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The association between personal characters (Extroversion, Introversion) and emotional intelligence with choose type of sport (team and individually)

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ABSTRACT

This study investigated the association between personal characters (extroversion and introversion) and emotional intelligence with choose type of sport (team and individually) in adolescent girls. 100 adolescent female athletes (50 individually athlete, 50 team athlete) participated in this study. Schutte emotional intelligence and Eysenck personality questionnaire were used to assess the emotional intelligence and personality type. Independent t test and Pearson correlation test was used for data analyses. The results showed that team athletes are more extroverted than individually athlete. Also this study revealed that there is no significant difference between team and individually athlete in emotional intelligence and its sub-scales (emotional adjustment, emotional assessment and expression, use of emotional and social skills). The results also showed that there was no significant relationship between extroversion, introversion and emotional intelligence and its sub-scales.

Key word: Personality, Introversion and Extroversion, Emotional intelligence, Team and individually athlete

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INTRODUCTION

Character traits are no doubt one of the main areas of investigation in psychology. Since these traits constitute the underlying behavioral tendencies in the individuals, they may shed light on certain aspects of the individual's performance [14]. Besides, emotional intelligence (EI) is a personality factor that is the most recent development on the relationship between thought and emotion [14]. There are different models and approaches to study personality as a general pattern of physical structure, behavioral characteristics, talents and interests, abilities, orientations and other enduring characteristics. A common model is the characterization of human personality as extrovert and introvert, which was first introduced by Carl Jung (1913) [2]. These two categories of personality constitute two important aspects of human character. Extroverts have higher-than-normal mental speed of processing so that they need less-than-normal energy for activities. They bear mentalistic and inner-centered orientations and show disregard for socialization [12]. Introverts, however, have less-than-normal mental speed of processing so that they need higher-than-normal energy to manage their routines. They wish to influence their environment, compete with others and appear in public [12].

Social and emotional skills and competencies affect the quality of social relations and achievements [7]. People with low EI have difficulty evaluating and expressing their emotions, regulating their emotional experiences and utilizing their emotions to guide their behavior [15]. EI in sports has drawn attentions as a new approach to managing emotions in the athletes and correcting their behaviors. Most researchers, coaches, sports directors and athletes acknowledge the effect of emotions on athletic performance either before, during or after the competitions. Many an athlete attributes their success or failure to emotional factors [14]. Emotions and coping methods constitute part of human characteristics [16]. Room among the levels of education, junior high school, as the outset of puberty, entails all the expressions of puberty including independence, responsibleness, discipline and formation of personality. In

this stage, adolescents gradually develop from childish into adult-like behavior, and, on entering individual and social activities, they incline either towards extroversion or introversion [10]. Besides, emotional experiences and coping strategies used to deal with the events determine adolescents' competence in coping with individual and social issues considerably [7]. At this stage of life, peer groups are considered as the main channel of social activities that the adolescents aspire to selectively join [6].

Psychologists have always sought to identify different personality traits in the athletes doing different sports [10]. As an important factor in sports activities, EI has attracted the attention of many scholars [17]. Hallaji (1997) compared personality traits among elite athletes doing swimming, wrestling, soccer and basketball [4]. He reported that the athletes did not significantly differ in terms of extroversion and psychosis. However, Aslankhani et al. (2008) studied the relationship between EI and personality factors in adult elite and non-elite athletes and reported that there was a more significant positive correlation between EI and extroversion, responsibleness and adaptability in the elite athletes comparing with non-elites [1]. Saklofske (2007) showed that there was a positive correlation between exercise training with extroversion and EI but a negative correlation between training and psychosis [18]. The results showed that EI mediates between personality and training. The findings also revealed a positive correlation between EI and regular or designed training. Andrew et al. (2010) investigated the role of EI before the competition as it caused optimal athletic or poor performance in the athletes. They measured two emotional states before the competitions: emotions experienced before optimal performance and emotions experienced before poor performance [20]. Baljinder (2011) studied EI factors and their influence on athletic performance in open-skill soccer players and closed-skill gymnastics athletes. The results showed a significant difference in such factors as self-expression, thought and personal control between open-skill and closed-skill athletes. The results suggested that EI is an important construct in sports [22]. Sports psychologists have found that athletes with stronger understanding, identification, regulation and expression of emotions enjoy more efficient athletic performance [25,26]. On the other hand, personality is an important factor in choosing a sport, which may determine the individual's future career as an athlete and become a basis for talent development in adolescents. Considering the fact that EI and personality, as internal factors, can help the individual manage stress in exposure to frustration and unpredicted situations during competitions and concerning the scarcity of research on EI in sports [21], the present study aims to investigate the relationship between extroversion, introversion, EI and its subscales with selection of the type of sports.

MATERIALS AND METHODS

The population of the study consisted of all adolescent female students, aged 12-15, in Qom province. A number of 70 students participated in the study and assigned into a team-sports group (N=35) or an individual-sports group (N=35). A demographic data sheet, Eysenck Personality Questionnaire (EPQ) and Schutte Self-Report Inventory (SSRI) were used to collect the data. Eysenck Personality Questionnaire was developed in 1963 to measure some aspects of personality including extroversion and introversion as well as some personality disorders such as mental breakdown and anti-social behavior in different age groups. The scale consisted of 48 items and was later developed into its current form. Eysenck offers two types of tests, one for children and adolescents, aged 7-15, and one for individuals 16 years old and over [13]. Either form was used in the present study so that the children and adolescent's version was used with the students younger than 16 years old and adult version was used with 16 year-old students. Eysenck administered the questionnaire twice to the same group of participants with a time interval to examine the reliability of the scale. The reliability coefficients of extroversion and introversion for men and women were calculated to be 0.90 and 0.85, respectively, using Cronbach alpha formula. Moreover, using test-retest method, Eysenck administered the scale to a sample of 230 participants and reported the reliability coefficients of extroversion and introversion for men and women to be 0.83 and 0.89, respectively [27]. Administered to an Iranian sample, the reliability of the scale was calculated to be 0.92 using test-retest method over a two-month interval, which indicates the high reliability of the scale.

Schutte Self-Report Inventory (SSRI) was developed in 1998 based on Salovey and Mayer's theoretical model (1990). Schutte et al. (1998) analyzed the scores of a number of 316 respondents using factor analysis and principal component analysis and found four major factors [29]. The first factor (examined by SSRI) consists of 33 items with equity of 79.10. The 33 items in the SSRI that examined the first factor illustrated Salovey and Mayer's model of EI (1990). The scale consists of three subscales including appraisal and expression of emotion, regulation of emotion and utilization of emotion [28]. The respondents answer the items on a 5-point Likert scale, ranging from strongly disagree [1] to strongly agree [5], the sum total of which indicates the individual's raw score and EI score on every subscale. The same procedure was followed in the present study so that the total EI score was calculated as the sum of scores on every subscale. Besides, the questionnaire was also developed on a further 5-point Likert scale ranging from absolutely wrong [1] to absolutely right [5]. The scoring was performed on either scale.

A demographic data sheet was also used to collect the data, which examined the individual's name, age, type of sport, sports history, name of the club and school. The participants were allowed to complete the data sheet anonymously.

Data analysis

Since the method of the study was correlational and causal-comparative, Pearson correlation formula was used to examine the correlation between predicting and criterion variables, and independent t test was run to examine the differences.

RESULTS

Table 1. Comparison of extroversion and introversion between individual- and team-sport athletes

Groups	df	T	(p)
Team athletes Individual athletes	98	3/999	0/000

As shown in the table, there is a significant difference in extroversion between individual- and team-sport athletes (t=3.999, P=0.000) so that team-sport athletes are more extrovert than individual-sport athletes are.

Table 2. Comparison of EI and its subscales between individual- and team-sport athletes

Team and Individual Athletes	df	T	p
Total Emotional Intelligence	98	1/799	0/075
Regulation of Emotional	97/75	1/937	0/056
Appraisal and Expression of Emotion	98	1/111	0/269
Social Skills	97/8	1/018	0/311
Utilization of Emotion	98	1/005	0/318

As illustrated in the table, there is no significant difference in EI and its subscales (regulation of emotion, appraisal and expression of emotion, utilization of emotion and social skills) between individual- and team-sport athletes**.**

Table 3. Correlation between extroversion and introversion with EI and its subscales in groups

Individual Athletes	N	R	p
Total Emotional Intelligence	50	0/244	0/088
Regulation of Emotional	50	0/235	0/100
Appraisal and Expression of Emotion	50	0/120	0/405
Social Skills	50	0/172	0/232
Utilization of Emotion	50	0/082	0/571

The results show no significant relationship between introversion and extroversion with EI and its subscales in the individual-sport athletes**.**

Table 4. Correlation between extroversion and introversion with EI and its subscales in team-sport athletes

Team Athletes	N	r	p
Total Emotional Intelligence	50	0/119	0/410
Regulation of Emotional	50	0/235	0/100
Appraisal and Expression of Emotion	50	0/132	0/360
Social Skills	50	-0/018	0/901
Utilization of Emotion	50	-0/015	0/918

As shown in the table, there is no significant correlation between introversion and extroversion with EI and its subscales in the team-sport athletes**.**

DISCUSSION AND CONCLUSION

The present study was conducted to investigate the relationship between extroversion and introversion in individual- and team-sport athletes. The results showed that team-sport athletes were more extrovert than individual-sport athletes were. The present findings correspond to several past studies. Eagleton et al. (2007) reported that team-sport athletes obtained higher extroversion scores and lower psychosis scores comparing with individual-sport athletes. They showed that individual-sport athletes had higher self-confidence, introversion and independence comparing with team-sport athletes [19]. The present findings showed that both individual- and team-sport athletes were often more extrovert than introvert. However, the team-sport athletes obtained higher extroversion scores and were

regarded as more extrovert, presumably due to the particular effect of team sports that engages the individual in a small community and contributes to social growth in the students.

Elis (1973) contends that, in team sports, reciprocal roles are realistically linked together, self-confidence increases and exhaustion and fatigue decrease in the individual [30].

Lewis et al. (1998) assert that group and sports activities and school recreational programs contribute to social growth in the students [24]. On the other hand, extroverts are thought to show greater tendency to group works due to such particular characteristics as good adaptability to the environment, higher attention to the external world, sociability and good social relations [8].

In the present study, both individual- and team-sport athletes were compared in terms of EI and its subscales. The results showed no significant difference between the two groups of athletes. This is partly consistent with the findings of Saklofske et al. (2007). They reported that there was no significant difference in interpersonal intelligence, as part of EI, between individual- and team-sport athletes; however, team-sport athletes were found to have higher levels of interpersonal intelligence [18]. This is inconsistent with the present findings. Perlini and Halverson (2006) compared EI between elite super-league hockey players and non-athletes and reported that hockey players had higher levels of EI. They found a positive correlation between EI and athletic performance during the game. They also reported that EI could function as a good predictor of athletic performance [23].

Since the present study was conducted on adolescents, ranging in age from 12 to 16, the age range and particular characteristics of these students might have resulted in differences between the present and a number of previous findings. To account for this, a few points are worth mentioning. First, research on adolescents has yielded interesting results. Researchers contend that people give contradictory descriptions of themselves in early adolescence. For example, a 12-14 year-old adolescent may describe him/herself as astute, strong and brave on the one hand, but shy, timid and coward on the other hand. This inconsistency between the epithets that adolescents attribute to themselves may be the result of social pressures to display different modes of the self in relation to the coach, teammates, classmates and parents. In middle adolescence, wider experience and abstract thinking allow the individual to incorporate their different characteristics in an organized system, which indicates their awareness of physical and mental changes they experience. In late adolescence, the individual reaches synthetic principles, relishes higher levels of understanding and eliminates their contradictory descriptions of the self [5]. Consistent with the findings of Latif Abadi (2000), the present findings also showed considerable variability in EI scores in 12-14 year-old adolescents while this variability was not conspicuous among 15-16 year old adolescents. Thus, if we agree Latif Abadi, we should also consent that comparison of EI among the adolescents may not provide accurate information.

Second, recent studies show that both intrinsic and acquisitive factors contribute to emotions and can be considered as the developmental determinants of emotions. However, the expression of emotions varies as experiences, social milieu and culture vary [9]. Therefore, the insignificance of the difference in EI and its subscales between the two groups may relate to the fact the participants were not trained in EI skills. Third, the high variability of scores among 12-14 year-old participants may indicate that students could not understand the meaning of items and answer appropriately due to the conceptual nature of items and their Likert scoring system.

The results revealed no significant correlation between extroversion and EI and its subscales. Saklofske (2007) reported a positive correlation between exercise training with extroversion and EI but a negative correlation between training and psychosis. He reported that EI mediated between personality and training [18]. Aslankhani et al. (2008) reported a positive correlation of EI with extroversion, responsibleness and adaptability in elite athletes [1]. Since no previous study has examined these variables in adolescents and considering the particular characteristics of adolescence, the lack of correlation between extroversion and introversion in the adolescents may be attributed to a number of reasons. For example, research has shown that extroversion and introversion, as part of personality traits, develop since childhood and are commonly influenced by culture, society, family and genetics. Eysenck (1990) contends that personality is mainly determined by genetics though he does not overlook the effect of environmental factors such as family interactions in childhood on the development of personality [11]. We may claim that extroversion and introversion are minimally influenced by training. However, it has been proved that training certainly influences EI though we cannot deny the effect of environment, culture and family on EI in the individual. In this regard, it may seem logical not to find a significant correlation between EI and its subscales with extroversion and introversion, particularly in adolescents.

Research in psychology and humanities usually entail limitations that may be removed over time through utilization of expert opinions. The present study also entails limitations, and further studies may be required due to the critical importance of adolescence.

REFERENCES

[1] Aslankhani MA. *Journal of Human Movement Sciences*, **1999**, 1, 3-11.
[2] Camp S, Applied social psychology Mashhad: Qods Razavi Publications, **1991**
[3] Goudarzi M, Hemayat Talab R. *Journal of Sport Science Research*, **2007**, 15.
[4] Hallaji M. Investigation and comparison of personality traits in elite male athletes of swimming, wrestling, soccer and basketball in Tehran sports clubs. Unpublished M.Sc thesis, Tehran University, Tehran, Iran. **1997**
[5] Latif Abadi H. Applied children and adolescent developmental psychology. Tehran: Espid Publications, **2000**
[6] Mason H. Child development and personality Tehran: Nasher Center, **1991**
[7] Mohammadi SD. Ghorabi B. Relationship between behavioral disorders and EI in students. Journal of Kerman Medical University, **2007**, 14,4.
[8] Noori M. Personality growth and development (2nd ed.). Karaj: IAU Publications. **1993**.
[9] Parsa M. Psychology of motivations and emotions. Tehran: Sokhan Publications. **1997**.
[10] Rahmati M. Proceedings of the second conference on physical education and health. Department of physical education, Education Organization, Qom: Chaff Publications, **2007**, 76-77.
[11] Schultz D., Schultz SA. Theories of personality, IAU Publications (Original work published **1994**). 1996.
[12] Sharifi Daramadi P., Aghayar S. Emotional intelligence and sports. Tehran: Tarahan Image Publications. **2010**.
[13] Fathi Ashtiani A. Psychological tests: Personality and mental health.Tehran: Besat Publications, **2010**, 123-138.
[14] Hanin YL. Emotions in sport. Champaign, IL: Human Kinetics Martin, G. L., vause, Schwartzman, L., **2005**. experimental studies of psychological interventions with athletes in competitions why few? Behavior Modification, **2000**, 29-616-641.
[15] Taylor G., Baghy RM., & parker JD. Disorders of affect regulation: alexithymia in medical and psychiatric illness Cambridge, UK: Cambridge University Press. **1997**.
[16] Mayer JD. Emotional intelligence: popular or scientific psychology, A. P. R. Monitor, **1999**, 30, P:8.
[17] Singh Bal B., Singh K. Sood M., & Kumar S. *Journal of Physical Education and Sports Management*, **2011**, 2(5), 48-52.
[18] Saklofske D., Elizabeth J. Austin, Betty A. Rohr and Jac JW. Andrews. *J Health Psychol*, **2007**, 12; 937
[19] Eagleton JD., Mckelvie SJ., & de Man A. Extraversion and neuroticism in team sport participants, individual sport participants, and nonparticipants. Bishop's University, Sherbrooke, Québec, Canada. **2007**.
[20] Andrew M. Lane, et al, *Journal of Sports Science and Medicine*, **2010**, 9, 388-392.
[21] Labored S., Brüll A. Weber J., & Andddres LS. Trait emotional intelligence in sports: A protective role against stress through heart rate variability?. Personality and Individual Differences, Publisher: Elsevier Ltd, **2011**, 51, 1, 23-27.
[22] Perlini A., Halverson T. *Canadian Journal of Behavioral Science*. **2006**, 16, 337-347.
[23] Lewis T., sugai G., & colvin G. *School- psgchology*. **1998**, 1727:446-5
[24] Lane AM. Emotional intelligence research, positive thinking for sport.Tuning up performance – music and video as ergogenic aids. peak performance, **2006**, 228: 5-7 Electric Word plc.
[25] Lane A., Thelwell R., lowther J., & Davonport TJ. Emotional intelligence and Psychological skills use among athletes' *Social behavior and personality: an international Journal*. **2009**, 37, 2, 195_201 (7).
[26] Eysenck HJ., Eysenck SBG, Manual of the Eysenck Personality Questionnaire. London: Hodder and Stoughton, **1975**.
[27] Mayer J., Salovery P. What is emotional intelligence? New York: Basic Books. **1997**.
[28] Schutte NS. et al. Development and validation of a measure of emotional intelligence. Journal of Personality and Individual Differences, **1998**, 25, 17-1
[29] Ellis MJ. What people play? Englewood Gliffs, NJ: prentice-Hall, **1973**.