

ANXIETY AND STRESS MANAGEMENT SKILLS: A RESEARCH ON ATHLETES OF ISTANBUL GELİŞİM ÜNİVERSİTESİ FACULTY OF SPORTS SCIENCES



Ali KAYA [Sorumlu Yazar]

Istanbul University-Cerrahpaşa, Faculty of Sport Sciences, ali.kaya2@iuc.edu.tr

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ABSTRACT

The aim of the study is to examine the anxiety and stress management skills of athletes studying at Istanbul Gelişim University Faculty of Sports Sciences. A further objective of the study is to ascertain whether there are age-, gender-, individual athlete status-, sports year- and actively working-related differences in anxiety and stress management. In the study, the relational scanning and causal comparison models were employed. The Trait Anxiety Scale and the Perceived Stress Scale were employed as data collection instruments in the course of our research. The study population comprised athletes enrolled at Istanbul Gelişim University Faculty of Sports Sciences, with a sample size of 471 athletes selected from this population using the convenience sampling method. Following the definition of the research analyses in the SPSS 25.0 package program, the relevant analyses were conducted using this program. The results indicated that women exhibited higher anxiety and stress levels than men. Additionally, perceived stress levels demonstrated a notable decline with increasing age. Consequently, a moderate positive relationship was identified between trait anxiety and perceived stress management.

Keywords: Anxiety, stress, athletes

KAYGI VE STRES YÖNETİM BECERİLERİ: İSTANBUL GELİŞİM ÜNİVERSİTESİ SPOR BİLİMLERİ FAKÜLTESİ SPORCULARI ÜZERİNE BİR ARAŞTIRMA

ÖZET

Çalışmanın amacı İstanbul Gelişim Üniversitesi Spor Bilimleri Fakültesi bünyesinde öğrenim gören sporcuların kaygı ve stres yönetim becerilerinin incelenmesidir. Çalışmanın bir diğer amacı ise kaygı ve stres yönetiminin yaş, cinsiyet, bireysel sporcu olup olmama, spor yılı ve aktif olarak çalışma değişkenlerine göre değişiklik gösterip göstermediğinin incelenmesidir. Çalışmada, ilişkisel tarama ve nedensel karşılaştırma modeli uygulanmıştır. Araştırmamızda veri toplama aracı olarak sürekli kaygı ölçeği ve algılanan stres ölçeği kullanılmıştır. Araştırmanın evrenini İstanbul Gelişim Üniversitesi Spor Bilimleri Fakültesinde öğrenim gören sporcular, örneklemini ise bu evren içinden kolayda örnekleme yöntemi ile seçilen 471 sporcu oluşturmaktadır. Araştırmanın analizlerinin SPSS 25.0 paket programına tanımlanmasının akabinde, ilgili analizler bu program aracılığıyla gerçekleştirilmiştir. Sonuç olarak kadınların kaygı ve stres seviyelerinin erkeklere nazaran daha yüksek olduğu tespit edilmiştir. Algılanan stresin yaşın ilerlemesine bağlı olarak daha fazla düştüğü tespit edilmiştir. Sonuç olarak sürekli kaygı ile algılanan stres yönetimi arasında orta düzeyde pozitif yönde bir ilişki olduğu tespit edilmiştir.

Anahtar Kelimeler: Kaygı, stres, sporcular

INTRODUCTION

The concept of anxiety is typically regarded as the emotional response of humans to adverse circumstances encountered in the external environment. Anxiety is defined as a state of fear experienced without the certainty of an outcome (Cüceloğlu, 1994: 293). In his study of the concept of anxiety, Spielberger (1970) distinguished between two forms: state anxiety and trait anxiety. The concept of state anxiety is defined as a transient state of anxiety that arises in response to a stressful situation, and it is a universal experience that affects nearly all individuals to some extent. Conversely, continuous anxiety denotes a state wherein the stress experienced and situational emotional reactions intensify, thereby establishing and perpetuating this emotional state (Karabulut et al., 2013, p. 244). The concept of anxiety can be addressed in a positive or negative manner. One disadvantage of the concept of anxiety is that it is not a rational process, and its effects on thought are negative. It is significant to recognise that individuals can contribute positively to their own personalities and characters by resisting negative events or circumstances. This illustrates the constructive aspects of the concept (Manav, 2011, p. 203). Those who experience anxiety on a daily basis may encounter a range of mental, physical, spiritual and biological challenges (Alpertonga, 2016).

Stress, which has been identified as a factor that can damage mental and physical integrity (Baltaş & Baltaş, 1996), is a concept that has the potential to impact individuals across a range of contexts, including their daily and professional lives. In the context of business life, individuals are subject to a multitude of stressors, which can have a detrimental impact on their performance. Consequently, the enterprise's productivity is diminished, and issues emerge. Long-term exposure to stress can result in permanent damage to individuals, with subsequent consequences that will affect them psychologically and physically. The experience of stress may result in a range of adverse physical effects, including insomnia, headaches, abdominal discomfort, hypertension, myocardial infarction, and irritability (Jones et al., 2000, p. 412). Those with high levels of self-confidence are better able to control the stress they experience and manage stressful situations by developing creative and original solutions (Hardy, 1992). Such individuals are capable of reversing the negative effects that stress can have on them by placing their trust in themselves when faced with challenging circumstances. Irrespective of the environmental factors, athletes can reach a point where they are able to cope with both stress and anxiety if they possess sufficient self-knowledge (Thomas et al., 1999).

METHOD

Research Model

The research was designed in accordance with the tenets of the relational survey model. The relational survey model is a research model that is used to investigate the presence or degree of change in more than one variable simultaneously (Karasar, 2017). In the course of data collection, a questionnaire was utilised. The questionnaires were distributed to the participants on a voluntary basis. The participants were provided with a personal information form, a trait anxiety scale and a perceived stress scale, after which the data were obtained.

Universe and Sample

The universe of the research consists of student athletes studying at Istanbul Gelişim University, Faculty of Sports Sciences in 2024. The sample consists of 471 people selected from this universe by random sampling method.

Data Collection Tools

In addition to the personal information form created by the researcher, the following section provides details about the data collection tools.

Personal Information Form

The personal information form was devised by the researcher and included questions pertaining to the participants' age, gender, whether they were individual athletes or not, and the number of years they had been engaged in sport and in active employment.

Trait Anxiety Scale

The Trait Anxiety Scale was developed by Sprelberg et al. (1964) for the purpose of measuring anxiety. The scale, which was adapted into Turkish by Öner and Le Compte (1983), comprises 20 items. The scale allows for a range of responses, from "never" to "always," with the resulting scores falling within the 20-to-80 range. A high score is indicative of a high level of anxiety, whereas a low score is indicative of a low level of anxiety.

Perceived Stress Scale

The Perceived Stress Scale (PSS) was initially developed by Cohen et al. (1983) and subsequently adapted to Turkish by Baltaş et al. The scale comprises 14 items and employs a 5-point Likert-type response format. The scale, which assesses the degree to which participants

perceive stress in response to stressful situations, also includes seven positive items. The items in question are Q4, Q5, Q6, Q7, Q9, Q10 and Q13. The overall scale was found to have a Cronbach Alpha coefficient of 0.84 (Baltaş et al., 1998).

Ethical Approval

The research was conducted with the permission of Istanbul University-Cerrahpaşa Rectorate Social and Human Sciences Research Ethics Committee (Date: 14.02.2025, Decision No: 2025/104).

Table 1. Demographic characteristics of the participants

		Frequency	Percent
Age	18-21	178	37,8
	22-25	113	24,0
	26-29	96	20,4
	30 and above	84	17,8
	Total	471	100,0
Gender	Female	230	48,8
	Male	241	51,2
	Total	471	100,0
Are you an individual athlete?	Yes	262	55,6
	No	209	44,4
	Total	471	100,0
Year of sport	1-3 Year	178	37,8
	4-6 Year	113	24,0
	7-9 Year	96	20,4
	10 years and over	84	17,8
	Total	471	100,0
Are you actively working?	Yes	267	56,7
	No	204	43,3
	Total	471	100,0

Table 1 reveals that 37.8% of the volunteers in the study are between the ages of 18 and 21, 24.0% are between the ages of 22 and 25, 20.4% are between the ages of 26 and 29, 17.8% are 30 years of age or older, 48.8% are female, and 51.2% are male. Additionally, 55.6% of the participants engage in individual sports, while 44.6% engage in individual sports. Notably, 4% of the participants engage in team sports. Eight percent of the participants engaged in team sports for a period of one to three years, 24 percent for a period of four to six years, 20.4 percent for a period of seven to nine years, 17.8 percent for a period of ten years or more, and 56.7 percent were actively employed, while 43.3 percent were not.

FINDINGS

The results of the data analysis are presented in the tables below.

Table 2. Skewness kurtosis and Kolmogorov-Smirnov test significance level results of trait anxiety scale scores

Dimensions	N	Skewness	Kurtosis	P
Total score of trait anxiety scale	471	,336	,760	,019

Upon examination of the results of the Kolmogorov-Smirnov test as presented in Table 2, it becomes evident that there are notable departures from normality, particularly in the context of the scores obtained from the trait anxiety scale and its constituent sub-dimensions. The Kolmogorov-Smirnov test is one of several statistical methods used to determine whether the data obtained show a normal distribution. The examination of normal distribution curves revealed that there were significant deviations from normality. As stated by Büyüköztürk (2007), the occurrence of skewness and kurtosis values within the range of ± 1 is regarded as an extreme deviation from normality. Conversely, Tabachnick and Fidell (2013) proposed that coefficients of skewness and kurtosis around ± 1.5 can be accepted as indicative of a deviation from normality. Consequently, as the data set did not exhibit normal distribution, non-parametric tests were employed in the analysis of the research group.

Table 3. Skewness kurtosis and Kolmogorov-Smirnov test significance level results of perceived stress scale scores

Dimensions	N	Skewness	Kurtosis	P
Inadequate Self-efficacy Perception	471	,360	,453	,000
Perception of Stress/Discomfort	471	,150	-,106	,000
Perceived stress scale total score	471	,155	1,102	,000

Upon examination of the results of the Kolmogorov-Smirnov test as presented in Table 3, it becomes evident that there are notable deviations from normality, particularly in the scores obtained from the Perceived Stress Scale and its constituent sub-dimensions. The Kolmogorov-Smirnov test is one of several statistical methods used to determine whether the data obtained show a normal distribution. Following an examination of normal distribution curves, it was determined that there were significant deviations from normality. As stated by Büyüköztürk (2007), the occurrence of skewness and kurtosis values within the range of ± 1 is regarded as an extreme deviation from normality. Conversely, Tabachnick and Fidell (2013) proposed that coefficients of skewness and kurtosis around ± 1.5 can be accepted as indicative of a deviation

from normality. Consequently, as the data set did not exhibit normal distribution, non-parametric tests were employed in the analysis of the research group.

Table 4. Descriptive analysis of the responses to the trait anxiety scale and perceived stress management

Dimensions	N	Min	Max	Mean±Sd
Trait anxiety scale total score	471	1,00	4,00	2,21± 0,41
Inadequate Self-efficacy Perception	471	1,00	5,00	2,71± 0,64
Perception of Stress/Discomfort	471	1,43	5,00	3,05± 0,66
Perceived stress scale total score	471	1,36	4,71	2,88± 0,46

Table 4 reveals that the total score for the participants' trait anxiety scale, the mean of the sub-dimension of inadequate self-efficacy perception, is 2.21 ± 0.41 . The mean of inadequate self-efficacy perception is 2.71 ± 0.64 , while the mean of the stress/discomfort perception sub-dimension is 3.05 ± 0.66 . The total score for the perceived stress scale is 2.88 ± 0.46 .

Table 5. Evaluation of trait anxiety and perceived stress levels of the participants according to their gender

	Gender	N	Rank Average	Rank Total	U	P
Trait anxiety scale total score	Female	230	263,18	60531,00	21464,00	,000
	Male	241	210,06	50625,00		
Inadequate self-efficacy perception	Female	230	239,14	55003,00	26992,00	,623
	Male	241	233,00	56153,00		
Perception of Stress/Discomfort	Female	230	261,58	60164,00	21831,00	,000
	Male	241	211,59	50992,00		
Perceived stress scale total score	Female	230	256,60	59018,00	22977,00	,001
	Male	241	216,34	52138,00		

Table 5 reveals a statistically significant difference in the total scores of the trait anxiety scale, the sub-dimension of Perception of Stress/Discomfort, and the total scores of the Perceived Stress Scale when the anxiety and stress levels of the participants according to their gender are analyzed. When the rank averages are taken into consideration, a significant difference emerges in favour of the female participants. It was established that no significant discrepancy existed with regard to the sub-dimension of perception of inadequate self-efficacy.

Table 6. Evaluation of trait anxiety and perceived stress levels of the participants according to their ages

	Age	N	Rank Average	sd	X ²	p	Difference
Trait anxiety scale total score	18-21 ¹	249	250,40	3	6,197	,102	-
	22-25 ²	160	218,18				
	26-29 ³	29	232,19				
	30 and above ⁴	33	217,09				
Inadequate self-efficacy perception	18-21 ¹	249	256,93	3	14,341	,002	1-4
	22-25 ²	160	219,22				
	26-29 ³	29	206,48				
	30 and above ⁴	33	185,36				
Perception of Stress/Discomfort	18-21 ¹	249	247,31	3	5,701	,127	-
	22-25 ²	160	231,28				
	26-29 ³	29	207,38				
	30 and above ⁴	33	198,73				
Perceived stress scale total score	18-21 ¹	249	258,30	3	16,403	,001	1-4
	22-25 ²	160	219,09				
	26-29 ³	29	196,86				
	30 and above ⁴	33	184,12				

Table 6 reveals a statistically significant difference between the anxiety and stress levels of participants in the two age groups (18-21 and 30+) in the total scores of the trait anxiety scale, the sub-dimension of inadequate self-efficacy perception and the total scores of the Perceived Stress Scale. It can therefore be concluded that younger individuals experience greater levels of stress. No significant difference was observed in the total scores of the trait anxiety scale and the stress/discomfort perception sub-dimension.

The relationship between trait anxiety and perceived stress level

	ASYÖYÖA	ASYÖSRA	ASÖ Total score
Persistent Anxiety	r	,416**	,310**
	p	,000	,000

Upon analysis of Table 7, a moderate positive relationship was identified between trait anxiety and perceived stress management, perceived stress management scale perception of inadequate self-efficacy, perceived stress management scale perception of stress discomfort and perceived stress management total scores ($r=,416, 310, 498$; $p=,000<0.5$).

DISCUSSION AND CONCLUSION

The total score for the trait anxiety scale was found to be 2.21 ± 0.41 , with the mean score for the inadequate self-efficacy perception sub-dimension being 2.71 ± 0.64 . The mean score for

the stress/discomfort perception sub-dimension was 3.05 ± 0.66 , while the total score for the perceived stress scale was 2.88 ± 0.46 .

A comparison of the trait anxiety and perceived stress levels of the participants according to gender reveals a statistically significant difference in the total scores of the trait anxiety scale, the sub-dimension of the Perception of Stress/Discomfort, and the total scores of the perceived stress scale. When the rank averages are taken into consideration, a significant difference emerges in the direction of women. It was established that no notable discrepancy existed with regard to the sub-dimension of perception of inadequate self-efficacy. In contemporary society, women occupy a prominent role in all aspects of life. Those who are able to maintain career opportunities in the modern era while simultaneously assuming responsibility for the management of domestic tasks and the pursuit of a sporting career may be more effective in their ability to regulate stress and anxiety levels. This may be attributed to a multifaceted perspective on life, an active approach to living, and a cautious fulfilment of responsibilities. A review of the literature reveals that Şimşek et al. (2024) identified a higher prevalence of stress among women in their study. In a separate study, Alpertonga et al. (2016) discovered that the stress levels of students enrolled in physical education and sports colleges did not vary according to gender. In a separate study, Fawaz and Samaha (2020) found no significant difference in stress levels among students in Lebanon according to gender.

Upon examination of the trait anxiety and perceived stress levels of the participants according to age variable, it was observed that there exists a statistically significant difference between those aged 18-21 and 30 years and over in the total scores of the trait anxiety scale, the sub-dimension of inadequate self-efficacy perception and the total scores of the perceived stress scale. It can therefore be concluded that young individuals experience greater levels of stress. The total scores for the trait anxiety scale and the stress/discomfort perception sub-dimension were found to be statistically insignificant. The age parameter is a significant factor in the experience of anxiety and stress in the context of sports. In general, it can be expected that as individuals age, they will become better able to manage the levels of anxiety and stress they experience. This phenomenon can be attributed to the accumulation of experience. However, it should be noted that experience is not solely related to age. Consequently, it can be observed that younger individuals experience greater levels of stress than their older counterparts.

The results indicated a moderate positive correlation between the levels of trait anxiety and the perceived stress levels of the sample group. In other words, an increase in trait anxiety is associated with an increase in perceived stress. The ability to perform well in sporting activities

is of great importance. At the professional level of competition, athletes are driven to succeed and perform to the best of their abilities. Such circumstances inevitably give rise to feelings of stress. In this competitive environment, where success and failure are of great consequence, the ability to effectively manage stress and anxiety levels among athletes is crucial for achieving success. Consequently, as stress levels rise, so too does anxiety. Upon examination of the literature, Yerlikaya (2009) identified a positive correlation between perceived stress and anxiety levels in his study. The results of the research are in alignment with our findings. Tuğut, Tuğut and Çelik (2021) established that the anxiety level of students in the field of health was high. The results of the research are consistent with our own findings.

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