

Akdeniz Spor Bilimleri Dergisi

Mediterranean Journal of Sport Science

Taekwondocuların Psikolojik Sağlamlık Düzeyleri İle Durumluk ve Sürekli Kaygı Düzeyleri Arasındaki İlişkinin İncelenmesi¹

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DOI: https://doi.org/10.38021asbid.1373144

Öz

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Sorumlu Yazar:

Yayın Bilgisi

Gönderi Tarihi:

09.10.2023

26.10.2023

29.10.2023

Kabul Tarihi:

Online Yayın Tarihi:

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Bu çalışmada taekwondocuların psikolojik sağlamlık düzeyleri ile sürekli ve durumluk kaygı seviyelerini incelemek amaçlanmaktadır. Çalışmanın evreninin U-21 Taekwondo Türkiye Şampiyonasına katılan 270 taekwondo sporcusu oluşturmuştur. Katılımcıların 130'unu erkek sporcular oluştururken, geriye kalan 140 kişiyi kadın katılımcılar oluşturmuştur. 72 katılımcı milli sporcu iken, toplam katılımcıların yaş aralığı 16-20 olarak bulunmuştur. Veriler sporculara Türkiye Taekwondo Sampiyonasında anket yöntemiyle toplanmıştır. Sporculara tartıdan önce bilgi verilmiş ve gönüllülük esasına dayalı anketleri doldurmaları istenmiştir. Doldurulan anketler sporculardan toplanarak arşivlenmiştir. Verilerin toplanmasında, sporcuların demografik bilgilerine yönelik sosyo demografik bilgiler formu, Kısa Psikolojik Sağlamlık Ölçeği ile STAI-I ve STAI-II Kaygı Ölçeği (Durumlu ve Sürekli) kullanılmıştır. Sporcuların belirttiği seçenekler doğrultusunda gerçekleşen analizler SPSS 23.0 programında yapılmıştır. Ölçeklerin ters maddeleri çevrildikten sonra ölçeklerden alınan puanlar toplanmıştır. Ardında veriler Kolmogorov Smirnov normallik analizi ile değerlendirilmiştir. Normallik testi sonucuna göre verilerim normallik gösterdiği tespit edilmiştir. Sporcuların bilgilerinin yer aldığı demografik değişkenlerin ikili grupları için t testi, ikiden fazla gruplar icin ise One Way Anova testi kullanılmıştır. Sürekli ve durumluk kaygı seviyeleri puan ortalaması ile Psikolojik sağlamlık ölçeği puan ortalaması ilişkisini incelemek amacıyla Pearson korelasyon analizi yapılmıştır. Sonuçlar p<0.05 anlamlılık düzeyine göre incelenmistir

Anahtar kelimeler: Taekwondo, Kaygı, Psikolojik Sağlamlık

Investigation Of The Relationship Between Brief Resilience Levels Of Taekwondo Players And Their Levels Of State And Trait Anxiety

Abstract

This study aims to examine the psychological resilience levels and trait and state anxiety levels of taekwondo players. The population of the study consisted of 270 taekwondo athletes participating in the U-21 Taekwondo Turkey Championship. While 130 of the participants were male athletes, the remaining 140 were female participants. While 72 participants were national athletes, the age range of the total participants was 16-20. The data was collected by survey method from the athletes at the Turkish Taekwondo Championship. Athletes were informed before the weigh-in and were asked to fill out surveys on a voluntary basis. The completed surveys were collected from the athletes and archived. In collecting data, the socio-demographic information form for the demographic information of the athletes, the Brief Psychological Resilience Scale and the STAI-I and STAI-II Anxiety Scale (State and Continuous) were used. The analyzes carried out in line with the options specified by the athletes were made in the SPSS 23.0 program. After the reverse items of the scales were reversed, the scores from the scales were summed. The data were then evaluated with Kolmogorov Smirnov normality analysis. According to the normality test results, it was determined that my data showed normality. The t test was used for paired groups of demographic variables containing the athletes' information and the One Way Anova test was used for groups of more than two. Pearson correlation analysis was performed to examine the relationship between the mean score of trait and state anxiety levels and the mean score of the Psychological resilience scale. Results were analyzed according to the significance level of p <0.05

Keywords: Taekwondo, Anxiety, Resilience.

¹ Bu makale 7-9 Ekim 2023 tarihlerinde Trabzon'da gerçekleştirilen "VII. Uluslararası Akademik Spor Araştırmaları Kongresinde sunulmuştur.

Introduction

Since sports has an important power to gather many people under the same roof it attracts the attention of many people today as a great social dynamic (Ölçücü et al., 2012). In this context, sports are very important for human life and contribute to individuals in terms of development (Altınışık and Çelik, 2021; Altınışık and Çelik, 2022). Taekwondo is a martial art originating from the Far East (Hausmann, 1998). Taekwondo is a very popular sport in our country because it is an olympic sport (Tel et al., 2001). In the literature, the contribution of Taekwondo sport to both physical and mental development is expressed (Lee et al., 2008). According to the competition rules of Taekwondo, athletes start and finish their competitions in one day. Normally, 3 rounds are played over 2 minutes, and the competition may conclude at the end of the 2nd round, provided that the athletes close the rounds with a 2-0 advantage. Athletes play an average of 6-8 competitions a day and experience a high physical and mental process until the end of the day (Dumangöz, 2022). It is thought that the competition process may cause some psychological processes in athletes (Solakumur et al., 2023). In this process, Athletes are expected to experience some psychological processes such as anxiety, worry, fear, and stress.

Emotions are as important a factor in human communication and relationships as physical and mental health (Altınışık et al., 2021). The importance and universality of emotions emerge more with the concept of sports (Dumangöz, 2022). When the literature is examined, it is stated that anxiety is very common in athletes. Anxiety is generally expressed as a reflection of fear in the face of danger. In this case, fear and anxiety are often confused with each other. While it is stated that the cause of the fear is related to a specific reason, it is indicated that the object caused by the anxiety is uncertain (Budak, 2000). Anxiety affects the inner peace of people negatively and causes people to experience feelings of discomfort (Dağ, 1999). Based on this information, it is thought that the stress factor, success factor, failure factor, health problems, training process, or the characteristics of the individual experienced by sports organizations may cause the athletes to experience anxiety factor in the competition and pre-competition period.

It is seen that the athletes who cope with this situation and overcome it are successful. This situation is explained as psychological resilience in the literature. Psychological resilience is defined as the ability to cope with these difficulties and adapt to the situation despite all difficulties. Like mental toughness, which is defined as the ability to cope with difficulties, psychological resilience also includes psychological concepts such as self-efficacy, sense of confidence, and motivation. (Çelik and Gayretli, 2020). It is thought that the ability of athletes to cope with the psychological process they experience and to adapt to this process may be the features that make them stand out on the way to success.

In fact, the basis of the event lies entirely in the processes that enable athletes to perform superiorly. For this reason, athletes go through various training processes and try to deliver the best performance. One of the variables required to demonstrate the best performance is expressed as the level of psychological resilience. It is seen that athletes with good levels of psychological resilience exhibit and maintain the expected performance in the pressure environment they are exposed to (Sarkar and Fletcher, 2014; Tokat and Iğdır, 2022). While some athletes react negatively to stress factors, some athletes can perform well in this process. This situation is related to the athletes' ability to cope with stress. This situation has been examined in the literature on football players exposed to stress factors. The success of football players exposed to stress factors in penalty kicks has been expressed. While some football players made unsuccessful shots against this stress factor, some football players made successful shots (B1y1k and İmamoğlu, 2022b). Athletes' reactions to psychological factors have been one of the focal points of studies (Abdullah et al., 2016). It is stated that the level of anxiety experienced in this situation is one of the factors affecting performance (Gümüş, 2002). It is thought that it may have negative effects on the sports performance of athletes with high anxiety levels. Studies conducted in this context show that athletes with high levels of anxiety have a negative impact on their ability to make correct decisions. Gümüş (2002), in his study; He stated that a high level of anxiety will have a negative impact on athletes' ability to make correct decisions. When the literature is examined, the importance of sports performance emerges. As a matter of fact, many studies have been done to reveal the best performance. It is known that the level of psychological resilience and anxiety levels are also important issues in this sense. As in many sports, physical preparation alone is not enough in taekwondo. In addition, psychological factors also play an important role. Stages such as motivation, concentration, and mental preparation are also stated as factors affecting performance (Koç, 2004). It is thought that it is important for coaches to determine the anxiety levels and psychological resilience levels of athletes in order to ensure success.

Based on the information I obtained when we examined previous studies, we aimed to examine the relationship between athletes' trait and state anxiety levels and their brief resilience levels.

Material and Methods

Research Model

In the study, quantitative research approach, one of the research approaches, was used. The research was conducted using the survey model to examine the brief resilience levels and Trait and State Anxiety Levels of Taekwondo players. The relational survey model, designed to determine the

change between two or more variables, tries to reveal the relationship between the variables and information about whether the variables have changed (Karasar, 2011).

At the time of the research, the rules within the scope of Scientific Research and Publication Ethics determined by Higher Education were taken into consideration.

Research Group

The population of the study consisted of 270 taekwondo athletes participating in the U-21 Taekwondo Turkey Championship. While 130 of the participants were male athletes, the remaining 140 were female participants. While 72 participants were national athletes, the age range of the total participants was found to be 16-20.

Data Collection

The data were collected from the athletes by the questionnaire method in the Turkish Taekwondo Championships. The athletes were informed before the weigh-in and they were asked to fill in the questionnaires on a voluntary basis. The weigh-in day was specifically chosen because the athletes came together en masse on the weigh-in day before the competition. Thus, all data was filled under the same conditions before the competition. The completed questionnaires were collected from the athletes and stored. The socio-demographic information form for the demographic information of the athletes, Brief Resilience Scale (BRS), and the STAI-I and STAI-II Anxiety Scales (Stated and Continuous) were used to collect the data.

The Brief Resilience Scale

BRS, which consists of 6 items and 5 points, Smith et al (2008) and measures the level of psychological resilience. High BRS scores indicate high psychological resilience. Validity and reliability studies were conducted in four groups, two of which were university students and two were heart patients. Construct validity was determined by factor analysis. A single-factor structure was obtained, expressing 61%, 61%, 57% and 67% of the variance. The correlation factors of the items were found to be between 68% and 91%. The reliability and internal consistency of the scale calculated by the test-retest method were found to be 62%, .69% and 80% and 91%, respectively. While significant relationships were found between BRS Scale and positive coping emotions, negative significant relationships were found with perceived negative emotions (Doğan, 2015).

The State Anxiety Inventory, whose validity and reliability was established in 1983, was developed in 1970 (Spielberger, 1970). While it was scored as never, a little, a lot, and completely, the Trait anxiety scale was scored as almost never, sometimes, a lot, and almost always. Direct statements express negative emotions, while reverse statements reveal positive emotions. High-scored statements express high anxiety. (Hacicaferoglu et al., 2015).

Data Analysis

The data were analysed based on the options specified by the athletes made in the SPSS 23.0 program. After the reversed items of the scales were reversed, the scores obtained from the scales were summed. Then, the data were evaluated with Kolmogorov Smirnov analysis of normality. According to the results of the normality test, it was determined that the data showed normality. In terms of the demographic variables of the athletes, t-test was used in independent groups for paired groups and One-Way Anova test was used for groups of more than two. Pearson correlation analysis was used to evaluate the relationship between the self-esteem mean score and the resilience scale mean scor (Peker, 2020). The results were evaluated at the p <0.05 significance level

Ethical Dimension of the Study

In order to continue the study actively, permission was obtained from the Turkish Taekwondo Central Referee Committee with a petition and all weighing referees, coaches and athletes were informed. The study was done on a completely voluntary basis and the athletes were informed that they could stop working whenever they wanted.

Results

Table 1

Examination of the Brief Resilience Levels and State and Trait Anxiety of the Participants by Age Variable

		Sum of Squares	sd	Mean Square	F	р
	Between Groups	1,018	4	,254		
TAI	Within Groups	59,182	265	,223	1,139	,338
	Total	60,200	269			
SAI	Between Groups	,462	4	,116		
	Within Groups	60,611	265	,229	,505	,732
SAI	Total	61,073	269			
	Between Groups	,513	4	,128		
BRS	Within Groups	118,921	265	,449	,286	,887
	Total	119,434	269			

 $p\!\!<\!\!0.5^*\,p\!\!<\!\!0.1^{**}$

When Table 1 is examined, trait anxiety scale (f= -1,139, p>0,05), state anxiety scale (f= ,505, p>0,05) and psychological resilience scale (f= ,286, p>0,05). There is no significant difference between the mean scores and age variables.

Table 2

Examining the Brief Resilience Levels Levels and State and Trait Anxiety of the Participants by Gender Variable

		n	Mean	Sd.	df	t	р
TAI	Male	130	2.10	0.49	268		0.21
TAI	Female	140	2.18	0.46	262	-1,421	0,31
CAL	Male	130	1.92	0.47	268		0.05
SAI	Female	140	2.02	0.48	267	-1,812	0,95
	Male	130	3.53	0.68	268		
BRS	Female	140	3.46	0.65	264	,786	0,68

p < 0.5* p < 0.1**

When Table 2 is examined, trait anxiety scale (t= -1421, p>0,05), state anxiety scale (t= -1,812, p>0,05) and psychological resilience scale (t= ,786, p>0,05). There is no significant difference between score averages and gender variables.

Table 3

Investigation of Brief Resilience Levels Levels and State and Trait Anxiety of Participants According to the Variable of National Athlete Status

		n	Mean	Sd.	df	t	р
TAI	Yes	72	2,20	0,48	268	1 221	0.69
	No	198	2,12	0,47	124	- 1,221	0,68
SAI	Yes	72	2,00	0,51	268	.644	0,54
	No	198	1,961	0,47	117	-,044	0,54
BRS	Yes	72	3,50	0,73	268	100	0.40
	No	198	3,49	0,65	114	,126	0,49

p<0.5* p<0.1**

Participants' trait anxiety scale (t= 1,221, p>0,05), state anxiety scale (t= ,644, p>0,05) and psychological resilience scale (t= ,126, p>0,05). There is no significant difference between al scores and national athlete variable.

Table 4

		Sum of Squares	df	Mean Square	F	р
	Between Groups	,238	2	,119		
TAI	Within Groups	59,962	267	,225	,530	,590
IAI	Total	60,200	269			
	Between Groups	,726	2	,363		
CAT	Within Groups	60,347	267	,226	1,605	,203
SAI	Total	61,073	269			
	Between Groups	1,840	2	,920		
BRS	Within Groups	117,594	267	,440	2,089	,126
	Total	119,434	269			

Examining the Brief Resilience Levels Levels and State and Trait Anxiety of the Participants According to the Variable of Family Income Status

 $p < 0.5^* p < 0.1^{**}$

When Table 4 is examined, the mean scores of trait anxiety scale (f=, 530, p>0.05), state anxiety scale (f= 1,605, p>0.05) and psychological resilience scale (f= 2,089, p>0.05). There is no significant difference between and family income variables.

Table 5

Examination of the Relationship Between the Brief Resilience Levels Levels of the Participants and their State and Trait Anxiety Levels

		TAI	SAI	BRS
TAI –	Pearson Correlation	1.00	.552**	429**
IAI –	р		0.00	0.00
CAL	Pearson Correlation	.552**	1.00	348**
SAI —	р	0.00		0.00
DDC	Pearson Correlation	429**	348**	1.00
BRS —	р	0.00	0.00	

 $p\!\!<\!\!0.5^*p\!\!<\!\!0.1^{**}$

The relationship between participants' psychological resilience levels and state and trait anxiety levels is examined in Table 5. Accordingly, a moderate positive relationship was detected between participants' trait anxiety levels and state anxiety levels, a negative relationship between trait anxiety levels and psychological resilience levels, a positive relationship between state anxiety level and trait anxiety level, while a negative relationship was found between psychological resilience levels. Has been detected. Similarly, a negative relationship was found between brief resilience levels and trait anxiety levels.

Discussion and Conclusion

The research was examined according to some variables (age, gender, family income level, national athlete level). When the data were analyzed, no significance was found between the variables examined and state and trait anxiety levels and psychological resilience levels. When the relationship

between state and trait anxiety levels and psychological resilience levels was examined, significant relationships were detected.

In his study on the mental endurance of taekwondo athletes, Türkoğlu (2019) did not find any significant results in the age and gender variables and the confidence and control sub-dimensions. In his study titled Comparison of the psychological resilience and self-compassion levels of Taekwondo athletes with team athletes, Bayrakdaroğlu (2014) could not detect a significant difference in the average self-compassion and brief resilience in gender, age and sports branches. In our study, no significant difference was observed according to the gender variable. However, according to the average scores, it was seen that the psychological resilience levels of male participants were higher than females. When the literature is examined, it is stated that men have better brief resilience levels than women (Aydın and Egemberdiyeva, 2018). Similarly, Karakış (2019), Erkoç and Danış (2020) stated that the psychological resilience levels of male participants were higher than females. In the study conducted by Secer and Yıldızhan (2020) in which the relationship between physical activity levels and brief resilience of university students was examined, it was determined that the psychological resilience of university students was examined, it was determined that the psychological resilience of the participants did not differ according to gender.

Orhan (2018), In a study conducted on individual and team athletes, a significant result was found in the variables of being a national athlete. It is thought that the study showed differences because it was conducted randomly among athletes and the number of national athletes could not be reached. As in the statements in the recommendations section of the study, it is thought that there may be differences when the results of the study are analysed by increasing the number of national athletes. Altınışık and Çelik (2022), in his study titled "Comparison of psychological resilience and self-comprehension levels of taekwondo players with team athletes" could not detect a significant difference in the averages of self-understanding and psychological resilience in gender, age and sports branches. This study also shows similar results with our study. In the study conducted by it was determined that the anxiety states of those who regularly do sports tend to be more positive. These studies also show similar results with our study.

In our study, no significant difference was detected between anxiety levels and psychological resilience levels according to the sports history variable. When the literature is examined, different results are found than our study. In a study conducted with people who do more sports, it was found that negative psychological factors decreased (Harvey, et al, 2017). Sevinç et al (2014) found that the anxiety levels of those who do sports regularly tend to be more positive. This situation is expected to have an effect on reducing the anxiety levels of participants with more sports background. However, it is thought that the success and national team expectations of athletes create intense anxiety and stress for athletes in this age group. The fact that the Turkish championship is a selection criterion for

the national team causes athletes to be more careful and make fewer mistakes. In this context, it is thought that there is no significant difference between trait and state anxiety levels and psychological resilience levels.

When the average scores of the family income level variable were examined in our study, it was determined that the psychological resilience levels of children from high-income families were higher than those from low-income families. However, it was observed that this did not create a significant difference between trait and state anxiety levels and psychological resilience levels. When the literature was examined, the study conducted by Ak (2016) revealed that there was no significant difference between family income status and psychological resilience level. Again, it has been determined in the literature that there is no significant difference between family income status and psychological resilience levels (Soysal, 2016; Parmaksız, 2019; Taşğın et al., 2017).

Taekwondo sport is a sport with high stress level. This stress level is thought to affect the level of anxiety in athletes. When the literature is analysed, Stress is defined as the response to a workload in an environment where a workload occurs. Anxiety is expressed as a psychological response to this pressure. Momentary anxiety can increase especially in pre-competition athletes (Cheng et al. 2009). It can be said that the reason why the anxiety values of the athletes are high before and/or during the competition is because the athletes experience the stress they feel intensely (Celik and Gayretli, 2020). The area that we consider as the effective value of our study and supported by these results emerges in this section. In our study, a significant relationship was found between state and trait anxiety levels and psychological resilience levels of athletes. As the anxiety levels of athletes decrease, their psychological resilience levels increase. In their study, Ünlü et al. (2022) found that athletes with low stress levels and high motivation levels had high psychological and physical endurance levels, which supports the research findings. In other words, it is seen that athletes who react to the stress factor have a stronger psychological structure. In the light of this information, it is thought that all athletes, starting from substructure training to competitive athletes, should be provided with behaviours that can cope with stress and accordingly ensure that their anxiety levels are at an optimal level (Akyol,2019), expressed the methods of coping with stress in his study.

Conclusions from the findings of the data;

- No significance was found according to the age variable.
- No significance was found according to the gender variable.
- No significance was found according to the national athlete level.
- No significance was found according to family income level.

• It was observed that as the level of state and trait anxiety increased, the level of psychological resilience decreased.

According to the results of the study, in order to shed light on future studies;

- The study group can be made to athletes of different age groups. Conducting the study group with different age groups may produce different results.
- In addition to the number of athletes included in the study, the results of the study can be examined by increasing the number of national athletes.
- The relationship between the psychological resilience levels of the athletes and their state and trait anxiety levels can be examined by conducting a study on athletes in different branches.
- With an experimental study, pre-test and post-test are done for the athletes. After the pre-test results, the differences between the results can be examined by performing exercises that can reduce the anxiety of the athletes.

Etik Kurul İzin Bilgileri

Etik değerlendirme kurulu: Bayburt Üniversitesi Rektörlüğü Etik Kurulu

Etik değerlendirme belgesinin tarihi: 27.11.2022

Etik değerlendirme belgesinin sayı numarası: 104667

Araştırmacıların Katkı Oranları Beyanı

Araştırmanın tüm aşamalarında üç yazar da eşit katkıda bulunmuştur.

Çatışma Beyanı

Yazarların araştırma ile ilgili bir çatışma beyanı bulunmamaktadır.

NOT

Bu çalışma 6. Akademik Spor Araştırmaları 2022 kongresinde sözel bildiri olarak sunulmuştur.

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