



Comparison of Personality Characteristics of Athletes in Team and Individual Sport

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Abstract

Objective: In this study, personality characteristics of neuroticism, extraversion, and openness to new experiences, consensus, and task of male and female athletes were compared in team and individual sports.

Methods: 160 athletes (13 athletes dropped out) were selected from professional athletes in two disciplines (75 men: 39 men and 36 women) and group (72 men: 41 men and 31 women) in Kerman province. The athletes were asked to complete the NEO-FFI questionnaire for 60 questions. For data analysis, descriptive statistics including mean and standard deviations and inferential statistics: independent t-test were used.

Results: The findings of the study showed that the athletes' score in group sports in agreement, extraversion and task is significantly higher than individual sports. Individual athletes had a high risk of neuroticism, and athletes had a lower score than men in all of the components except for neuroticism.

Conclusion: It can be concluded that personality characteristics of male and female athletes and team and individual athletes are different. It is hoped that this research will be conducted in different ages, communities and disciplines, and the results will be reported.

Introduction

Examining the relationship between sport and personality traits is another field of research (Tafti, Pakdaman, & Asgari, 2008), but few studies have been done on the psychological mechanisms of personality traits on health behaviors (Bermúdez, 1999; Hoyle, 2000). Although little evidence exists to support the existence of a specific sports personality, the personality characteristics of the elite athletes are different from those of non-athletes as well as those related to each discipline

(Gill, 1986). Cologne 2013 believes that sporting success in any race and discipline is not possible without proper mental state (Kleanthous et al., 2013). Galway 2012 stated that many factors, such as learning problems, educational levels, age, gender, and personality characteristics, are generally effective in determining the success of most exercises. (Galloway, 2010) In addition, the study of Mary I of 1940 showed that motor ability is related to personality traits (Merriman, 1960).

In the last two decades, the Five Factors (NEO-FFM) have transformed character into a dominant psychology pattern (Allik, 2002). The 5-factor model of personality includes aspects of neuroticism, extroversion, experience, consensus, and conscientiousness. Neuroticism, the sensitivity of the sensation lies in a wide range of emotions and negative feelings such as discomfort, irritability, tension, and so on. The openness of experiences is related to the depth and complexity of the thoughts and minds and experiences of that person (Saulsman & Page, 2004). Task or conscience consists mainly of targeted behavioral attributes and impact control in a way that is socially acceptable (McGhee, Ehrler, & Buckhalt, 2007). Extraversion and an agreement that is related to personality behaviors is a person's identity (Fruyt, McCrae, Szirmák, & Nagy, 2004).

Research studies (Conner & Abraham, 2001; Courneya, Bobick, & Schinke, 1999; Courneya & Hellsten, 1998; Fruyt et al., 2004; Marks & Lutgendorf, 1999; Rhodes, Courneya, & Bobick, 2001) have investigated the relationship between the 5-factor model of personality and athletic activities that sport activity with less neuroticism, extraversion and task. Several researches in the context of the 3D model of personality have shown that exercise activity with one or more personality dimensions is more correlated with neuroticism and lower psychosis and extraversion (Davis, Elliott, Dionne, & Mitchell, 1991; Davis & Fox, 1993; Fruyt et al., 2004; Potgieter & Venter, 1995; Yeung & Hemsley, 1997). Having different degrees of personality traits affects emotions,

feedback, and behaviors, for example, those who score in the neuro-psychiatric dimension more than the softness, are more readily prepared to experience the thrill of fear, sadness, confusion, anger and guilt are (Bolger & Schilling, 1991; David, Green, Martin, & Suls, 1997; Watson & Clark, 1992).

There is a significant difference between psychological skills and the motivation for sport success between two groups (individual and team), but there is no significant difference in emotional intelligence between two groups (individual and team) (Kajbafnezhad, Ahadi, Heidarie, Askari, & Enayati, 2011). Today, sports psychologists recognize the athlete's athletic success in relation to their personality (Lopez & Santelices, 2012) Avilli et al., 1993, concluded that there was a positive relationship between the personality and the athlete's functional aspects (Vanden Auweele, De Cuyper, Van Mele, & Rzewnicki, 1993). And even the instructors initially identified players based on The psychological list of their capabilities to predict success (Horn, 2008). Studying the recognition of personality characteristics of athletes, both individual and team, enables sports psychologists and trainers to provide the best advice in finding talent. Materials provided by the research need to be conducted. Accordingly, the main purpose of this study is to analyze and identify personality characteristics of athletes in team and individual sports (Handball and Ping Pong).

Method

The statistical population of this study was 160 people and were optimistically comparable that 13 of the questionnaires were excluded from the statistical society due to lack of correct completion, selection of more than one option, and failure to submit it. This study was conducted on adult Handball players and professional ping-pong players in Kerman province in 1996, in which 72 handball players (31 girls and 41 boys) and ping-pong (75) (36 boys 39 boys) were involved. The age range of athletes was between 18 and 30 years old. Measurement tool for Athletes' personality NEO-FFI 60 questions to measure 5 nonlinear factors, extraversion, experience, consensus, and task based on Likert scale (I totally disagree, to totally agree). The reported alpha coefficient of the five-factor NEO-FFI questionnaire by McGeery and Costa was between 0.44 and 0.89 with a mean of 0.81 (Costa & McCrae, 1992). The alpha coefficient for neuroticism is 0.85, extraversion 0.78, openness to experiences 0.87, agreement of 0.90 and for conscientiousness or conscientiousness of 0.83, indicating a high internal consistency of the questionnaire (Costa & McCrae, 1992). This questionnaire was translated by Dr. Grossi Farshi in Persian and standardized for

Iranian students. In Iran, the reliability coefficient for routine components was 0.83, extraversion 0.75, experiencing 80.0, agreement 0.79, and conscientiousness 79/9 (Garusi, 1998).

Descriptive statistics including mean, standard deviation, and for comparison between groups of independent t-test were used.

Results

Table 1 shows the mean and standard deviations of athletes' scores for personality characteristics of neuroticism, extraversion, openness, consensus, and conscientiousness.

Independent t-test was used to compare the scores of personality traits such as neuroticism, extraversion, and openness of experiences, agreement and attitude of athletes in individual and group exercises. The results of t-test showed that the score of athletes in individual exercises in the variables of neuroticism and openness of experiences was significant ($P < 0.05$) more than the score of athletes in group sports in these variables. These results also showed that the score of athletes in group sports in extraversion, agreement, and conscientiousness variables was significantly ($P < 0.05$) higher than that of individual athletes in these variables (Table 2).

Table 1. Average and standard deviations of personality traits scores of neuroticisms, extraversion, openness of experiences, Agreeableness and conscientiousness of athletes in individual and group sports.

Index/ Variable	All sports M (SD)	Group sports M (SD)	Individual sports M (SD)
Neuroticism	21.41 (6.87)	19.79 (7.20)	22.96 (6.19)
Extraversion	28.65 (5.88)	29.72 (5.49)	27.61 (6.08)
Openness	25.07 (4.78)	23.18 (4.69)	26.89 (4.13)
Agreeableness	30.60 (6.00)	33.24 (5.21)	28.07 (5.62)
Conscientiousness	35.32 (5.72)	36.35 (5.27)	34.33 (6.00)

Table 2. T-test results for comparing the scores of personality traits of neuroticism, extraversion, and openness of experiences, agreement and task of athletes in individual and group sports

Variable	Index/ Group	N	M	SD	df	T	P
Neuroticism	Individual sports	75	22.96	6.19	145	2.86	.005
	Group sports	72	19.79	7.20			
Extraversion	Individual sports	75	27.61	6.08	145	-2.20	.029
	Group sports	72	29.72	5.49			
Openness	Individual sports	75	26.89	4.13	145	5.09	.000
	Group sports	72	23.18	4.69			
Agreeableness	Individual sports	75	28.07	5.62	145	-5.77	.000
	Group sports	72	33.24	5.21			
Conscientiousness	Individual sports	75	34.33	6.00	145	-2.15	.033
	Group sports	72	36.35	5.27			

In this study, the scores of personality characteristics of neuroticism, extraversion, openness of experiences, agreement and attitude of athletes among female athletes and male athletes were compared. Independent t-test was used for evaluation. The results of t-test showed that male athlete's score in extraversion variables, openness of experiences, agreement, and conscientiousness

are higher than female athletes in these variables. These differences were significant only in extraversion variables, openness of experiences and agreement ($P < 0.05$). Also, female athletes score was significantly ($p < 0.05$) higher than that of male athletes in the variable in neuroticism (Table 3).

Table 3. Results of t test for comparing the scores of personality characteristics of neuroticism, extraversion, and openness of experience, agreement and task of male and female athletes.

Variable	Index/ Group	N	M	SD	df	T	P
Neuroticism	Male athletes	80	20.33	6.84	145	-2.11	.036
	Female athlete	67	22.70	6.72			
Extraversion	Male athletes	80	29.91	5.69	145	2.92	.004
	Female athlete	67	27.13	5.87			
Openness	Male athletes	80	25.81	4.71	145	2.06	.041
	Female athlete	67	24.19	4.75			
Agreeableness	Male athletes	80	31.78	6.13	145	2.65	.009
	Female athlete	67	29.19	5.55			
Conscientiousness	Male athletes	80	36.11	4.92	145	1.80	.074
	Female athlete	67	34.37	6.47			

Discussion

The findings of the study showed that the mean scores of athletes in the personality characteristics of extraversion and task is relatively more and in neuroticism less than the average score of non-athlete subjects reported in other studies. This research finding, which is consistent with earlier

studies (Conner & Abraham, 2001; Davis et al., 1991; Davis & Fox, 1993; Fruyt et al., 2004; Potgieter & Venter, 1995), is expressed as follows: exercise has provided not only happiness, vitality, liveliness, more activity but also less fear anxiety, depression, and discomfort (Bolger & Schilling, 1991; David et al., 1997; Watson & Clark, 1992).

These findings are related to the personality traits of routine and extraversion that are more common in athletes than non-athletes (Haghi, 2014) and increase their participation (Kökény, 2018). These findings can be explained by the fact that personality components add more extraversion and less personality roles in sporting activities. And so, people who go into sports, whether in groups or individually, provide a platform for the dynamics and realization of these features.

In the case of more agreeable team sports athletes, compared to individual sports athletes, one of the findings of the present research is that trust is one of the components of the agreement. Trust as a personal relationship helps people to rely on others and expand interpersonal relationships and activities, in addition to be willing to participate actively in group and community relationships and activities more easily and reliably. Group exercises are one of the most suitable areas for realizing this feature. On this basis, it can be said that an agreement in terms of individual trust is more conducive to group exercise, and this justifies the agreement between the athletes of the group's sports in comparison with the agreement of the individual athletic players. Another aspect of agreement is adherence. This component enables a person to get closer to others. This attributes the individual's personality to group activities, and this justifies the difference in agreement between athletes in individual and team sports. Friendship is also another component of an agreement that prepares a person for helping and loving others, and prepares a person to help his

or her own group and group activities. Therefore, these personality traits are not satisfied with individual sports, and requires a context like group sports, and these statements are aligned with the findings of this research and Besharat (2010). All three components of the agreement, namely, altruism, adherence, and trust in the form of an agreement, reinforce participation in team activities, and lead individuals to choose team sports instead of individual exercises.

In this research, the athletes in group sports scored higher than those in individual sports in extroversion, which is incompatible with the research of Colley (1985) and with the research of Nia (2010) and Kshetrimayum (2017) (Kökény, 2018; Kshetrimayum, 2017; Nia & Besharat, 2010). In explaining this, it can be said that sporting activities provide a good environment for individuals to get extroverted and to communicate with each other. In conscientiousness, athletes in group sports scored higher than those in individual sports. This component can be explained by the fact that sport, with the help of teamwork and group work, identifies the tasks of each individual, and the athlete learns conscientiousness by participating in it. In fact, the athlete's conscientiousness is indispensable for the success of group sports. But in terms of neuroticism and openness of experiences, athletes in individual sports gain high scores in comparison to group sports (Nia & Besharat, 2010).

This explains the findings that in group sports, people are more extroverted and agreeable, and less open to experiences and less neurotic.

Extroverted athletes who are emotionally stable and welcome new experiences have reported that they are better off using coping strategies to solve their problems. Athletes who are conscientious, open to experience and agree with others have been reported to have a better coping strategy to focus on, and athletes who have a low or lower level of openness to experiences and or a high score of neuroticisms has been reported that avoid coping strategies. Different personality characteristics are observed between male and female athletes or teams and individuals who have a high or low score. The NEO 5-person personality model can help determine the levels of athletic conflicts or participation in a sport program (Allen, Greenlees, & Jones, 2011).

Conclusions

Differences in personality characteristics of men and women also show that male athletes are more extroverted, agreeable, open to experience, and conscientious than female ones, and females are more likely than males to have a higher score in neuroticism. These findings justify the participation and success of males in sport more than females.

The findings of this study will be useful for different reasons for sport psychology. At the scientific level, recognizing personality traits for decision making and investing and choosing a sports discipline will be useful to sports psychologists, coaches, and athletes. Also, the development of interventional programs to change the necessary attributes affecting further fitness

training based on these findings is also the result of scientific research. It is hoped to look at this issue from the aspects of age, community and in different field and disciplines.

Limitations and delimitations

One of the limitations of this research is the lack of simultaneous examination of possible intermediary variables.

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