversion</td>
<td>54.943</td>
<td>1</td>
<td>54.943</td>
<td>75.437</td>
<td>0.010</td>
</tr>
<tr>
<td>openness to experiences</td>
<td>4.945</td>
<td>1</td>
<td>4.945</td>
<td>2.862</td>
<td>0.091</td>
</tr>
<tr>
<td>agreeableness</td>
<td>72.291</td>
<td>1</td>
<td>72.291</td>
<td>58.83</td>
<td>0.001</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>75.350</td>
<td>1</td>
<td>75.350</td>
<td>11.018</td>
<td>0.022</td>
</tr>
</tbody>
</table>

**RESULTS AND FINDINGS**

The results of Multivariate Analysis of Variance (MANOVA) (table 2) showed that between athlete and non-athlete students in their factors of neuroticism (F= 54.77, p= 0.001), extraversion (F= 75.43, p= 0.010), agreeableness (F= 58.83, p= 0.001), and conscientiousness (F= 11.02, p= 0.022) there is significant statistics difference. The obtained means in each factor for athlete and non-athlete students showed that athlete students in three factors of extraversion, agreeableness, and openness to experiences have higher levels than the non-athlete ones, while in neuroticism they have lower level.

**DISCUSSION AND CONCLUSION**

This research has been done to study five personality factors of neuroticism, extraversion, and openness to experiences, agreeableness and conscientiousness between Razi University male athlete and non-athlete students. The result of this study has shown that athlete students are more extrovert than non-athlete ones. These findings are compatible with the obtained results of Boot (1987), Cox (1994), Sant-Phard et al. (1999), Marsh et al. (1991), Weinberg and Gold (1995), Dobosz and Beity (1999), Mahmoodi (2008) and Fazel (2011). But Evil et al. (1993), Backmand et al. (2001), Etemad-Nia and Besharat (2010), Shekarchizadeh and Karimian (2010), Sohrabi and Atashak-Loo (2011) pointed out that there is no difference between athlete and non-athlete students in their personality trait of extraversion.

In their personality trait of neuroticism, athletes had lower levels than non-athlete. Beckmand et al. (2001), Dobosz and Beity (1999), Dineen (2003), and Mahmoodi (2008) showed that neuroticism in athletes is less than non-athletes, while Etemad-Nia and Besharat (2010), Shekarchizadeh and Karimian (2010), Sohrabi and Atashak-Loo (2011) did not notice any difference between athletes and non-athletes in their neuroticism. Despite this Fazel (2011) showed that athletes are in a higher level in neuroticism than non-athletes.

Furthermore, in their personality trait of conscientiousness and agreeableness, athletes have higher levels than non-athletes. Shekarchizadeh and Karimian (2010) showed that there is no difference between athletes and non-athletes in their conscientiousness and agreeableness. Besides, Lernieux et al. (2004), and Fazel (2011) showed that there is no difference between athletes and non-athletes in their agreeableness which is incompatible with the results of the present study. Kajtena et al. (2004) showed that high-risk sport athletes achieved lower scores in their conscientiousness comparing with low-risk sport athletes.

Etemad-Nia and Besharat (2010), too, believed that individual sport athletes were better in the personality trait of conscientiousness, while team sport athletes were better in their agreeableness. In addition, Fazel (2011) showed that athletes have higher level of Conscientiousness that is compatible with the present study.
Another achieved result of the present study is the lack of significant statistics difference between these two groups in their openness to experiences. These results are compatible with those of Skekchizadeh and Karimian (2010), and Etemadnia and Besharat (2010). Despite this, the review of between research groups, the chosen sport, gender, personality traits, and lower scores in negative ones in comparison with non-athletes. These findings show the necessity of paying more attention to sport and physical exercises. Usual taking part in such activities could improve personality traits. In spite of this, it is important to remind that the present study has limited studying personality differences between athletes and non-athletes to the critical lenses of sport and physical exercises, therefore, getting sure of this claim whether athletes' personality traits are shaped because of such activities or they are independently shaped without interference of sport is a question that needs experimental researches.

REFERENCES


Habibian, M. The Comparison of Tension in Female Athlete and Non-Athlete Students, M.A. Thesis. Tehran Azad University of Central Branch


Mahmoodi, N. The Study of Relationship Between Five Personality Factors of Athletes Exercise Amount and Their Performance in Wrestling and Football. M.A. Thesis of Ardebili Researcher University. Faculty of Letters, Department of Psychology.

Mohammadi, Z. The Relation of Five Significant Personality Factors and Leadership Method with Educational Services Efficiency in Principals Of Islam-Abad High Schools and Guidance Schools. the M.A. Thesis in General Psychology. Isfahan University, Faculty of Educational Sciences and Psychology.


Nikbakhsh, R. The Relation Between Personality Traits (Five Factor Model) of Professional Basketball Players and Their Amount of Being Absent From Exercises. The Ph.D. Dissertation of physical education and sport sciences. Tehran Azad University the south Branch


