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Examination of Test Anxiety and Self-Confidence Levels for Individuals Who Take Talent Based University Entrance Exams[i]

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Abstract

The aim of this study is to examine the relationship between test anxiety and self-confidence levels for individuals who take what is referred to in Turkey as a special talent examination. In this context, it was aimed to evaluate test anxiety and self-confidence scores according to independent variables in the study. The sample of the research; It consists of 232 people selected by accessible sampling method among the individuals who participated in the special talent examination of Istanbul Aydın University Faculty of Sports Sciences in the 2021-2022 academic year. Demographic information form, test anxiety inventory and self-confidence scale were used as data collection tools. Data analysis was done with SPSS 22 program. Independent sample t-test was used for pairwise comparisons, Anova test was used for more than two comparisons, and Pearson correlation test was used for correlation analysis. The significance level for all tests was taken as $p<0.05$. As a result of the study, when test anxiety inventory and self-confidence scale are evaluated according to independent variables, test anxiety and self-confidence levels do not differ statistically significantly according to gender and age. A statistically significant, low, and negative relationship was found between test anxiety and self-confidence. As a result, it is seen that as self-confidence decreases, test anxiety increases, and as test anxiety decreases, self-confidence increases.

Keywords; Test Anxiety, Self-Confidence, Special Talent Examination

Yetenek Temelli Üniversiteye Giriş Sınavlarına Giren Bireylerin Sınav Kaygısı ve Öz Güven Düzeylerinin İncelenmesi

Öz

Bu çalışmanın amacı, Türkiye'de özel yetenek sınavı olarak adlandırılan sınava giren bireylerin sınav kaygısı ile öz güven düzeyleri arasındaki ilişkiyi incelemektir. Bu bağlamda, çalışmada sınav kaygısı ve öz güven puanlarının bağımsız değişkenlere göre değerlendirilmesi amaçlanmıştır. Araştırmanın örneklemini, 2021-2022 eğitim öğretim yılında İstanbul Aydın Üniversitesi Spor Bilimleri Fakültesi özel yetenek sınavına katılan bireyler arasından erişilebilir örnekleme yöntemi ile seçilen 232 kişi oluşturmaktadır. Veri toplama aracı olarak demografik bilgi formu, sınav kaygısı envanteri ve öz güven ölçeği kullanılmıştır. Veri analizi SPSS 22 programı ile yapılmıştır. İkili karşılaştırmalar için bağımsız örneklem t testi, ikiden fazla karşılaştırma için Anova testi ve korelasyon analizi için Pearson korelasyon testi kullanıldı. Tüm testler için anlamlılık düzeyi $p<0,05$ olarak alınmıştır. Araştırma sonucunda sınav kaygısı envanteri ve öz güven ölçeği bağımsız değişkenlere göre değerlendirildiğinde, sınav kaygısı ve öz güven düzeyleri cinsiyete ve yaşa göre istatistiksel olarak anlamlı farklılık göstermemektedir. Sınav kaygısı ile öz güven arasında istatistiksel olarak anlamlı, düşük ve negatif bir ilişki bulunmuştur. Sonuç olarak, öz güven azaldıkça sınav kaygısının arttığı, sınav kaygısı azaldıkça ise öz güvenin arttığı görülmektedir.

Anahtar kelimeler: Sınav Kaygısı, Öz güven, Özel Yetenek Sınavı

Introduction

Anxiety is a negative emotional state involving feelings of nervousness and anxiety associated with the activation or stimulation of the organism. Anxiety, which is typically defined as an unpleasant psychological state in response to perceived stress related to the performance of a task under pressure, is a common emotional state experienced by individuals at all levels of performance (Cheng et al., 2009). Usually characterized by a set of physiological, behavioural, or cognitive signs and symptoms (Weinberg and Gould, 2018). American Psychological Association (2021) defines anxiety as "an emotion characterized by physical changes such as feelings of nervousness, anxious thoughts, and increased blood pressure." It also ultimately predisposes us to restlessness and the consequent need to avoid and escape significant dangers (APA, 2021).

Test anxiety can be defined as an emotional response that people present in a situation where their abilities are being evaluated. The defining feature of such a response is recurrent concern about possible failure or poor performance on the task and its negative consequences on self-confidence, self-esteem, social impairment, and loss of some expected benefits (Gutierrez Calvo and Avero 1995). Many studies have shown that the success of individuals depends on how they can control the level of anxiety. Anxiety has two sub-components; it consists of cognitive and somatic anxiety that affects performance (Martens, Vealey, and Burton, 1990; Humara, 2001; Jarvins, 2002). Cognitive anxiety is the mental component characterized by negative expectations about success or self-assessment, negative self-talk, worries about performance, thoughts of failure, inability to concentrate, and distraction. Ruiz et al., (2015) define it as the emergence of a psychological order in the individual that creates more anxiety, a decrease in concentration levels, and greater possibilities for error in the execution of their actions. Therefore, in this type of anxiety, negative thoughts about performance are seen, which affect the disposition and self-confidence of individuals, as well as concentration, memory, decision-making and self-control levels.

Somatic anxiety is considered as the physiological manifestation related to these emotional and psychophysiological factors of the anxious experience derived from the stimulation of the autonomic system (Ruiz et al., 2015). In this type of anxiety, different bodily symptoms occur in response to the demands of competition (Martens, Vealey, and Burton, 1990; Sewell and Edmondson, 1996; Jarvins, 2002; Humara, 2001). Test anxiety refers to the set of phenomenological, physiological, and behavioural responses that accompany anxiety about possible negative consequences or failure in an exam or similar assessment situation (Zeidner, 1998).

In conclusion, anxiety is a psychological factor that creates internal and external negative symptoms in the body, determined by unstable activation levels. It is worth noting that arousal is understood as “an optimal state of performance that an individual can achieve in relation to feelings

of calmness, relaxation and comfort" (Castro et al., 2018). In this way, arousal is structured as a state of alert where the individual offers an optimal sense of self-control and self-confidence, manages to concentrate fully on the development of the activity, focuses on all skills and thoughts, and is the emotions and capacities themselves (Castro et al., 2018).

Self-confidence is "the feeling and awareness of one's own worth and security". Self-confidence allows one to begin without going into the complexity of what motivates and endless doubts about the decisions to be made. Actions are shaped in this dynamic of trust, which provides a sense of accomplishment and the promise of self-transcendence. Self-confidence is important because it allows individuals to cope with life and to treat others and the world in a calmer way. Factors such as goals, troubles, and decisions are experienced calmly and with light force. It is easier to take responsibility in the face of difficulty and is done calmly. Considering some situational demands, self-confidence is defined as a person's belief that successfully perform the necessary behaviors that will produce desired results in a certain area and the ability to successfully fulfill different levels of performance. Self-confidence and self-efficacy in sports are thought to be one of the most important psychological factors affecting success (Bandura, 1977; Bandura, 1986; Karaçam and Pulur, 2017; Orhan, 2021). Strategies to increase self-confidence are common sports psychology interventions for athletes. However, the evidence for the relationship between self-confidence and athletic performance is uncertain. Self-confidence has a strong effect as a contributing factor to successful sports performance, and therefore sports psychology researchers have frequently investigated the trust-performance relationship (Craft et al., 2003; Woodman and Hardy, 2003; Karageorghis,201; Knight, Harwood, and Gould, 2017).

In line with this information, the aim of this study is to examine the relationship between test anxiety and self-confidence of the candidates who participated in the special talent examination through various variables.

Method

Research Model

The research was designed according to the relational screening model. In this model, it is aimed to determine the presence or level of simultaneous change in variables. Relational screening model is a research model that aims to determine the existence or degree of change between two or more variables (Cohen, 2007; Karasar, 2012). During the current research, it has been acted within the framework of "Higher Education Institutions Scientific Research and Publication Ethics Directive".

The aim of the research

The aim of this study is to examine the relationship between test anxiety and self-confidence levels of individuals who must take a talent based entrance exam for the Istanbul Aydın University Faculty of Sports Sciences, and to evaluate their test anxiety and self-confidence scores according to independent variables.

Study Group

The sample of the research consists of 232 people selected by simple random sampling method among the individuals who participated in the special talent examination of Istanbul Aydın University Faculty of Sports Sciences in the 2021-2022 academic year.

Data Collection Tools

Personal Information Form

The independent variables, which are thought to be effective in the research, were created by the researcher to collect information about the individuals who took the special talent examination at the faculty of sports sciences. In this form, there is a question item of 20 sentences and four options against these items.

Test Anxiety Inventory (TAI)

Test Anxiety Inventory was developed by Spielberger (1980). It was adapted to Turkish by Necla Öner and Deniz Albayrak Kaymak in 1986. TAI consists of a questionnaire and an answer form. In this form, there is a question item of 20 sentences and four options against these items. These are (1) almost never, (2) sometimes, (3) often, (4) almost always. Out of a total of 20 inventory items, eight are worry and twelve are emotionality subtests. It contains three subscales: Test Anxiety Total (TAI-T), Test Anxiety-Worry (TAI-W), and Test Anxiety Emotionality (TAI-E). While scoring, the score weight of each option is determined by the number given to that option. The weight of the answers is minimum “1” and maximum “4” points. While the scores of TAI-W subtests can vary between 8 and 32, it varies between 12 and 48 in TAI-E subtest. The lowest total score is 20, and the highest total test score is 8O. In the inventory, only the first one as "I feel safe and comfortable during the examination" was given as the reverse item. The weight of the answer of this item is calculated by reversing the order or subtracting the given answer from 5 to calculate 5-1 =4. Because the never option has a score weight of 4, indicating high anxiety. The high scores obtained from the inventory indicate the high level of Worry, Emotionality and Anxiety Total. The highest reliability coefficients of .89 to .84 were obtained from all test scores and university sample. In this study, the reliability coefficient of the 20-item scale was found to be .938.

Self-Confidence Scale

The self-confidence scale was developed by Akın (2007). The items of the self-confidence scale were written as a five-point Likert scale ("1" Never. "2" Sometimes, "3" Often. "4" Usually. "5" Always) and validity and reliability analyses were performed on these items. The total number of items in the Self-Confidence Scale is 33. Therefore, the highest score that can be obtained from this 5-point Likert-type scale is 165 and the lowest score is 33. A high score from the scale without negative items indicates a high level of self-confidence. In the reliability study, internal consistency coefficients were found to be .91 for the whole scale, .83 for internal self-confidence and .85 for external self-confidence (Akın, 2007). In this study, the reliability coefficient of the 33-item scale was found to be .931.

Data Analysis

Data analysis was done with SPSS 22 program, first, normal distribution values related to the type of tests to be used were analysed. It was determined that the Skewness and Kurtosis values showed normal distribution, and the independent sample t-test was used for pairwise comparisons and the Anova test for more than two comparisons. Pearson correlation test was used for correlation analysis. Significance level α=0.05 was used for all tests.

Findings

Table 1

Demographics of the participants

	N	**%**
Gender		
Male	159	68,5
Female	73	31,5
Age		
+18	119	51,3
-18	113	48,7
Total	**232**	**100**

When the demographic characteristics of the participants are examined, it is seen that 68.5% are male and 31.5% are female, 51.3% of the participants are under the age of 18 and 48.7% are over the age of 18.

Table 2

TAI and Self-Confidence Scale Average Scores of Participants

	$\overline{X}$	**ss**	**min**	**max**
TAI-W	13,89	4,97	8,00	32,00
TAI-E	21,66	7,64	12,00	45,00

TAI-T	35,56	12,22	20,00	77,00
Inner Self-Confidence	70,03	12,58	28,00	85,00
External Self-Confidence	66,56	13,78	24,00	129,00
Self-Confidence Total	136,60	25,46	52,00	211,00

When the test anxiety average score of the participants is examined, the average of TAI-W is 13.89, the average of TAI-T is 21.66, and the average of TAI-T is 35.56. The total score average of the self-confidence scale is 136.60, the average of inner self-confidence is 70.03, and the mean of external self-confidence is 66.56.

Table 3

TAI and Self-Confidence Scale Scores by Gender

	Gender	**n**	$\overline{X}$	**ss**	**t**	**p**
TAI-W	Male	159	13,79	5,09	-,422	,674
	Female	73	14,09	4,71		
TAI-E	Male	159	21,66	7,84	-,023	,982
	Female	73	21,68	7,22		
TAI-T	Male	159	35,45	12,61	-,186	,853
	Female	73	35,78	11,42		
Inner Self-Confidence	Male	159	69,84	12,90	-,350	,727
	Female	73	70,46	11,92		
External Self-Confidence	Male	159	66,82	14,37	,422	,673
	Female	73	66,00	12,46		
Self-Confidence Total	Male	159	136,66	26,25	,056	,956
	Female	73	136,46	23,83		

Examining the mean scores of the Female who participated in the special talent examination according to gender, there is no statistically significant difference in the sub-dimensions of the test anxiety scale, TAI-W and TAI-E scores, and TAI-T score. When the self-confidence scale is examined, there is no statistically significant difference in the inner self-confidence, the external self-confidence, and the total self-confidence score.

Table 4

TAI and Self-Confidence Scale Scores by Age

	Gender	**n**	$\overline{X}$	**ss**	**t**	**p**
TAI-W	-18	119	13,79	5,04	-,295	,769
	+18	113	13,99	4,91		
TAI-E	-18	119	21,77	7,53	,214	,830
	+18	113	21,55	7,78		
TAI-T	-18	119	35,57	12,14	,014	,989
	+18	113	35,54	12,36		
Inner Self-Confidence	-18	119	69,99	13,33	-,059	,953
	+18	113	70,08	11,79		
External Self-Confidence	-18	119	66,16	14,73	-,449	,654
	+18	113	66,98	12,75		
Self-Confidence Total	-18	119	136,15	27,15	-,272	,786
	+18	113	137,07	23,66		

When the scale average scores of the individuals who participated in the special talent exam are observed, there is no statistically significant difference in the test anxiety sub-dimensions, TAI-W and TAI-E scores, and TAI-T score. When the self-confidence scale is examined, there is no statistically significant difference in inner self-confidence, external self-confidence, and total self-confidence score.

Table 5
Examining the Relationship Between TAI and Self-Confidence Scores

		Self-Confidence Total
TAI-T	r	-,264
	p	000**

**p<0,001

When the relationship between test anxiety total score and self-confidence total score is examined, there is a statistically low and negative relationship between TAI-T and Self-Confidence.

Discussion and Conclusion, Suggestions

The aim of this study is to examine the relationship between test anxiety and self-confidence levels of individuals who took the special talent exam of Istanbul Aydın University Faculty of Sports Sciences, and to evaluate test anxiety and self-confidence scores according to independent variables.

When the mean scores of the individuals participating in the special talent examination are observed according to gender, there is no statistically significant difference in the sub-dimensions of the test anxiety scale, TAI-W and TAI-E scores, and TAI-T score. When the self-confidence scale is evaluated, there is no statistically significant difference in Inner Self-Confidence, External Self-Confidence, and Self-Confidence Total score. In the study conducted by Güdek (2009), when the anxiety levels of the candidates who took the music special talent examination were observed, it was stated that the female candidates had higher average values than the male candidates. In the study of Gül and Soygüden (2014), in which the state anxiety levels of the candidates who took the physical education and sports special talent examination were observed, no significant difference was found between the gender distributions. Çelen and Eksicioğlu (2015) stated that among the candidates who participated in the physical education, painting and music special talent examination, the anxiety level averages of the candidates who took the physical education special talent examination had the highest average among the participants. In another study examining anxiety levels, Aykora and Olgaç (2018) concluded that female candidates experienced higher anxiety than male candidates. When the test anxiety average of the participants is examined, the average of TAI-W is 13.89, the average of TAI-E is 21.66, and the average of TAI-T is 35.56. On the other hand, the total score average of the self-confidence scale is 136.60, the average of Inner Self-Confidence is 70.03, and the average of External

Self-Confidence is 66.56. There is a wealth of evidence regarding the effect of test anxiety on academic performance (Gutierrez Calvo, 1996, Cassady and Johnson, 2002). In the light of these results, it can be said that the main reason for the variability of the results in different studies is the internal and external motivation sources.

When the scale average scores of the individuals who participated in the special talent exam are observed, there is no statistically significant difference in TAI-W and TAI-E scores according to age and TAI-T score. When the self-confidence scale is evaluated, there is no statistically significant difference in Inner Self-Confidence, External Self-Confidence, and Self-Confidence Total score. Specifically, age and gender do not seem to have a fundamental effect on test anxiety and self-confidence. In Akanbi's (2013) study, no statistically significant difference was observed in test anxiety scores according to the experiences of the participants. On the other hand, there are significant differences in the test anxiety scores of the participants according to gender, school type and parental education level, with women who score higher in test anxiety measure, state school students and students with low parental education level. When the relationship between test anxiety total score and self-confidence total score is examined, there is a statistically low and negative relationship between test anxiety and self-confidence. In support of the study, Gürpınar (2016)'s research on candidates who participated in special talent examinations determined that their test anxiety scores were moderate, and it was found that there was a low negative relationship between test anxiety and self-confidence. While it is stated that the age and gender of the participants in the special talent examination have no effect on test anxiety and self-confidence, it is thought that the anxiety and self-confidence levels of the participants who have had a special talent examination before will vary.

Self-confidence has a direct effect on test anxiety. Participants' self-belief in their proficiency is crucial in reducing the tension over a test and its type of test. It is an expected result that participants will be more anxious about their exams because of their disturbing thoughts and uncertainty about their success in the decisiveness of the exam. It is a normal result for the participants to be worried about their exams due to the fear that the exam is decisive. Examination counselling support interventions for special talent exam takers can help reduce unhealthy test anxiety and increase self-confidence among participants.

Ethics Committee Permission Information

Ethical evaluation: Istanbul Aydın University Social Sciences Ethics Committee Commission

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Authors' Contribution

The processes related to the introduction, method, findings and Discussion and Conclusion, Suggestion's part of the research was carried out by the first author, while the processes related to the introduction, findings and Discussion part were carried out by the second, third and fourth authors.

Conflicts of Interest

The author(s) did not have a conflict statement regarding the research.

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