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Research Article

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## MEASUREMENT OF EMPATHY LEVELS OF NATIONAL ATHLETES

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### ABSTRACT

This study intended to measure the empathy levels of National Athletes. The screening model was used in the study. The study was conducted with 150 athletes in total in the National Athletics Team Camp, aged 21 and 23, 69 female and 81 male. The Empathy Quotient developed by Baron-Cohen and Wheelwright (2004) and validated and verified by Bora and Baysan (2009) was used as the data collection tool. The data was analyzed with SPSS 22 and the confidence level was 95%. According to the Shapiro-Wilk normality analysis, while the Cognitive Empathy scores of the participants had normal distribution ( $p>0,05$ ); the Empathic Interest-Sympathy, Emotional Reactivity, Social Skills and Empathy Levels did not demonstrate normal distribution ( $p<0,05$ ). Differences in Cognitive Empathy scores by age and gender were analyzed by the parametric test method, independent samples t-test, and differences in Empathic Interest-Sympathy, Emotional Reactivity, Social Skills and Empathy Levels by age and gender were analyzed by the non-parametric test method, Mann Whitney U. According to the study results, there is no statistically significant difference by gender ( $p>0,05$ ). Considering age, there is no statistically significant difference between the participants aged 21 and 23 in terms of Cognitive Empathy, Empathic Interest-Sympathy, Emotional Reactivity, Empathy Level ( $p>0,05$ ). There is statistically significant difference by Social Skills between the participants aged 21 and 23 ( $p<0,05$ ). While the average score for age 21 is 68,86, it is 86,33 for age 23. Accordingly, Social Skills are higher in the participants aged 23.

**Key words:** Athletics, Cognitive empathy, Empathy, Social skills.

## INTRODUCTION

The concept of empathy draws significant attention today. Empathy is discussed in studies on ethics and moral development, justice and courts, gender differences, arts and media relations, treatment methods in clinical psychology and theories of mind as well as popular media.

Dökmen (2003) defines empathy as "a person putting himself in the shoes of another and accurately understanding his feelings and thoughts". Empathy has two side components, cognitive and emotional. The cognitive side of empathy is a person putting himself in the shoes of another and understanding what he is thinking and its emotional side is a person putting himself in the shoes of another person and understanding what he is feeling. Cognitive empathy, meaning accurately evaluating another person's emotional condition in the simplest of terms and being able to evaluate incidents from the perspective of another person at the most complicated level, has an impact on social functionality of individuals (Smith, 2006). Emotional empathy is of high importance for moral development while it motivates individuals to engage in self giving acts towards their families, friends and strangers. The emotional dimension of empathy means being able to feel the emotions of another person and to give the most suitable response to the emotional condition of that person (Wied, Goudena and Matthys, 2005).

Empathy has been grouped in categories by researchers recently. According to the three component model of empathy by Feshbach (1978), empathic reactivity is the ability to determine the emotional condition of another person, to acknowledge the perspective or take on the role of another person and remembering a shared emotional reaction. Similarly, Hofmann (1979) suggests three components of empathy, cognitive, emotional and motivational (Quoted from Feshbach and Hofmann, Satılmış 2012). According to these definitions, Kurdek and Rodgon (1975) suggests empathic behavior is created by taking on other people's perspective on perceptual, cognitive and emotional terms. These researchers defined three types of perspective taking in their spatial studies. They are:

- Perceptual perspective taking (noticing another person's point of view)
- Cognitive perspective taking (noticing what another person is thinking)
- Emotional perspective taking (noticing what another person is going through)

Coplan (2011) determined three main characteristics of empathy:

- Affective/emotional matching
- Perspective taking towards another and self
- Distinguishing between self - another

According to Coplan (2011), all these characteristics are necessary for empathy but none of them solely suffice. Affective matching of an observer with the target only occurs if his own affective states are of the same type with those of the target - despite being on different levels. In perspective taking towards another, the observer imagines the states, experiences and personal traits of the target as if he is the target. In distinguishing between self - another, the only prerequisite for the observer to maintain it is representing himself as a

separate individual from the target and thus, preventing confusion about mutually corresponding states, experiences and personal traits. When combined, all these characteristics constitute empathy, a unique type of understanding with which he can live through what it is to be another person.

Individuals who need to communicate with others in every stage of life can only succeed in these communications by understanding and accepting themselves and others (Yüksel, 2004). Sierksma, Thijs and Verkuyten (2014) underline more empathetic children would be more likely to help each other. Starting from this, it is intended to measure the empathy levels of National Athletes.

## METHOD

### Study Model

The study uses the screening model. The screening model is an approach to research which aims for describing a condition which occurred in the past or occurs in the present as it is (Büyüköztürk, 2012).

### Study Group

The study group consisted of 150 athletes in total in the National Athletics Team Camp, aged 21 and 23, 69 female and 81 male.

**Table 1.** Demographics of Participants

		n	%
Gender	Female	69	46,0
	Male	81	54,0
Age	21 years old	93	62,0
	23 years old	57	38,0

46,0% of the participants in the study were female and 54,0% were male. 62,0% of the participants in the study were 21 years old and 38,0% were 23 years old.

### Data Collection Tool

The Empathy Quotient developed by Baron-Cohen and Wheelwright (2004) and validated and verified by Bora and Baysan (2009) was used as the data collection tool. The EQ is comprised of 40 items for measuring empathy (1, 4, 6, 8, 10-12, 14, 15, 18, 19, 21, 22, 25-29, 32, 34-39, 41-44, 46, 48-50, 52, 54, 55, 57-60) and 20 distracter items for preventing the participant from focusing on the purpose of the test. Only those 40 items measuring empathy are taken into account while scoring. The least empathetic 2 answers are given 0 point, the most empathetic answer is given 2 points and the second empathetic answer is given 1 point. The total score possible in the scale varies between 0 and 80 points. The Cronbach's Alpha value of the scale was calculated 0.85.

### Data Analysis

The data was analyzed with SPSS 22 and the confidence level was 95%. According to the Shapiro-Wilk normality analysis, while the Cognitive Empathy scores of the participants had normal distribution ( $p > 0,05$ ); the Empathic Interest-Sympathy, Emotional Reactivity, Social Skills and Empathy Levels did not demonstrate normal distribution ( $p < 0,05$ ). Differences in Cognitive Empathy scores by age and gender were analyzed by the parametric test method, independent samples t-test, and differences in Empathic Interest-Sympathy, Emotional Reactivity, Social Skills and Empathy Levels by age and gender were analyzed by the non-parametric test method, Mann Whitney U.

### FINDINGS (RESULTS)

**Table 2.** Descriptive Statistics of Empathy Levels and Subdimensions

	n	Minimum	Maximum	Mean	ss
Cognitive Empathy	150	5,00	22,00	13,49	3,94
Empathetic Interest - Sympathy	150	0,00	12,00	5,51	2,59
Emotional Reactivity	150	1,00	10,00	5,89	1,79
Social Skills	150	0,00	6,00	2,52	1,29
Empathy Level	150	10,00	43,00	27,40	6,02

Of the participants in the study, the Cognitive Empathy mean score was  $13,49 \pm 3,94$ ; the Empathetic Interest-Sympathy mean score was  $5,51 \pm 2,59$ ; the Emotional Reactivity mean score was  $5,89 \pm 1,79$ ; the Social Skills mean score was  $2,52 \pm 1,29$ ; and the Empathy Levels mean score was  $27,40 \pm 6,02$ .

**Table 3.** Analysis of Cognitive Empathy by Gender

	Gender	n	Mean	ss	t	p
Cognitive Empathy	Female	69	13,41	3,61	-,231	,817
	Male	81	13,56	4,22		

$p < 0,05$ =significant difference;  $p > 0,05$ =no difference

Evaluating cognitive empathy by gender (Independent Samples t test); there is no significant difference between female and male participants ( $p > 0,05$ ).

**Table 4.** Analysis of Empathy Level and social Skills, Emotional Reactivity and Empathetic Interest-Sympathy Subdimensions by Gender

	Gender	n	Mean Rank	U	p
Empathetic Interest - Sympathy	Female	69	75,85	2770,500	,927
	Male	81	75,20		
Emotional Reactivity	Female	69	74,39	2718,000	,769
	Male	81	76,44		
Social Skills	Female	69	81,34	2391,500	,115
	Male	81	70,52		
Empathy Level	Female	69	76,38	2733,500	,818
	Male	81	74,75		

$p < 0,05$ =significant difference;  $p > 0,05$ =no difference

Evaluating empathy level and social skills, emotional reactivity and empathetic interest-sympathy subdimensions by gender (Mann Whitney U); there is no significant difference between female and male participants ( $p > 0,05$ ).

**Table 5.** Analysis of Cognitive Empathy by Age

	Age	n	Mean	ss	t	p
Cognitive Empathy	21 years old	93	13,33	4,20	-,607	,544
	23 years old	57	13,74	3,50		

$p < 0,05$ =significant difference;  $p > 0,05$ =no difference

Evaluating cognitive empathy by age (Independent Samples t test); there is no significant difference between the participants aged 21 and 23 ( $p > 0,05$ ).

**Table 6.** Analysis of Empathy Level and social Skills, Emotional Reactivity and Empathetic Interest-Sympathy Subdimensions by Age

	Age	n	Mean Rank	U	p
Empathetic Interest - Sympathy	21 years old	93	70,40	2176,500	,064
	23 years old	57	83,82		
Emotional Reactivity	21 years old	93	76,19	2586,000	,799
	23 years old	57	74,37		
Social Skills	21 years old	93	68,86	2033,000	,013*
	23 years old	57	86,33		
Empathy Level	21 years old	93	71,95	2320,000	,200
	23 years old	57	81,30		

$p < 0,05$ =significant difference;  $p > 0,05$ =no difference

Evaluating empathy level and social skills, emotional reactivity and empathetic interest-sympathy subdimensions by age (Mann Whitney U); there is no significant difference between the participants aged 21 and 23 ( $p>0,05$ ).

There is statistically significant difference by Social Skills between the participants aged 21 and 23 ( $p<0,05$ ). While the average score for age 21 is 68,86, it is 86,33 for age 23. Accordingly, Social Skills are higher in the participants aged 23.

### **CONCLUSION and DISCUSSION**

In this study on the empathy levels of National Athletes, no significant difference was obtained by gender in the empathy level and social skills, emotional reactivity and empathetic interest-sympathy subdimensions in terms of cognitive empathy ( $p>0,05$ ). No significant difference was obtained by age in the empathy level and social skills, emotional reactivity and empathetic interest-sympathy subdimensions in terms of cognitive empathy between the participants aged 21 and 23 ( $p>0,05$ ). There is significant difference by Social Skills between the participants aged 21 and 23 ( $p<0,05$ ). While the average score for age 21 is 68,86, it is 86,33 for age 23. Accordingly, Social Skills are higher in the participants aged 23.

According to the results of Bora and Baysan (2009), female students scored significantly higher in empathy than male students. Data from factor analytic studies demonstrated more significant difference between females and males in the items measuring emotional empathy (Muncer and Ling, 2006). The study of Hasta and Güler (2013) demonstrated higher levels of open relationship, respectful relationship and empathetic tendency levels in women than men. Bozkurt (1997) found out significant difference in favor of female students comparing the empathetic tendency levels of female and male students. The result of this study is not compatible with the results of other studies conducted with the EQ. Güllü and Şahin (2018) according to the findings, it can be said that the participants are generally dependent on the responsibilities and social norms in the sport and that they respect the rules and the management. The lowest average is the sub-dimension of respect for competitors. It has been determined that male national wrestlers are more likely to respect opponents than female national wrestlers. According to Türkmen and Varol (2015) there was a significant difference between the physical activity level of consciousness between the groups at the point of overall average.

Erkuş and Yakupoğlu (2001) demonstrated lower scores for football players than Handball and Basketball players in both total scores and subtests. It was explained by handball and basketball being played in a smaller space and with fewer players compared to football and football players interacting less often than the other two sports. According to the results of the study of Pala (2008), the arithmetic mean of students in empathy levels was 3.5 out of 5. It shows the students had slightly higher empathy levels than the medium level. It was considered insufficient considering the criticality of empathy skills of teachers. According to the results of the study of Öztürk et al. (2004) the highest points of empathy is in fencing branch for trainers and in athletics for referees; the lowest points of empathy is found in table tennis branch both for the trainers and the referees. From the view point of individual and team sports trainers and referees there is no significant difference

between the mean of empathy points. A significant difference is found according to gender. The females have much empathic approach in comparison with the males. The empathy levels of the retireds have been found lower.

The study of Türk et al. (2018) on the Inter-Group Empathy Experiences of Turkish and Syrian Primary School Students From The Perspective of School Psychological Consultants demonstrated their friendship had an impact on determining the nature of what they felt and what behaviors they exhibited when they saw a friend with a different social identity in trouble, sad and treated unfairly. It was found out that when there was friendship, love, communication and mutual positive attitudes between Turkish and Syrian students, they were more sensitive to troubles, injustice and sadness experienced by each other and were more likely to offer more help and assistance. The study of Balçıkanlı and Yıldırım (2011) the findings gathered indicate that empathy which has a positive impact on moral behaviors in sports is a skill that athletes need to acquire. It is highly believed that empathy training to be designed in accordance with sports environment is considered to develop emphatic skills of athletes. Empathy training, which needs to begin specifically at an early age, occupies a key place in developing athletes' moral perspectives.

Zekioğlu and Tatar (2006) compared the personal traits and empathetic skill levels of Undergraduate Football Players. This study found out significant correlation between the football players' empathetic skill scores and personal traits. With the empathy scores of the participants, it was found out that the Abiding by the Rules, Tolerance, Sensitivity and Responsibility dimensions of the Five Factor Personality Inventory were in a positive correlation. In these dimensions, those who scored high in empathy were also more likely to be tolerant, modest, coherent, open to criticism, compliant with the rules, reliable, deliberate, responsible, decisive, self disciplined, purposeful, determined, sensitive, fine, kind, sensible and thoughtful. Sortullu (2011) studied into the impact of the Empathy training program on the empathy skills and team spirit of male basketball players aged 12. According to the results of the study, it was highly important to give equal (long) play time to all players in the team, especially in younger groups, in terms of empathetic development and team spirit and thus, the 15 week empathy training offered to develop empathy skills had a positive impact on team spirit and empathy skills of the players. Karademir and Türkçapar (2017) determined that there is no significant difference according to age between the levels of empathic tendency of the study group. However, there is a statistically significant difference according to sex between the levels of empathic tendency of the study group. It is seen females have higher level of empathic tendency. According to Türkmen and Varol (2015) it can be claimed that the athletes have higher level of "physical activity consciousness" than sedentary students'. As a result of the study carried out to examine the social values of youth team athletes in terms of some variables, statistically differences were observed in the Family Values, Scientific Values, Work Values, Religious Values, Traditional Values and Political Values subscales of 11-12 age group athletes compared to other age groups (Özdenk and Karabulut, 2018). The athletes that selected and non-selected for national team before the day of the event selection and on the morning of the competition the difference between the cognitive anxiety levels, somatic anxiety levels, confidence levels, motivation and imagination levels was not statistically different (Sallayıcı et al., 2018). In the study of Gülle (2015), it can be seen that the mean scores of empathic tendency

scores of the students in physical education and sports college differ significantly in terms of age variable. In addition to these studies, Akçalı (1991) and Öz (1992), Şahin and Özdemir (2015) found that there was an increase in empathy level when age increased.

According to the study results, there is statistically significant difference by Social Skills between the participants aged 21 and 23. Social Skills are higher in the participants aged 23. It can be said that as the age of the athletes increases, their social abilities increase. All athletes in all age groups should be given the necessary training to develop the empathic tendency.

#### **SUGGESTIONS**

Activities should be provided to the athletes to develop empathy levels. Trainers should be trained about empathy. All athletes of all age groups should be given the necessary training to develop an empathic tendency.



## MİLLİ ATLETLERİN EMPATİ DÜZEYLERİNİN BELİRLENMESİ

### GİRİŞ

Empati kavramı, günümüzde büyük ölçüde dikkat çekmiştir. Empatinin etik ve ahlaki gelişim, adalet ve mahkemeler, cinsiyet farkları, sanat ve medya ile ilişkiler, klinik psikolojide tedavi yöntemleri ve zihin kuramları, popüler basınla ilgili alanlarda araştırmalara konu edildiği görülmektedir. Hayatının her döneminde başkalarıyla iletişim kurmak zorunda olan bireylerin bu iletişimlerinde başarılı olabilmesi kendisini ve başkalarını anlayabilmesi ve kabul etmesi ile mümkündür. Sierksma, Thijs ve Verkuyten (2014) daha empatik çocukların birbirlerine daha çok yardım yapmaya niyetli olacaklarını vurgulamaktadırlar. Buradan yola çıkılarak Milli Atletlerin empati düzeylerinin belirlenmesi amaçlanmıştır.

### YÖNTEM

Araştırmada tarama modeli kullanılmıştır. Çalışma grubunu Atletizm Mili Takım Kampında olan 21 ve 23 yaşlarında, 69'u kadın, 81'i erkek toplam 150 sporcu oluşturmuştur. Veri toplama aracı olarak Baron-Cohen ve Wheelwright (2004) tarafından geliştirilen, Bora ve Baysan (2009)'ın geçerlik ve güvenilirliğini yapmış olduğu Empati Ölçeği kullanılmıştır. Ölçekten alınabilen toplam puan 0 ile 80 arasında değişmektedir. Ölçeğin Cronbach Alfa değeri 0.85 olarak hesaplanmıştır. Verilerin analizi SPSS 22 programı ile yapılmış ve %95 güven düzeyi ile çalışılmıştır. Yapılan Shapiro-Wilk normallik analizine göre katılımcıların Bilişsel Empati puanları normal dağılım gösterirken ( $p>0,05$ ); Empatik İlgisempati, Emosyonel Yanıt, Sosyal Yeti ve Empati Düzeylerinin normal dağılım göstermediği belirlenmiştir ( $p<0,05$ ). Bilişsel Empati puanlarının yaş ve cinsiyete göre farklılık gösterme durumu parametrik test tekniği olan Bağımsız gruplar t testi, Empatik İlgisempati, Emosyonel Yanıt, Sosyal Yeti ve Empati Düzeylerinin yaş ve cinsiyete göre farklılık gösterme durumu ise parametrik olmayan test tekniği Mann Whitney U ile analiz edilmiştir.

### BULGULAR

Bilişsel empatinin cinsiyet ve yaş açısından incelendiğinde, katılımcılar arasında istatistiksel olarak anlamlı farklılık bulunmamaktadır. Empati düzeyi ile sosyal yeti, emosyonel yanıt ve empatik ilgi-sempati alt boyutlarının yaş açısından incelendiğinde; 21 ile 23 yaşında olan katılımcılar arasında istatistiksel olarak anlamlı farklılık bulunmamaktadır. 21 ile 23 yaşında olan katılımcılar arasında Sosyal Yeti açısından istatistiksel olarak anlamlı farklılık bulunmaktadır. 21 yaşında olanların puan sıra ortalaması 68,86 iken 23 yaşında olanların ortalaması 86,33'tür. Buna göre 23 yaşında olanlarda Sosyal Yeti daha fazladır.

**TARTIŞMA VE SONUÇ**

Çalışma sonuçlarına göre, 21 ve 23 yaşları arasındaki katılımcılar arasında Sosyal Beceriler açısından istatistiksel olarak anlamlı fark bulunmuştur. Sporcuların yaşı arttıkça, sosyal yeteneklerinin arttığı söylenebilir. Her yaş grubundaki tüm sporculara empatik bir eğilim geliştirmek için gerekli eğitim verilmelidir.

**Anahtar Kelimeler:** Atletizm, bilişsel empati, empati, sosyal yeti.

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