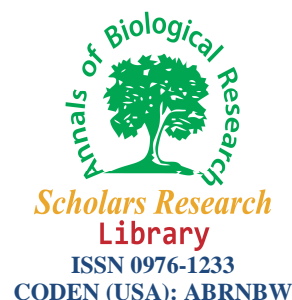




## Scholars Research Library

Annals of Biological Research, 2011, 2 (6):179-183  
(<http://scholarsresearchlibrary.com/archive.html>)



# A Comparison of Emotional Intelligence in Elite Student Athletes and Non-Athletes

Faezeh Zamanian<sup>1</sup>, Mina Haghighi<sup>1</sup>, Elham Forouzandeh<sup>2</sup>, Zahra Sedighi<sup>1</sup>  
and Mir Hamid Salehian<sup>3</sup>

<sup>1</sup>Department of Physical Education, Najafabad Branch, Islamic Azad University, Najafabad, Iran

<sup>2</sup>Department of Psychology, Naein Branch, Islamic Azad University, Naein, Iran

<sup>3</sup>Department of Physical Education, Tabriz Branch, Islamic Azad University, Tabriz, Iran

---

## ABSTRACT

The purpose of the present research was a comparison of emotional intelligence in elite athletes in several sports and non-athletes. For that matter, 160 women including 90 handball, futsal, and basketball players participating in 2009-2010 premier league (30 women in each group) and 70 non-athletes filled out the BarOn Emotional Quotient Inventory (EQ-i). This questionnaire consists of 15 subscales for an overall assessment of emotional intelligence. The results of statistical analysis showed that the subscales of problem solving, happiness, independence, stress tolerance, self-actualization, emotional self-awareness, interpersonal relationship, optimism, self-regard, impulse control, and empathy were significantly higher in athletes than non-athletes. Between-group comparisons revealed that there is a significant difference between handball players and all the other groups in the problem solving subscale. The non-athletes showed a significant difference from all the athlete groups in the happiness subscale. Emotional self-awareness of the handball players was significantly different from that of the non-athletes and basketball players ( $\alpha < 0.05$ ). Considering the above findings, we can say that emotional intelligence is higher in athletes than non-athletes, since they must constantly control and manage their emotions under different conditions of training and competition. Since emotional intelligence can be learned, it seems that participation in sports activities can be considered as a factor for developing this feature.

**Keywords:** Emotional intelligence, handball, basketball, futsal, non-athlete.

---

## INTRODUCTION

Emotional intelligence is an essential element of human behavior which acts independently and differently from cognitive intelligence [1]. Emotional intelligence has its roots in Gardner's interpersonal and intrapersonal intelligence [11]. The concept of emotional intelligence has

provided a new insight into human intelligence and it represents the emotional, personal, and social dimensions of intelligence which are often more important for daily activities and interpersonal competitions than the conventional, cognitive dimensions of intelligence [8]. Emotional intelligence is related to one's understanding of themselves and others, their relationship with others, and adaptation to their surrounding environment and these are necessary factors for coping with social and individual demands. Emotional intelligence is tactical (immediate functioning) while cognitive intelligence is strategic (long-term). Emotional intelligence makes prediction of success feasible, for it shows how one immediately employs their knowledge in a certain situation [12, 20]. Nowadays, by resorting to the theory of emotional and social intelligence, researchers are aiming to determine and predict success in achieving a high level of athletic and academic skills [2, 13, 7]. It is said that success and skill acquisition depends on several types of intelligence and emotional control. Bar-On (1999) and many other researchers are of the opinion that emotional intelligence can play a considerably more important role than general intelligence in helping the individual achieve success in various educational, occupational, social, and athletic domains. It is thus necessary to pay more attention to emotional skills [9]. In classical theories also emotion is considered as the factor that contributes most to disturbances in adaptive behavior and that is the reason why more emphasis is placed on it [15]. Resorting to emotional intelligence and knowing the skills are not enough for achieving success and research studies show that under at best, general intelligence can only determine 25% of success and 4% of success at worst. The rest depends on emotional intelligence, social intelligence, and chance. According to Stewart, emotional intelligence is a comprehensive schema of the individual's ability to achieve success. In fact, emotional intelligence can well explain the failure of an individual with high general intelligence and the unexpected success of an individual with average general intelligence in various stages of life [17].

During recent decades, emotion has been regarded as one of the basic, pivotal concepts in different contexts such as social relations, self-regulation, and mental health and has been the subject of numerous research studies, in particular developmental studies. Various studies have compared the predicting power of general intelligence (in its conventional sense) and emotional intelligence in different domains [4, 16, 6] and as well in sports [17, 10]. Since athletes are more prone to such situations, they seem to be different from non-athletes in this regard [17]. Therefore, the purpose of the present research is the comparison of emotional intelligence in elite athletes in several sports and non-athletes.

## **MATERIALS AND METHODS**

The present research is descriptive-comparative which makes a comparison between the emotional intelligence of handball, futsal, and basketball players and non-athletes.

### **Population**

The population of the present research consists of female high-school students of whom 90 student athletes in handball, futsal, and basketball engaging in national championship matches (30 subjects in each group) and 70 non-athlete students were randomly selected and filled out the standard Bar-On Emotional Quotient Inventory (EQ-i) [3].

### **Measurement Material**

The material of the present research is Bar-On Emotional Quotient Inventory (EQ-i). This questionnaire includes 15 subscales: problem solving, happiness, independence, stress tolerance, self-actualization, emotional self-awareness, reality testing, interpersonal relationship, optimism, self-regard, impulse control, flexibility, responsibility, and empathy which on the whole assess

emotional intelligence. Cronbach's alpha was used in the present research to determine the reliability coefficient of the questionnaire which was calculated as  $\alpha = 0.81$  and its validity coefficient was equal to 0.88.

### Method of Data Analysis

Independent t-test was applied for comparing the athlete and non-athlete groups and analysis of variance (ANOVA) was applied for comparisons made between different sports and non-athletes.

## RESULTS

In general, the athletes in all the sports showed a significant difference in emotional intelligence in comparison with non-athletes (athletes:  $328.82 \pm 30.27$ ; non-athletes:  $307.57 \pm 37.38$ ;  $\alpha < 0.05$ ). As can be seen in table 1, the score of athletes was significantly higher than non-athletes in the subscales of problem solving, happiness, independence, stress control, self-actualization, emotional self-awareness, interpersonal relationship, optimism, self-regard, impulse control, and empathy. Athletes and non-athletes showed no significant difference in the subscales of reality testing, flexibility, and responsibility. The non-athletes showed a significant difference in comparison with all the athlete groups in the subscale of happiness. Stress tolerance, self-actualization, and emotional self-awareness were significantly higher in handball players than non-athletes ( $\alpha < 0.05$ ).

Table 1. Emotional intelligence subscales in elite athletes and non-athletes (mean $\pm$ SD)

Subscales	Groups	Athletes	Non-Athletes
Problem Solving		23.05 $\pm$ 3.24	20.96 $\pm$ 4.31
Happiness		25.02 $\pm$ 3.07	20.68 $\pm$ 3.79
Independence		22.29 $\pm$ 3.99	19.85 $\pm$ 4.54
Stress Control		19.51 $\pm$ 4.07	17.96 $\pm$ 4.06
Self-Actualization		23.82 $\pm$ 2.82	22.07 $\pm$ 3.99
Emotional Self-Awareness		20.59 $\pm$ 3.09	19.68 $\pm$ 3.86
Reality Testing		19.05 $\pm$ 3.02	18.5 $\pm$ 3.23
Interpersonal Relationship		24.75 $\pm$ 3.51	23.92 $\pm$ 3.26
Optimism		23.19 $\pm$ 3.3	22.39 $\pm$ 4.56
Self-Regard		23.56 $\pm$ 3.44	22.42 $\pm$ 4.85
Impulse Control		15.8 $\pm$ 5.41	15.17 $\pm$ 4.81
Flexibility		19.44 $\pm$ 3.6	17.46 $\pm$ 3.65
Social Responsibility		24.83 $\pm$ 3.8	24.78 $\pm$ 3.48
Empathy		24 $\pm$ 3.78	22.96 $\pm$ 4.2
Assertiveness		19.9 $\pm$ 3.85	18.71 $\pm$ 4.23
Total		328.82 $\pm$ 30.27	307.57 $\pm$ 37.38

Moreover, handball players showed a significant difference in emotional awareness in comparison with basketball players (table 2). Mental flexibility of basketball players was significantly different from that of the futsal players (table 3). Between-group comparisons revealed that handball players are different from all the other groups in problem solving ( $\alpha < 0.05$ ).

Table 2. Comparison of emotional intelligence subscales in handball and basketball groups

Subscales	Groups	Handball (mean $\pm$ SD)	Basketball (mean $\pm$ SD)	P-Value
Emotional Self-Awareness		19.9 $\pm$ 2.1	24 $\pm$ 3.3	0.000

**Table 3. Comparison of flexibility in futsal and basketball groups**

Subscales	Groups (mean±SD)	Futsal (mean±SD)	Basketball (mean±SD)	P-Value
Mental Flexibility		14±3.9	17.7±3	0.02

## DISCUSSION AND COCLUSION

As the results of the research suggest, athletes have higher emotional intelligence in comparison with non-athletes. The results of several studies indicate that the level of emotional and social intelligence of participants always increases as a result of successful performance and a warm, desirable social environment with a high degree of cooperation [8]. It can be stated that athletes have higher emotional intelligence in comparison with non-athletes because they need to constantly control and manage their emotions under different conditions of training and competition.

Although an inconsiderable difference was observed between different sports in emotional self-awareness and flexibility, there was generally no significant difference between these sports in emotional intelligence. The difference in the situations that athletes face can probably lead to differences in emotional intelligence subscales. Since emotional intelligence can be learned, it seems that participation in sports exercises can be considered as a factor for developing this feature.

In the present study, handball and basketball players did not show any significant difference in emotional self-awareness. Possibly, the physical nature of handball on one hand and fewer number of goals on the other provides handball players with more opportunities for expression of emotions as compared to the conservative nature of basketball and more goals scored in a single match. Due to less expression of emotions, basketball players have less awareness of immediate emotions and more flexibility in comparison with handball players (20.08±2.97 versus 19.20±4.31), although this difference was not significant. Research studies have shown that the act of expressing emotional experiences as talking and writing contributes to the physical and mental well-being of an individual [18]. Expression of emotions as shouting after a goal, maximum shooting power, and physical struggles or aggression in handball may have similar effects on emotional self-awareness.

The mental flexibility of the basketball players was significantly different from that of the futsal players. Due to the delicate nature of basketball skills, basketball players must be able to perform their technical and tactical moves with composure and special dexterity during intense emotions of the game. However, understanding these delicacies and controlling them is less in futsal players. Perhaps due to these immediate and repeated adaptations, basketball players have more flexibility than futsal players. On the other hand, futsal and soccer are regarded as highly physical sports and basketball is considered a less physical sport. Athletes acquire more flexibility in sports in which they need to control their anger for successful performance of skills, as Schneider (1992) also confirms the effect of teaching social skills on controlling anger and aggression [19]. Moshtaghzadeh (2003) showed that high emotional intelligence is effective for using the strategies that increase flexibility to change and facilitate coping with other emotions [14]. Moreover, the results from conducting Promoting Alternative Thinking Strategies (PATHS) also show that social-emotional skills can promote the ability of learners in controlling emotions and increase their flexibility to change [5]. Based on the findings of this research, it is

suggested that participation in sports exercises has a similar effect as social-emotional skill training and that sports programs must be incorporated in social-emotional skill training courses.

## REFERENCES

- [1] R. Bar-On, Emotional and social intelligence: Insights from the Emotional Quotient Inventory, Handbook of emotional intelligence. **2000**.
- [2] R. Bar-On, The emotional quotient inventory (EQ-i): A test of emotional intelligence, Toronto, Canada: Multi-Health system, **1999**.
- [3] R. Bar-On, JDA Parker, The handbook of emotional intelligence, San Francisco, CA: Jossey-Bass, **2000**.
- [4] .VA. Bastian, NR Burns, T Nettelbeck, *Personal Indivi Differe*, **2005**, 39, 1135-1145.
- [5] M.J. Elias, *The CEIC review*, **2001**, 10, 16-17.
- [6] N. Gannon, R. Ranzijn, *Personal Individ Differe*, **2005**, 38, 1353-1364.
- [7] H. Gardner, Frames of mind. New York: Basic Books, **1983**.
- [8] D. Goleman, Working with emotional intelligence. New York: Bantam Books, **1998**.
- [9] D. Goleman, Emotional intelligence, New York: Bantam Books, **1995**.
- [10] F. Haghnegahdar, MSc thesis, Islamic Azad University, Khorasgan Branch, **2005**.
- [11] B. Jokar, *Contemporary Psycho*, **2007**, 2:2.
- [12] J.D. Mayer, Emotional intelligence information: reference at [http://www.unh.edu/emotional\\_intelligence/index.html](http://www.unh.edu/emotional_intelligence/index.html), **2006**.
- [13] J.D. Mayer, P Salovey, D. Caruso, Competing model of intelligence. In R. J. Stren Berg, (2<sup>nd</sup> Ed) New York: Cambridge University Press, **1998b**.
- [14] R. Moshtaghzadeh, MSc thesis, Islamic Azad University, Tehran Branch, **2003**.
- [15] A. Sadri, N. Akbarzadeh, P. Kambiz, *Psychologl Res*, **2008**, 11, 3-4.
- [16] M.J. Schulte, MJ Ree, TR Carreta, *Person Individ Differe*, **2004**, 37, 1059-1068.
- [17] P. Sakhi, MSc thesis, Islamic Azad University, Khorasgan Branch, **2007**.
- [18] P. Salovey, JD Mayer, D Caruso, The positive psychology of emotional intelligence. 159-171, New York: oxford university press, **2002**.
- [19] C.R. Snyder, Copying: The psychology of what works. New York: Oxford University Press, **1992**.
- [20] C.S. Wong, KS Law, *The leader Quart*, **2002**, 13:243-274.