



Investigation of Pre-Competition State Anxiety Levels of Athletes

İzzet KARAKULAK¹, Özge YAVAŞ²

¹Mardin Artuklu University, Faculty of Sport Sciences, Mardin, Turkey
<https://orcid.org/0000-0003-0673-4796>

²Mardin Artuklu University, Faculty of Sport Sciences, Mardin, Turkey
<https://orcid.org/0000-0002-1948-1620>

Email: izzetkarakulak@gmail.com, ozgeyavas89@gmail.com

Type: Research Article (Received: 24.03.2025 - Accepted: 16.06.2025)

Abstract

This study analysed the pre-competition levels of cognitive anxiety (CA), somatic anxiety (SA) and self-confidence (SC) of athletes in various sports. The sample consisted of 277 athletes (92 females, 185 males) aged 15–34, selected through non-probability sampling. Data were collected using the Revised Competition State Anxiety Inventory-2 (CSAI-2R), a 4-point Likert scale measuring CA, SA, and SC, administered 30 minutes before competition. Results revealed that male athletes had higher SC levels than females. Athletes who participated in national competitions had lower SC levels compared to those who did not, while no significant difference was found for international competition participation. Age-related differences were observed: CA levels were higher in athletes aged 15–19 compared to those aged 30–34, and higher in athletes aged 25–29 than in those aged 20–24 and 30–34. Volleyball players exhibited lower CA levels than football and athletics athletes. Athletes with 2–5 years of experience had lower SC than those with 10–17 years of experience, and athletes with 14–17 years of experience had higher SC than those with 6–9 years. No significant differences were found based on weekly training frequency. The study highlights significant variations in state anxiety among athletes based on age, gender, sport type, and experience. It underscores the need for enhanced sports psychology training for athletes and coaches to reduce anxiety and improve psychological awareness, ultimately optimizing performance.

Keywords: CSAI-2R, cognitive anxiety, somatic anxiety, self-confidence, psychology



Introduction

It is well-recognized that everyone worries to some extent in certain situations; nevertheless, when this level of anxiety and dread crosses a certain threshold, it has a significant negative influence on one's quality of life (Öner, 1985; Spitzer et al., 1995). Worry is defined as “a somewhat uncontrolled stream of thinking that is well recognized as a key component of the competitive sports anxiety process.” Worry is typically invasive, unwelcome, and upsetting to the individual (Dunn & Dunn, 2001). Anxiety is one of the most commonly studied topics in sports psychology, and at least 22 measurement tools have been developed for this purpose (Ostrow, 1996). Anxiety, which has been identified as one of the elements influencing performance, is described as an emotional state that people experience due to internal or external circumstances. Anxious moods are the body's reactions to potential threats that may occur in the future. There are two types of anxiety: state and trait anxiety. While state anxiety is a transient emotion described as an evaluation of stimuli for hazards present in a specific environment at a particular moment based on the scenario, trait anxiety is the perception of diverse stimuli as troubling based on personal experiences. In other words, trait anxiety is an individual's tendency to react nervously and indicates their overall degree of anxiety (Öner, 1985; Martens et al., 1990; Spielberg, 2013; Ivaskevych et al., 2020).

Trait anxiety is characterized by a personality that reacts to situations in the same way over time; situation anxiety, on the other hand, is specific to the circumstance that developed just before the competition. Between these two forms of anxiety, state anxiety has a more significant impact on game performance, particularly in important tournaments; this anxiety is referred to in the literature as pre-competitive anxiety (PCA). PCA has both positive and negative impacts on individual performance, which, in turn, affects team performance. It has been observed that if a player's anxiety level exceeds a particular threshold, they lose control, and their performance suffers (Sing & Punia, 2018).

It is a condition that causes psychological stress and anxiety due to the prospect of loss and failure, in addition to the physical stress created by the effort spent in sports; numerous studies have revealed that a high degree of anxiety negatively impacts sports performance (Smith & Smoll, 1991; Gould et al., 1982; Muhammad et al., 2017; Woodman & Hardy, 2003; Dicle et al., 2018; Correia & Rosado, 2018). Although the goal in sports is to achieve the highest level of performance in any setting, performance is influenced by various physiological, psychological, and cognitive factors (Korkmaz et al., 2020, Sarikabak, et al., 2018). When evaluating these variables, it should be considered that stress and anxiety are among the factors that influence performance (Akgönül et al., 2021).

Anxiety is often conceptualized as a situation-specific, multidimensional construct with cognitive and somatic components (Martens et al., 1990). In addition to CA and SA, there is also a sub-dimension related to SC (Martens et al., 1990). Since the 1980s, the Sport Competition Anxiety Test (SCAT), the Competitive State Anxiety Inventory (CSAI), and the second revised (CSAI-2R) have been used to evaluate anxiety among athletes (Martens et al., 1990; Martens et al., 1980; Spielberg, 1970; Cox et al., 2003). A revised form of CSAI-2R, was created by Cox et al., (2003) with 3 sub-dimensions and 17 items. CSAI-2R has cultural adaptation studies in Spanish, French, Mexican, Malay, Estonian, Romanian, Iranian, Persian, Brazilian, and Turkish (Akgönül et al., 2021). It is important that CSAI-2R, which is the updated and latest version, is a multidimensional measurement tool that will solve the methodological limitations of the previously developed versions and the construct validity problems of the measurement tool. For this reason, in the current study, the measurement tool



made by Akgönül, et al., (2021), the validity and reliability study of CSAI-2R in Turkey, was used. The scale, which was developed to measure the CA, SA and SC levels of the athletes before the competition, consists of three sub-dimensions and 14 items. Therefore, in this study, pre-competition CA, SA and SC levels of athletes were examined in terms of some variables (gender, age, sport fields, national competitiveness level, international competitiveness level, weekly training frequency, sports age). In this context, the study focused on the national and international athletes competing in soccer, volleyball, basketball, athletics and handball in Turkey.

Materials and methods

Ethics Committee Permission

The research was implemented after the ethics committee decision of Mardin Artuklu University dated 12.03.2025 and numbered E-799060804-020-188820 was obtained.

Study Sample

In Turkey, the study focused on national and international competing athletes in a variety of sports (soccer, volleyball, basketball, athletics and handball). Easily accessible case sampling, which is one of the non-probability sampling types, saves the researcher time and provides convenience in practice. In this method, the researcher prefers the situation that is simple to access and physically close (Yıldırım & Şimşek, 2011). The study's sample, which was chosen through non-probability sampling techniques, comprised of 277 people aged 15 to 34 (female=92; age=20.23±3.44; male=185; age=21.49±3.80), with a 5 percent margin of error at the 95 % confidence level. 3.80) is composed of athletes. The questionnaire "google form" was created online. Athletes were asked to participate by sending a survey link. Participants were asked to sign an informed consent form confirming their voluntary participation in the study. Athletes completed the questionnaires under the supervision of their coaches. The coaches informed their athletes that they could cancel the participation agreement at any time.

Data Collection Tools

Competition State Anxiety Inventory-2

The scale used within the scope of the research was developed as 17 items and 3 sub-dimensions by Cox et al. [28] and a 14-item and 3-factor structure was confirmed in Turkish culture (validity and reliability studies were conducted) by Akgönül et al., (2021). When the reliability values of the scale were analysed, the alpha coefficient for the CA sub-dimension was 0.71; the alpha coefficient for the SA sub-dimension was 0.78; and the alpha coefficient for the SC sub-dimension was 0.80.

In order to determine the anxiety levels of the athletes in the inventory CA (item 2, item 5, item 11, item 14), SA (item 6, item 9, item 12, item 15, item 17), SC (item 3, item 7, item 10, item 13, item 16) and 3 sub-dimensions and 14 items. The inventory has a 4-point Likert-type rating of none (1), a little (2), quite (3), a lot (4). In the evaluation of the scores obtained by the participants from the inventory, the scores for the items taken from each sub-dimension are added and divided by the number of items and multiplied by 10. The score range for each sub-dimension ranges from 10 to 40. If an athlete does not respond to any item, then only the points for the answered items are added, divided by the number of items and multiplied by 10. Higher scores from the inventory indicate higher levels of SA, CA, or higher SC. The inventory should be administered within one hour before the competition.



Data Analysis

Statistical analysis of the data was done with SPSS 24.0 package program. In order to determine the normality distribution of the data, the median, mean, kurtosis, and skewness values were decided by looking at the Q-Q pilot plot (Table 1). Statistical significance level was accepted as $p < 0.05$. Independent samples t-test was used for pairwise group comparisons in data analysis. One Way ANOVA and Post-hoc analysis was used to compare the means of more than two groups.

Table 1. Normality distribution analysis regarding scale

Scale	$\bar{x}/ss$	median	variance	skewness	kurtosis
CA	18.03 ± 6.00	17.50	36.061	.802	.728
SA	15.88 ± 5.70	14.00	32.537	1.240	1.771
SC	30.66 ± 7.24	30.00	52.451	-.595	-.182
CSAI-2R	21.77 ± 3.63	21.43	13.212	.485	1.84

CSAI-2R: The Revised Competitive State Anxiety Inventory-2. $-1.96 < \text{skewness}$, $\text{kurtosis} < 1.96$

The arithmetic means of the "CA" sub-dimension of the scale used to collect the data is 18.03, with a standard deviation of 6.00, as shown in Table 2. The "SA" sub-dimension has an arithmetic mean of 15.88 and a standard deviation of 5.70. The "SC" sub-dimension has an arithmetic mean of 30.66 and a standard deviation of 7.24. When the skewness and kurtosis values of the total and all three dimensions of the scale were examined, it was determined that the kurtosis and skewness values of the total and all three dimensions of the scale were between 1.96, and the data used in the study were in accordance with the normal distribution, taking these results into account. As a result, it was decided to do data analysis using parametric analysis. When the reliability values of the scale were analysed in this study, the alpha coefficient for the CA sub-dimension was 0.70; the alpha coefficient for the SA sub-dimension was 0.76; and the alpha coefficient for the SC sub-dimension was 0.79.

Table 2. Descriptive statistics on athletes

Variables	Groups	F	%
Gender	Male	185	66.8
	Female	92	33.2
Age	15-19 age	107	38.6
	20-24 age	135	48.7
	25-29 age	20	7.2
	30-34 age	15	5.4
Sport branch	Football	58	20.9
	Volleyball	55	19.9
	Basketball	42	15.2
	Athletics	78	28.2
	Handball	44	15.9
National competitiveness level	Yes	158	57.0
	No	119	43.0
International competitiveness level	Yes	176	63.5
	No	101	36.5
Weekly Training Frequency	2 days	4	1.4
	3 days	36	13.0
	4 days	39	14.1
	5 days	50	18.1
	6 days	123	44.4



	7 days	25	9.0
Sports Age	2-5 years	45	16.2
	6-9 years	117	42.2
	10-13 years	79	28.5
	14-17 years	23	8.3
	18-21 years	13	4.7

n=277

Demographic information on the people participating in the research is given in Table 2. In this context, 185 (66.8%) men and 92 (33.2%) women participated in the research. The age of the participants was 107 (38.6%) in the 15–19 age range; 135 (48.7%) in the 20–24 age group; 20 (7.2%) in the 25–29 age range; and it ranged from 15 (5.4%) in the 30–34 age range. When the sports branches were evaluated, 58 (20.9%) were in the football branch; 55 (19.9%) in volleyball; 42 (15.2%) in basketball; 78 (28.2 %) people participated in the athletics branch; and 44 (15.9%) in the handball branch. According to participation in national competitions, 158 people (57.0%) answered yes, while 119 (43.0%) answered no. According to participation status in the international competition, 176 people (63.5%) answered yes, while 101 people (36.5%) answered no. According to the weekly training frequency variable, it was determined that 123 people (44.4%) of the participants train 6 days a week. It was determined that the sports age of the participants was 6–9 years old, with at most 117 people (42.2%).

Table 3. Differences in gender variables and competition state anxiety in athletes (CA, SA, SC)

Variables		Levene Test						
The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) Scales Sub-dimensions	Gender	n	$\bar{x}$	ss	F	P	t	p
CA	Female	92	18.42	5.984	.004	.947	.764	.44
	Male	185	17.84	6.022				
SA	Female	92	16.13	5.482	.846	.359	.505	.61
	Male	185	15.76	5.822				
SC	Female	92	29.41	7.224	.575	.449	-	.04*
	Male	185	31.28	7.191				

*p<0.05; n=277

At the 95 % confidence level, a statistically significant difference was detected between the athletes' "SC" sub-dimension of the Competition State Anxiety Inventory and the gender variable ($t=-2.027$; $p=0.04$; $p>0.05$), as shown in Table 3. Male athletes' SC levels ($x=31.28$) were found to be higher than female athletes' SC levels ($x=29.41$) based on this result.

Table 4. Differences between the variable of athletes' participation in national competitions and the variable of competition-state anxiety (CA, SA, SC)

Variables		n	$\bar{x}$	ss	t	p
The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) Scales Sub-dimensions	National Competitiveness Level					



CA	Yes	158	17.69	6.218	-1.108	.269
	No	119	18.49	5.705		
SA	Yes	158	15.90	5.574	.047	.962
	No	119	15.87	5.896		
SC	Yes	158	29.90	7.688	-2.019	.04*
	No	119	31.66	6.501		

* $p < 0.05$; $n = 277$

As shown in Table 4, there was a statistically significant difference between the athletes' "SC" sub-dimension of the Competition State Anxiety Inventory and the variable of participation in national competitions at the 95 % confidence level. ($p = 0.04$; $p < 0.05$) ($t = -2.019$; $p = 0.04$; $p < 0.05$). The SC levels of athletes competing in national competitions ($\bar{x} = 29.90$) were found to be lower than the SC levels of athletes who did not compete in national competitions ($\bar{x} = 31.66$).

Table 5. Comparison of the variable of athletes' participation in international competitions with competition-state anxiety (CA, SA, SC)

Variables		n	$\bar{x}$	ss	t	p
The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) Scales Sub-dimensions	International Competitiveness Level					
CA	Yes	176	17.61	6.011	-1.536	.126
	No	101	18.76	5.954		
SA	Yes	176	15.86	5.557	-.080	.936
	No	101	15.92	5.979		
SC	Yes	176	30.07	7.616	-1.794	.074
	No	101	31.68	6.448		

* $p < 0.05$; $n = 277$

As can be seen in Table 5, no statistically significant difference was found between the sub-dimensions of the Competitive State Anxiety Inventory of the athletes and the variable of participation in international competitions.

Table 6. Analysis of differences between athletes' age variable and competition state anxiety (CA, SA, SC)

The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) Scales Sub-dimensions		Age	n	$\bar{x}$	ss	F	p	Difference
CA	15-19 age	107	18.79	6.662	7.591	.000		4<1
	20-24 age	135	17.24	4.918				2<3
	25-29 age	20	22.38	7.185				4<3
	30-34 age	15	14.00	4.309				
SA	15-19 age	107	16.80	5.974	2.792	.041		
	20-24 age	135	15.02	5.268				2<1
	25-29 age	20	17.60	7.330				
	30-34 age	15	14.80	3.688				



SC	15-19 age	107	30.49	7.588	.433	.730
	20-24 age	135	30.47	7.245		
	25-29 age	20	32.30	5.440		
	30-34 age	15	31.33	7.118		

*p<0.05; **p<0.01; 15-19 age=1; 20-24 age=2; 25-29 age=3; 30-34 age =4; n=277

At 99 % and 95 % confidence levels, statistically significant differences were identified between the players' age variable and the "CA" and "SA" sub-dimensions of the Competition State Anxiety Inventory, as shown in Table 6. When the differences between the groups were investigated, it was shown that the CA levels of athletes aged 15-19 years ($\bar{x}$ =18.79) in the "CA" sub-dimension were higher than those of athletes aged 30-34 years ($\bar{x}$ =14.00). On the other hand, it was shown that athletes aged 25-29 ($\bar{x}$ =22.38) had more cognitive anxiety than athletes aged 20-24 ($\bar{x}$ =17.24) and athletes aged 30-34 ($\bar{x}$ =14.00). In the "SA" sub-dimension, it was found that the somatic anxiety levels of the athletes between the ages of 15-19 ($\bar{x}$ =16.80) were higher than those of the athletes between the ages of 20-24 ($\bar{x}$ =15.02).

Table 7. Analysis of differences between sports branch variable of athletes and competition-state anxiety (CA, SA, SC)

The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) Scales							
Sub-dimensions		Sport Branch	n	$\bar{x}$	ss	F	p
CA	Football	58	19.31	6.519	3.295	.01**	2<1
	Volleyball	55	15.95	4.942			2<4
	Basketball	42	16.96	5.961			
	Athletics	78	19.04	6.166			
	Handball	44	18.18	5.638			
SA	Football	58	15.38	5.950	.649	.628	-----
	Volleyball	55	15.09	4.519			
	Basketball	42	16.19	6.444			
	Athletics	78	16.28	6.113			
	Handball	44	16.55	5.271			
SC	Football	58	31.52	6.736	1.391	.237	-----
	Volleyball	55	29.45	7.081			
	Basketball	42	31.14	8.313			
	Athletics	78	29.77	7.655			
	Handball	44	32.14	5.998			

**p<0.01, *p<0.05 ; football=1; volleyball=2; basketball=3; athletics=4; handball=5; n=277



As can be seen in Table 7, statistically significant differences were found between the sports branch variable of the athletes and the "CA" sub-dimension of the Competition State Anxiety Inventory at the 99 % confidence level. When the difference between the groups was examined, it was found that the CA levels of the athletes dealing with the volleyball branch ($\bar{x}$ =15.95) were lower than the athletes dealing with the football branch ($\bar{x}$ =19.31) and athletics ($\bar{x}$ =19.04).

Table 8. Analysis of differences between sports age variable of athletes and competition state anxiety (cognitive anxiety, somatic anxiety, self-confidence)

The Revised Competitive State Anxiety Inventory-2 (CSAI-2R)							
Scales	Sports age	n	$\bar{x}$	ss	F	p	Difference
Sub-dimensions							
CA	2-5 years	45	18.72	6.476	2.395	.051	-----
	6-9 years	117	18.78	6.676			
	10-13 years	79	17.41	4.943			
	14-17 years	23	17.28	4.258			
	18-21 years	13	14.04	4.952			
SA	2-5 years	45	16.36	4.904	2.171	.073	-----
	6-9 years	117	16.84	6.455			
	10-13 years	79	14.78	5.382			
	14-17 years	23	14.96	4.039			
	18-21 years	13	14.00	4.000			
SC	2-5 years	45	26.98	8.120	5.515	.000**	1<3
	6-9 years	117	30.27	7.385			1<4
	10-13 years	79	32.13	6.138			2<4
	14-17 years	23	34.09	4.199			
	18-21 years	13	31.85	8.345			

**p<0.01, *p<0.05; 2-5 years =1; 6-9 years =2; 10-13 years =3; 14-17 years =4; 18-21 years =5; n=277

As can be seen in Table 8, statistically significant differences were found between the sports age variable of the athletes and the "SC" sub-dimension of the Competition State Anxiety Inventory at the 99 % confidence level. When the difference between the groups is examined, it is seen that the SC levels of the athletes with 2-5 years of sports experience ($\bar{x}$ =26.98) are higher than those of the athletes with 10-13 years of sports experience ($\bar{x}$ =32.13) and those with 14-17 years of sports experience. ($\bar{x}$ =34.09) was found to be lower. In addition, it was



determined that the self-confidence levels of the athletes with 14 17 years of sports experience ($\bar{x}$ =34.09) were higher than the SC levels of the athletes with 6-9 years of sports experience ($\bar{x}$ =30.27).

Table 9. Analysis of differences between weekly training frequency variable of athletes and competition-state anxiety (cognitive anxiety, somatic anxiety, self-confidence)

The Revised Competitive State Anxiety Inventory-2 (CSAI-2R) Scales Sub-dimensions	Weekly Training Frequency	n	$\bar{x}$	ss	F	p	Difference
CA	2 days	4	20.63	3.146	.742	.593	-----
	3 days	36	19.10	7.563			
	4 days	39	17.63	6.588			
	5 days	50	18.45	5.246			
	6 days	123	17.46	5.507			
	7 days	25	18.70	6.736			
SA	2 days	4	24.00	10.066	1.854	.103	-----
	3 days	36	15.17	5.563			
	4 days	39	15.59	5.716			
	5 days	50	16.32	6.814			
	6 days	123	15.79	5.049			
	7 days	25	15.68	5.281			
SC	2 days	4	26.50	8.544	1.503	.189	-----
	3 days	36	31.06	6.853			
	4 days	39	30.05	7.291			
	5 days	50	30.12	8.470			
	6 days	123	30.41	6.881			
	7 days	25	34.00	6.164			

**p<0.01, *p<0.05; 2 days =1; 3 days =2; 4 days =3; 5 days =4; 6 days =5; 7 days =6; n=277

As can be seen in Table 9, no statistically significant differences were found between the weekly training frequency variable of the athletes and the "CA, SA, SC" sub-dimensions of the Competition State Anxiety Inventory.

Discussion



The impact of state anxiety on athletic performance is currently a topic of great interest. A variety of factors influence athletes' anxiety levels, and the positive effects of these factors on performance are now being researched.

Our results showed that male athletes had higher self-confidence levels than female athletes and that participating in national tournaments negatively affected their SC. In previous studies conducted by Yücel (2003), on taekwondo athletes, it was shown that there was no difference in the state anxiety levels of the athletes according to their gender. Civan et al. [30] also found that there was no difference in the state anxiety levels of the athletes according to their gender in the study they conducted on athletes who do individual and team sports.

Female volleyball players, on the other hand, have high pre-competition state anxiety ratings, according to Baştuğ (2009) and this scenario has a detrimental impact on their performance. While Segal and Weinberg (1984) found that women have higher trait anxiety than males, Başaran et al. (2009), found that male athletes have higher anxiety scores. Meanwhile, when state anxiety levels were examined by gender by Engür (2002), no significant differences were detected. Given these findings, a significant number of studies are needed to evaluate whether anxiety differs according to an athlete's gender.

In a study on canoe athletes by Demir and Barut (2021), it was shown that females exhibited lower SC than males. Female athletes were more fearful of failure in contests than male athletes, according to Demir and Barut (2021), while male skiers showed higher SC than female skiers.

While SC is a popular subject in sports psychology, it also plays a role in mediating the link between anxiety and performance (Woodman & Hardy, 2003; Craft et al., 2003; Moritz et al., 2000; Hardy, 1996; Jones & Hanton, 2001). It has been suggested that SC makes it easier to cope with elevated arousal levels before a performance, thereby lowering the effects of cognitive worry and anxiety symptoms (Hardy, 1996; Jones & Hanton, 2001; Jones & Hanton, 1994). Another theory is that self-assurance promotes success-oriented behavior (McPherson & McCormick, 2006).

It has been suggested that "SC" can be seen as an adaptive aspect of perfectionism if an athlete is not overly concerned about making mistakes and that SC is related to "striving for perfection" (Stoeber et al., 2007). As a result, athletes who are entirely confident in themselves are more likely than other athletes to maximize their efforts in their pursuit of excellence. This might explain why they are able to use many brain functions to achieve excellent and outstanding sports performance. As a consequence of the study, it was shown that athletes with the least amount of sports experience (2-5 years) were less confident than athletes with the highest amount of sports experience (14-17 years). The sports age of players and their SC rise together. From this finding, it can be concluded that as athletes' experience grows, their SC grows at corresponding rate. According to Karabulut et al. (2013), there was no significant difference in athletes' trait and state anxiety ratings based on the sports year variable.

In studies involving various groups, Arseven and Güven (1992), Yücel (2003), Erbaş (2005), Adalı (2006) and Bingöl et al. (2012) found that the athletes' trait and state anxiety levels were unaffected by how many years they had spent participating in sports. In research on Lithuanian National canoe and rowing teams conducted Alekrinskis et al. (2019), it was found that there was no significant difference in the athletes' anxiety levels prior to competition. Meanwhile, the anxiety levels of top athletes increased on the day of the competition,



according to a study done by Rimmele et al. (2007). In research of top rowers by Wetherell and MacDonald (2019), it was discovered that athletes' anxiety levels on a competition day were higher than during the training phase. Furthermore, no statistically significant differences were identified between athletes' weekly training frequency and CA, SA, or SC.

The cognitive anxiety levels of the youngest age group (15-19 years) in the study were found to be greater than those of the oldest age group (30-34 years). Similarly, the youngest age group (15-19 years) was shown to have higher levels of SA than the middle-aged group (20-24 years). Dereceli et al. (2019) discovered a strong negative link between athletes' ages and their SA; however, age had no relationship with the anxiety and SC sub-dimensions.

The reason for this is that with increasing age, the number of experiences is expected to increase. A difference is observed between the physical readiness in the first experience and the physical readiness in the later experiences. With age, individuals gain more experience and knowledge about where, when, and what to do. Younger individuals tend to have less experience, which may increase their anxiety about making mistakes. However, as they get older, their experience will increase such that their bodily movements are ingrained within them. Therefore, it has been stated that SA decreases as age increases.

However, Özbekçi (1989) examined basketball, volleyball, and track and field athletes in terms of state anxiety scores and could not find a relationship between age and competition stress levels. Also, in a study conducted by Arseven and Güven (1992) on players interested in basketball, handball, volleyball, and other athletics, there was no difference in the anxiety levels of the athletes in the competitive setting based on their age. Furthermore, Modroño and Guillen, (2011) identified a significant negative association between age and CA in judo competitors and claimed this was due to older athletes having more experience than younger athletes.

Athletes dealing with the volleyball branch had lower levels of CA than those dealing with the football and athletics branches, according to the findings of a previous study. In a study on basketball players, Cerit, et al. (2013) found a link between anxiety and performance levels. Civan, et al. (2010) discovered a substantial variation in the state and trait anxiety ratings of athletes depending on what sport they played.

According to research by Özbekçi (1989), athletes who participate in athletics are more stressed about competitions than basketball and volleyball players. Perhaps competitors in individual sports have high anxiety rates because these athletes are solely responsible for their outcomes. When compared to individual sports, athletes, team sports athletes have lower state anxiety because the outcomes of the competition affect the entire team and negative actions can be corrected by other team members. Also, the responsibility for defeat can be shared, and an athlete's direct responsibility for negative results is lower.

According to research by Demir and Barut (2021), canoe athletes suffer cognitive and physical worry on competition days but have high self-confidence. Dereceli et al. (2019) found no significant differences between sports branches in their research. In contrast to this finding, Engür (2002) found that the sports branch of the participants impacted their state anxiety levels; athletes who participate in team sports have higher anxiety levels than those who participate in individual sports.

As the results presented above show, in the current study, it was determined that there were differences in the state anxiety levels of the athletes in terms of gender, age, sports branch,



national competitiveness level, and sports age variables. According to these results, when the self-confidence levels of male athletes and the self-confidence levels of female athletes are compared, it can be said that the effect size of males is higher.

While it has been shown that the cognitive and physical anxiety levels of young athletes are higher than those of older athletes, it has been determined that the SC of young athletes is lower than that of older athletes. Based on the findings of this study, it is recommended that athletes and coaches be better trained in sports psychology so that they can reduce their anxiety levels and increase their awareness of their psychological state.

Our results show that there are differences between state anxiety levels and variables such as gender, age, sport branch, national competition level, and sport age. It is not known whether the competition anxiety observed in athletes is caused by different variables. For this reason, whether the anxiety is caused by 'competition stress' can be determined with different measurement tools. More research is needed to explore the mechanisms underlying these findings in future studies. Therefore, it is recommended to make a comparison using a measurement tool and determine the level of effect.

This study only evaluated state anxiety because it is confined to the day of the competition. As a result, the use of the measuring instrument throughout the preparation period, on the day of the competition, and after the competition is recommended. Comparative research designs are also advised. Adding to the literature on anxiety among athletes will result in more consistent and comparable findings.

Although it was found in the study that volleyball players have lower cognitive anxiety levels in terms of branches, comparing individual and team sports in future studies will help to obtain more consistent results. In this respect, it is thought that the study will form a basis for future research.



REFERENCES

- Adalı, F. (2006). 14-18 Yaş Kız Ve Erkek Basketbolcuların Atılganlık İle Sürekli Kaygı Düzeylerinin Sosyodemografik Yapılarına Göre Karşılaştırılması, Yüksek Lisans Tezi, Gazi Üniversitesi, Eğitim Bilimleri Enstitüsü: Ankara.
- Akgönül, E.K., Tez, Ö.Y., Dicle A. (2021). Revize Edilmiş Yarışma Durumluk Kaygı Envanteri-2'nin Türkçe Versiyonunun Geçerlilik ve Güvenirlik Çalışması. *Avrasya Spor Bilimleri ve Eğitim Dergisi* 2021, 3:61-80.
- Alekrinskis, A., Bulotienė, D., Dagytė, R.(2019). Peculiarities of pre-competition emotional state of the Lithuanian national kayak and canoe rowing team members and junior kayakers and canoeists. *Sporto mokslas*, 2019, nr 1, p 12-17 2019.
- Aras, D., Akça, F., Güler, Ö., Birol, A., Ertetik, G., Çetinkaya, G., & Akalan, C. (2018). Extreme altitude mountain climbing decreases sensation seeking score and increases the anxiety level. *Uluslararası İnsan Çalışmaları Dergisi*, 1(2), 222-234.
- Arseven, A., Güven, Ö. (1992). Sporcuların müsabaka ortamındaki anksiyete düzeyleri. Ankara: HÜ Spor Bilimleri II. Ulusal Kongresi.
- Başaran, M.H., Taşgın, Ö., Sanioğlu, A., Taşkın, A.K. (2009). Sporcularda Durumluk Ve Sürekli Kaygı Düzeylerinin Bazı Değişkenlere Göre İncelenmesi. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* 2009:533-542.
- Baştuğ, G. (2009). Bayan voleybolcuların müsabaka dönemi kaygı ve umutsuzluk düzeylerinin incelenmesi. *Selçuk Üniversitesi Beden Eğitimi ve Spor Bilim Dergisi*, 11(3), 15-20.
- Bingöl, H., Çoban, B., Bingöl, Ş., & Gündoğdu, C. (2012). Üniversitelerde öğrenim gören taekwondo milli takım sporcularının maç öncesi kaygı düzeylerinin belirlenmesi. *Selçuk Üniversitesi Beden Eğitimi ve Spor Bilim Dergisi*, 14(1), 121-125.
- Cerit, E., Gümüşdağ, H., Evli, F., Şahin, S., & Bastık, C. (2013). Elit kadın basketbol oyuncularının yarışma öncesi kaygı düzeyleri ile performansları arasındaki ilişki. *Sport Sciences*, 8(1), 26-34.
- Civan, A., Ramazan, A. R. I., Görücü, A., & Özdemir, M. (2010). Bireysel ve takım sporcularının müsabaka öncesi ve sonrası durumluk ve sürekli kaygı düzeylerinin karşılaştırılması. *Uluslararası İnsan Bilimleri Dergisi*, 7(1):193-206.
- Correia, M. E., & Rosado, A. (2018). Fear of failure and anxiety in sport. *Análise Psicológica*, 36(1), 75-86.
- Cox, R. H., Martens, M. P., & Russell, W. D. (2003). Measuring anxiety in athletics: the revised competitive state anxiety inventory-2. *Journal of sport and exercise psychology*, 25(4), 519-533.
- Craft, L. L., Magyar, T. M., Becker, B. J., & Feltz, D. L. (2003). The relationship between the Competitive State Anxiety Inventory-2 and sport performance: A meta-analysis. *Journal of sport and exercise psychology*, 25(1), 44-65.
- Demir, A., Barut, A.İ. (2021). Examining of Competitive Anxiety Levels And Achievement Goals of Flatwater Kayakers In Terms of Different Variables. *Journal of Eurasian Education and Culture*, 2021, 6:1-24.



- Dereceli, Ç., Toros, T., Yıldız, R. (2019). Futbol Hakemlerinin Durumluk Kaygı ve Genel Öz Yeterlik Düzeylerinin Bazı Değişkenler Açısından İncelenmesi. *Spormetre Beden Eğitimi ve Spor Bilimleri Dergisi* 2019, 17:64-74.
- Dunn, J.G., Dunn, J.C.(2001). Relationships among the sport competition anxiety test, the sport anxiety scale, and the collegiate hockey worry scale. *Journal of Applied Sport Psychology* 2001, 13:411-429.
- Engür, M. (202). Elit Sporcularda Başarı Motivasyonun, Durumluk Kaygı Düzeyleri Üzerine Etkisi. Yayınlanmamış Yüksek Lisans Tezi. Ege Üniversitesi Sağlık Bilimleri Enstitüsü. İzmir. 2002.
- Erbaş, M.K. (2005). Üst Düzey Basketbolcularda Durumluluk Kaygı Düzeyleri Ve Performans İlişkisi. Yayınlanmamış Yüksek Lisans Tez., Dumlupınar Üniversitesi. Sosyal Bilimler Enstitüsü: Kütahya. (2005).
- Gould, D., Feltz, D., Horn, T., & Weiss, M. (1982). Reasons for attrition in competitive youth swimming. *Journal of Sport Behavior*, 5(3), 155.
- Hardy, L. (1996). Testing the predictions of the cusp catastrophe model of anxiety and performance. *The sport psychologist*, 10(2), 140-156.
- Ivaskevych, D., Fedorchuk, S., Borysova, O., Kohut, I., Marynych, V., Petrushevskiy, Y., ... & Tukaiev, S. (2020). Association Between Competitive Anxiety, Hardiness, And Coping Strategies: A Study Of The National Handball Team. *Journal of Physical Education and Sport* 2020, 20:477-483.
- Jones, G., & Hanton, S. (2001). Pre-competitive feeling states and directional anxiety interpretations. *Journal of sports sciences*, 19(6), 385-395.
- Jones, G., Hanton, S., & Swain, A. (1994). Intensity and interpretation of anxiety symptoms in elite and non-elite sports performers. *Personality and individual differences*, 17(5), 657-663.
- Karabulut, O., Atasoy, M., Kaya, K., & Karabulut, A. (2013). 13-15 Yaş Arası Erkek Futbolcuların Durumluk ve Sürekli Kaygı Düzeylerinin Farklı Değişkenler Bakımından İncelenmesi. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 14(1), 243-254.
- Khan, M. K., Khan, A., Khan, S. U., & Khan, S. (2017). Effects of anxiety on athletic performance. *Res Inves Sports Med*, 1(1), 1-5.
- Korkmaz, S. ., Aslan, C. S., Eyuboğlu, E., Çelebi, M. ., Kır, R., Karakulak, İzzet, Akyüz, Ömer, Özer, U., & Geri, S. (2020). Impact of detraining process experienced during the COVID-19 pandemic on the selected physical and motor features of football players. *Progress in Nutrition*, 22(2-S), e2020029. <https://doi.org/10.23751/pn.v22i2-S.10605>
- MacDonald, D., & Wetherell, M. A. (2019). Competition stress leads to a blunting of the cortisol awakening response in elite rowers. *Frontiers in psychology*, 10, 1684.
- Martens, R., Burton, D., Rivkin, F., Simon, J. (1990). Reliability And Validity Of The Competitive State Anxiety Inventory (CSAI). *Psychology of motor behavior and sport* 1980:91-99.
- Martens, R., Vealey, R. S., & Burton, D. (1990). Competitive anxiety in sport.



- McPherson, G. E., & McCormick, J. (2006). Self-efficacy and music performance. *Psychology of music*, 34(3), 322-336.
- Modroño, C., & Guillen, F. (2011). Anxiety characteristics of competitive windsurfers: relationships with age, gender, and performance outcomes. *Journal of Sport Behavior*, 34(3).
- Moritz, S. E., Feltz, D. L., Fahrbach, K. R., & Mack, D. E. (2000). The relation of self-efficacy measures to sport performance: A meta-analytic review. *Research quarterly for exercise and sport*, 71(3), 280-294.
- Ostrow, A.(1996). *Directory Of Psychological Tests In The Sport And Exercise Sciences*. Morgantown: Fitness Information Technology. Inc; 1996.
- Öner, N., Le Compte, W.A. (1985). *Durumluk-Sürekli Kaygı Envanteri El Kitabı*. Boğaziçi Üniversitesi Yayınları.
- Özbekçi, F. (1989). *Farklı Spor Dallarında Yaşanan Müsabaka Stres Düzeylerinin Araştırılması* (Doctoral dissertation, Marmara Üniversitesi (Turkey)).
- Rimmele, U., Zellweger, B. C., Marti, B., Seiler, R., Mohiyeddini, C., Ehlert, U., & Heinrichs, M. (2007). Trained men show lower cortisol, heart rate and psychological responses to psychosocial stress compared with untrained men. *Psychoneuroendocrinology*, 32(6), 627-635.
- Sarıkabak, M., Eyüboğlu, E., Ayrancı, M. (2018). Bocce (Petank) Sporcularının Duygusal Zekâ Düzeylerinin, Akademik Erteleme Davranışları Üzerine Etkisinin İncelenmesi. *Uluslararası Kültürel Ve Sosyal Araştırmalar Dergisi*, 4(1), 163-177.
- Segal, J. D., & Weinberg, R. S. (1984). Sex, sex role orientation and competitive trait anxiety. *Journal of Sport Behavior*, 7(4), 153.
- Singh, V., Punia, S.(2018). Measurement Of Competition Level Anxiety Of University Level Players By Using Scat In North Zone in India. *Measurement*, 3(2).
- Smith, R.E., Smoll, F.L. (1991). *Behavioral Research And Intervention In Youth Sports*. Behavior Therapy 1991, 22:329-344.
- Spielberger, C.D. (1970). *Manual for the State-Trait Anxiety, Inventory*. Consulting Psychologist 1970.
- Spielberger, C.D. (2013). *Anxiety And Behavior*. Academic Press; 2013.
- Spitzer, R. L., Kroenke, K., Linzer, M., Hahn, S. R., Williams, J. B., Degruy, F. V., ... & Davies, M. (1995). Health-Related Quality Of Life In Primary Care Patients With Mental Disorders: Results From The PRIME-MD 1000 Study. *Jama*, 274(19), 1511-1517.
- Stoeber, J., Otto, K., Pescheck, E., Becker, C., & Stoll, O. (2007). Perfectionism and competitive anxiety in athletes: Differentiating Striving For Perfection And Negative Reactions To Imperfection. *Personality and individual differences*, 42(6), 959-969.
- Woodman, T. I. M., & Hardy, L. E. W. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: A meta-analysis. *Journal of sports sciences*, 21(6), 443-457.
- Yıldırım, A., & Şimşek, H. (2011). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayıncılık, 8.



Yücel, E.O. (2003) Taekwondocuların Durumluk ve Sürekli Kaygı Düzeyleri ve Müsabakalardaki Başarılarına Etkisi. . Master's thesis, Gazi University, Health Sciences Institute Ankara 2003.