



## The Impact of Anxiety Experienced in Competition on Decision-Making: A Study on Individual Sports Competitions

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### Abstract

**Aim:** Individuals who are exposed to anxiety, which is a type of stress response, can have negative effects on their behavior. Anxiety is divided into two sub-dimensions as physical (somatic) and cognitive anxiety. In this study, anxiety was addressed from its cognitive aspect (worry and concentration disruption). Therefore, the primary aim of this study is to reveal the impact of anxiety experienced by athletes in competition on their decision-making behavior.

**Methods:** SmartPls program was used for data analysis. A questionnaire form including anxiety and decision-making scales was applied to the athletes. Data was collected from 189 athletes using the survey technique. The collected data was examined with structural equation modeling.

**Results:** As a result of the analysis made; worry experienced by the athletes in the competition negatively affects their rational, intuitive, avoidant, dependent, and spontaneous decision-making behaviors. Accordingly, if the athletes are worried in the competition they perform, all decision-making behaviors are negatively affected by this situation.

**Conclusion:** The concentration disruption experienced by the athletes in the competition negatively affects the decision-making situation dependent on their decision-making behavior. In this sense, the fact that the athletes experience concentration disruption in the competitions in which they perform negatively affects the decisions they make in line with the recommendations and directions of others.

### Keywords

Worry,  
Anxiety,  
Decision Making,  
Sports.

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## Müsabakada Yaşanılan Kaygının Karar Vermeye Etkisi: Bireysel Spor Müsabakalarında Bir Araştırma

### Özet

**Amaç:** Bir stres tepkisi olan kaygıya maruz kalmanın bireylerin davranışları üzerinde olumsuz etkileri olabilmektedir. Kaygı, fiziksel (somatik) ve bilişsel kaygı olmak üzere iki alt boyuta ayrılmaktadır. Bu çalışmada kaygı, bilişsel yönüyle (endişe ve konsantrasyon bozukluğu) ele alınmıştır. Dolayısıyla bu çalışmanın temel amacı, sporcuların müsabakada yaşadıkları kaygının karar verme davranışları üzerindeki etkisini ortaya koymaktır.

**Yöntem:** Veri analizi için SmartPls programı kullanılmıştır. Sporculardan kaygı ve karar verme ölçeklerinin yer aldığı bir anket formu uygulanmıştır. 189 sporcudan anket tekniği ile veri toplanmıştır. Toplanan veriler yapısal eşitlik modellemesiyle incelenmiştir.

**Bulgular:** Sporcuların müsabakada yaşadıkları endişe, onların akılcı, sezgisel, kaçınan, bağımlı ve kendiliğinden karar verme davranışlarını olumsuz etkilemektedir. Buna göre, sporcular katıldıkları müsabakalar sırasında endişeli iseler bu durumdan tüm karar verme davranışları olumsuz etkilenebilmektedir.

**Sonuç:** Sporcuların müsabakada yaşadıkları konsantrasyon bozukluğu, karar verme davranışlarına bağlı olarak karar verme durumlarını olumsuz etkilemektedir. Bu anlamda sporcuların performans gösterdikleri müsabakalarda konsantrasyon bozukluğu yaşamaları, başkalarının tavsiye ve yönlendirmeleri doğrultusunda aldıkları kararları olumsuz etkilemektedir.

### Anahtar Kelimeler

Endişe,  
Kaygı,  
Karar Verme,  
Spor.

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## INTRODUCTION

As of the meaning of the dictionary, anxiety is concerned with the meaning of worry, fear, and wonder (Köknel, 1985). Most of the time, anxiety also refers to a voltage condition that requires medical assistance to prevent our daily life. As fear that is not clear, anxiety refers to an uneasiness that reduces the sense of distrust. Anxiety is more or less behavior in all humans, but the type and degree of anxiety are important. If the frequency of anxiety status increases, the individual may not be able to continue their normal life (Öztürk, 2008). The psycho-analytical theory describes anxiety as the source is unclear and as significant fear, uneasiness, and worry (Freud 1936, as cited in Öztürk, 2008). According to that,

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the anxiety is "normal" or "pathological" depends on the situations it caused. The objective anxiety caused by possible objective and observable external stimulus is considered normal. The anxiety of the individual's unconscious impulses or the source of unconscious causes is expressed as neurotic anxiety. Anxiety is closely related to the individual's perception of their environment. How the environment is perceived is formed by social learning that accompanies the formation of psychic processes over time. In the formation of anxiety disorder, low in the perceived social support level, focusing on the negative of the expected result can be considered instant and chronic causes such as psychological contradictions and uncertainty (Öztürk, 2008).

Anxiety is a central explanatory concept in almost all personality theories. Anxiety is considered to be a major contributor to various behavioral outcomes, such as "insomnia", "immoral acts", and "debilitating psychological and psychosomatic symptoms" (Spielberger, 1966). Individuals who are constantly anxious may experience anxiety more frequently and more intensely than individuals who are less anxious. However, they are not always anxious. On the other hand, similar short-term anxiety states can be found in individuals who do not have a high tendency to respond with anxiety. In such situations, the experience of state anxiety may be a response to specific situational demands (Tovilovic et al., 2009). Anxiety can generally affect human psychology, cause intense concern, reduce life satisfaction by generating stress (Özavci and Gözaydın, 2022; Özavci et al., 2023), and lead to physical harm when experienced at advanced levels. However, the presence of anxiety at a certain level can bring some positive results. Anxiety may play an important role in the process of personality development. In this aspect, anxiety may help to create an individual's personality as a decisive factor in the person's behavior (Manav, 2011). Anxiety as a motivating situation is the cause of avoidance. It helps to strengthen the reactions successfully with the problem through adverse reinforcement and/or avoidance responses (Smith and Smoll, 1990). Anxiety means the negative emotional situations in which feelings such as irritability, tension, and worry in related to the stimulation of the body (Weinberg and Gould, 2019). The anxiety shows itself in performance when considered in the field of sports. According to Cheng Hardy and Markland (2009), the structure of performance anxiety in general means "...an unpleasant psychological state in reaction to a perceived threat concerning the performance of a task under pressure". Anxiety can be generally classified as state and trait anxiety. Situational anxiety refers to the momentary level of anxiety experienced by an individual. In this case, the intensity of anxiety changes and fluctuates over time. In the absence of an anxiety response, there is physiological and psychological calmness. When anxiety increases, it can include intense feelings of fear, negative/destructive thoughts, and high levels of physiological arousal. If anxiety status is moderate, the situations such as worry, tension may occur (Smith and Smoll, 1990). The trait concern is relevant to the individual characteristics of the individual as opposed to the status concern. It refers to permanent and continuous anxiety status, not a period of time (Spielberger, 1966).

In many of the sportive activities, within a certain framework, it includes actions that have to choose between options and make a decision on this issue. For this reason, the need to choose between alternative behaviors, the emerging conflict situation, and the necessity of making decisions can be an important source of anxiety for athletes. Anxiety can affect performance in all sports positively or negatively. The anxiety in sporting performance affects the adaptation and concentrations of the athletes, their attention and concentrations, coordination and balance, decision-making and evaluations, self-trust and valuations, motivation, and activations insignificant measures. These effects may affect the power-speed-strength, flexibility, technical and tactical skills that the athletes will need in their performance. (Konter, 1996). High levels of anxiety are associated with low self-confidence. Low self-confidence can prevent optimal performance. At high anxiety levels, athletes may doubt their ability to perform their tasks and avoid performing complex skills (Konter, 1996). Athletes need to direct their attention and concentration to the game itself so that they can have a good performance and fulfill their duties fully. Otherwise, players will shift their limited concentration and attention capacity to different issues. The energy shifted in different directions cannot be used efficiently in the performance of the game. Athletes in a state of high anxiety can shift their concentration to how well their competitors are doing, which may have difficulty successfully performing their own skills and deteriorate their performance (Jones, 1991).

In general, the motivation and performance deficiencies that anxiety affected may occur in two ways; First, anxiety may adversely affect the motivation and may lead to the excess tiring performance of the athlete and result in negativity. The athletes who have signed in numerous records say that they

are in a flow when they exhibit their best performances, and they do not feel forced. Secondly, low motivation caused by anxiety can lead to low performance of the athlete (Jones, 1991). Decision-making is generally defined as the process in which an individual reaches the results on future actions. This process is generally repeated and includes the subject to determine the information, collect information, conclusions, and learning from experiences (Schoemaker and Russo, 2016). When decision-making is considered in the field of sport, it is seen that more experienced and expert ones tend to perform more skilled performance than those low experienced ones in various elements of the decision-making process (Chamberlain and Coelho, 1993). The athletes make decisions due to the understanding of the emergency they are in a large extent (Macquet and Fleurance, 2007). In the studies in various branches related to anxiety and decision making in sports the overall; It was concluded that the higher the intensity of the cognitive anxiety, the performance of the athletes would be that bad in temporary decision making; the higher the intensity of the somatic anxiety, the higher the performance of the athletes will be that bad in temporary decision making, and the higher the self-confidence intensity, the better the performance of the athletes in temporary decision making (Fortes et al., 2018).

Worry refers to the cognitive side of anxiety. Anxiety is emotionally largely a person's awareness of bodily arousal and tension (Sarason, 1984). Worry is also known as an emotional state that the person has difficulty in controlling (Brown et al., 2003). Worry involves cognitive chains of events that can be under control if one wishes to some extent. However, chronic worries are not easy to stop once they start. In general, it is seen that people are inadequate in this respect (Borkovec et al., 1983). The sports environment is, by its very nature, an environment that can be quite stressful. There are significant individual differences in the tendency of athletes to experience anxiety in a competitive context. There is much evidence that important outcomes, such as performance, from sports activity are affected by anxiety (Smith et al., 1990). Momentary concentration disruption and lack of attention due to worry can lead to irreparable results and failures in athletes in general (Moran, 2009). Athletes may worry about getting unsuccessful results against those who evaluate them. Negative emotions such as anxiety, which includes worry, also lead to tiring of mind about irrelevant thoughts that distract athletes (McCarthy et al., 2012). Concentration requires participating in the right things at the right time and in the way it should be for athletes. Unless the concentration skills are high, the athlete cannot make the right moves in this sense and may experience difficulties in performance. Optimum concentration requires proper focus, the ability to pay attention over a period of time and is based on changing performance demands. However, it is not enough to start the game with just focus. Athletes should maintain their focus in competition as long as necessary (Williams et al., 2015). Grossbard et al. (2009), in their study on the sub-dimensions of anxiety in the field of sports, they found that female athletes experienced high worry during the game, while male players experienced intense concentration disruption. McCarthy et al. (2012) found in their study that negative emotions such as worry lead to concentration disruption in young athletes. Smith et al. (2006) measured anxiety in the field of sports with three different variables. These variables are; physical (somatic) anxiety, worry, and concentration disruption. Worry and concentration disruption are also known as cognitive anxiety types (Smith et al., 1990). Different studies mention different dimensions of anxiety. Within the framework of the problem of this study, it is aimed to investigate to what extent the performance behavior decisions of the athletes are affected by anxiety disorders such as worry and concentration disruption during the performance process. Especially in dynamic sports, the effect of anxiety on sports performance is more important. Individual sports can be divided into two groups as dynamic and static (Mitchell and Wildenthal, 1974; Blomqvist et al., 1981). Each sporting activity is usually performed according to the intensity (low, medium, high) of the dynamic and static exercise required to perform that sport in the competition. The set of movements that make up a sporting event requires a series of decisions. Therefore, the decisions made affect the quality, timeliness, and compatibility of the movement with other movements. Timeliness and movement mismatch pose a risk to the athlete or others in competition, depending on the likelihood of significant impacts between competitors or between a competitor and an object, as well as the potential occurrence of syncope in competition.

According to this risk criterion, in terms of dynamic and static demands that sportive activities require, high static-high dynamic; medium static- medium dynamic; can be classified as low static-low dynamic and so on. Within the scope of these classifications, sports activity requires different levels of biological and mental loads. These loads accompanied by anxiety will have an impact on the necessary decision-making process during decision exercise. For example, the emotional stress experienced by an

athlete during a competitive event may develop independently of environmental influences such as variables in the athlete's preparation process or special training. During all individual competitions, an anxiety disorder can greatly increase the sympathetic impulse, negatively affecting the emotional involvement of the athlete, and the resulting concentration of catecholamines can increase blood pressure, heart rate, and myocardial contraction, thereby increasing myocardial oxygen demand. In addition, increased sympathetic tone can cause arrhythmias and exacerbate existing myocardial ischemia (Mitchell et al., 1994). This situation causes concentration disruptions in athletes during loads accompanied by anxiety. Accordingly, it is assumed that the anxiety disorders experienced by the athletes negatively affect their decision-making behaviors in competition, especially in individual sports. In this context, the main purpose of this study is to reveal the effect of the anxiety experienced by the athletes in competition on their decision-making behaviors.

## METHOD

### *Model of the research*

For this study, in accordance with the purpose of researching the effect of anxiety experienced in competition on decision making, the cross-sectional and relational research model in the single survey model was deemed appropriate. The single screening model is a screening model that is made over the whole population or a group, sample, or sample to be taken from the population in order to make a general judgment about the population in a population consisting of many individuals and included in the general screening models. Depending on the basic variables of the research, the research model is given as follows. Independent variables are worry and concentration disruption, which are sub-dimensions of anxiety (Smith et al., 2006). The dependent variable is decision-making behavior.

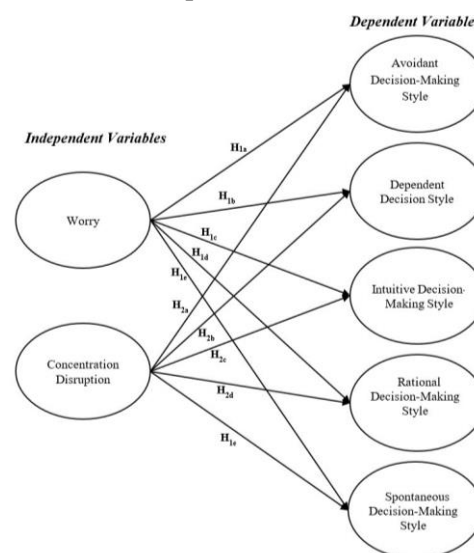


Figure 1. Research model

In the context of this model, the two main hypotheses of the research and their sub-hypotheses are given below:

**H1:** Worry experienced by athletes in competition negatively affects their decision-making behaviors.

- **H1a:** The worry experienced by the athletes in competition negatively affects the avoidant decision-making behavior.
- **H1b:** The worry experienced by the athletes in competition negatively affects the dependent decision-making behavior.
- **H1c:** The worry experienced by the athletes in competition negatively affects the intuitive decision-making behavior.
- **H1d:** The worry experienced by the athletes in competition negatively affects the rational decision-making behavior.

- **H1e:** The worry experienced by the athletes in competition negatively affects the spontaneous decision-making behavior.

**H2:** Concentration disruption experienced by athletes in competition negatively affects their decision-making behaviors.

- **H1a:** The concentration disruption experienced by the athletes in competition negatively affects the avoidant decision-making behavior.
- **H2b:** The concentration disruption experienced by the athletes in competition negatively affects the dependent decision-making behavior.
- **H2c:** Concentration disruption experienced by athletes in competition negatively affects intuitive decision-making behavior.
- **H2d:** The concentration disruption experienced by the athletes in competition negatively affects the rational decision-making behavior.
- **H2e:** The concentration disruption experienced by the athletes in competition negatively affects the spontaneous decision-making behavior.

### ***The universe and sample of the research***

The population of the research consists of the athletes in the Marmara region who do individual sports and participate in amateur or professional sports competitions. Since the number of athletes in the field of individual sports where there are many individual sports and athletes cannot be determined exactly, a number for the population could not be specified. Data were collected from the population using a convenience sampling method. The questionnaire, which was prepared on the web, was tried to be delivered to the athletes who actively participate in sports through various social media tools and social connections. A total of 270 questionnaires returned were examined and analyzes were carried out on the remaining 189 questionnaire data, whose branch mismatch, questionable data, and incompletely filled questionnaire data were deleted. Sociodemographic information about the participants is presented in Table 1.

### ***Data collection tools of the research***

Two different scales were used in this study. These scales are explained in detail below.

**Anxiety Scale (AS):** In this study, Smith et al. (2006) The Sports Anxiety Scale was used with the dimensions of “worry” and “concentration disruption”. The scale was translated into Turkish by Akyol, Altıntaş, Sezer ve Aşçı (2016). There are five expressions for each dimension. The statements were arranged in a 4-point Likert-type scale. These expressions; “not at all (1), a little bit (2), pretty much (3), very much (4)”. The items forming the sub-dimensions are as follows;

- Anxiety: 3,5,8,9,11.
- Concentration Disruption; 1,4,7,13,15.

**Decision Making Scale (DMS):** In this study, the “Decision Making Style Scale”, which was created by Scott and Bruce (1995) and translated into Turkish by Taşdelen (2002), was used. This scale consists of 25 statements. These statements measure five different decision-making styles. Scale items; It is scored according to a 5-point Likert-type rating listed as "strongly disagree" (1), "disagree" (2), "neutral" (3), "agree" (4), "strongly agree" (5). Statements measuring these styles are given below:

- Rational decision-making style: 1, 2, 3, 4, 5.
- Intuitive decision-making style: 6, 7, 8, 9, 10.
- Dependent decision style: 11, 12, 13, 14, 15.
- Avoidant decision-making style: 16, 17, 18, 19, 20.
- Spontaneous decision-making style: 21, 22, 23, 24, 25.

### ***Data analysis of the research***

The data were analyzed with the SmartPLS program. Confirmatory factor analysis and Cronbach's Alpha coefficients were used to measure the construct validity and reliability of the data. In addition, Fornell Larcker and Heterotrait-Monotrait Ratio (HTMT) tests were conducted to demonstrate discriminant

validity. Structural equation modeling was then applied to test the hypotheses. The goodness-of-fit results, which demonstrate the compatibility of the data obtained in the study with the proposed model, confirm the model's validity (Arbuckle, 2011). Details on the analyzes are in the “Findings” section.

## FINDINGS

In this section of the research, the analysis results of the data obtained are given.

**Table 1.** Demographic variables

Variables		f	%	Variables		f	%	
Gender	Female	159	84,1	Sports experience	Less than 1 year	11	5,8	
	Male	30	15,9		1-3 years	35	18,5	
Education level	Primary - Elementary -High school	87	46		4-7 years	94	49,7	
	Associate and Bachelor	79	41,8		8-14 years	29	15,3	
	Master and Doctorate	23	12,2		More than 15	20	10,6	
Age	18	27	14,3		Branch	Pentathlon -Gymnastics	85	45,0
	Between 19 - 23	45	23,8			Martial arts	48	25,4
	Between 24-32	75	39,7			Swimming	32	16,9
	33 <	42	22,2			Skiing and surfing	24	12,7
Total		189	100		Total		189	100

In the research, firstly, statistical results for the gender of the participants were obtained. In this context, 84.1% of the individuals participating in the research are male, and 15.9% are female.

**Table 2.** Results of cronbach alpha and convergent validity

Scales	Dimensions	Cronbach's Alpha ( $\alpha$ )	Composite Reliability (CR)	Average Variance Extracted (AVE)
Decision Making	Avoidant	0,844	0,887	0,611
	Dependent	0,818	0,871	0,575
	Intuitive	0,823	0,875	0,584
	Rational	0,834	0,879	0,593
	Spontaneous	0,830	0,879	0,594
Anxiety Scale	Worry	0,824	0,876	0,587
	Concentration	0,846	0,890	0,619

Cronbach Alpha values were used to calculate the reliability coefficient of the scales. It was concluded that the reliability coefficient of the statements of the scales was above 0.70; thus, the scales had good reliability (Hair et al., 2010). Composite reliability (CR) values were calculated for the internal consistency of the scales. It was concluded that the composite reliability values of the scales were above 0.60 (Bagozzi and Yi, 1988) and that the scales had internal consistency. The average variance extracted (AVE) values were calculated to determine the convergent validity of the scales. It was concluded that the average variance extracted values of the scales were smaller than the CR values and above 0.50 (Fornell and Larcker, 1981) and that the scales had convergent validity.

**Table 3.** Fornell Larcker criterion

Scales	Avoidant	Dependent	Worry	Intuitive	Concentration	Rational	Spontaneous
Avoidant	0,782*	.	.	.	.	.	.
Dependent	0,161	0,759*	.	.	.	.	.
Worry	-0,218	-0,164	0,766*	.	.	.	.
Intuitive	0,219	0,288	-0,216	0,764*	.	.	.
Concentration	-0,151	-0,213	0,170	-0,119	0,787*	.	.
Rational	0,121	0,294	-0,188	0,596	-0,086	0,770*	.
Spontaneous	0,571	0,178	-0,230	0,248	-0,124	0,214	0,771*

\*= Fornel Lacker Skor

The discriminant validity of the scales was calculated with the Fornell Larcker criterion. It is seen that the correlation loads between the variables are lower than the AVE square root of each variable, thus completing the first stage of discriminant validity (Fornell and Larcker, 1981). AVE square root alone is not sufficient to ensure discriminant validity (Hair et al., 2019). For this, Heterotrait-Monotrait Ratio (HTMT) values are also examined.

**Table 4.** Heterotrait-Monotrait Ratio (HTMT) results

Scales	Avoidant	Dependent	Worry	Intuitive	Concentration	Rational
Dependent	0,180	.	.	.	.	.
Worry	0,242	0,182	.	.	.	.
Intuitive	0,259	0,368	0,243	.	.	.
Concentration	0,176	0,243	0,208	0,138	.	.
Rational	0,151	0,367	0,201	0,728	0,097	.
Spontaneous	0,643	0,217	0,267	0,314	0,148	0,269

When the HTMT results of the scales were analyzed, it was determined that each score was below 1.00. The fact that these values, which reflect the geometric mean of the correlation score mean of the scales, are below 1.00 indicates that there is discriminant validity between the variables (Voorhees et al., 2016). Thus, the discriminant validity of the scales was ensured.

**Table 5.** Confirmatory factor analysis

Statement	Avoidant	Dependent	Intuitive	Rational	Spontaneous	Worry	Concentration
A1	0,774						
A2	0,782						
A3	0,772						
A4	0,807						
A5	0,772						
D1		0,716					
D2		0,850					
D3		0,764					
D4		0,717					
D5		0,738					
I1			0,749				
I2			0,796				
I3			0,793				
I4			0,744				
I5			0,738				
R1				0,696			
R2				0,811			
R3				0,793			
R4				0,773			
R5				0,772			
S1					0,692		
S2					0,833		
S3					0,827		
S4					0,706		
S5					0,785		
wo1						0,696	
wo2						0,812	
wo3						0,802	
wo4						0,843	
wo5						0,662	
con1							0,812
con2							0,837
con3							0,811
con4							0,771
con5							0,696

*R = Rational, I = Intuitive, D = Dependent, A = Avoidant, S = Spontaneous, Wo= Worry, Con= Concentration disruption*

As a result of confirmatory factor analysis, decision making and anxiety scales were examined, decision making was divided into five sub-factors, and the anxiety scale was divided into two sub-factors. These factors were named as "rational, intuitive, dependent, avoidant, and spontaneous" for the decision-making scale and as "worry and concentration disruption" for the anxiety scale. When the sub-factor loads were examined, the decision-making scale was defined as five factors and 25 statements, and the anxiety scale was defined as two factors and ten statements since they were above 0.50 (Kaiser, 1974).

**Table 6.** Coefficient of determination ( $R^2$ ) results

Dependent Variables	R Square	R Square Adjusted
Avoidant	0,061	0,053
Dependent	0,062	0,055
Intuitive	0,054	0,046
Rational	0,038	0,030
Spontaneous	0,060	0,052

In the study, the coefficient of determination of the scales was examined. The  $R^2$  value was examined to calculate the coefficient of determination. The  $R^2$  value shows how much the independent variables explain the dependent variable. The anxiety scale was used as two sub-factors in the study. In this context, the rate of explaining avoidant in decision making was 0.061, the rate of explaining dependent was 0.062, the rate of explaining intuitive was 0.054, the rate of explaining rational was 0.038, and the rate of explaining spontaneous was 0.060.

**Table 7.** Structural equation modeling results

Hypotheses	Beta ( $\beta$ )	$\bar{x}$	s.d.	t-value	p-value	Result
H1a Wo -> A	-0,200	-0,210	0,074	2,692	0,007	Accepted
H1b Wo -> D	-0,131	-0,139	0,062	2,107	0,036	Accepted
H1c Wo -> I	-0,203	-0,213	0,064	3,153	0,002	Accepted
H1d Wo -> R	-0,179	-0,188	0,066	2,696	0,007	Accepted
H1e Wo -> S	-0,216	-0,227	0,070	3,066	0,002	Accepted
H2a Con -> A	-0,116	-0,115	0,080	1,463	0,144	Rejected
H2b Con -> D	-0,191	-0,205	0,060	3,173	0,002	Accepted
H2c Con -> I	-0,083	-0,091	0,075	1,112	0,267	Rejected
H2d Con -> R	-0,054	-0,059	0,086	0,620	0,535	Rejected
H2e Con -> S	-0,085	-0,079	0,089	0,954	0,340	Rejected

R = Rational, I = Intuitive, D = Dependent, A = Avoidant, S = Spontaneous, Wo = Worry, Con = Concentration disruption

Worry negatively affects avoidant ( $\beta_{Wo \gg A} = -0.200$ ,  $t = 2.692$ ,  $p < 0.05$ ), dependent ( $\beta_{Wo \gg D} = -0.131$ ,  $t = 2.107$ ,  $p < 0.05$ ), Intuitive ( $\beta_{Wo \gg I} = -0.203$ ,  $t = 3.153$ ,  $p < 0.05$ ), rational ( $\beta_{Wo \gg R} = -0.179$ ,  $t = 2.696$ ,  $p < 0.05$ ) and spontaneous ( $\beta_{Wo \gg S} = -0.216$ ,  $t = 3.066$ ,  $p < 0.05$ ). Concentration disruption affects dependent ( $\beta_{Con \gg D} = -0.191$ ,  $t = 3.173$ ,  $p < 0.05$ ) negatively in decision making. On the other hand, concentration disruption does not adversely affect avoidant ( $\beta_{Con \gg A} = -0.116$ ,  $t = 1.463$ ,  $p < 0.05$ ), intuitive ( $\beta_{Con \gg I} = -0.083$ ,  $t = 1.112$ ,  $p < 0.05$ ), rational ( $\beta_{Con \gg R} = -0.054$ ,  $t = 0.620$ ,  $p < 0.05$ ) and spontaneous ( $\beta_{Con \gg S} = -0.085$ ,  $t = 0.954$ ,  $p < 0.05$ ).

## CONCLUSION and DISCUSSION

Anxiety consists of cognitive (such as worrying thoughts) and somatic (such as the degree of physical activation) components (Ford et al., 2017). Athletes may experience intense anxiety before or in competitions. In this sense, anxiety states that cannot be controlled can negatively affect the performance of athletes. These negative effects can go as far as failure (Başaran et al., 2009). Special situations such as physical harm can be shown as one of the reasons for sports anxiety. However, the most obvious reason for the emergence of sports anxiety is the behaviors of important people who evaluate the performance of the athlete according to some standards, according to situations such as failure (Smith and Smoll, 1990). Many athletes may not show their performance in their previous training under stressful competitive conditions. One of the important reasons for this problem is the anxiety levels of the athletes (Sanioglu et al., 2017).

Anxiety is an important variable that affects decision-making behavior. At the same time, decision-making behavior can cause anxiety. When it comes to making a choice between two or more options, the individual needs a calm mood to make a healthy choice. In the decision-making process, the prevention of the individual's behavior towards the alternative they think to choose or the fear that it will be prevented also causes anxiety. In our daily life, there are many decision processes that cause conflict. In this study, the effects of the anxiety experienced by the athletes in competition on their decision-making behaviors were examined. The data were analyzed with the SmartPLS program. Data from 189 athletes were collected through the survey. Of the 189 participants, 84.1% were men, and 15.9% were women. As mentioned before, this study has two main hypotheses and ten sub-hypotheses. According to the results of the analyzes made; Hypotheses H1a, H1b, H1c, H1d, H1e, and H2b were accepted. These results are described below.



The anxiety subdimension experienced by the athletes in competition negatively affects their rational, intuitive, avoidant, dependent, and spontaneous decision-making behaviors. Accordingly, if the athletes are worried in competition, all their decision-making behaviors are negatively affected by this situation. In this context, with the findings of this study, Fortes et al. (2018), the findings that cognitive anxiety can prevent athletes from making appropriate decisions during competition are similar. In addition, Tekin et al. (2009) found that physical education teachers' decision-making and anxiety levels in their study, and they found that as anxiety increases, indecision levels increase, the findings of this study are similar to the findings of this study. However Werner et al. (2009) found in their study that there was a positive relationship between trait anxiety and decision-making performance, which differed from the findings of this study. In the study of Johansen and Haugen (2013), in which they examined the relationship between the anxiety and decision-making behaviors of football referees in Norway, it was found that referees with more experience were more confident in making decisions and that no negative situation was encountered in their decision-making against anxiety, and that the referees had negative experiences such as anxiety. The findings of this study differed from the findings that they exhibited successful behaviors against situations.

Concentration disruption experienced by the athletes in competition negatively affects the dependent decision-making situation. In this sense, the fact that the athletes experience concentration disruption in competition they perform has a negative impact on the decisions they make in line with the advice and direction of others (Scott and Bruce, 1995). In this context, the result obtained from this study is similar to the findings of the study conducted by Fortes et al. (2018) that the distraction of the athletes in competition prevents their decision-making behaviors; In the study of Gvendi et al. (2020) the findings of this study differ from the findings that the athletes with high concentration make avoidant decisions.

In this study, decision-making behaviors were limited to rational, intuitive, dependent, avoidant, and spontaneous decision-making styles in the decision-making style scale created by Scott and Bruce (1995). In this sense, it constitutes the limitation of this study. Another limitation is the application of the study in the field of sports. Future studies may examine the relationship between anxiety and decision-making in other fields and compare it with this study in the field of sports. In the study, data were collected from 189 participants again. In this sense, the sample is limited to 189 people. Decision-making is of critical importance for athletes. Therefore, based on the results of this study, future research could focus on monitoring decision-making processes and developing tolerance to negative emotional states.

### **Ethical Approval Permission Information**

**Ethics Committee:** Çanakkale Onsekiz Mart University, Graduate Education Institute, Scientific Research Ethics Committee

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