THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY

THE ROLE OF EMOTIONAL INTELLIGENCE ON ANXIETY AND AGGRESSION AMONG ATHLETES

Master's Thesis

SERTAN AMBARCI

ISTANBUL, 2016

THE ROLE OF EMOTIONAL INTELLIGENCE ON ANXIETY AND AGGRESSION AMONG ATHLETES

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
BAHÇEŞEHİR UNIVERSITY

BY

SERTAN AMBARCI

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF ARTS
IN
THE DEPARTMENT OF CLINICAL PSYCHOLOGY

MAY 2016

THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES
CLINICAL PSYCHOLOGY MASTER PROGRAM

Name of the thesis: The Role of Emotional Intelligence on Anxiety and Aggression among Athletes
Name/Last Name of the Student: Sertan Ambarcı
Date of the Defense of Thesis: 10.05.2016

The thesis has been approved by the Graduate School of Social Sciences.

Asst. Prof. Burak KÜNTAY
Graduate School Director
Signature

I certify that this thesis meets all the requirements as a thesis for the degree of Master of Arts.

Asst. Prof. İlke Sine EĞECİ
Program Coordinator
Signature

This is to certify that we have read this thesis and we find it fully adequate in scope, quality and content, as a thesis for the degree of Master of Arts.

Examining Comittee Members	Signatures
Thesis Supervisor Asst. Prof. Doruk Uysal IRAK	----------
Member Prof. Özgür ÖZTÜRK	----------
Member Asst. Prof. Burak DOĞRUYOL	----------

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

SERTAN AMBARCI

ABSTRACT

THE ROLE OF EMOTIONAL INTELLIGENCE ON ANXIETY AND AGGRESSION AMONG ATHLETES

Sertan Ambarcı

Clinical Psychology Master Program

Thesis Supervisor: Asst. Prof. Doruk Uysal Irak

May 2016, 67 pages

This study aimed to investigate emotional intelligence with an athlete sample. Anxiety and aggression are two variables athletes suffer most. Those prevent them perform a great sportive performance. The goal of this thesis was to measure the role of emotional intelligence on anxiety and aggression among athletes. Therefore the results of the thesis may direct future research to find solutions to enhance athletes' performance.

Study was conducted with 298 amateur and professional athletes. Bar-On EQ-i Emotional Intelligence Scale, STAI TX-2 Trait Anxiety Scale and Aggression Scale by Buss and Perry was used to collect data. First, correlational analyses were employed in order to see the relationship between three variables. Results showed significant relationships among three variables. Moreover, factors of emotional

intelligence analyzed separately with anxiety and aggression. Some of factors had significant relationship with anxiety and aggression. Furthermore, regression analyses were employed in order to see the effect of emotional intelligence and its factors on anxiety and aggression. Moreover, some emotional intelligence factors predicted anxiety and aggression significantly.

Keywords: Emotional Intelligence, Anxiety, Aggression, Athlete

ÖZ

SPORCULARDA DUYGUSAL ZEKANIN KAYGI VE AGRESYON ÜZERINDEKI ROLÜ

Sertan Ambarcı

Klinik Psikoloji Yükseklisans Programı

Tez Danışmanı: Yrd. Doç. Dr. Doruk Uysal Irak

Mayıs 2016, 67 sayfa

Bu çalışma sporcu örneklemiyle duygusal zekayı araştırmayı hedeflemiştir. Kaygı ve agresyon sporculara en çok zarar veren iki değişkendir. Bu değişkenler sporcuların yüksek sportif performans göstermesini engellemektedir. Bu tezin amacı sporcularda duygusal zekanın kaygı ve agresyon üzerindeki etkisini ölçmektir. Bu sayede, çalışmanın sonuçları sporcuların performanslarını yükseltmeye yönelik gelecek çalışmalara yol gösterebilir.

Çalışma 298 amatör ve profesyonel sporcu ile yürütülmüştür. Bar-On EQ-i Duygusal Zeka Ölçeği, STAI TX-2 Sürekli Kaygı Ölçeği ve Buss-Perry tarafından hazırlanan Saldırganlık Ölçeği veri toplamak için kullanıldı. Öncelikle, üç değişken arasındaki ilişkiyi görmek amacıyla korelasyon analizi yapılmıştır. Sonuçlar üç değişken arasında anlamlı ilişkiler bulmuştur. Ayrıca, duygusal zekanın boyutları da ayrı olarak kaygı ve agresyon ile korelasyon analizine tabi tutulmuştur. Bu boyutların

bazıları ile kaygı ve agresyon arasında anlamlı ilişkiler bulunmuştur. Daha derinlemesine sonuçlar görmek amacıyla üç değişken ve duygusal zekanın boyutları kaygı ve agresyonlar regresyon analizine tabi tutulmuşlardır. Ayrıca, duygusal zekanın ve bazı altboyutlarının anlamlı biçimde kaygı ve agresyonu yordadığını göstermiştir.

Anahtar Sözcükler: Duygusal Zeka, Kaygı, Agresyon, Sporcu

This thesis is dedicated to my family…

ACKNOWLEDGEMENTS

Writing this thesis taught me how to perform a continuous effort for a long time. During this long time period, I have learnt a lot of vital points about academic work and about my particular subject. It was a rough path but it was also a pleasure to finish the study successfully. Clinical psychology master's degree was my goal since I first aimed to study psychology back in 2007. Studying the subjects which are directly applicable to the field always attracted me. Now, it is a great feeling to succeed on this 9-year-old path.

I was not alone during these years. My family and my friends were always there. First, I would like to thank to my father Tankut for his endless help and patience. It was impossible without his help. I also appreciate my mother Serpil's psychological support which made me stand tall during these years. My grandmother Gülay supported me with her prayers. Last, my brother was always there with his jokes and technical support. Thank you Göktan.

During the thesis period, my advisor Doruk Uysal IRAK was always patient and positive to me. I appreciate her support, I have learnt a lot from her.

Finally, I thank to my girlfriend Pelin for her endless psychological and technical support. It would be very difficult without her.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Sport industry has had a great impact on economy and society since the beginning of 20th century. Last two decades, it had greater momentum with the help of technology, since it enhanced visual communication, internet and TV broadcast. Technology has spread and got cheaper. Thus, sports would touch more and more individual's life around the globe. More people have started to do sports and even more people have started to follow sports via technological devices.

Impact of sports on countries' economy has been growing fast with more people and more attention of commercial companies. Sport England (2015) showed that sports industry generated 20.3 billion pound in 2010 only in England. Although there is no exact value of the sport industry in Turkey it would not be difficult to guess the importance of this industry in Turkey, which grows so fast accordingly.

More people included, and more money included to sports. Every team and every sportsman/sportswoman started to take their job more seriously and more professionally. They have professional employers working for every single aim.

Coaches, conditioners, employees for information technology, statisticians, managers, field responsible etc.

Although psychology in sports became more important around the globe, authorities of industry in Turkey have still not focusing on this subject efficiently. Athletes are treated as robots and authorities as well as supporters ignoring the fact that athletes have psychological and physical limits. Additionally, few psychologists are working in the field and few academics have been studying about sport psychology.

Sport psychology and clinical sport psychology are the two fields that focus on psychology of people who do sports. The ultimate goal of the sport psychology studies is to find out whether it is possible to enhance physical performance of an athlete by using psychology and determine the psychological processes behind being a successful athlete.

In the last decade, the field concentrates on the topics such as aggression, anxiety, and personality traits of athletes. Many studies stated these topics are highly correlated with physical performance of an athlete. This result arises the question of, how these studies can be applicable directly to the field. For instance, what are the clinical/practical implications of these studies?

In last two decades important but not a relatively new topic of psychology has been attracted attention: emotional intelligence (EI). In addition, emotional intelligence studies showed that emotional intelligence can be improved (Ozcelik,

2007). In other words, specifically developed training programs can help to improve emotional intelligence of a person. Thus, a relationship among EI, aggression and anxiety may enlighten future research which can be directly applicable to the field by improving emotional intelligence.

Although emotional intelligence is a rising topic of the last two decades, only few studies investigated the topic in special groups. Accordingly, in sports psychology or clinical sports psychology, with athletes, few studies have been studied emotional intelligence. Studies about emotional intelligence with athletes would be a potential link between the studies and the practice/field.

This MA thesis aims to fulfill the gap in the literature both by studying emotional intelligence and by collecting data from athletes. The research aims to investigate the role of emotional intelligence in predicting aggression and anxiety among athletes. In the following sections first emotional intelligence will be reviewed and studies about the topic will be discussed from the perspectives of aggression and anxiety literature.

1.1. Emotional Intelligence

Intelligence is one of the most important concepts of psychological science; however, it is also one of the most difficult concept to describe. (Butler & McManus, 1998). The term intelligence described in early 20th century. World Wars had enormous role in development of the description of intelligence since the individuals have been selected to the army by measuring their cognitive skills. Thus, intelligence

inventories had been developed according to the studies which studied the specific section of intelligence, that we call today academic intelligence (Mayer, Salovey & Caruso, 2004). According to Göçet (2006), the widespread explanation of intelligence involves the function of cognitive layer, which represents judgment, reasoning, and associating different concepts.

However, various studies showed that academically successful individuals and individuals with higher IQ level are not as successful in their private life and professional lives as they were at school or IQ inventory. It leads researchers hypothesize that there are some factors other than IQ that determine the lifetime success of individuals (Cooper & Sawaf, 1997). Additionally, Hoerr (2000) stated that IQ model and standard intelligence inventories measure intelligence from a very narrow aspect. According to Weisinger (1998), it was seen that higher IQ is not a reference point for a happy and successful life. There should be other determinants for such a life. Accordingly, search for an alternative explanation about intelligence has made emotional intelligence a focus area for researchers. Moreover, Goleman, one of the most devoted researchers of emotional intelligence, stated that (1995) it has been agreed by lots of psychologists that traditional intelligence contains only mathematical skills and language skills. That is, it only measures an individual's academic success and it loses its validity out of academic life. Gardner (1983) also stated that traditional intelligence inventories had some limits in measuring the actual intelligence. Skills focused in those inventories such as linguistic skills and mathematics skills are the one, which are promoted by modern society, thus represent a bias in the term intelligence (Kowalski & Westen, 2005). Lastly,

Weschler reported that non-intellectual characteristics of intelligence can be measured (as cited in Stein & Book, 2003).

On the other hand, emotional intelligence terminology is a consequence of loads of academic works conducted since 1920s. Thorndike, divided intelligence into three parts in 1920s. First represents abstract, analytical and verbal intelligence, second represents mechanical, performance and visual intelligence, and third represents social and practical intelligence (as cited in Kuzgun, 2005). Social intelligence concept, which was firstly used by Thorndike, represents the roots emotional intelligence. He described social intelligence as ability to understand the internal states of self and others and to behave accordingly (Aşan & Özyer, 2003).

Gardner explained multiple intelligence concept in 1983. He stated that intelligence can be described by multiple aspects. Accordingly, he divided intelligence into eight parts. One of them is personal intelligence. It is divided into two parts: intrapersonal intelligence, and interpersonal intelligence. Titrek (2002) stated that Gardner's intrapersonal intelligence can be explained with self-awareness and very close to emotional intelligence.

The first academic use of the term emotional intelligence can be seen in the dissertation of Payne (1985) named as "*A Study of Emotion: Developing Emotional Intelligence*". Payne stated that the study aimed to be a guideline for developing emotional intelligence (Hein, 2005; Aksaraylı & Özgen, 2008).

Although emotional intelligence first mentioned in a dissertation in 1980s, Mayer and Salovey explained widespread description of the term in 1990s. They stated that emotional intelligence is the ability to monitor emotions of self and others, to differentiate those emotions and use this information to direct thoughts and behaviors (Mayer & Salovey, 1993).

Moreover, Mayer and Salovey (1997) explained how they reached to the description of emotional intelligence. They stated that emotions belong to affective sphere of mind and this area represents mood, reasoning, and mental fatigue. Thus, descriptions of emotional intelligence have to associate emotions with intelligence. This is the only way to save the content of both intelligence and emotions. (Mayer & Salovey, 1997).

Emotional intelligence contains the ability of self-control, desire, continuity, and self-motivation (Mayer & Salovey, 1997). In addition, according to Bar-On, one of the well-known researchers in the area, emotional intelligence is a sequence of personal, emotional, and social skills that effect individual's ability to cope with the environmental demands and pressure (as cited in Stein and Book, 2003). In 1990s, Goleman also had important contributions to emotional intelligence which lead other researchers to develop emotional intelligent instruments (Boyatzis & Mckee, 2002). According to Goleman (2002) emotional intelligence includes four basic elements which are self-consciousness, autonomy, social consciousness and social skills. Petrides and Funham (2000) defined emotional intelligence as understanding self and others' emotions, motivating self and others and managing relationships successfully. In another definition emotional intelligence was explained as identifying self-

emotions and skills, accepting them and being open for new ones. Moreover, EI includes motivating self for success and understanding others' needs and problems (Berna, 2003). It is clear that there are different explanations and different elements composing those explanations. However, it is also clear that they are all similar explanations and can be seen under the intrapersonal and interpersonal abilities.

Güngör (2008) stated that emotional intelligence is not a substitution or counter-view to classical intelligence theories. Cognitive and emotional intelligence together fulfill the definition of intelligence. Other researchers have not stressed about the concept of emotional intelligence as it was developed as a substitute for the classical intelligence concept. Nevertheless, it is important to emphasize that EI is not a substitution or counter-view in order to understand the EI concept right.

As there are various definitions, there are also different models of emotional intelligence, which have been discussed in the literature. In the following section, some of those models will be discussed in more detail.

1.1.1. Models of Emotional Intelligence

There are several different models of emotional intelligence, but they all have one common point. All models state that emotional intelligence has significant effect on an individual's well-being and lifetime happiness (Bar-on, 2010). On the other hand, Güngör (2008) reported it is possible to discuss the models of emotional intelligence by using two perspectives; ability model and mixed models. While

ability model describes emotional intelligence with mental ability, mixed models include both mental ability, and variety of skills and personality traits.

In the literature, there are four emotional intelligence models that are the most cited in the studies and widely accepted by the researchers. The model by Mayer and Salovey (2000), Cooper and Sawaf's model (1997), Goleman's model (2005) and Bar-On's model (1997). In the following section those models will be explained in more detail.

1.1.1.1. Emotional Intelligence Model of Mayer and Salovey (2000)

The model of Mayer and Salovey based on a theory from an article published in 1995 (Mayer et al., 2004). The theory claims that individuals with higher emotional intelligence grew up in families that promoted emotional expression. These individuals are open to criticism, they are able to express their emotions easily and they are problem solvers. This model tries to understand and explain emotional intelligence by highlighting the importance of emotions in an individual's life. Moreover the model explains emotional intelligence with both emotional and cognitive elements. Breaking point of this model was the mental abilities which use emotion to improve someone's quality of life.

Mayer, Salovey and Caruso (2000a) stated that ability to use emotions sufficiently is a consequence of combination of various skills. Additionally, these skills highly related with cognitive intelligence. Thus, the model is a combination of emotional intelligence and cognitive intelligence. Also, in the ability model of

emotional intelligence, each skill helps to the other one. Those skills are perception and expression of emotion, integration of emotion and thought, understanding emotion, and controlling emotion.

According to Mayer, Salovey and Caruso (2000b), first element in their model, was perception of emotion which means identifying one's own emotion and emotions of others, naming and expressing the emotions. Before using emotions, it is crucial to notice and name them. Integration of emotions and thoughts are needed to enrich thoughts and reasoning. In other words, second element of Mayer and Salovey's model is using emotions in order to strengthen thinking ability (Mayer, Salovey & Caruso, 2000b). Another element of the model is understanding emotions. It is a complicated process in which from a group of mixed emotions one can name and understand each emotion one by one. Emotions exist together in a complicated way, so understanding, naming and analyzing them help someone to be aware of their different emotions (Mayer, Salovey & Caruso, 2000b).

Finally, ability to control the emotions includes managing emotions, emotional relationships and enriching relationships. Using emotions in order to enrich social life is a consequence of identifying, understanding and analyzing of the emotions (Mayer, Salovey and Caruso, 2000b).

Another model that has been attracted attention was the model of Cooper and Sawaf (1997). They have used a different perspective, which will be explained in the following section.

1.1.1.2. Emotional Intelligence Model of Cooper and Sawaf (1997)

Emotional intelligence model by Cooper and Sawaf (1997) is one of the mixed models since it includes other than mental abilities. In other words, it includes both mental abilities and other abilities that cannot be classified under mental abilities (e.g. creating the future). The model named as Four Cornerstone Model of Emotional intelligence as it includes four basic elements, emotional literacy, emotional fitness, emotional depth, and emotional alchemy. Each of the basic elements of the model also has four sub-elements (Cooper and Sawaf, 1997).

Emotional literacy means one's awareness of his or her own emotional potential and ability to use this potential. This includes perception and expression of feelings. Moreover, the crucial point of the first cornerstone is building honesty, social connections and emotional awareness.

Emotional fitness is the second cornerstone of Cooper and Sawaf (1997) which represents an individual's authenticity, believability, and resilience. Additionally, it also represents improvement of abilities in listening and managing conflicts in an individual's life.

Emotional depth means determining inner targets and influencing others without manipulation. In other words, having commitment and integrity are the main points of the third cornerstone.

Finally, emotional alchemy includes creativity of an individual. In other words, it is the ability to use emotional potential to find positive targets in order to enhance creativity and cognitive thinking. Using emotions for problem-solving capabilities also represents emotional alchemy.

1.1.1.3. Emotional Intelligence Model of Goleman (2005a)

Another model, which has an impact on the literature, was emotional intelligence model of Goleman (2005a). This model is a mixed model since it refers both mental abilities and the other abilities. According to Güngör (2008), the model of Goleman inspired from the mental ability model of Mayer and Salovey. Goleman model has five dimensions under two topics labelled as, personal sufficiency and social sufficiency that also include other twenty-five emotional sufficiency (Goleman, 2005b).

There are three domains under personal sufficiency labelled as self-awareness, self-regulation, and internal motivation. On the other hand, under the social sufficiency topic, two dimensions are empathy and social skills. According to Goleman (2005b), there are twenty-five emotions, which are built on five domains. He also reported that, an individual could not be perfect in all of these domains. Everyone would have weak sides and strong sides regarding to these five domains and the emotions build on them.

Self-awareness indicates knowing one's feeling at any given time and understanding the impact of those emotions on other people. Self-regulation includes

controlling or redirecting one's emotions, anticipating the consequences before acting on impulse. Motivation means utilizing emotional factors to achieve goals, enjoy from the learning process and persevere in the face of obstacles. On the other hand empathy means understanding the emotions of others. Finally, social skills domain represents managing relationships, inspiring others and inducing desired responses from them (Goleman, 2005a).

The last important model of emotional intelligence which has an impact on the literature is the model of Bar-On (1997), will be discussed in the next section.

1.1.1.4. Emotional Intelligence Model of Bar-On (1997)

Emotional intelligence model of Bar-On (1997) is a mixed model as it includes both cognitive abilities and personality characteristics. According to Güngör (2008), EI model of Bar-On has elements from social intelligence and emotional intelligence. The domains include one's ability to survive socially, and emotionally which are both crucial for someone to survive in daily life more than classical intelligence concept.

Stein and Book (2003) reported that emotional intelligence model of Bar-On defines emotional intelligence as personal, emotional and social skills, which effect the ability to react to the external demands. According to Conte (2005), there are five meta-factorial components of his model of emotional intelligence. They are labelled as interpersonal, intrapersonal, adaptability, general mood, and stress management.

Additionally, each of these five factors have related closely to the sub-factors, which are fifteen in total. Bar-On (2013) explained each sub-factors in detail.

According to Bar-On (2013) first factor is self-regard which means ability to understand and perceive self. In other words, self-regard is knowing self-characteristics, accepting and respecting them. Being aware of good sides and bad sides of the self and also strong sides and weak sides are one part of self-regard. Emotional self-awareness, second factor, can be defined as knowing our emotions. That is ability to be aware of feelings, naming and understanding them. Knowing the causes and consequences of emotions is also emotional self-awareness. Third factor is Emotional Self-expression which can be defined as expressing self in general and emotions accurately and sufficiently. This factor is strongly related to emotional self-awareness. Being aware of self-emotions empower the expression of them. Moreover, emotional self-expression empowers self-confidence and decisiveness. Fourth factor is Independence and it is described as having no emotional dependency on other people. This factor represents emotionally self-sufficiency. An individual with independence does not need emotional support or emotional protection to survive. However, it does not mean that getting other's opinion or consulting emotionally to others is a sign of dependence. Empathy is the fifth factor described as noticing, and understanding other people's emotions. An individual with empathy tries to understand how and why someone feel the way they do. This factor is strongly related to cooperativeness and being a team player. Sixth factor labelled as Social Responsibility which can be defined as ability to be a part of a social group. In other words, working, socializing with a community and being cooperative are parts of social responsibility. This factor represents ability to live/survive within a social

context. Interpersonal Relationship is seventh factor which represents the ability to create efficient relationships with other people. This means ability to build and continue mutually pleasing relationships. Eight factor is Stress Tolerance, ability to successfully deal with our emotions. In other words, it is ability to regulate stressful feelings sufficiently during stressful situations of everyday life. Ninth factor is labelled as Impulse Control described as knowing our aggressive impulses and ability to prevent ourselves acting on these impulses. Moreover, it is also the ability to accept and regulate emotions in order to use them for us, prevent them work against us. Reality Testing, tenth sub factor, can be defined as the ability to see the world objectively. In other words, testing if our emotions work with harmony with the external reality. This is also related to regulation of feelings, which prevents us live in a fantasy world. Flexibility is the eleventh sub factor which represents our ability to adjust emotion and cognition to a new situation. Changing the way of our thinking and controlling the feelings in accordance with new conditions are the main parts of flexibility. Twelfth sub factor labelled as Problem Solving is the ability which is a consequence of the reality testing and flexibility. If an individual is successful in those factors, also he/she will have the ability to solve problems efficiently. Self-actualization is the thirteenth sub factor which is strongly related to having a plan for life. In other words, having goals and willpower to achieve them are the main parts of this factor. Fourteenth sub factor is labelled as Optimism which can be described as the ability to have positive and hopeful mood even in tough situations. This approach is useful during difficult conditions that enhance the ability to have self-motivation. The last and the fifteenth sub factor is well-being which can be described as the ability to feel happy with life in general. Moreover, it also

represents satisfaction of an individual with his/herself, his/her life and people around her/him (Bar-On, 2013).

1.1.2. Importance of Emotional Intelligence

Although the models and inventories of emotional intelligence supported by countless studies, there are still criticisms about the fact that emotional intelligence is a sub-field of intelligence. Spector and Johnson (2006) stated that emotional intelligence is the most controversial topic of the social sciences in recent years. For instance, some researchers stated that capabilities which theorized under the name of emotional intelligence are only cognitive abilities. In other words, they criticized naming some abilities as intelligence. Additionally, they claimed that those "cognitive abilities" are not as crucial as cognitive intelligence. Cherniss (2010) stated that criticisms and controversies about EI are not unique to EI. He also reported that disagreements about how to define and conceptualize intelligence in general had been continuing for 100 years. Rather than answering the 100 year-long criticisms, it is more helpful to support emotional intelligence concepts in order to emphasize importance of EI.

An example can be helpful in order to understand the importance of EI: Ted is a 14 year old boy who has an IQ score of 139. Ted was a very hardworking high school student and has never got a difficulty to understand any of the school subjects. His grades were the highest among his peers'. However, his family was obsessed about his grades, and never let him do anything other than home-works in the weekdays. On the weekends, Ted was going to basketball match with his father and

sometimes their neighbor Marshall and his father joined them. This was the only time that Ted had chance to socialize with other people. Marshall the neighbor was Ted's only friend. They could spend time only on the weekends. In Ted's class, there was a student named Barney who could be considered as an average student. Barney was not a hardworking boy. He got some a's, b's and c's from exams. However, Barney participated to magic classes at the weekends and used to play in a basketball team therefore he had many friends.

After 15 years, which of these boys would be happier and successful in their professional and private life? Although in the literature emotional intelligence was not explained as simple as this example, Weisinger (1998) stated simply that IQ is not a reference point for a successful and a happy life. Regarding the example, Barney has the odds to have a happy life in general. Because, having a higher IQ score is useless without knowing how to control it. As mentioned earlier, goal setting is one part of both emotional intelligence models of Goleman and Bar-On. If Barney had developed a high emotional intelligence during his earlier life, he would design a good plan although he has an average IQ. On the other hand, Ted will be lost in the Higher IQ Island, if he could not have a chance to improve his EI. Additionally, since Ted used to spend a little time with his peers, he never had chance to identify his own and others' emotions. Since he could not identify his own and others' emotions, he may have difficulties in making sense of causes and consequences of his feelings as well as others' feelings. As he does not know himself well and never trained expressing himself, he may also have difficulties in self-expression. Moreover, he may have difficulties in empathizing and interpersonal relationships. All of these cause a strong drawback in Ted's social life. In addition, Ted's mental

health would also rely on his emotional intelligence since well-being is one of the EI model of Bar-On (2013). Goleman (2005b) also stated that self-regulation was one of the important parts of his model of EI.

All in all, it is clear that Ted's life is in danger in terms of success and happiness although he has a very high IQ. He might not have a plan for future, he might not have stable interpersonal relationships, and he might not understand and regulate himself. Those may prevent Ted from finding a job which he would like, and being professionally successful. Those also may damage his ability to have healthy romantic relationships as well as healthy friendships. On the other hand, if Barney could have chance to develop a higher emotional intelligence -which is likely- he may be happier and successful since he know what to do with his average IQ and how to be successful and happy with himself.

Other than importance of the factors of emotional intelligence, countless studies which found significant relationships between emotional intelligence and anxiety, stress, performance of athletes, aggression, well-being have been conducted. For example, Çelik (2008) reported significant relationship between emotional intelligence of high school students and subjective well-being. Well-being means happiness with life in general. Thus, emotionally intelligent high school students are happy with their life. Additionally, Göçet (2006) stated that emotional intelligence is correlated positively with stress coping mechanisms. In other words, emotionally intelligent people have higher ability to cope with stress. Lastly, Yaşar (2010) found a significant relationship between sportive performance and emotional intelligence.

It is clearly known that emotional intelligence receives criticism as much as general intelligence receives. Although controversy has been continuing, emotional intelligence is related with almost every aspect of life. Whether it is called "intelligence" or not, it is practically impossible to claim the concept is not crucial for an individual's life.

1.1.3. Emotional Intelligence among Athletes

In addition to general popularity of EI, in the last decade, researchers started to study emotional intelligence in a specific area in which the most important subjects are mental performance, physical performance, and teamwork: Sports psychology. Common points which emotional intelligence and sports psychology have interested in efficient working, motivation and goal-setting, aggression and anxiety.

Emotional intelligence is often mentioned in the studies of sports psychology that seek relationship between emotional intelligence and physical performance. There are also lots of studies that examine the difference between athletes and non-athletes in terms of emotional intelligence. It is expected to theorize that a population who show a continuous mental and physical performance can differ with non-athletes in terms of emotional intelligence. In addition to the studies which showed emotional intelligence of athletes is significantly different than people who are not athletes, there is another discussion about how doing sports would have an impact on development of emotional intelligence and also on its factors. Lane et al. (2009)

stated that the effect and importance of emotional intelligence should be studied and clarified in more studies. Those studies mentioned here will be described below.

In the literature the relationship between emotion regulation and performance was also mentioned. For instance, Robazza, Bortoli, and Hanin (2004) reported athletes have to be aware of their emotions and have ability to regulate their emotions in order to show efficient performance. According to Lane, Thelwell and Devonport (2009) score received by emotional intelligence inventory is significantly related to the differences in mood states, optimal and dysfunctional performance of sport students.

In the last decade, several studies showed that higher performance in a team context is significantly related to emotional intelligence. Perlini and Halverson (2006) reported that professional hockey players with higher emotional intelligence would also show greater performance. Additionally, it was found that emotional intelligence is significantly related with performance among baseball players (Zizzi, Deaner, & Hirschhorn, 2003). Moreover, cricket players with higher emotional intelligence showed better performance than others (Crombie, Lombard, & Noakes, 2009). Lazarus (2000) reported that athletes experience more pressure, stress and intense emotions if personal and team goals are higher. Emotions have great effects on performance in sports (Laborde et al, 2011), since athletes feel anxiety and stress while trying to reach a high performance in order to achieve personal or/and team goals (Mellalieu, Neil, Hanton, & Fletcher, 2009). Accordingly, in order to show a great performance in sports, athletes have to be aware of their emotions, as well as emotions of their teammates' and opponents (Zizzi et al, 2003).

Freedman and Smith (2008) focused another side of emotional intelligence. In 2008, they wanted to examine if there is any significant difference between NFL (National Football League of United States of America) players and non-athletes in terms of their emotional intelligence scores. They have compared two samples in the context of relationship between EI and health, positive relationships, and pro-social behavior. Consequently, it was found that NFL players showed greater scores in emotional intelligence and higher correlations in relationship of EI, positive relationships, and pro-social behaviors. In other words, NFL players have greater emotional intelligence and have more chance to be successful in life.

Another interesting finding was brought by Bar-On, Handley, and Fund's study in 2006. Israeli Special Forces (ISF) requested incredible sportive skills from their soldiers. Study found that soldiers from ISF had significantly higher EI scores than non-soldiers. It means that soldiers with advanced sportive skills showed greater emotional intelligence compared to non-soldiers (Bar-On, Handley & Fund, 2006). Moreover, Tok (2008) also stated that athletes and non-athletes were significantly different in terms of their emotional intelligence in which athletes had significantly higher scores than non-athletes. He also noted that athletes had to show a continuous performance and deal with lots of stressors such as competition, anxiety, supporter pressure, self-esteem issues and team issues. Those situations directed athletes to develop emotional intelligence. This is why they showed greater results in EI inventory.

On the other hand, there were two highlighted studies that did not find any significant difference between athletes and non-athletes emotional intelligence

scores. Bostani and Saiiari (2011) reported that although there was significant differences between two groups regarding some of the factors related to emotional intelligence; such as happiness, stress tolerance and self-assertiveness, there was no significant difference in total scores of EI between groups. In another study, Sohrabi, Garajeh and Mohammadi (2011) also found no significant difference among athletes and non-athletes total emotional intelligence scores but there were some differences between some of its factors.

Finally, it is clear that emotional intelligence was examined in sports psychology in similar studies. It is important for current thesis to investigate that emotional intelligence scores are significantly different among athletes and non-athletes. It highlights the importance of studying with athletes in current study. Additionally, it has been explored in previous studies that emotional intelligence is related to performance. This is also an important point for the current thesis, since it is the first part of an advanced future project that aims to enhance performance with the help of emotional intelligence.

1.2. Anxiety among Athletes

Anxiety and fear represent an important role in an individual's life. These two characteristics of human kind may have prevented people from extinction in the past and they protect them from danger now. Fear makes us take action to avoid potential deadly events. On the other hand, anxiety is not about now, it is about past or future. Anxiety makes us ready for future since anxiety helps us see the future possibilities. Anxiety is a part of our survival instincts. It is normally adaptive yet, sometimes

disturbing. It may hinder our lives easily. Barlow (2004) stated that maladaptive anxiety includes high degree of negative emotion, feeling of losing control, and excessive self-focused attention. Anxiety is maladaptive when it is excessive. Although an individual may face anxiety countless times in countless ways in their life, what makes it maladaptive is the degree of it (Oltmanns & Emery, 2010). Too little anxiety levels may be a threat for our preparation for future possible threats, whereas too much anxiety may reduce our functionality. Current controversy about anxiety discusses whether it is a psychosocial problem, or it is a disorder (Williams, 2012). Where is the boundary line when diagnose someone with anxiety disorder, or calling them an anxious person? To sum up, anxiety is all about degree.

Clinical sports psychology and sports psychology fields are closely interested in anxiety, since the ultimate goal of these fields are to enhance athletic performance. Besides, past studies suggested that anxiety and performance are closely related. It was shown as they are related, but how? Is anxiety all about degree? Is it good or is it bad for an athlete to aim reaching a perfect sportive performance? How can we deeply understand the role of anxiety for an athlete's life?

In sports psychology, some studies examined state anxiety in three parts; cognitive anxiety, somatic anxiety and behavioral anxiety. Burton (1988) reported that examining anxiety in three parts helps to understand anxiety of athletes in a sport context. All three parts are belonged to state anxiety. State anxiety is a changing emotional state, subjective consciously perceived tension, related with activation of central nervous system (Spielberger, as cited in Weinberg & Gould, 1995). A clear relationship is unarguable between state and trait anxiety. Weinberg and Gould

(1995) reported that who score trait anxiety high feel high level of state anxiety in competitive situations. However, they also noted that analyzing the relationship needs attention to several other points such as stress coping skills. In other words, some skills may lower state anxiety of individuals who have high trait anxiety. Most of studies cited below mention state anxiety as only anxiety.

There are two important theories about anxiety and performance of athletes. Hanin's (1980) Zones of Optimal Functioning (ZOF) examine state anxiety as a whole, whereas Multidimensional Anxiety Theory studies anxiety as three parts mentioned above. First, Hanin (1980) stated that each athlete has their optimal performance zone. He argued that an athlete may perform at his/her highest with minimum level of anxiety, whereas another athlete may perform better at a moderate or high level of anxiety. He noted that optimal anxiety for best performance is not a point but a bandwidth. That is why he named this theory as Zones of Optimal Functioning. Second, Gould and Krane (1992) supported Burton (1988) and also stated that state anxiety and performance relationship should be examined in parts. Multidimensional anxiety theory stated that cognitive state anxiety is negatively related with sportive performance whereas somatic state anxiety has U-relationship with performance. A U-relationship is a changing model according to level of anxiety. In other words, there is an exact somatic anxiety point for best performance.

There are also lots of studies that include anxiety, and not surprisingly they all examine performance. In order to understand the anxiety of an athlete, first step should be to study the relationship between anxiety and performance (Özder, 2010). Arousal and anxiety are two different states for an athlete. Arousal can be defined as

anxiety at optimal levels for a good performance. On the other hand, anxiety is a state that an athlete has difficulties to prepare himself/herself for a competition. It is crucial to always remember anxiety is about degree. So, when it is mentioned with negative results, excessive anxiety should be considered. Additionally, Hardy et al. (1996) stated that anxiety (excessive anxiety) prevented someone to trust their capability in coping with stressful events. On the other hand, it is found that an individual with optimal level of anxiety would show performance improvement. Weinberg & Gould (1995) reported that anxiety shows itself with aggressive behaviors when body of an athlete aroused physically, and it is an undesirable state for an athlete. According to Danışman (2011), excessive anxiety is related to poor performance. It can be concluded above that anxiety is a popular topic for sport psychology studies which aim to examine sportive performance.

In addition to performance and anxiety relationship, anxiety is found to be in relationship with psychological processes of an athlete. It was found that there is a significant relationship between decision making processes of an athlete and athletic capabilities (Baştuğ, 2009). Another study showed that motor capabilities of an athlete are limited when excessive anxiety is found (Danışman, 2011). Such limitations on motor capabilities and decision making processes are caused by the physical effects of anxiety. Strained muscles, dizziness, aggression, breathing fast, and high blood pressure are some of the consequences of excessive anxiety. Accordingly, Jiang et al. (2002) stated that trait anxiety is significantly related to physical fatigue. It is clear that anxiety is related with an athlete's sport life in several ways.

Anxiety is very familiar concept for sport context that the researchers also study specific kinds of anxiety in various studies such as competition and start anxiety. For example, competition anxiety is a type of anxiety specifically seen among athletes which is caused by fear of losing. Besides it is in a relationship with individual differences among athletes, according to Gill (1986). Additionally, start anxiety is also a familiar concept that refers to anxiety reported just before the start of a competition.

Finally, anxiety is found to be in a relationship with sports injuries. For example, trait anxiety is found to be significantly related to injury prevalence (Williams & Andersen, 1998). Additionally, Junge (2000) stated that several studies support that anxiety and severity and prevalence of sports injuries are in significant relationship.

Consequently, it can be concluded that anxiety is a familiar concept in sports psychology and clinical sports psychology. Performance, which has been studied in several studies related with anxiety. Therefore; the other studies about anxiety which have not included performance were also related with performance indirectly. Decision making processes, injuries are factors that may affect performance. It can be evaluated as the field tend to study performance in separate parts. One clear point is that studying performance in parts provides researchers some space to investigate performance and anxiety in more details. Additionally, studies including anxiety and injuries, anxiety and decision making processes, and anxiety and physical processes showed that anxiety is crucial for an athlete. Thus, examining anxiety in current

study is important, because results would help researchers to find ways to reduce or control anxiety by using emotional intelligence.

1.3. Aggression among Athletes

Another topic which has been attracted attention in sport psychology was aggression among athletes. Aggression, hostility, stress and anger are interrelated in the literature. Stress may cause anger, and anger expresses itself with aggression. Stress may be caused by various concepts including anxiety. According to Berkowitz (1962), hostility and aggression are related but different concepts, yet, these two concepts used interchangeably in the literature. Kaufmann (1970) stated that anger is an emotion which is a physiological arousal state and involves harmful effects on other individuals. Additionally, Spielberger, Krasner, and Solomon (1988) reported that hostility is a trait. They also claim that anger is an emotional state and aggression is the expression of both. In this picture, stress is a trigger that awakens hostility and produce anger and whole manifest themselves as aggressive behavior. Isberg (1985) confirmed this comment by reporting that aggression comes to light as a consequence of an interaction between an individual's personality and a specific incident. Last but not least, although these all seem like one single concept, several other traits may have role that may affect stress and aggression. In sport psychology literature, it is seen that stress is a popular concept while there are lack of aggression studies. If aggression is a manifest of stress, then stress is one of the topics that must be examined in current study.

Doğan (2005) stated that there are sport-specific points which may cause stress in athletes. Those are; danger in extreme sports, risk of injury, conflict with coach and teammates, supporter-effect, and competition context problems such as time zone, stadium, etc. Those factors may cause high level of stress and aggressive behaviors among athletes. Doğan (2005) also reported that there are two main goals of aggressive behavior; one is avoiding pain, and the other is causing pain to opponents.

In addition to studies that examined aggression as a manifest of stress, there are also some theories aimed to explain the causes of aggression. Those are instinct theory, frustration-aggression theory, and social learning theory. First, Gill (1986) focused on the instinct theory which stated that there are aggression instinct in individuals that are not noticed before it is expressed. It may also be expressed through catharsis. However, there is no support to this theory in the literature since it is not possible to provide evidence. Second, frustration-aggression theory of Dollar et al. (1939) claimed that aggression is caused by failure and/or goal-blockage. This theory also claimed aggression is expressed by catharsis. Frustration-aggression theory was supported by several studies and helped researchers to see the role of frustration in explaining aggression (Weinberg & Gould, 1995). At last, social learning theory by Bandura (1973) claimed aggression is learned by observing behaviors of others, repeating those behaviors and getting reinforcement for them. Smith, for example, supported this theory and stated that young amateur ice-hockey players learned aggressive behaviors from professional ice-hockey players (as cited in Bredemeier et al., 1987). There are different theories which explain the causes of

aggression. However, studies that examined aggression as a manifest of stress should also be kept in mind.

Sport psychology and clinical sport psychology fields are interested in aggressive behavior, since the ultimate goal of these fields is to search and find the concepts that may affect an athlete's performance. Literature reported that aggression and performance are closely related, however the relationship is complex (Weinberg & Gould, 1995). Performance and aggressive behavior is found to be related, but how? Is it about the intensity of aggression? Is it good or is it bad for an athlete aims to reach perfect sportive performance? Is it needed for winning? How can we deeply understand the role of aggressive behavior in an athlete's life? Those are some questions we may ask.

Studies about the aggressive behavior in sports focused on the differences of the intensity of aggression between athletes and non-athletes (Güner, 2006). Most of the studies showed that athletes have more intense aggressive behavior than non-athletes. This confirms that the aggressive behavior arises as a consequence of a stressful event. In the sport context, a match is a stressful event. Aggression can be a harsh movement, physical aggression, or verbal aggression. However, it is difficult to say that every harsh movement is an aggressive behavior. Güner (2006) reported that rules of the specific sports match would specify the frame of aggressive behavior. In other words, any verbal and physical behavior which tries to violate the rules during the match can be defined as aggressive behavior.

Another focus in the literature of sports psychology is the relationship between empathy and aggression among athletes. Empathy is one of the sub-factors of emotional intelligence. Solak (2011) reported that there was a significant negative relationship between empathy and aggression. According to that experienced adolescent athletes have higher empathy and lower aggression in contrary to inexperienced ones. Yılmaz (2013) also stated that there is a significant relationship between empathy and aggression. He also stated that experienced athletes show less aggressive behavior. Thus, considering those studies, there is a potential relationship between empathy and aggression in the current study.

On the other hand, some studies examined the aggression levels of athletes from different sports. Both Solak (2011) and Yılmaz (2013) stated that there is no significant difference in aggression levels between individual sports athletes and team sports athletes. Moreover, Alavi et al. (2013) stated that there is no significant difference in aggression levels of different sports players. They conducted a study with wrestling, taekwondo, football and basketball players and found no significant difference regarding aggression levels. However, Güner (2006) reported that individual sports athletes have higher aggression levels than team sports athletes. Since there is no difference of aggression levels among athletes from different sports, when examining aggression it is acceptable to study with participants doing any kind of sports.

Last but not least, literature found relationship between sportive performance and aggressive behavior. Krishnaveni and Shahin (2014) reported that aggression of the players causes distraction and poor performance of their team in team sports.

They also claim that minimum degree of aggression enhances sportive performance, thus tolerance and empathy should be a part of an athlete's training. On the contrary, McCarthy and Kelly (1978) stated that there is a significant relationship between aggression and performance. They found that groups with higher aggression levels performed a greater performance comparing to a group with lower aggression levels.

All in all, it is clear that aggression/aggressive behavior is a topic that was studied in various studies in sports psychology and clinical sports psychology field. Aggression was found as it is related with many topics in the field; however, the most important one was performance. Since the ultimate goal of the field is to enhance sportive performance, the studies found relationship between aggression and sportive performance make way for new and more detailed studies about the aggression/aggressive behavior.

1.4. Emotional Intelligence, Anxiety and Aggression

As mentioned before, all emotional intelligence models have factors including interpersonal relationship, emotion regulation, empathy, and stress management that might be in significant relationship with psychological disorders such as anxiety, and depression. Regarding the whole concept of aggressive behavior, stress management has potential role in the relationship with aggressive behavior.

First, some studies found significant relationship between EI and anxiety. For example, Resurreccion et al. (2014) studied that emotional intelligence is negatively

correlated with anxiety and other mental health problems. Additionally, Kerns et al. (2014) stated that people with generalized anxiety disorder have significant emotion regulation deficits which are directly related to emotional intelligence. Singh et al. (2014) also stated that emotional intelligence is negatively correlated with anxiety and depression. Moreover, it is stated that emotional intelligence is an important and unique contributor to psychological adjustment (Fernandez-Berrocal et al., 2006). Psychological adjustment helps people adjust to changing environment and reduces their anxiety levels. Berry et al. (2002) stated that psychological adjustment also includes happiness, self-control, optimism, and healthy social relationships. Emotion regulation, combination of some sub-factors of emotional intelligence such as impulse control and reality testing is also found interrelated with anxiety. Mennin et al. (2005) stated that emotion regulation is a predictor of presence of generalized anxiety disorder. In the field of sports psychology, anxiety has been studying intensely in the last decade. In conclusion, factors of EI such as general mood, intrapersonal, adaptability are also expected to be related significantly to anxiety, according to the studies discussed above.

Second, EI and aggression are found to be related in some studies. For instance, Solak (2011) and Yılmaz (2013) stressed that aggression and empathy are in a significant negative relationship. Empathy is a sub-factor of interpersonal factor. A relationship between this factor and aggression is expected in current study. Additionally, aggression was found related with optimism which is also a sub-factor of emotional intelligence. Individuals with high optimism scores are stress-proof individuals since optimism help them cope with stress by feeling in control of difficult events. They are also good in shifting difficult situations in behalf of

themselves (Erdogan, 1996). Optimism is a sub-factor of general mood factor of emotional intelligence, thus general mood would have a relationship with aggression in current thesis. Emotional expression which is another sub-factor of emotional intelligence under intrapersonal factor is also related with aggressive behavior. According to Morris (2002), lack of ability in emotional expression causes aggressive behavior -with the help of social-roles- in men. Aggression in sports can be evaluated as both good and something bad. Laborde et al. (2011) stated that emotional intelligence has a significant relationship with stress, which is a basis of aggressive behavior. Thus stress management factor of emotional intelligence would be in relationship with aggression in current study. Moreover, Fernandez-Berrocal et al. (2014) stated that people with higher emotional intelligence would show less aggression. Roberton et al. (2014) also stated that failing to attend to upsetting emotions is associated with aggression. Attending emotions is a part of intrapersonal factor of emotional intelligence. Thus, this factor is expected to be significantly related to aggression in current thesis. To sum up, factors of EI such as intrapersonal, stress management, general mood and interpersonal are expected to be significantly related with emotional intelligence in current research in accordance to the results of the studies mentioned recently.

Main point in this current study is to highlight the emotional intelligence as it can be developed which was found in three crucial studies. First, Slaski and Cartwright (2003) reported that emotional intelligence training improved emotional intelligence as well as health and well-being. Second, Ozcelik (2007) in order to enhance emotional intelligence levels of the martyrs' relatives. Study showed that higher emotional intelligence levels are related with reduced anxiety and depression.

Tufan (2011) also conducted a study and created a practice program in order to improve emotional intelligence of high school students. Results showed that emotional intelligence level of the students significantly improved after the practice. Those studies are milestones in emotional intelligence research in Turkey since they showed that emotional intelligence can be enhanced by a specifically developed training.

All in all, it is clear that past studies about emotional intelligence, anxiety and aggression reported that, either emotional intelligence concept as a whole or the factors and/or sub-factors of emotional intelligence are in significant relationship with the variables aggression and anxiety. Last but not least, studies of Slaski and Cartwright (2003), Ozcelik (2007) and Tufan (2011) must be remembered since they showed that emotional intelligence can be improved by using specific trainings.

1.5. Significance and Aim of the Study

Emotional intelligence has been the subject of numerous studies in past two decades. Previous studies showed that emotional intelligence is directly related to mental skills, mental health and cognitive performance as well as it is related to professional performance in working environment. For instance, Extremera and Fernandez-Berrocal (2006) stated that emotional intelligence is predictor of mental, social and physical health of the university students. Additionally, as it was mentioned before, emotional intelligence is a solid, developable concept that is related with several important topics in psychology. Although there are very few

studies about emotional intelligence in sports, the applicability of emotional intelligence in the field has been underestimated.

Clinical sport psychology and sport psychology investigate the questions and find solutions for increasing performance of athletes and how it is related to psychological processes. Most studies in the field aimed to answer how psychological factors effect individual's physical performance (Weinberg, Gould, 1995). Studies in the last decade in sports psychology focused on a wide area from performance anxiety to motivation, from mindfulness to aggression. It is seen particularly that ultimate goal in the field is to understand psychological foundations of performance and what can enhance these foundations. However, there is a gap between these variables. Need for more detailed and applicable studies is clear. The gap between performance and variables that influence the performance should become narrower. It is mentioned earlier that anxiety and aggressive behavior are two important determinants of performance. These topics are also needed to investigate in more detailed studies. Past studies in the field directed us to the main barriers in front of the performance which are anxiety and aggression. Therefore, current study aimed to address the problematic question of whether and how emotional intelligence is related to anxiety and aggression among athletes. Therefore it is aimed to reveal the role of emotional intelligence on anxiety and aggression in sport context.

An important point in this study is to complete the one step for future studies which will be focused on the relation between emotional intelligence and performance. As the studies showed emotional intelligence can be improved by

specific trainings and other studies which address performance, but there is lack of research investigating the connection in the field. Additionally, the goal of the whole picture is to develop an athlete-specific emotional intelligence training program that helps athletes to reduce their anxiety and aggressive behaviors and to reach a greater sportive performance. Although performance have not been measured in this study, we assumed that by reducing anxiety and aggression we can boost performance among athletes. As a first step of these series of studies, this thesis aims to reveal the role of emotional intelligence on anxiety and aggression of athletes.

Main purpose of this study is to examine how emotional intelligence and its factors are related to anxiety and aggressive behavior among athletes. As it was discussed in above sections, there are three variables in this study which are emotional intelligence, anxiety and aggression.

The hypotheses of the study are:

H1: There will be negative relationship between emotional intelligence and anxiety.

H2: There will be negative relationship between factors of emotional intelligence and anxiety.

H3: There will be negative relationship between emotional intelligence and aggression.

H4: There will be negative relationship between factors of emotional intelligence and aggression.

CHAPTER 2

METHOD

2.1. Participants and Procedure

The data in the study was collected from 298 adults older than the age of 18 (M = 28.62, SD = 9.92) who have been doing sports as an amateur or professional on a regular basis. Participation to the study was voluntarily so snowball sampling technique was used and a letter of invitation to the study has been emailed to people. After they confirmed that they meet the criteria mentioned for inclusion to the study the link lead them to the survey above. Ethical approval of the study was given by the Ethical Committee of Bahcesehir University. Completing all scales have taken approximately 20 minutes of the participants.

Scales were administered on both online via Google Forms, and hardcopy. First page included informed consent form which has the criteria for participants and the information about the study. Additionally, the demographic information form was filled by the participants which has questions about age, gender, the specific sport branch they do, how long they have been doing this specific sport branch, how often they do sports, if they were professional or not, if they have license for a

specific sport branch or not and in what context (sports club, school team etc.) they do sports. Then, Trait Anxiety Scale (STAI Form TX-2), Bar-On Emotional Intelligence Scale (Bar-On EQ-i) and Aggression Scale were filled by participants. Completing all scales took approximately 20 minutes. Analyses were administered with 298 participants.

Majority of the participants were male (61.6 %) and the rest of the participants were female (38.4 %).

Majority of the participants have been doing a team sport with ball (31.9 %) and indoor sports (31.5 %). The rest of the participants have been doing outdoor sports (11.5 %), water sports (8.4 %), sports with racket (6.0 %), riding sports (3.4 %), martial arts (3.4 %), shooting sports (2.7 %), and others (1.7 %).

Majority of the participants have been doing a particular sport at least 10 years (36.9 %). The rest of the participants have been doing a particular sport for between 1 and 5 years (27.5 %), between 5 and 10 years (18.8 %), between 0 and 6 months (9.7 %), 6 months and 1 year (7 %).

Majority of the participants stated that they do a particular sport several times a week (61.4 %). The rest of the participants do a particular sport everyday (23.8 %), several times in a month (8.4 %), and once a week (6.4 %).

Majority of the participants do a particular sport amateurish (75.5 %), and the rest of the participants do a particular sport professionally (24.5 %).

Majority of the participants do not have a license for the sport they do (62.1%), and the rest of the participants have a license for the particular sport branch they do (37.9%).

Majority of the participants have been doing sports in a sports center (31.2 %). Rest of the participants have been doing sports in a professional club (18.5 %), in multiple contexts (16.8 %), outdoor (15.1 %), in an amateur club (12.1 %), and in a school team (6.4 %).
(see Table 2.1).

2.2. Measures

2.2.1. Demographic Information Form

Demographic information form was used to collect the data such as age, gender, branch of the sport participants do, experience with the specific branch of sport, frequency of doing sport, being amateur or professional, if the have license for the specific sport branch or not, and where participants do the specific sport. (see in APPENDIX A).

Table 2.1.

Demographic Characteristics of the Participants

	Frequency	%
Gender		
Female	115	38.4
Male	183	61.6
Sports		
Team sports with ball	95	31.9
Sports with racket	18	6
Water sports	25	8.4
Indoor sports	94	31.5
Outdoor sports	33	11.1
Riding sports	10	3.4
Martial arts	10	3.4
Shooting sports	8	2.7
Others	5	1.7
Experience		
More than 10 years	110	36.9
5-10 years	56	18.8
1-5 years	82	27.5
6 m-1 year	21	7.0
0-6 months	29	9.7
Frequency of doing sports		
Everyday	71	23.8
Several times a week	183	61.4
Once a week	19	6.4
Several times in a month	25	8.4
Being amateur or professional		
Amateurish	225	75.5
Professionally	73	24.8
Whether having license		
License	113	37.9
No license	185	62.1
Context		
School team	19	6.4
Fitness center	93	31.2
Amateur club	36	12.1
Professional club	55	18.5
Outdoor	45	15.1
Multiple context	50	16.8

2.2.2. Trait Anxiety Scale (STAI TX-2)

STAI was developed in order to assess state and trait anxiety of the individuals by Spielberger et al. in 1970. Trait anxiety scale (STAI TX-2) was used in this research in order to examine the level of anxiety of sports people who participated to the study. This scale assesses constant anxiety levels of individuals. Turkish standardization of the STAI TX-2 was conducted by Oner and LeCompte (1985). The scale has 20 items with 4-Likert type range from 1(almost never) to 4(almost always). The items 1, 6, 7, 10, 13, 16, and 19 were reverse items. The Turkish version of the scale was found internally consistent with Cronbach's Alpha coefficient range from .83 to .87. Test-retest reliability of the Turkish version of the scale has Cronbach Alpha range between .71 and .86. The Cronbach Alpha coefficients of the scale was .86 in this study. (see in APPENDIX B).

2.2.3. Bar-On EQ-i Emotional Intelligence Scale

Bar-On Emotional Intelligence scale was developed by Bar-On (1997). Turkish standardization of the scale was conducted by Acar (2001). The scale has 88 items with 5-Likert type range from 1(strongly agree) to 5(strongly disagree). Additionally, there were 40 reverse-items. Moreover, the scale has 5 factors and 15 sub-factors. The factors were intrapersonal, interpersonal, stress management, adaptability, and general mood. Internal consistency of Turkish version of the scale was .92. Moreover, the Cronbach's Alpha coefficients of the factors were statistically adequate; intrapersonal was .84, interpersonal .78, stress management .65, adaptability .73, general mood .75. In this research, the Cronbach's Alpha coefficient

were .95 for overall inventory. Moreover, Cronbach's Alpha coefficients of five factors were also adequate in this study; Intrapersonal was .89, interpersonal was .81, stress management was .82, adaptability was .72, and general mood was .84. (see in APPENDIX C).

2.2.4. Aggression Scale

The original aggression scale was developed by Buss and Perry in 1992. Turkish standardization of the scale was conducted by Sümer in 2003 which has three subscales with 22 items. Physical aggression, verbal aggression and, hostility and anger were the three subscales. The items were 5 point Likert type scales range from 1(strongly false) to 5(strongly true). The Cronbach's Alpha coefficient of Turkish version of the scale ranged from .58 to .89. In this study, Cronbach's Alpha of the scale was .88. Cronbach's Alpha coefficients of sub factors were also adequate in this research; physical aggression was .82, verbal aggression was .71, and hostility and anger was .76. (See in APPENDIX D).

CHAPTER 3

RESULTS

Main purpose of this study was to see how emotional intelligence and its factors are related to anxiety and aggressive behavior among athletes. There are three variables in this study which are emotional intelligence, anxiety and aggression. In this chapter, descriptive statistics about the variables, and the results of the statistical analysis about the relationship between emotional intelligence, anxiety and aggression will be presented.

313 subjects participated to the study. First, data was screened for univariate and multivariate outliers. According to analyses, 14 univariate outliers by checking *z scores* and 1 multivariate outlier by checking *Mahalanobis distance* were found and total of 15 participants eliminated from the study. Analyses were conducted by using 298 participants.

3.1. Descriptive Statistics and Group Differences

Total scores that have been taken from Trait Anxiety Scale (STAI TX-2) ranged from 22 to 62 (*M* = 38.49, *SD* = 7.98), whereas scores of Bar-on EQ-I scores ranged from 242 to 419 (*M* = 333.63, *SD* = 35.50), and scores of Aggression Scale ranged from 29 to 100 (*M* = 57.62, *SD* = 13.79). Higher scores in STAI indicate higher trait anxiety level. Similarly, higher scores in Aggression Scale indicate higher aggression level. Moreover, higher scores in Bar-On EQ-I indicate higher emotional intelligence level.

In addition, scores that have been taken from the factors of Aggression scale were as following. Physical aggression factor Scale ranged from 9 to 43 (*M* = 21.66, *SD* = 6.98), whereas scores of verbal aggression factor ranged from 5 to 24 (*M* = 15.18, *SD* = 3.67), and scores of anger and hostility factor ranged from 8 to 38 (*M* = 20.78, *SD* = 5.97). Additionally, scores of intrapersonal factor of Bar-On EQ-I ranged from 78 to 142 (*M* = 113.25, *SD* = 13.62), whereas scores of interpersonal factor ranged from 46 to 90 (*M* = 73.72, *SD* = 7.78), scores of stress management factor ranged from 19 to 64(*M* = 43.38, *SD* = 8.27), scores of adaptability factor ranged from 38 to 71 (*M* = 54.55, *SD* = 6.67), and scores of general mood factor ranged from 27 to 60 (*M* = 48.63, *SD* = 6.78). (see Table 3.1.1).

Table 3.1.1.

Descriptive Statistics on Scores of Variables

	Min	Max	*M*	*SD*
Bar-On EQ-I	242	419	333.63	35.50
Intrapersonal	78	142	113.35	13.62
Interpersonal	46	90	73.72	7.78
Stress Management	19	64	43.38	8.27
Adaptability	38	71	54.55	6.67
General Mood	27	60	48.63	6.78
STAI TX-2	22	62	38.49	7.98
Aggression Scale	29	100	57.62	13.79
Physical Aggression	9	43	21.66	6.98
Verbal Aggression	5	24	15.18	3.67
Hostility & Anger	8	38	20.78	5.97

In order to examine the differences between groups in emotional intelligence scores, anxiety scores and aggression scores, series of independent t-tests and one way ANOVA have been conducted.

First, differences between male and female participants were analyzed for anxiety and aggression scores. The mean score of anxiety was 39.92 (*SD* = 8.52) for women and 37.60 (*SD* = 7.51) for men. Results of the independent samples t-test revealed that there was significant difference between anxiety scores of women and men, $t(296) = -2.47$, $p < .05$. Therefore, in our sample women athletes had higher anxiety compared to men athletes.

In terms of the aggression scores of the participants, mean score of aggression scale was 53.80 (*SD* = 13.18) for women and 60.03 (*SD* = 13.65) for men. T-test analysis revealed that there was significant difference between aggression

scores of women and men, $t(296) = 3.89$, $p < .01$. According to that, men athletes had higher aggression compared to women athletes.

Finally, in terms of their emotional intelligence scores, there was no significant difference between women and men athletes.

(see Table 3.1.2)

Table 3.1.2.

T-test Results for Anxiety and Aggression Scores among Men and Women Athletes

	Gender							
	Female			Male				
	M	*SD*	n	*M*	*SD*	n	*t*	df
Anxiety	39.92	8.52	115	37.60	7.51	183	-2.47*	296
Aggression	53.80	13.18	115	60.03	13.65	183	3.89**	296

Note. $^{**}p < .01$, $^{*}p < .05$

Second, the differences between the scores of the participants who are doing indoor sports versus team sports with ball were investigated. No significant difference was found between scores of the two groups in all three scales.

Third, the differences between the scores of the participants who have been doing sports for 1 to 5 years and participants who have been doing sports for 10 or more years was analyzed. The mean scores of anxiety scale was 39.05 ($SD = 7.44$) for participants who do sports for 1 to 5 years and 36.55 ($SD = 7.10$) who do sports for 10 or more years. Significant difference was found between anxiety scores of two groups, $t(190) = 2.36$, $p < .05$. However, no significant differences were found

between two groups in emotional intelligence scores and aggression scores. Results revealed that more experienced athletes had lower anxiety levels. (see Table 3.1.3).

Furthermore, the differences in emotional intelligence, anxiety, and aggression scores between athletes with license and without license were analyzed. Results showed no significant difference between two groups.

Table 3.1.3.

T-test Results for Anxiety Score Differences among Athletes According to the Year of Playing Sports

	Experience							
	1-5 years			+10 years				
	M	*SD*	n	*M*	*SD*	n	*t*	df
Anxiety	39.05	7.44	82	36.55	7.10	110	2.36*	190

Note. *$p < .05$

In order to test differences between the athletes doing sports in a fitness center, in an amateur club, in a professional club, in outdoor, or in multiple context a one-way ANOVA was conducted. Homogeneity of variances were tested for all three scores in five groups and there was no violation of homogeneity of variance assumption. Significant difference was found according to ANOVA results for anxiety scores of five groups, $F(5, 292) = 2.25$, $p = .05$. Since p is exactly .05, Post Hoc test was conducted. Consequently, there was no significant differences found between any of the groups. Additionally, there was no significant difference between aggression scores and emotional intelligence scores of those five groups.

3.2. Correlation Analyses

In order to test the hypothesis and examine the relationship between three variables, correlation analysis was conducted. Specifically, Pearson Product-Moment Correlation Coefficient was used in order to see the correlation between emotional intelligence and its factors, anxiety, and aggression.

The correlation analyses revealed that there is a significant relationship between emotional intelligence and aggression (r = -.19, p < .01). In addition, there is a significant relationship between emotional intelligence and anxiety (r = -67, p < .01). Finally, analyses revealed that there is a significant relationship between aggression and anxiety (r = .18, p < .01). This means as emotional intelligence increases, anxiety and aggression decreases among athletes.

The relationship between factors of emotional intelligence and anxiety were also examined. Results revealed that there are significant relationship between anxiety and intrapersonal (r = -.59, p < .01), anxiety and interpersonal (r = -.36, p < .01), anxiety and stress management (r = -.62, p < .01), anxiety and adaptability (r = -.51, p < .01), and anxiety and general mood (r = -.65, p < .01). According to the results, as factors of emotional intelligence intrapersonal, interpersonal, adaptability, stress management and general mood skills increase, anxiety decreases among athletes.

On the other hand, significant relationship has been found between the factors of emotional intelligence and aggression. According to this, aggression and

interpersonal (r = -.18, p < .01), aggression and stress management (r = -.34, p < .01), aggression and adaptability (r = -.22, p < .01), and aggression and general mood (r = -.12, p < .05) were significantly correlated. On the other hand, there was no significant relationship between intrapersonal and aggression. According to results, when interpersonal, adaptability, stress management and general mood skills increase, aggression decreases among athletes.

The relationship between emotional intelligence and the factors of aggression scale was also examined. According to the results, there is a significant relationship between emotional intelligence and physical aggression (r = -.13, p < .05), and emotional intelligence and anger hostility (r = -.30, p < .01). On the other hand, there was no significant relationship between emotional intelligence and verbal aggression. Therefore, athletes with higher emotional intelligence have lower physical aggression and anger and hostility levels.

Finally, the relationship between factors of emotional intelligence and factors of aggression were examined. Results revealed that there is a negative significant relationship between general mood and anger and hostility (r = -.18, p < .01), stress management and physical aggression (r = -.23, p < .01), stress management and anger and hostility (r = -.49, p < .01), adaptability and physical aggression (r = -.14, p < .05), adaptability and anger hostility (r = -.33, p < .01), interpersonal and physical aggression (r = -.16, p < .01), interpersonal and anger hostility (r = -.18, p < .01), intrapersonal and verbal aggression (r = -.15, p < .05), and intrapersonal and anger hostility (r = -.14, p < .05). Therefore, all five factors of emotional intelligence are in negative relationship with factors of aggression. In

other words, athletes who have higher scores in factors of emotional intelligence show lower physical and verbal aggression and also hostility and anger levels. (see Table 3.2)

Table 3.2.

Correlation Coefficients between Emotional Intelligence, Factors of Emotional Intelligence, Anxiety, Aggression, and Factors of Aggression

	1	2	3	4	5	6	7	8	9	10	11
1. EI total											
2. EI general mood	.84**										
3. EI stress management	.71**	.47**									
4. EI adaptability	.81**	.53**	.63**								
5. EI interpersonal	.79**	.67**	.34**	.57**							
6. EI intrapersonal	.91**	.76**	.50**	.65**	.67**						
7. Anxiety total	-.67**	-.65**	-.62**	-.51**	-.36**	-.59**					
8. Aggression total	-.19*	-.12*	-.34**	-.22**	-.18**	-.02	.18**				
9. Physical aggression	-.13*	-.06	-.23**	-.14*	-.16**	-.00	.07	.88**			
10. Verbal aggression	.02	-.03	-.07	-.01	-.06	.15*	.04	.67**	.41**		
11. Anger & hostility	-.30**	-.18**	-.49**	-.33**	-.18**	-.14*	.31**	.87**	.62**	.45**	

Note. $^{**}p < .01$, $^{*}p < .05$

3.3. Regression Analyses

Simple linear regression analyses were conducted in order to examine whether emotional intelligence can predict anxiety and aggression of athletes. Result of the analysis revealed that approximately 45 % of variances of anxiety is associated with emotional intelligence, R^2 = .448, adjusted R^2 = .446, $F(1, 296) = 239.86$, $p <$ .01. It was found that emotional intelligence significantly predicted anxiety among athletes, β = -.67, $t(296) = -15.49$, $p <$ .01. (see Table 3.3.1). Results also showed that approximately 3 % of the variation in aggression is associated with emotional intelligence, R^2 = .037, adjusted R^2 = .033, $F(1, 296) = 11.22$, $p <$ .01. Therefore, emotional intelligence significantly predicted aggression of athletes, β = -.19, $t(296) = -3.35$, $p <$ .01. In other words, it is possible to make a prediction about both anxiety and aggression levels of athletes from their emotional intelligence levels. (see Table 3.3.2).

Table 3.3.1.

Simple Regression Analysis for Emotional Intelligence Predicting Anxiety

	B	*SE(B)*	*β*	*t*	R^2	ΔR^2	*F* change
Constant	88.66	3.26		27.22**			
EI Total	-.15	.01	-.67	-15.49**	.45	.45	239.86

Note. **$p <$ .01

Table 3.3.2.

Simple Regression Analysis for Emotional Intelligence Predicting Aggression

	B	*SE(B)*	*β*	*t*	R^2	ΔR^2	*F* change
Constant	82.38	7.43		11.08**			
EI Total	-.07	.02	-.19	-3.35**	.04	.03	11.22

Note. **$p <$ .01

In order to examine the factors of emotional intelligence as a predictor of aggression among athlete multivariate linear regression analysis with stepwise method was conducted. Stepwise method provided results about strongest models predicting aggression. Because the correlations between the factors were high, collinearity analysis was done. Results revealed that tolerance of all factors are greater than .01 and variance inflation factor of all factors was less than 10. Consequently, it was found that collinearity is not a concern. Regression analysis with stepwise method showed that approximately 12 % of variances of aggression is associated with stress management, R^2 = .118, adjusted R^2 = .115, $F(1, 296) = 39.56$, $p < .01$, whereas stress management, intrapersonal and interpersonal factors are altogether associated with approximately 19 % of variances of aggression, R^2 = .192, adjusted R^2 = .184, $F(3, 294) = 23.33$, $p < .01$. It was found that stress management significantly predicted aggression, β = -.438, $t(294) = -7.24$, $p < .01$, as intrapersonal, β = .386, $t(294) = 5.06$, $p < .01$, and interpersonal did, β = -.286, $t(294) = -4.05$, $p < .01$. General mood and adaptability factors were excluded by the stepwise analysis since they did not represent significant levels of association and prediction. Therefore, the best prediction about aggression levels of athletes can be done from their stress management, intrapersonal and interpersonal levels under emotional intelligence. (see Table 3.3.3).

Table 3.3.3.

Stepwise Regression Analysis for the Factors of Emotional Intelligence Predicting Aggression

	B	*SE(B)*	*β*	*t*	R^2	ΔR^2	*F* change
Model 1					.12	.12	39.56
Constant	82.44	4.02		20.53*			
St. Man.[a]	-.57	.091	-.34	-6.29*			
Model 2					.15	.14	10.11
Constant	66.92	6.28		10.65*			
St. Man.[a]	-.74	.10	-.44	-7.12*			
Intrapersonal	.20	.063	.197	3.18*			
Model 3					.19	.18	16.43
Constant	82.28	7.20		11.43*			
St. Man.[a]	-.73	.10	-.44	-7.24*			
Intrapersonal	.39	.077	.39	5.06*			
Interpersonal	-.51	.13	-.29	-4.05			

Note. [a]Stress Management, *p< .01

Finally in order to examine the factors of emotional intelligence as a predictor of aggression among athlete multivariate linear regression analysis with stepwise method was conducted. Stepwise method provided results about strongest models predicting anxiety. Because the correlations between the factors were high collinearity analysis was done. Results showed that tolerance of all factors are greater than .01 and variance inflation factor of all factors was less than 10. Consequently, it was found that collinearity was not a concern.

Regression analysis with stepwise method showed that approximately 43 % of variances of anxiety is associated with general mood, R^2 = .425, adjusted R^2 = .423, $F(1, 296) = 219$, $p < .01$, whereas general mood, stress management, interpersonal and intrapersonal factors are altogether associated with approximately 57 % of variances of anxiety, R^2 = .575, adjusted R^2 = .569, $F(4, 293) = 99.07$, $p <$

.01. It was found that general mood significantly predicted anxiety, β = -.483, t(293) = -7.65, p< .01, as stress management, β = -.373, t(293) = -8.38, p< .01, interpersonal, β = .215, t(293) = 3.98, p< .01 and intrapersonal, β = -.181, t(293) = -2.81, p< .01 did. Adaptability factor was excluded by stepwise analysis since it did not represent significant levels of association and prediction. Therefore, the best prediction about anxiety levels of athletes can be made from their general mood, stress management, interpersonal and intrapersonal levels under emotional intelligence. (see Table 3.3.4).

Table 3.3.4.

Stepwise Regression Analysis for the Factors of Emotional Intelligence Predicting Anxiety

	B	*SE(B)*	*β*	*t*	R^2	ΔR^2	*F* change
Model 1					.43	.42	219.00
Constant	75.80	2.55		29.78*			
Gen. Mood[a]	-.77	.05	-.65	-14.80*			
Model 2					.55	.55	80.41
Constant	81.80	2.36		34.70*			
Gen. Mood[a]	-.55	.05	-.47	-10.55*			
St. Man.[b]	-.38	.04	-.40	-8.97*			
Model 3					.56	.56	10.19
Constant	75.71	3.00		25.21*			
Gen. Mood[a]	-.67	.07	-.57	-10.45*			
St. Man.[b]	-.39	.04	-.40	-9.26*			
Interpersonal	.17	.05	.17	3.19*			
Model 4					.58	.57	7.88
Constant	77.47	3.03		25.53*			
Gen. Mood[a]	-.57	.07	-.48	-7.65*			
St Man.[b]	-.36	.04	-.37	-8.38*			
Interpersonal	.22	.06	.22	3.98*			
Intrapersonal	-.11	.04	-.18	-2.81*			

Note. [a]General Mood, [b]Stress Management, *p< .01

CHAPTER 4

DISCUSSION

The goal of this study was to examine the relationship between three variables among athletes: emotional intelligence, anxiety, and aggression. This research has been planned as a first step in a series of studies in sport psychology. The big picture aims to explore and explain the relationship between the variables which affect sports performance. Therefore, psychological components of sports performance will be explained individually. This would allow psychologists to find ways to enhance athletes' performance. This first part of the studies aimed to examine the role of emotional intelligence on two crucial elements of athletic performance; anxiety and aggression.

There are studies about emotional intelligence in sports, however, the applicability of emotional intelligence in the field is underestimated. The studies about ability to develop emotional intelligence brought a question on the applicable role of emotional intelligence in sports.

The importance of this MA thesis is that it aimed to fulfill the gap in the literature both by studying emotional intelligence with two important variables, aggression and anxiety together in Turkey and also by collecting data from athletes. In this section, findings of the study will be discussed by answering the questions of how findings are related to previous studies and how they may steer the future studies. Additionally, possible contributions of the research in the field will be mentioned in this section.

First, analyses revealed that anxiety scores of women athletes are significantly different than men. As Hishinuma (2000) stated that women had significantly higher anxiety scores than men. However, aggression scores of male athletes were significantly higher than female athletes. Accordingly, Yıldız and Sümer (2010) stated that gender is a significant predictor for aggression. However there was no significant difference between male and female athletes in terms of emotional intelligence scores. Naghavi and Redzuan (2011) reported that gender differences in emotional intelligence are influenced by factors such as culture and age. Therefore, it is a complex issue and would be a subject of another study. On the other hand, it was found that experienced athletes had significantly lower anxiety than less experienced ones. This may be explained by the research of Petruzzello et al (1991) showing that doing sport regularly has significant effect on lower trait anxiety. Aşçı (2000) also reported that regular exercise has significant effect on trait anxiety which all support the results of this study.

Research outcomes supported first hypothesis confirming the negative relationship between emotional intelligence and anxiety. According to this athletes

who have higher emotional intelligence tended to show lower anxiety which was supported in the literature. Some researchers found relationship between EI factors as well as emotional intelligence as a whole. For instance, Lizeretti et al (2014) reported that people with anxiety disorders have lower emotional intelligence levels. Moreover, Fernandez-Berrocal et al. (2006) found negative relationship between emotional intelligence and anxiety. They also stated that emotional intelligence is an important and unique contributor of psychological adjustment. Psychological adjustment helps people adjust to changing environment and reduce anxiety levels (Berry et al, 2002). People with generalized anxiety disorder have significant emotion regulation deficits which are directly related to emotional intelligence (Kerns et al, 2014). Some researchers found relationship between emotional intelligence and anxiety, as well as with other mental disorders such as depression (Ozcelik, 2007; Singh et al., 2014). As Resurreccion et al. (2014) stated emotional intelligence is negatively correlated to anxiety and other mental health problems. Although previous studies which investigated this relationship have not studied athletes before in this research significant relationship is also confirmed by using different sample, athletes which is novel in the literature.

Furthermore, the research analysis showed different strengths between the relationship among various factors of emotional intelligence and anxiety. According to that strongest relation was found between general mood and anxiety. Other significant relationships were found in order with stress management, intrapersonal factor, adaptability factor, and interpersonal factor. There were very few studies in the field that seek relationship separately for each factor of EI and anxiety. Thus, there is not enough research to support or discuss our study results. However, as it

was mentioned in Berry et al.'s (2002) anxiety study, psychological adjustment, which can be a part of adaptability factor of emotional intelligence. They stated that psychological adjustment can reduce anxiety levels of individuals. Additionally, Kerns et al (2014) stated that emotion regulation deficits are seen with generalized anxiety disorders. Although emotion regulation is not directly described and measured in the current used emotional intelligence model, it can be evaluated as a concept which is parallel with some sub-factors. According to Bar-On (2013) emotion regulation is a part of impulse-control and stress tolerance which are sub-factors of stress management. Additionally, emotion regulation is also a part of reality testing which is a sub-factor of adaptability. On the other hand, the strongest relationship was found between general mood and anxiety. According to the results an athlete who has high general mood capability would also shows lower anxiety levels. General mood factor had items related to optimism and happiness factors. Thus, optimism and happiness capability of an individual are the most important emotional intelligence capabilities which are significantly related to anxiety levels. Optimism and happiness items were very similar to any depression scale items, but they were written as reverse items. Accordingly, Regier et al (1998) and Kessler et al (2008) stated that comorbidity of depression and anxiety is very common. Additionally, Fernandez-Berrocal et al. (2006) found positive relationship between anxiety and depression. Those studies revealed relationship between general mood and anxiety in the literature. Considering a sport context, it can be argued that athletes who have capabilities of optimism and have greater general mood would also have less anxiety. Another factor which had significant relationship with anxiety was stress management including items related to stress tolerance and impulse control. Handling stress is also important capability for athletes since it is associated

with lower anxiety levels. Study of Yeltepe (2007) could explain this relationship. She stated that stress and anxiety are related among athletes. Thus, negative relationship between stress management, a factor of EI and anxiety is meaningful. Therefore, current findings are consistent with the previous studies in the literature. Finally, all those findings are important as they all comparing factors of emotional intelligence among athletes which was a big gap in the literature.

In the following analysis significant relationship was found between emotional intelligence and aggression which supports the second hypothesis. Although the correlation was small, it was confirmed that athletes having higher emotional intelligence would also show lower aggression. In the previous studies frequently used concepts were hostility, anger, stress and aggression all had strong relationship to each other. In the literature, there were some studies found relationship between emotional intelligence and aggression. For instance, Fernandez-Berrocal et al. (2014) stated that individuals with higher emotional intelligence would show less aggression. Sancho (2014) et al also reported emotional intelligence and aggression are in negative relationship among all age groups and among cultures. Similarly, emotional intelligence intervention applied to adolescents by Castillo et al (2013) revealed that aggression levels of the participants were reduced. Additionally, stress and aggression is found to be in a relationship with emotional intelligence. For example, Laborde et al. (2011) stated that emotional intelligence has significant relationship with stress, which is a basis of aggressive behavior. Obviously, findings of current thesis are consistent with the literature.

Moreover, relationship between the factors of emotional intelligence and aggression was analyzed. Results showed that four factors found they were significantly related to aggression. Those factors are stress management, adaptability, interpersonal and general mood in order according to their strength. Literature found significant relationship between some of the factors and sub-factors of EI and aggression. Most findings reported sub-factors of intrapersonal and general mood factors of EI are associated with aggression. For instance Roberten et al (2014) reported that failing to attend upsetting emotions cause aggression. Roberten (2014) here, found a relationship between intrapersonal factor and aggression. Additionally, Morris (2002) stated that lack of ability in expression of emotions cause aggression. Morris also found an association with intrapersonal factor and aggression. However the findings of current study did not find significant relationship between intrapersonal factor and aggression. On the other hand, Solak (2011) and Yılmaz (2013) stated empathy, which is a part of interpersonal factor, is in significant negative relationship with aggression. The current finding is consistent with those results of Solak (2011) and Yılmaz (2013). Moreover current findings also showed significant association between general mood factor and aggression consistent with the study of Erdogan (1996) who revealed optimism which is a sub-factor of general mood is related to stress, which is a foundation of aggressive behavior. Therefore, current findings were parallel with the literature.

Current results showed the strongest relationship is between stress management factor and aggression. Considering aggression as a whole concept with hostility, anger, and stress is important in order to understand the results of the current study. Spielberger et al. (1988) reported aggression is a manifest of stress.

Additionally, Jenkins et al (1978) also reported aggressive behavior is an expression of stress and anger. Therefore, stress management capabilities are directly related with aggressive behavior, which means enhancing those capabilities may reduce aggressive behavior. Another point considering the past studies is which current finding of this thesis showed that stress and aggressive behavior of athletes are caused by external sources, rather than intrapersonal sources. Stress management included some items about stress tolerance and impulse control capability which means the higher stress tolerance and impulse control the lower aggression would be. Considering sport context and results of the thesis, a picture which appears in mind will be aggression may be triggered by opponents, coaches and supporters. Isberg (2000) supported this comment by stating that stress anger and aggressive behavior may be caused by coaches, communication factors and sportive factors such as rules and opponents. Thus, capability of impulse control and stress tolerance are the determinants of any response to those external factors.

As can be seen in the results section, simple and multiple regression analyses were conducted in order to see if and how emotional intelligence and its factors predict anxiety and aggression. Simple regression analysis showed emotional intelligence predicted anxiety significantly. As it was mentioned before, results of the past studies showed significant association between emotional intelligence and anxiety. For instance, Fernandez-Berrocal (2006) and Lizeretti et al (2014) reported negative relationship between emotional intelligence and anxiety. Moreover, emotional intelligence is a useful tool in predicting anxiety and depression (Saklosfske, Austin, & Minski, 2003). Although emotional intelligence was mentioned as a useful tool for prediction of anxiety, none of the mentioned studies

have concluded emotional intelligence as a predictor. For that reason, current results of the thesis are important since it can lead to more prediction analyses between two variables. As basic statistical knowledge, it is known that regression does not show direction without a theoretical perspective. This study assumed emotional intelligence as a part of basic representation of cognitive existence of an individual. Therefore, emotional intelligence was a cause and anxiety was an effect in the equation of this research. Thus higher emotional intelligence levels cause lower anxiety levels for athletes.

Moreover, factors of emotional intelligence and anxiety were analyzed with stepwise regression. Results showed general mood, stress management, interpersonal and intrapersonal predicted anxiety significantly. Adaptability factor was excluded since it did not significantly predict anxiety. Although there were no studies including prediction of anxiety by using the entire scale of emotional intelligence, some studies revealed anxiety was predicted by some factors of EI. For example Fernandez-Berrocal et al (2006) reported emotional repair, clarity and thought suppression are significant predictors of anxiety. Those factors are the factors of another emotional intelligence scale, however related sub-factors also can be found in Bar-On EQ-inventory. Emotional repair consisted of some items of adaptability and intrapersonal factor. Items related to clarity can also be found in the items of intrapersonal and interpersonal factor. Thought suppression can be found under impulse control, which is a part of stress management. Extremera and Fernandez-Berrocal (2006) also found clarity and mood repair are significant predictors of anxiety. Last, emotion regulation is a significant negative predictor of anxiety (Kokkonen & Pulkkinen, 1999). Emotional regulation items are also found in

adaptability, stress management and intrapersonal factor of current study. On the other hand, it is seen that general mood had great effect on anxiety. In other words, the most important predictors of anxiety is optimism and happiness among athletes.

Furthermore, a simple regression analyses was conducted in order to see whether and how aggression was predicted by emotional intelligence. It was found that emotional intelligence predicted aggression significantly. Although studies reported relationship between emotional intelligence and aggression, there was lack of studies which reported regression analysis. Castillo et al. (2013) and Sancho et al (2014) revealed significant relationship between emotional intelligence and aggression, however they did not mentioned any predictor. Considering very small variance, it might be a speculation to discuss about cause and effect relationship between emotional intelligence and aggression. Nevertheless, ignoring significant prediction result would also be a penalty. Thus, exploring how factors of EI predict aggression is crucial.

Stepwise regression results showed stress management, intrapersonal, and interpersonal factor predicted aggression significantly. General mood and adaptability were excluded since they did not predict aggression significantly. Siu (2009) reported that poor use of emotions predicted aggressive behaviors. The items about “use of emotions” are in the factors of intrapersonal and interpersonal in the current study. Since there is no research previously done about this topic discussing and comparing the results would not be feasible. However this is an exact point why this study is crucial. Not only it analyzed the factors of emotional intelligence and aggression with regression analyses, but also the study was done with athletes..

According the results, most important cause of lower aggression among athletes is stress management. In other words, stress tolerance and impulse control are crucial for an athlete in order to control aggressive behavior.

All in all, hypotheses of the current study were accepted and it was found that emotional intelligence and some of its factors are significantly related with anxiety and aggression among athletes. Therefore, the first step of series of studies can be considered as successful.

4.1. Limitations of the Study

There were several limitations of the study. First, not all participants in this study were professional athletes and/or had license in a particular sport. Professional sport is done with strict training program, mostly in a team context and with a coach. Athletes with only license have also those contextual characteristics. Although there was no difference between the individual scores of license and without license participants for all three inventories, studying with only professional athletes would be more important for sports psychology literature.

Second, it was difficult to compare and contrast the results of some analyses since there were limited studies about this specific topic. Lack of comparison is a weak point for this study.

Third, assessing emotional intelligence with a self-report inventory has been another limitation of the study. It has been confirmed that there are two types of

emotional intelligence scales and one of them is self-report trait EI measures (Joseph & Newman, 2010). However, Mayer, Caruso and Salovey criticized trait EI measures and claimed that they only assess personality characteristics rather than intelligence (as cited in Conte, 2005).

Finally, the original version of Bar-On EQ-i had 133 items. The Turkish version had 88 items. Although reliability values were strong for Turkish version, a revision may be useful for future studies.

4.2. Implications of the Study

The plan is to improve emotional intelligence and it is important to remember the studies of Slaski and Cartwright (2003), Ozcelik (2007) and Tufan (2011) which claim emotional intelligence can be improved by specific training. Current thesis has found significant relationship between EI and anxiety, EI and aggression. Therefore, next step should be to find ways for developing emotional intelligence among athletes. By increasing emotional intelligence anxiety and aggression levels which are strong drawbacks for a sportive performance can be reduced.

Furthermore, this study found general mood and stress management which are the factors of emotional intelligence, are the most important predictors of anxiety and aggression. Therefore, specific trainings aim to improve only those factors can be developed. Additionally, if Cognitive-Behavioral therapy can be applied to athletes in order to improve their general mood and stress management skills and it

would reduce anxiety and aggression levels instead of specific emotional intelligence trainings.

There are studies reported emotional intelligence can be improved by training. However, a need for training is questionable. In other words, various therapy techniques are conducted by clinical psychologists around the world. It should be considered that whether therapy is able to reduce anxiety and aggression of athletes. Moreover, another question can be whether emotional intelligence training can substitute therapy.

4.3. Future Research

When interpreting the results of the correlations between the variable one point attracted attention. Some correlations between the factors of EI and aggression are greater than the other. What does it mean? Emotional intelligence is a broad concept. Total of all factors may reduce the relationship coefficients between EI and any other variable. It is found particularly in EI and aggression relationship stress management factor and adaptability factor showed greater significant relationship. It can be a research question for future studies in order to discover how emotional intelligence should be studied.

Another point for future studies can be to study with professional athletes by using anxiety and aggression scales which are developed specially for sport context would be important. Additionally, there is lack of scale which was standardized to Turkish. Thus, a study to standardize Turkish versions of emotional intelligence

scales, anxiety and aggression scales for sport context will be very helpful for future studies in the field.

REFERENCES

Aksaraylı, M., & Özgen, I. (2008). Akademik Kariyer Gelişiminde Duygusal Zekânın Rolü Üzerine Bir Araştırma. *Ege Academic Review*, *8*(2), 755-770.

Aşan, Ö., & Özyer, K. (2003). Duygusal zekaya etki eden demografik faktörlerin saptanmasına yönelik ampirik bir çalışma. *Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *21*(1), 151-167.

Aşçı, F. H. (2000). The reliabilty and validity of PSDQ for Turkish population. In *Congress Proceedings of Vth Sport Sciences Congress* (pp. 3-5).

Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, NJ: Prentice-Hall.

Barlow, D. H. (2004). *Anxiety and its disorders: The nature and treatment of anxiety and panic*. New York, NY: Guilford press.

Bar-On, R., Brown, J. M., Kirkcaldy, B. D., & Thome, E. P. (2000). Emotional expression and implications for occupational stress; an application of the Emotional Quotient Inventory (EQ-i). *Personality and Individual Differences*,*28*(6), 1107-1118.

Bar-On, R. (1997). The Emotional Quotient Inventory (EQ-i): A test of emotional intelligence. *Toronto: Multi-Health Systems*, *28*.

Bar-On, R. (2010). Emotional intelligence: An integral part of positive psychology. *South African Journal of Psychology*, *40*(1), 54-62.

Bar-On, R. (2013). How EI should be conceptualized, measured and studied. Retrieved from http://www.reuvenbaron.org/wp/reuven-bar-on/how-to-study-measure-and-apply-ei/

Baron, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema*, *18*(1), 13-25.

Bar-On, R., Handley, R., & Fund, S. (2006). The impact of emotional intelligence on performance. *Linking Emotional Intelligence and Performance at Work: Current Research Evidence with Individuals and Groups*, 3-20.

Berry, J. W. (2002). *Cross-cultural psychology: Research and Applications*. Cambridge: Cambridge University Press.

Bostani, M., & Saiiari, A. (2011). Comparison emotional intelligence and mental health between athletic and non-athletic students. *Procedia-Social and Behavioral Sciences*, *30*, 2259-2263.

Boxer, P., Morris, A. S., Terranova, A. M., Kithakye, M., Savoy, S. C., & McFaul, A. F. (2008). Coping with exposure to violence: Relations to emotional symptoms and aggression in three urban samples. *Journal of Child and Family Studies*, *17*(6), 881-893.

Boyatzis, R. E., Goleman, D., & Rhee, K. (2000). Clustering competence in emotional intelligence: Insights from the emotional competence inventory (ECI). *Handbook of emotional intelligence*, 343-362.

Bredemeier, B., Weiss, M., Shields, D., & Cooper, B. (1987). The relationship between children's legitimacy judgments and their moral reasoning, aggression tendencies, and sport involvement. *Sociology of Sport Journal*, *4*(1), 48-60.

Bridge, B. (2003). *Duyguların eğitimi*. İstanbul: Beyaz Yayınevi.

Burton, D. (1988). Do anxious swimmers swim slower? Reexamining the elusive anxiety-performance relationship. *Journal of Sport and Exercise Psychology*, *10*(1), 45-61.

Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, *63*(3), 452.

Butler, G., & McManus, F. (1998). *Psikolojinin ABC'si*. (Z. İyidoğan Babayiğit, Trans.). İstanbul: Kabalcı.

Castillo, R., Salguero, J. M., Fernández-Berrocal, P., & Balluerka, N. (2013). Effects of an emotional intelligence intervention on aggression and empathy among adolescents. *Journal of Adolescence*, *36*(5), 883-892.

Çelik, Ş. (2008). *Lise öğrencilerinin öznel iyi oluşlarının duygusal zekâ açısından incelenmesi* (Unpublished master's thesis). Selçuk University, Konya. Retrieved from https://tez.yok.gov.tr.

Cherniss, C. (2010). Emotional intelligence: Toward clarification of a concept. *Industrial and Organizational Psychology*, *3*(2), 110-126.

Colakoglu, F. F., & Solak, N. (2014). Examination of aggression levels and empathic tendency levels of secondary school students who involve or not involve in sports. *Procedia-Social and Behavioral Sciences*, *152*, 415-420.

Conte, J. M. (2005). A review and critique of emotional intelligence measures. *Journal of Organizational Behavior*, *26*(4), 433-440.

Cooper, R., & Sawaf, A. (1997). *Executive EQ: Emotional Intelligence in Leadership and Organizations*. New York, NY: Grosset/Putnam.

Dawda, D., & Hart, S. D. (2000). Assessing emotional intelligence: Reliability and validity of the Bar-On Emotional Quotient Inventory (EQ-i) in university students. *Personality and Individual Differences*, *28*(4), 797-812.

Doğan, O. (2005). *Spor Psikolojisi* (2nd ed.). Adana: Nobel Kitabevi.

Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. (1939). *Frustration and aggression*. New Haven, CT: Yale University Press.

Economic value of sport in England (Rep.). (2013). Sport England. Retrieved from http://www.sportengland.org/media/3174/economic-value-of-sport-summary.pdf

Erdoğan, İ. (1996). *İşletme yönetiminde örgütsel davranış*. İstanbul: Avcıol Yayıncılık.

Extremera, N., & Fernández-Berrocal, P. (2006). Emotional intelligence as predictor of mental, social, and physical health in university students. *The Spanish Journal of Psychology*, *9*(01), 45-51.

Fernandez-Berrocal, P., Alcaide, R., Extremera, N., & Pizarro, D. (2006). The role of emotional intelligence in anxiety and depression among adolescents. *Individual Differences Research*, *4*(1), 16-27.

García-Sancho, E., Salguero, J. M., & Fernández-Berrocal, P. (2014). Relationship between emotional intelligence and aggression: A systematic review. *Aggression and Violent Behavior*, *19*(5), 584-591.

Gardner, H. (2011). *Frames of mind: The theory of multiple intelligences*. New York, NY: Basic books.

Gill, D. L. (2000). *Psychological dynamics of sport and exercise*. Human Kinetics.

Göçet, E. (2006). *Üniversite öğrencilerinin duygusal zekâ düzeyleri ile stresle başa çıkma tutumları arasındaki ilişki* (Unpublished master's thesis). Sakarya University, Sosyal Bilimler Enstitüsü. Sakarya. Retrieved from https://tez.yok.gov.tr.

Goleman, D. (1995). *Emotional Intelegence*. London: King College.

Goleman, D. (1998). *Working with emotional intelligence*. Random House LLC.

Goleman, D. (2005a). *Duygusal Zekâ.* (S. Yüksel, Trans.). İstanbul: Varlık Yayınları.

Goleman, D. (2005b). *İşbaşında Duygusal Zekâ.* (H. Balkara, Trans.). İstanbul: Varlık Yayınları.

Goleman, D., & Sutherland, S. (1996). *Emotional intelligence: Why it can matter more than IQ*. London: Bloomsbury.

Goleman, D., Boyatzis, R. E., & McKee, A. (2002). *The new leaders: Transforming the art of leadership into the science of results*. London: Little, Brown.

Gould, D., & Krane, V. (1992). *The arousal–athletic performance relationship: Current status and future directions*. Champaign, IL, England: Human Kinetics.

Gowing, M. K. (2001). Measurement of individual emotional competence. *The emotionally intelligent workplace: How to select for, measure, and improve emotional intelligence in individuals, groups, and organizations*, 83-131.

Güngör, S. (2008). *Üniversite öğrencilerinde duygusal zekânın psikolojik sıkıntı belirtileri üzerindeki etkisi* (Unpublished master's thesis). Marmara University, İstanbul. Retrieved from https://tez.yok.gov.tr.

Hanin, Y. L. (1980). A study of anxiety in sports. In W. F. Straub *(Ed.), Sport Psychology: An Analysis of Athletic Behavior* (pp. 236-249). Ithaca, NY: Movement Publications.

Hein, S. (2005). *Introduction to emotional intelligence*. United States of America: EBSCO.

Hishinuma, E. S., Miyamoto, R. H., Nishimura, S. T., & Nahulu, L. B. (2000). Differences in State-Trait Anxiety Inventory scores for ethnically diverse

adolescents in Hawaii. *Cultural Diversity and Ethnic Minority Psychology*, *6*(1), 73.

Hoerr, T. R. (2004). *Becoming a Multiple Intelligences School*. Alexandria, VA: ASCD.

Isberg, L. (2000). Anger, aggressive behavior, and athletic performance. *Emotions in Sport, 1*, 13-33. İstanbul: Kabalcı Yayınevi.

Jenkins, C. D. (1978). Behavioral risk factors in coronary artery disease. *Annual Review of Medicine*, *29*(1), 543-562.

Joseph, D. L., & Newman, D. A. (2010). Emotional intelligence: An integrative meta-analysis and cascading model. *Journal of Applied Psychology*, *95*(1), 54.

Kerns, C. E., Comer, J. S., & Zeman, J. (2014). A preliminary psychometric evaluation of a parent-report measure of child emotional awareness and expression in a sample of anxious youth. *Cognitive Therapy and Research*, *38*(3), 349-357.

Kerns, C. E., Mennin, D. S., Farach, F. J., & Nocera, C. C. (2014). Utilizing an ability-based measure to detect emotion regulation deficits in generalized anxiety disorder. *Journal of Psychopathology and Behavioral Assessment*, 36(1), 115-123. doi:http://dx.doi.org/10.1007/s10862-013-9372-3

Kessler, R. C., Gruber, M., Hettema, J. M., Hwang, I., Sampson, N., & Yonkers, K. A. (2008). Co-morbid major depression and generalized anxiety disorders in the National Comorbidity Survey follow-up. *Psychological Medicine, 38*(03), 365-374.

Kokkonen, M., & Pulkkinen, L. (1999). Emotion regulation strategies in relation to personality characteristics indicating low and high self-control of emotions. *Personality and Individual Differences*, *27*(5), 913-932.

Kowalski, R., & Westen, D. (2005). *Psychology* (4th ed.). Hoboken, NJ : Wiley

Laborde, S., Brüll, A., Weber, J., & Anders, L. S. (2011). Trait emotional intelligence in sports: A protective role against stress through heart rate variability?. *Personality and Individual Differences*, *51*(1), 23-27.

Laborde, S., Lautenbach, F., Allen, M. S., Herbert, C., & Achtzehn, S. (2014). The role of trait emotional intelligence in emotion regulation and performance under pressure. *Personality and Individual Differences*, *57*, 43-47.

Lane, A. M., Devonport, T. J., Soos, I., Karsai, I., Leibinger, E., & Hamar, P (2010). Emotional intelligence and emotions associated with optimal and dysfunctional athletic performance. *Journal of Sports Science & Medicine*, *9*(3), 388.

Lane, A., Meyer, B., Devonport, T., Davies, K., Thelwell, R., Gill, G. & Weston, N. (2009). Validity of the emotional intelligence scale for use in sport. *Journal of Sports Science and Medicine*, *8*(2), 289-295.

Lizeretti, N. P., Vázquez Costa, M., & Gimeno-Bayón, A. (2014). Emotional Intelligence and Personality in Anxiety Disorders. *Advances in Psychiatry*.

Mayer, J. D., & Salovey, P. (1993). *The Intelligence of Emotional Intelligence*, 17(4), 433-442.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2000a). Models of emotional intelligence. W: R. Sternberg (red.), Handbook of intelligence (s. 396-420)

Mayer, J. D., Salovey, P., & Caruso, D. R. (2000b). Emotional intelligence as zeitgeist, as personality, and as a mental ability. In R. Bar-On, & J. D. Parker

(Eds.), *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace* (pp. 92-117). San Francisco, CA: Jossey-Bass. Retrieved from http://psycnet.apa.org/

Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion, 3*(1), 97.

Mellalieu, S. D., Neil, R., Hanton, S., & Fletcher, D. (2009). Competition stress in sport performers: Stressors experienced in the competition environment. *Journal of Sports Sciences, 27*(7), 729-744.

Naghavi, F., & Redzuan, M. (2011). The relationship between gender and emotional intelligence. *World Applied Sciences Journal, 15*(4), 555-561.

Newsome, S., Day, A. L., & Catano, V. M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences, 29*(6), 1005-1016.

Öner, N. (1977). *Durumluk ve sürekli kaygı envanterinin Türk toplumundaki geçerliliği* (Unpublished doctoral thesis). Boğaziçi University, İstanbul.

Öner, N., & LeCompte, W. A. (1983). *Durumluk-sürekli kaygı envanteri el kitabı*. Boğaziçi University, İstanbul.

Özcelik, M. (2007). *The effect of the emotional intelligence skills training program on the depression and anxiety levels of martyr families* (Unpublished doctoral thesis). Ondokuz Mayıs University, Samsun.

Payne, W. L. (1985). A study of emotion: Developing emotional intelligence; self-integration; relating to fear, pain and desire. *Dissertation Abstract International*, 47, 203A.

Perlini, A. H., & Halverson, T. R. (2006). Emotional intelligence in the National Hockey League. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, *38*(2), 109.

Petrides, K. V., & Furnham, A. (2000). On the dimensional structure of emotional intelligence. *Personality and Individual Differences*, *29*(2), 313-320.

Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, 15(6), 425-448.

Petruzzello, S. J., Landers, D. M., Hatfield, B. D., Kubitz, K. A., & Salazar, W. (1991). A meta-analysis on the anxiety-reducing effects of acute and chronic exercise. *Sports Medicine*, *11*(3), 143-182.

Regier, D. A., Rae, D. S., Narrow, W. E., Kaelber, C. T., & Schatzberg, A. F. (1998). Prevalence of anxiety disorders and their comorbidity with mood and addictive disorders. *The British Journal of Psychiatry*.

Resurrección, D. M., Salguero, J. M., & Ruiz-Aranda, D. (2014). Emotional intelligence and psychological maladjustment in adolescence: A systematic review. *Journal of Adolescence*, 37(4), 461-472.

Robazza, C., Bortoli, L., & Hanin, Y. (2004). Precompetition emotions, bodily symptoms, and task-specific qualities as predictors of performance in high-level karate athletes. *Journal of Applied Sport Psychology*, *16*(2), 151-165.

Roberton, T., Daffern, M., & Bucks, R. (2007). Maladaptive emotion regulation and aggression in adult offenders. *Psychology, Crime & Law*, *20*(10). doi:10.1080/1068316X.2014.893333

Roberton, T., Daffern, M., & Bucks, R. S. (2014). Beyond anger control: Difficulty attending to emotions also predicts aggression in offenders. *Psychology of Violence,* doi: http://dx.doi.org/10.1037/a0037214

Saklofske, D. H., Austin, E. J., & Minski, P. S. (2003). Factor structure and validity of a trait emotional ıntelligence measure. *Personality and Individual Differences*, 34, 707-721.

Salovey, P., & Mayer, J. D. (1997). EI meets traditional standards for an intelligence. *Intelligence*, *27*, 267-298.

Salovey, P., Mayer, J. D., Caruso, D., & Lopes, P. N. (2003). Measuring emotional intelligence as a set of abilities with the Mayer-Salovey-Caruso Emotional Intelligence Test V2.0. *Emotions, 3,* 97-105.

Schat, A. C. H., & Frone, M. R. (2011). Exposure to psychological aggression at work and job performance: The mediating role of job attitudes and personal health. *Work & Stress, 25*(1), 23-40. doi:http://dx.doi.org/10.1080/02678373.2011.563133

Schutte, N. S., & Malouff, J. M. (2013). Adaptive emotional functioning: A comprehensive model of emotional intelligence. *Psychology of Emotions. Hauppauge,* New York: Nov Science Publishers.

Singh, A. K., Singh, S., & Singh, A. P. (2014). Cognitive and emotion based self-efficacy and well- being among younger adults. *Indian Journal of Community Psychology*, *10*(2), 323-334. Retrieved from http://search.proquest.com/docview/1614377611?accountid=15407

Siu, A. F. (2009). Trait emotional intelligence and its relationships with problem behavior in Hong Kong adolescents. *Personality and Individual Differences*,*47*(6), 553-557.

Slaski, M., & Cartwright, S. (2002). Health, performance and emotional intelligence: an exploratory study of retail managers. *Stress and Health*, *18*(2), 63-68.

Slaski, M., & Cartwright, S. (2003). Emotional intelligence training and its implications for stress, health and performance. *Stress and Health*, *19*(4), 233-239.

Sohrabi, R., Garajeh, P. A., & Mohammadi, A. (2011). Comparative study of emotional intelligence of athlete and non-athlete female students of Tabriz Islamic Azad University. *Procedia-Social and Behavioral Sciences*, *30*, 1846-1848.

Spector, P. E., & Johnson, H. M. (2006). Improving the definition, measurement and application of emotional intelligence. *A Critique of Emotional Intelligence: What Are the Problems and How Can They Be Fixed Mahwah, NJ: Erlbaum*, 325.

Spielberger, C. D. (1966). Theory and research on anxiety. *Anxiety and behavior*, *1*.

Spielberger, C. D., Gorsuch, R., & Lushene, R. (1970). STAI Manual for the State-Trait Anxiety Inventory 1970. *Palo Alto, CA: Consulting Psychologists*.

Spielberger, C. D., Krasner, S. S., & Solomon, E. P. (1988). The experience, expression, and control of anger. In *Individual differences, stress, and health psychology* (pp. 89-108). Springer New York.

Stein, S. J., Book, H. E. (2003). *EQ: Duygusal zekâ ve başarının sırrı.* (Işık, M. Trans). İstanbul: Özgür.

Sümer, N. (2003). Personality and behavioral predictors of traffic accidents: Testing a contextual mediated model. *Accident Analysis & Prevention*, *35*(6), 949-964.

Titrek, O. (2005). Duygusal zekâ yeterliliklerini iş yaşamında kullanma düzeyi ölçeğinin geliştirilmesi: Geçerlik ve güvenirlik çalışmaları. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, *3*(24), 73-87.

Tok, S. (2008). *Performans Sporcusu ve Spor Yapmayan Üniversite Öğrencilerinde Duygusal Zekâ İle Kişilik Özelliklerinin Karşılaştırılması* (Unpublished doctoral thesis). Ege University, İzmir. Retrieved from https://tez.yok.gov.tr.

Tufan, Ş. (2011). *Geliştirilen Duygusal Zekâ Eğitimi Programının Ortaöğretim Dokuzuncu Sınıf Öğrencilerinin Duygusal Zekâ Düzeylerine Etkisi* (Unpublished master's thesis). Ankara University, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü Eğitimde Psikolojik Hizmetler Anabilim Dalı Rehberlik Ve Psikolojik Danışmanlık Programı, Ankara. Retrieved from https://tez.yok.gov.tr.

Wechsler, D. (1943). Non-intellective factors in general intelligence. *The Journal of Abnormal and Social Psychology*, *38*(1), 101.

Weinberg, R. S., & Gould, D. (1995). *Foundations of sport and exercise psychology*. Champaign, IL: Human Kinetics.

Weisinger, H. D. (1998). *Emotional intelligence at work: The untapped edge for success.* San Francisco: Jossey-Brass.

Widmeyer, W. N., & Birch, J. S. (1979). The relationship between aggression and performance outcome in ice hockey. *Canadian Journal of Applied Sport Sciences*, *4*(1), 91-94.

Yaşar, M. (2010). *Duygusal zekâ ve sporcu performansı ilişkisi: Kayseri'de bir araştırma* (Unpublished master's thesis). Erciyes University, Kayseri. Retrieved from https://tez.yok.gov.tr.

Yeltepe, H. (2007). *Spor ve Egzersiz Psikolojisi* (1st ed.). İstanbul: Epsilon.

Yıldız, E. Ç., & Sümer, Z. H. (2010). Saldırgan davranışlarını yordamada çevresel risk, çevresel güvenlik ve okul iklimi algısı. *Türk Psikolojik Danışma ve Rehberlik Dergisi*, *4*(34), 161-171.

Yılmaz, S. (2013). *Spor yapan ve yapmayan ortaöğretim öğrencilerinin empatik eğilimleri ile saldırganlık düzeyleri arasındaki ilişkinin incelenmesi* (Unpublished master's thesis). Yeditepe University, İstanbul. Retrieved from https://tez.yok.gov.tr.

Zeidner, M., Roberts, R. D., & Matthews, G. (2002). Can emotional intelligence be schooled? A critical review. *Educational Psychologist*, *37*(4), 215-231.

Zizzi, S., Deaner, H., & Hirschhorn, D. (2003). The relationship between emotional intelligence and performance among college basketball players. *Journal of Applied Sport Psychology*, *15*(3), 262-269.

APPENDIX A

CONSENT FORM AND DEMOGRAPHIC INFORMATION FORM

Sporcu Araştırması

Sayın Katılımcı,

Bu çalışma Bahçeşehir Üniversitesi Sosyal Bilimler Enstitüsü bünyesinde gerçekleştirilen Klinik Psikoloji yüksek lisans tez araştırmasıdır. Çalışmayı Yrd. Doç. Dr. Doruk Uysal Irak danışmanlığında Klinik Psikoloji Yüksek Lisans Öğrencisi Sertan Ambarcı yürütmektedir.

Bu araştırmaya katılım gönüllülük esasına dayalıdır. Araştırma 10-15 dakika arasında sürmektedir ve üç soru formu doldurmayı içermektedir. Soru formlarının, başlarındaki yönerge izlenerek doldurulması önemlidir. Bu soru formlarında sizinle ve hayatınızla ilgili bazı sorular bulunmaktadır.

Bu çalışma sporcularla ilgili bazı özelliklerin incelendiği bir araştırmadır. **Bu araştırmada *sporcu*, düzenli şekilde, amatör yada profesyonel olarak sporla ilgilenen birey olarak tanımlanmıştır. Eğer bu özelliğe sahipseniz ve en az 18 yaşındaysanız çalışmadaki soruları cevaplandırabilirsiniz.**

Çalışmada kişisel bilgilerin gizliliği esas alınmıştır ve kimlik bilgileriniz talep edilmemektedir. Verilen cevaplar anonim olarak ve toplu halde istatistiksel olarak çalışılacaktır.

Çalışmaya katılmaktan herhangi bir zaman vazgeçebilir ve çalışmayı yarım bırakabilirsiniz. Çalışmayı tamamladıktan sonra dahi formlarınızın kullanılmaması talebinde bulunabilirsiniz.

Araştırmanın sonuçları açısından tüm soruların cevaplandırılması çok önemlidir. Zaman ayırdığınız için teşekkür ederim.

Araştırmacı: Klinik Psikoloji Yüksek Lisans Öğrencisi Sertan Ambarcı
sertan.ambarci@stu.bahcesehir.edu.tr

Bilgi Formu

1. Yaşınız: .....

2. Cinsiyetiniz: K ☐ E ☐

3. İlgileniyor olduğunuz spor dalı: .....

4. Bu spor dalıyla ne kadar süredir ilgileniyorsunuz?

0-6 Ay☐ 6 Ay-1Yıl☐ 1-5 Yıl☐ 5-10 Yıl☐ 10+ Yıl☐

5. Bu spor dalıyla ne sıklıkla ilgileniyorsunuz?

Her gün☐ Haftada birkaç kez☐ Haftada bir☐ Ayda birkaç kez☐

6. Bu spor dalıyla amatör olarak mı, profesyonel olarak mı ilgileniyorsunuz?

Amatör ☐ Profesyonel ☐

7. Bu spor dalında lisansınız var mı?

Var ☐ Yok ☐

8. Bu spor dalıyla nerede ilgileniyorsunuz?

Okul takımı ☐ Fitness center ☐ Amatör kulüp ☐
Profesyonel kulüp ☐ Diğer(Lütfen belirtiniz) .....

APPENDIX B

STAI-TX TRAIT ANXIETY SCALE

	Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyun, sonra da o anda nasıl hissettiğinizi ifadelerin sağ tarafındaki parantezlerden uygun olanını işaretlemek suretiyle belirtin. **Doğru ya da yanlış cevap yoktur**. Herhangi bir ifadenin üzerinde fazla zaman sarfetmeksizin **anında** nasıl hissettiğinizi gösteren cevabı işaretleyin.	**Hemen hemen hiçbir zaman**	**Bazen**	**Çok zaman**	**Hemen her zaman**
1.	Genellikle keyfim yerindedir.	(1)	(2)	(3)	(4)
2	Genellikle çabuk yorulurum.	(1)	(2)	(3)	(4)
3	Genellikle kolay ağlarım.	(1)	(2)	(3)	(4)
4	Başkaları kadar mutlu olmak isterim.	(1)	(2)	(3)	(4)
5	Çabuk karar veremediğim için fırsatları kaçırırım.	(1)	(2)	(3)	(4)
6.	Kendimi dinlenmiş hissediyorum.	(1)	(2)	(3)	(4)
7.	Genellikle sakin, kendine hakim ve soğukkanlıyım.	(1)	(2)	(3)	(4)
8	Güçlüklerin yenemeyeceğim kadar biriktiğini hissederim.	(1)	(2)	(3)	(4)
9	Önemsiz şeyler hakkında endişelenirim.	(1)	(2)	(3)	(4)
10.	Genellikle mutluyum.	(1)	(2)	(3)	(4)
11	Her şeyi ciddiye alır ve endişelenirim.	(1)	(2)	(3)	(4)
12	Genellikle kendime güvenim yoktur.	(1)	(2)	(3)	(4)
13.	Genellikle kendimi emniyette hissederim.	(1)	(2)	(3)	(4)

14	Sıkıntılı ve güç durumlarla karşılaşmaktan kaçınırım.	(1)	(2)	(3)	(4)
15	Genellikle kendimi hüzünlü hissederim.	(1)	(2)	(3)	(4)
16.	Genellikle hayatımdan memnunum.	(1)	(2)	(3)	(4)
17	Olur olmaz düşünceler beni rahatsız eder.	(1)	(2)	(3)	(4)
18	Hayal kırıklıklarını öylesine ciddiye alırım ki hiç unutamam.	(1)	(2)	(3)	(4)
19.	Aklı başında ve kararlı bir insanım.	(1)	(2)	(3)	(4)
20	Son zamanlarda kafama takılan konular beni tedirgin ediyor.	(1)	(2)	(3)	(4)

APPENDIX C

BAR-ON EQ-i EMOTIONAL INTELLIGENCE SCALE

Sayın Katılımcı, Aşağıdaki ifadelere vereceğiniz yanıtları 1'den 5'e kadar sıralanan; *1)Tamamen Katılıyorum* *2) Katılıyorum 3) Kararsızım* *4)Katılmıyorum 5) Kesinlikle Katılmıyorum* ifadelerinden birini seçiniz. **Doğru veya yanlış cevap yoktur. Size en fazla uyduğunu düşündüğünüz seçeneği işaretleyiniz.**	**Tamamen katılıyorum 1**	**Katılıyorum 2**	**Kararsızım 3**	**Katılmıyorum 4**	**Kesinlikle Katılmıyorum 5**
1. Zorluklarla baş edebilme yaklaşımım adım adım ilerlemektir.					
2. Duygularımı göstermek benim için kolaydır					
3. Çok fazla strese dayanamam					
4. Hayallerimden çok çabuk sıyrılabilir ve o anki durumun gerçekliğine dönebilirim.					
5. Zaman zaman ortaya çıkan tersliklere rağmen, genellikle işlerin düzeleceğine inanırım					
6. Üzücü olaylarla yüz yüze gelmek benim için zordur					
7. Biriyle aynı fikirde olmadığımda bunu ona söyleyebilirim					
8. Kendimi kötü hissettiğimde beni neyin üzdüğünü bilirim					
9. Başkaları benim iddiasız biri olduğumu düşünürler					
10. Çoğu durumda kendimden eminimdir					
11. Huysuz bir insanımdır					
12. Çevremde olup bitenlerin farkında değilimdir					
13. Derin duygularımı başkaları ile kolayca paylaşamam					
14. İyi ve kötü yanlarıma baktığım zaman kendimi iyi hissederim					
15. Yaşamımı elimden geldiğince anlamlı hale getirmeye çalışırım					
16. Sevgimi belli edemem					
17. Tam olarak hangi konularda iyi olduğumu bilmiyorum					
18. Eski alışkanlıklarımı değiştirebilirim					
19. Hoşuma giden şeyleri elimden geldiğince sonuna kadar öğrenmeye çalışırım					
20. Başkalarına kızdığımda bunu onlara söyleyebilirim					
21. Hayatta neler yapmak istediğime dair kesin bir fikrim yok					

22. Yapacaklarımın bana sık sık söylendiği bir işte çalışmayı tercih ederim					
23. Bir problemi çözerken her bir olasılığı inceler, daha sonra en iyisine karar veririm					
24. Bir liderden çok, takipçiyimdir					
25. Doğru ifade etmeseler de, başkalarının duygularını çok iyi anlarım					
26. Fiziksel görüntümden memnunum					
27. İnsanlara ne düşündüğümü kolayca söyleyebilirim					
28. İlgimi çeken şeyleri yapmaktan hoşlanırım					
29. Sabırsız bir insanım					
	Tamamen Katılıyorum 1	**Katılıyorum 2**	**Kararsızım 3**	**Katılmıyorum 4**	**Kesinlikle Katılmıyorum 5**
30. Diğer insanların duygularını incitmemeye özen gösteririm					
31. İşler gittikçe zorlaşsa da genellikle devam etmek için motivasyonum vardır					
32. Başkalarıyla iyi ilişkiler kurarım					
33. Güç bir durumla karşılaştığımda konuyla ilgili olabildiğince çok bilgi toplamayı isterim					
34. İnsanlara yardım etmekten hoşlanırım					
35. Son birkaç yılda çok az başarı elde ettim					
36. Öfkemi kontrol etmem zordur					
37. Hayattan zevk almıyorum					
38. Duygularımı tanımlamak benim için zordur					
39. Haklarımı savunamam					
40. Oldukça neşeli bir insanımdır					
41. Düşünmeden hareket edişim problemler yaratır					
42. İnsanlar benim sosyal olduğumu düşünürler					
43. Kurallara uyan bir vatandaş olmak çok önemlidir					
44. Kendimi olduğum gibi kabul etmek bana çok zor geliyor					
45. Aynı anda başka yerde bulunmak zorunda olsam da, ağlayan bir çocuğun anne ve babasını bulmasına yardım ederim					
46. Arkadaşlarım bana özel şeylerini anlatabilirler					
47. Kendi başıma karar verememem					
48. Başka insanlara saygı duyarım					
49. Başkalarına neler olduğunu önemserim					
50. Bazı şeyler hakkında fikrimi değiştirmem zordur					
51. Problemlerin çözümüne ilişkin farklı çözüm yolları düşünmeye çalışınca					

genellikle tıkanır kalırım					
52. Fanteziler ya da hayaller kurmadan her şeyi gerçekte olduğu gibi görmeye çalışırım					
53. Neler hissettiğimi bilirim					
54. Benimle birlikte olmak eğlencelidir					
55. Sahip olduğum kişilik tarzından memnunum					
56. Hayal ve fantezilerime kendimi kaptırırım					
57. Yakın ilişkilerim benim ve arkadaşlarım için çok önemlidir					
58. Yeni şeylere başlamak benim için zordur					
59. Eğer yasaları benim çiğnemem gerekirse, bunu yaparım					
60. Endişeliyimdir					
61. Yeni şartlara ayak uydurmak benim için kolaydır					
	Tamamen Katılıyorum 1	**Katılıyorum 2**	**Kararsızım 3**	**Katılmıyorum 4**	**Kesinlikle Katılmıyorum 5**
62. Kolayca arkadaş edinebilirim					
63. Can sıkıcı problemlerle nasıl baş edebileceğimi bilirim					
64. Başkaları ile çalışırken kendi fikirlerimden çok onlarınkine güvenirim					
65. Kendimi çok sık, kötü hissederim					
66. Konuşmaya başlayınca zor susarım					
67. Çevremdekilerle iyi geçinemem					
68. Zor şartlarda serin kanlılığımı nasıl koruyacağımı bilirim					
69. Kendimi takdir ederim					
70. İnsanlarla tartışırken, bana sesimi alçaltmamı söylerler					
71. Tarzımı değiştirmem zordur					
72. Hayatımdan memnunum					
73.Başkalarının bana ihtiyaç duymalarından çok, ben başkalarına ihtiyaç duyarım					
74. Hafta sonlarını ve tatilleri severim					
75. Çok sinirlenmeden stresle baş edebilirim					
76. Çok zor durumların üstesinden gelebileceğime eminim					
77. Acı çeken insanların farkına varamam					
78. Genellikle en iyisini ümit ederim					
79. Başkalarına göre, bana güvenmek zordur					
80. Endişemi kontrol etmemin zor olduğunu biliyorum					
81. Başkalarının duygusal ihtiyaçlarını, kolaylıkla fark ederim					

82. Abartmayı severim					
83. Gülümsemek benim için zordur					
84. Uygun zamanda negatif duygularımla yüzleşir,onları gözden geçiririm					
85. Yeni bir şeylere başlamadan önce genellikle başarısız olacağım hissine kapılırım.					
86. İstediğim zaman "hayır" demek benim için zordur					
87. Bir problemle karşılaştığımda önce durur ve düşünürüm					
88. Yukarıdaki ifadelere samimi bir şekilde cevap verdim.					

APPENDIX D

AGGRESSION SCALE

Lütfen aşağıdaki ifadelerin, sizin için ne oranda doğru ya da yanlış olduğunu ilgili rakamı daire içerisine alarak belirtiniz.		**Tamamen yanlış**	**Çoğunlukla yanlış**	**Ne doğru**	**Çoğunlukla doğru**	**Tamamen doğru**
1.	Arada bir başka birisine vurma isteğimi kontrol edemem.	1	2	3	4	5
2.	Biraz tahrik edildiğimde başka birisine vurabilirim.	1	2	3	4	5
3.	Birisi bana vurursa ben de ona vururum.	1	2	3	4	5
4.	Çoğu insandan daha fazla kavga ederim.	1	2	3	4	5
5.	Haklarımı korumak için şiddet kullanmak zorunda kalırsam bunu yaparım.	1	2	3	4	5
6.	Bana sataştığı için yumruk yumruğa geldiğim çok insan olmuştur.	1	2	3	4	5
7.	Birine vurmayı gerektirecek geçerli bir neden düşünemiyorum.	1	2	3	4	5
8.	Tanıdığım insanlara gözdağı verdiğim olmuştur.	1	2	3	4	5
9.	Çok kızgın olduğumda kırıp döktüğüm olmuştur	1	2	3	4	5
10.	Arkadaşlarımla aynı görüşte olmadığım zaman bunu açıkça belirtirim.	1	2	3	4	5
11.	Sıklıkla başka insanlarla aynı görüşte olmam.	1	2	3	4	5
12.	İnsanlar canımı sıktıklarında onlar hakkında ne düşünüyorsam söyleyebilirim	1	2	3	4	5

13.	Benimle aynı görüşte olmayan insanlarla tartışmaktan kendimi alamam	1	2	3	4	5
14.	Arkadaşlarım biraz fazla tartışmacı biri olduğumu söylerler.	1	2	3	4	5
15.	Çabuk parlarım ama kızgınlığım çabuk geçer.	1	2	3	4	5
16.	Sinirlendiğim zaman rahatsızlığımı gösteririm.	1	2	3	4	5
17.	Bazen, kendimi patlamaya hazır bir bomba gibi hissederim	1	2	3	4	5
18.	Çabuk yatıştırılabilen biriyim.	1	2	3	4	5
19.	Kimi arkadaşlarım benim öfkeli birisi olduğum kanısındalar	1	2	3	4	5
20.	Bazen, hiç sebep yokken birdenbire öfkelenirim.	1	2	3	4	5
21.	Öfkemi kontrol etmekte zorlanırım.	1	2	3	4	5
22.	Bazen, olup bitenler hakkında neden çok kızgın oluğumu merak ederim	1	2	3	4	5