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# Psychosocial Situations Encountered By Athletes: Opinions of Orienteering Coaches

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Research Article

#### **Abstract**

It is not surprising that athletes face many psychological strains in the competitive sports environment. The orienteering athlete, on the other hand, demonstrates making conscious decisions while interpreting the complexity of the map and recognizing the features of his/her environment, and in doing so, faces a psychological burden. In this context, the aim of this study is to reveal the opinions of orienteering coaches about the psychological difficulties experienced by their athletes in the competitive sports environment and what methods of solution to this situation. In the research, phenomenological research design, one of the qualitative research methods, and homogeneous sampling, one of the purposeful sampling types, were used. The research group consists of 3rd level orienteering coaches (n: 6, 4 women, 2 men). A semi-structured interview form was used to obtain data in the study. Content analysis method was used when analyzing data. As a result of the analysis, it was seen that a structure with two themes was formed: "Psychological Strains Encountered by Athletes" and "Solution Suggestions for Psychological Difficulties Encountered by Athletes". The codes formed under the themes and categories create concepts such as athletes before and during the competition, stress, anxiety, focus, excitement, fear, low motivation, high expectation, lack of selfconfidence and focus. The opinions of the coaches regarding the solution suggestions are; Concepts such as entering a psychological regime, breathing stretches, positive inner speech of the athlete, visual and auditory checking during the competition, visualization work, increasing motivation and visually analyzing the terrain are seen. As a result, the coaches stated that the athletes encountered many psychological negativities during the competition and that they tried to improve the athlete by introducing a psychological regime to solve these problems.

Keywords: Orienteering, Psychological strain, Competitive sports environment, Sports, Trainer

# Sporcuların Karşılaştıkları Psikososyal Durumlar: Oryantiring Antrenörlerinin Görüşleri

#### Öz

Sporcuların, rekabetçi spor ortamında birçok psikolojik zorlanmalar ile karşı karşıya kalması şaşırtıcı değildir. Oryantiring sporcusu ise haritanın karmaşıklığını yorumlarken ve çevresindeki özellikleri tanırken devam eden bilinçli kararlar vermeyi ortaya koymaktadır ve bunları yaparken de psikolojik yük ile karşı karşıya kalmaktadır. Bu bağlamda bu çalışmanın amacı oryantırıng antrenörlerinin rekabetçi spor ortamında sporcularının yaşamış oldukları psikolojik zorlanmaların neler olduğunu bu duruma ne gibi çözüm yöntemlerine ilişkin görüşlerini ortaya koymaktır. Araştırmada nitel araştırma yöntemlerinden fenomenolojik araştırma deseni ve amaçlı örnekleme türlerinden homojen örnekleme kullanılmıştır. Araştırma grubunu 3. kademe oryantiring antrenörü (n:6, 4 kadın, 2 erkek) oluşturmaktadır. Araştırmada verileri elde edebilmek için yarı yapılandırılmış görüşme formu kullanılmıştır. Veri analizi yapılırken içerik analizi yöntemi kullanılmıştır. Analiz sonucunda, ''Sporcunun Karşılaştığı Psikolojik Zorlanmalar'' ve "Sporcunun Karşılaştığı Psikolojik Zorlanmalara Çözüm Önerileri'' olmak üzere iki temalı bir yapının oluştuğu görülmüştür. Tema ve kategorilerin altında oluşan kodlar ise, yarışma öncesi ve yarışma anında sporcular, stres, kaygı, odaklanma, heyecan, korku, motivasyon düşüklüğü, yüksek beklenti, öz güven eksikliği, odaklanma gibi kavramlar oluşturmaktadır. Antrenörlerin çözüm önerilerine ilişkin görüşleri ise; psikolojik rejime girmek, nefes eğersizleri, sporcunun olumlu içsel konuşması, yarışma esnasında görsel ve işitsel chek yapmak, imgeleme çalışması, motivasyonu artırmak ve araziyi görsel olarak analiz etmek, gibi kavramlar görülmektedir. Sonuç olarak, antrenörler sporcularının yarışma öncesi ve yarışma anında birçok psikolojik olumsuzluklarla karşılaştıklarını bunlara çözüm için ise sporcuyu psikolojik rejime sokarak performansını yükseltmeye çalıştıklarını ifade etmişlerdir.

Anahtar Kelimeler: Oryantiring, Psikolojik zorlanma, Rekabetçi spor ortamı, Spor, Antrenör

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# **INTRODUCTION**

It is not surprising that athletes face many psychological strains in the competitive sports environment. Athlete's own or external source; stress, anxiety, fear, lack of focus, low motivation, etc. While struggling with many situations such as, coaches need to prepare their athletes for these situations. Psychological stress occurs in all sports environments, and the research examining the antecedents, connections, consequences, and interventions related to psychological stress in sports is large and extensive (Turner et al., 2020). In general, situations that are challenging, potentially threatening, or require coping strategies are classified as stressors. These may include environmental factors related to competitive performance, such as participation in major competitions, competition with rivals, media attention, referee errors, unfavorable weather conditions or decline in performance (Ntoumanis & Biddle, 1998).

Issues related to the sports organization of which the athlete is a part, such as economic insecurity, communication problems with coaches or teammates, training methodologies, role changes, value conflicts (Buceta, 1985), are also a source of stress. Similarly, events that are a part of the athlete's life, such as the death of a close person, illness, or change of place of residence, can also affect the athlete's anxiety and stress levels (Arnold & Fletcher, 2021). In addition to external factors, many internal factors can also be a source of stress. Various motivational and dispositional variables that are associated with sports performance and success have been investigated (Baretta et al., 2017; Steca et al., 2008). Exposure to such stressors can negatively impact the athlete's health (Simms et al., 2021) well-being (Roberts et al., 2019) and performance (Arnold & Fletcher, 2021; Arnold et al., 2017). Moreover, the importance of the motivational climate created by the coach and the importance of determining high levels of controlled motivation to help athletes adapt better to psychological stress appear in the literature (Turner et al., 2020). It has been stated that many athletes who have poor physical performance and set high goals for themselves may be under stress and as a result may fail (Sahin & Durak, 1994). It has been concluded that the relationship between stress and sports performance is extremely complex and involves the interaction between the nature of the stressor, the cognitive demands of the task performed, and the psychological characteristics of the individuals performing it (Jones & Hardy, 1989). Moreover, Ford et al. (2017) tried to shed light on the relationship between sports and anxiety from a broad perspective and stated that if sports-related anxiety is not resolved, it may continue to have spiral effects on the athlete's performance. These spiral effects; he stated that it may negatively affect sports performance during training and competitions, cause an increased risk of injury, delay and hinder the injury rehabilitation and return to sports process, and may increase the risk of subsequent re-injury during post-rehabilitation practices and competitions. Also, fear of failure is understood as the tendency to anticipate shame and humiliation after failure (Conroy et al., 2001; Zhao et al., 2022). Theoretical frameworks describe that fear of failure occurs when the athlete allows the athlete to be responsible for controlling or evaluating their evaluation by others and their behavior over introspection processes, seeking approval from such external evaluators, and/or fearing disapproval (Correia & Rosado, 2018; Sagar et al., 2007). Therefore, it is very important for the athlete to learn and have the ability to manage and control such situations, since their poor management can lead to errors or errors (Gómez-López et al., 2020; Murcia & Marín, 2011). Therefore, feeling and perceiving psychological vulnerability close to

making mistakes in highly competitive sports practices promotes fear of failure in sports, insecurity, anxiety, and even shame, which will lead to inhibition or freezing of thoughts derived from cognitive errors (Mitchell et al., 2021; Mitic et al., 2021). Therefore, stress, anxiety, fear, etc. in sports environments. It is obvious that psychological situations such as these put an extra burden on athletes, and being in a motivational environment and having a good relationship with the coach and friends will benefit the athlete. In this context, orienteering is a nature sport based on making sudden and correct decisions under stress and pressure, choosing the appropriate route and focusing. The orienteering athlete tries to complete the race as quickly as possible compared to his rivals by visiting the target points marked on the scaled map in an unfamiliar terrain, respectively and correctly.

When the literature is examined, it is seen that orienteering sport; self-confidence (Başoğlu, 2018; Yildiz, 2022), self-efficacy (Tuna et al., 2013), visual reaction times and decision-making styles (Pulur & Akcan, 2017), effects on spatial visualisation and spatial anxiety (Şengör & Babayıgıt Irez, 2023), aggression behaviours (Sajedi & Uca, 2023), morning-evening stability levels and anxiety levels in sports (Fettah et al., 2022), effect on attention and memory (Atakurt et al., 2017), motivation levels (Can & Akman, 2020), effect on the achievements of geography and physical education and sports courses (İmamoğlu & İmamoğlu, 2018), problem solving skills and self-leadership perceptions (Kural et al., 2023), teacher views on its use in education (Uzuner & Bektas, 2024), the effect of running pace on performance (Gasser, 2018), sources of variability in performance times (Hébert-Losier et al., 2015), horizontal and hill running performance (Lauenstein et al., 2013), cross-curriculum teaching (Lorger & Braicic, 2019), psychological characteristics of champion orienteers (Newton & Holmes, 2017). Undoubtedly, it can be said that the psychosocial status and emotional changes of orienteering athletes are also effective on their competition performance. Therefore, orienteering athletes face many psychological challenges before and during the competition. The psychological difficulties they face; stress, anxiety, fear, focus, selfconfidence, etc. can be given as examples. It can be thought that the ability to combat these difficulties they face and to be in a positive movivational climate will contribute positively to their performance. Undoubtedly, it is very important for orienteering athletes to be able to cope with the aforementioned psychological difficulties by their own coach's determination, tactics and solution suggestions. The athlete will develop reflexes to cope with these difficulties with the guidance of the coach. Therefore, athletes need a lot of coaching support on issues such as how to fight the fear of failure, how to control stress, how to keep anxiety at an optimal level. In this context, it will have positive effects on the performance of the athlete if the orienteering coach creates a motivational climate, identifies, analyses, diagnoses and provides solution practices for personal and environmental psychological strain factors for the athlete. There is no doubt that the support that orienteering athletes will receive from their coaches will contribute positively to their performance before and during the competition and will enable them to take precautions against situations where they will experience psychological vulnerability. In this context, the aim of our study is to reveal the opinions of orienteering coaches about the psychological difficulties encountered in the sports environment and what kind of solutions they have developed for these difficulties.

Athletes doing orienteering; They face many psychological strains before and during the competition. Psychological difficulties they face; stress, anxiety, fear, focus, selfconfidence, etc. can be given as an example. It can be thought that their ability to cope with these difficulties and being in a positive motivational climate will contribute positively to their performance. There is no doubt that it is very important for orienteering athletes to be able to cope with the psychological strains mentioned, as well as their coach's detection, tactics and solution suggestions. The athlete will develop reflexes to cope with these difficulties with the guidance of his coach. Therefore, athletes need coach support on issues such as how to combat the fear of failure, how to control stress, and how to keep anxiety at an optimal level. In this context, the orienteering coach's creation of a motivational climate and the identification, examination, diagnosis and solution practices of personal and environmental psychological strain factors for his athlete will have positive effects on his athlete's performance. There is no doubt that the support that orienteering athletes will receive from their coaches will contribute positively to their performance before and during the competition and will enable them to take precautions against situations in which they will experience psychological fragility. In this context, the aim of our study is to reveal the opinions of orienteering coaches about the psychological strains encountered in the sports environment and what solutions they develop to these strains.

#### **METHOD**

# **Study Design**

Orienteering coaches have the responsibility of preparing their athletes psychologically as well as physically in competitive sports environments. Qualitative research method was used to obtain in-depth information and to reveal what psychological situations the athletes experienced before and during the competition and what solutions they offered to these situations. In this context, case study design, one of the qualitative research methods, was used to analyze the research problem. According to Yin (2009), case study is the examination, research and description of a phenomenon in its reality. Case study is the selection of "what to study" or the object of study (Patton, 2014). Homogeneous sampling, one of the purposeful sampling types, was used as the sample. In purposive sampling, researchers purposefully select individuals and research locations to gain information about or understand the main phenomenon. In homogeneous sampling, one of the types of purposeful sampling, the researcher selects individuals and research locations based on membership in a subgroup with defined characteristics (Creswell, 2002).

#### **Research Group**

The research group consists of senior orienteering coaches who are affiliated with the Turkish Orienteering Federation and have visas. There are a total of 41 senior coaches affiliated with the Turkish Orienteering Federation. 6 senior orienteering coaches participated in the research voluntarily. The purpose of limiting the research group to 3rd Tier senior coaches is that the coaches are experienced, have been practicing the coaching profession for a long time

and have encountered many athlete profiles. The fact that coaches deal with very different athlete profiles, their athletes give different emotional reactions in various situations due to individual differences, and this creates the possibility for the coach to make a lot of observations. Therefore, qualitative interview questions were asked to the coaches in the context of the research, and data collection was terminated after the 6th coach when the data obtained started to be repeated and sufficient saturation was thought to be reached.

**Table 1.** Demographic characteristics of the coaches participating in the study

Trainers	Age	Gender	Profession	Ed. Status	Interview Duration
T1	37	Male	Public Personnel	Licence	35 min.
T2	49	Male	Faculty Member	PhD	27 min.
T3	29	Woman	Coach	Licence	24 min.
T4	32	Woman	Coach	Licence	20 min.
T5	41	Woman	Public Personnel	PhD	29 min.
T6	43	Woman	Coach	Licence	23 min.

When Table 1 is analysed, it can be seen that the coaches who participated in the study; 2 of them are male, 4 of them are female, 2 of them are public personnel, 3 of them are coaches of the Ministry of Youth and Sports, 1 of them is a faculty member, 4 of them are undergraduate, 2 of them are PhD graduates, their ages vary between 32 and 49 and their average interview time is 26 minutes.

#### **Ethical Approval**

This research received ethics committee approval from Kırıkkale University Social and Human Sciences Research Ethics Committee with the decision dated 22.05.2024- 252566.

#### **Data collection tools**

Semi-structured interview questions were created by the researcher as a data collection tool. Interview questions were created to reveal the psychological problems that coaches encounter with their athletes in the sports environment and suggestions for solutions to these problems. During the creation of the interview form, the opinions of three field experts working in sports sciences were taken. After the expert panel, the form was created with four main questions and four alternative questions. After the pilot application was made to three coaches, the form was evaluated again by three experts and given its final form.

### **Analysis of Data**

Interview questions were asked to the coaches after the necessary explanations about the research were made. In a quiet environment, with the approval of the coaches, a voice recording was made and the interview questions were asked to be answered. The voice recordings were transferred to a word document by the researcher without any data loss, and these documents were read by the coaches to obtain participant confirmation. Descriptive and content analysis methods were used when analyzing the data. The data were read repeatedly and first a code book was created, then the first themes and categories were created. The themes and categories created were reviewed and finalized. A data diversification strategy was used for the accuracy and transferability of the research, and Dr. The research assistant academician

analyzed the data. The expert created code categories and themes in the same data pool, and the compatibility of the researcher and the data was observed. In addition, to ensure the accuracy of the data obtained, the data transferred to the word document was re-sent to the participants and participant confirmation was obtained. The codes, categories and themes obtained from the research were described in detail in the discussion section and the findings were discussed in all aspects. The identities of the coaches participating in the research were kept confidential and the coaches were given code names (such as T1, T2, T3, T4, T5 and T6).

**Table 2.** Themes and categories

Themes	Categories			
	Psychological Strain of the Athlete Before the			
Psychological Challenges Faced by the Athlete	Competition			
r sychological Chancinges raced by the Athlete	Psychological Strain of the Athlete at the Time of			
	Competition			
Solution Suggestions for Psychological	Solution Suggestions for Psychological Difficulties			
Difficulties Faced by Athletes	Faced by Athletes			

#### **FINDINGS**

In this study, it is aimed to comprehensively evaluate the psychological strains experienced by orienteering coaches in the competitive sports environment of their athletes and the solution suggestions against these strains. For this purpose, the opinions of orienteering coaches were collected with a structured interview form. During the data analysis process, thematic analysis procedures were followed and two main themes suitable for the structure of phenomenological research were revealed. These are "Psychological Difficulties Encountered by Athletes" (i) and "Suggestions for Solutions to Psychological Difficulties Encountered by Athletes" (ii).

#### **Psychological Strain Faced by the Athlete**

Orienteering coaches gave answers regarding the psychological situations their athletes encounter in the competitive sports environment, collected under two sub-themes: Psychological Strains of the Athlete Before the Competition and Psychological Strains of the Athlete During the Competition.

#### **Athlete's Psychological Strains Before the Competition**

Orienteering coaches' opinions about the psychological situations their athletes encounter in the competitive sports environment and the athletes' psychological strain before the competition are shown in Table 3 as categories, codes and frequencies. In addition, direct quotes regarding the opinions of orienteering coaches about the psychological situations their athletes encounter in the competitive sports environment are included.

**Table 3.** Orienteering coaches' opinions about the psychological difficulties experienced by the athletes before the competition.

Thomas	Categories			Frequency				
Themes		<b>T1</b>	<b>T2</b>	<b>T3</b>	<b>T4</b>	T5	<b>T6</b>	f
	Fear		X			X		2
	Anxiety		X	X	X	X	X	5
	Stress	X		X		X	X	4
Psychological Strain of the Athlete Before the Competition	Excessive Expectation	X	X					2
	Negative Social Relationships	X	X		X	X		4
	Lack of Self Confidence		X			X		2
	Focusing		X		X		X	3
	Inadequate Training				X			1
	Distraction	X						1
	Subconscious Fears					X		1
	Arousal			X				1

Orienteering coaches explain the psychological difficulties experienced by their athletes before the competition; They expressed them with concepts such as stress, anxiety, competition, inadequate training, fear, focus, lack of self-confidence, attention, and using memory effectively. They stated that these psychological strains vary according to gender, age and competition categories. They stated that female athletes have more difficulties due to being alone in the forest, facing wild animals, and being in menstrual period. Male athletes, on the other hand, stated that if their performance in the competition is poor, they face situations related to being the subject of ridicule both among their teammates and rival athletes. In addition, while athletes in the younger age group are more dependent on their families or coaches, they fear being separated, and have excessive expectations from the athlete, and feel exhausted when they reach the finish line with a bad grade. They stated that the adult group was under fear, stress and anxiety of performing negatively against their competitors. Coaches generally stated that all athletes face psychological strain due to excessive expectations, inadequate training, pressure, and emotional changes. The opinions of the coaches participating in the research regarding the psychological difficulties experienced by their athletes before the competition are given below in direct quotation form:

A5:"... Self-induced psychological state and environment-induced psychological state affect competition performance. I have seen that it has a psychological impact on female athletes, for example, when they go through their menstrual period before the competition. In male athletes, anxiety can be caused by not being successful, in adult male and female athletes, if they have a lack of self-confidence, if they feel like they are inferior or unsuccessful among their other teammates, and also because of the feeling of showing that they can be successful in front of their coach, or if they cannot do it, the psychological pressure of their opponents, for example, if they lose too much, is psychological pressure. When we combine all of them, orienteering is under great psychological pressure. One of them is fighting against their rivals,

the instinct to be successful against two of their coaches, the instinct of not being a loser against three of their teammates, these are big factors. "In addition, subconscious fears, such as fear of dogs, fear of nature, psychologically affect their performance."

A4"... Athletes start psychologically one zero behind if their opponents have competed more on the map where the competition will be held and have become more familiar with that map. If the athlete did not practice enough on the sprint map or long distance map before the competition and thinks that he is not prepared enough for the competition, he feels behind psychologically. The athletic trainer should speak openly about this and explain how the lack of training can be eliminated. Otherwise, this will create psychological pressure on the athlete."

A1: "... Since orienteering is a mind-based sport, thinking about things that will affect their psychology outside of the competition may cause distraction. Therefore, when attention is distracted, it reduces competition performance. "In addition, generally speaking, external factors such as family problems, psychological conditions, and pressure related to the competition may also affect the athlete greatly."

A3: "... If he/she is in a position where he/she cannot cope with any unexpected situation, the stress level will increase and it will negatively affect the person's performance. For example, at the exit, he encountered a situation outside the system he was used to and experienced a moment of panic, and that moment of panic could cause him to pick up the wrong map."

# Psychological Difficulties Experienced by Athletes During the Competition

The opinions of orienteering coaches regarding the psychological situations that their athletes encounter in the competitive sports environment and the athletes' psychological strain during the competition are shown in Table 3 as categories, codes and frequencies. In addition, direct quotes are included regarding the opinions of orienteering coaches about the psychological situations their athletes encounter during the competition in the competitive sports environment.

**Table 4.** Orienteering coaches' opinions about the psychological difficulties experienced by the athletes during the competition.

Thomas	Categories			Trai	Frequency			
Themes		<b>T1</b>	<b>T2</b>	<b>T3</b>	<b>T4</b>	T5	<b>T6</b>	f
	Stress			X	X		X	3
D 1 1 1 1 C	Anxiety				X	X	X	3
Psychological Stresses	Focusing			X	X		X	3
Experienced by the	Excitement		X					1
Athlete During the Competition	Fear		X				X	2
Competition	Focusing		X	X		X		2
	Caution	X					·	1

Orienteering coaches explain the psychological difficulties experienced by their athletes during the competition; They expressed it with concepts such as stress, anxiety, focus, fear, excitement, arousal, attention. Coaches stated that athletes are exposed to these

psychological strains in various ways. Some athletes stated that they disrupted their running rhythm due to the worry of being followed, which created stress. Some coaches stated that their athletes experienced stress when they encountered a track area where they were weak or unconditioned. They also stated that young or beginner athletes have a fear of getting lost or being alone. Some coaches stated that athletes had problems focusing and staying calm when they could not find the target on the track. It is among the statements of the coaches that some athletes subconsciously experience fear after coding the forest area with a frightening and dark image. Moreover, the psychological strain that the coaches participating in the research focused on was expressed as the stress and pressure experienced by the athlete while choosing the right route. Below are the direct quotes from orienteering coaches:

A5:"...During the competition, if the competition is tough, there is psychological strain caused by physical strain. If the terrain is very hard, I wonder if I will be able to climb it, will I have the strength to climb it, will I be able to complete the long distance course? If we conceptualize this situation, I can call it anxiety. Since orienteering sport is done in stages, for example, the descent stage, the ascent stage, the vegetation stage, if the athlete approaches the stage where he is weak, then he starts to experience anxiety, such as will I be able to go on the ascent stage without making mistakes, will my pulse be too high, will I get lost, will I be able to pass this stage well. Focus is also important. I discuss focus under two headings. Focusing using visual memory and focusing on the overall track. The overall focus of the track is this; While running, the athlete unconsciously makes a lot of calculations, calculates the height, analyzes the vegetation, calculates the distance, and if there is a ramp, he mentally calculates what angle he will bend at and what the step distance will be. "The athlete determines the method accordingly, and if the athlete determines the method correctly, this puts a psychological burden on the athlete."

A2:"... I think athletes experience some problems when they are alone. Especially children from protective families may ask for their mother and father when they go out on the track. I prefer to train in a way that does not see the mother and father during training as much as possible. Especially my younger athletes experience fear. Some of them have acquired the neighborhood culture and have the courage to do everything on their own, but some children also have fear and anxiety. For example, I have a student who cries before going to the track, but his parents will see him and get him excited and accompany him to the exit. Many athletes experience fear and excitement, sometimes even myself. They can experience this fear not only in the forest but also in the city. I think it may be due to excitement, and children may get into the mood of "I want to finish fast and get the grade" and have trouble focusing. Things that he can normally train on because his focus is different, he gets excited, he gets anxious, what if he doesn't finish, what if he gets lost, and when he focuses on the people running around him and doesn't follow them, he tends to head in that direction. "They experience psychological difficulties due to fear, anxiety and other expectations during the competition."

A3: "... If he/she is in a position where he/she cannot cope with any unexpected situation, the stress level will increase and it will negatively affect the person's performance. For example, at the exit, he encountered a situation that was different from the system he was used to and experienced a panic moment, and that panic moment could cause him to get the wrong map. In addition, if he could not see the target point he expected within the track but

could not find the target or was confused, he needs to act in the calm and serene way he is psychologically at that moment, he needs to be able to cope with stress. If he cannot cope with this situation, it will affect his performance negatively, while if he can cope, it will affect his performance positively. The target of a track where all athletes have problems is that elite athletes will now be able to progress with their psychological state. Athletes who can cope with that stress situation and make the right decisions under stress will have an advantage. It will also positively affect athletes' motivation. We can say that arousal requires an optimal level of arousal, such as if motivation is too high, it can negatively affect performance. Moreover, if it is not the destination he expected, the map is lost, or there is time pressure, he experiences this stress. "Or he may have a concentration problem."

- A1:"... Since orienteering is a mind-based sport, thinking about things that will affect their psychology outside of the competition may cause distraction. Therefore, when attention is distracted, it reduces competition performance.
- A6: "... If their psychological state is bad, they may not be able to focus on the map. Now, if he is a professional athlete, he will not come out with anxiety. But if he is a new athlete, he may have anxiety, stress, and worry. This depends on how experienced the athlete is. He/she may experience fear while passing around cliffs and rocks. "He may also experience stress if he is not an elite athlete."

A4: "It is important to focus on route selection, especially when deciding and planning. One should be careful when choosing a route and determine the route according to his/her own condition. Choosing the wrong route will tire the athlete physiologically and psychologically. And with the psychological pressure caused by this choice, everyone is putting me under pressure, saying "I'm doing badly right now." In addition, athletes experience a lot of anxiety about being followed during the competition. To solve this problem, athletes tend to run faster, but this creates both physiological and psychological strain. If the athlete is experienced, he can cope with stress and anxiety better and control it in a way that has the least impact on his competition performance. As you know, when an athlete trips on a stone during an orienteering competition and falls, it means that he loses where he is on the map. If he can control stress and stay calm during this process, he can cope with stress and anxiety. I think that as the expression of experience increases, stress and anxiety will decrease.

# Solution Suggestions for Psychological Difficulties Encountered by Athletes

Opinions of orienteering coaches regarding solutions to the psychological difficulties their athletes encounter in the competitive sports environment are given in Table 4, along with the frequencies of themes and codes.

**Table 5.** Orienteering coach's suggestions for solutions to the psychological difficulties encountered by athletes in competitive sports environment.

TL	Categories			Frequency				
Themes		T1	T2	<b>T3</b>	<b>T4</b>	T5	<b>T6</b>	f
	Increasing Motivation	X			X	X	X	4
	Technical Information	X						1
	Balancing Expectation	X						1
	Memory Work			X		X	X	3
	Imagery Work			X		X	X	3
	Reducing Stress				X			1
	Focus	X	X		X	X		4
Orienteering Coach's	Imagination	X	X			X	X	4
Solution Suggestions for Psychological Challenges Faced by	Memory Exercises				X	X		2
Athletes in Competitive	Internal Positive Speech		X			X		2
Sports Environment	Cut Communication					X		1
	Breathing Exercises					X		1
	Yoga					X		1
	Analysing the terrain visually					X		1
	Increasing Self Confidence		X				X	2
	Make a visual chek						X	1

The orienteering coach's views on the athlete's suggestions for solutions to psychological strain in the competitive sports environment are shown in Table 4. The codes and frequency values associated with these codes are shown in Table 4. When Table 4 is examined, concepts such as increasing motivation, technical information, balancing expectations, memory work, internal positive speech, interrupting communication, breathing exercises, yoga, visually analyzing the terrain, increasing self-confidence, and visual check are seen. The opinions of the coaches regarding the solutions to the psychological difficulties experienced by the athletes in the competitive competition environment are listed below. He stated that he should read the competition bulletin and examine himself so as not to put a question mark in his mind about the competition, that he should go into a psychological regime 1 day before the competition and do visualization exercises related to the competition area to increase his focus, that he should concentrate by cutting off all communication 1 hour before the competition, and that he should relax by doing breathing exercises. has done. Some coaches stated that they should try to relieve stress and pressure by making audio and visual checks while choosing the route and approaching the target, suggesting that they are following the correct route to their target and that they are on the right track. Some coaches stated that the athlete should increase his motivation by making positive internal conversations during the

competition. Some coaches stated that the athlete should face himself in front of the mirror and try to reduce the negative psychological effects on himself by making positive speeches and increase self-confidence. Some coaches stated that they should do relaxation exercises with breathing exercises and yoga practices. The opinions of orienteering coaches regarding the solutions to the psychological difficulties experienced by athletes before the competition are shared below as direct quotes.

- A 1"... I make speeches to ensure that the athlete is psychologically ready, I inform him about the technical details of the competition, I think that speaking beforehand is important for the psychology of the athletes. In addition, athletes feel relieved when they think that they are taken care of. Of course, when doing these, do them without turning them into pressure and do them in moderation, because if the expectation increases, it can cause stress. "I aim to talk about performance with the athlete not in a way that increases expectations, but rather to reveal their strengths."
- A 2 "... Psychologically, in our sport, people communicate a lot, they want to talk, they ask questions. I do the same things during training. I try to prepare the athlete for these environments. Especially during training, I go out on the course with the athletes and follow them and check how they react to external stimuli. I intervene if the athlete does something wrong or loses his/her focus due to stimuli coming from another environment. Also, before the competition, take the map of the athletes as if they had already gone to the competition, and take them through the map as if they were running on that track. So imagine it, visualize it. In this way, I want the athlete to imagine himself running on the track. Because if you imagine it, we stimulate the muscles as if they made those movements, I make you do those kinds of things, imagine, that is, visualize what is going to happen in your next step, of course, the athlete can adapt to such things. What we call memory technique is to keep the target in mind and continue, you cannot constantly look at the map, keep it in mind. "I think being able to implement the things you think about will improve your ability to move forward without constantly looking at the map."
- A3"... An athlete must also have a good visual memory for his/her performance, so I do memory enhancing training."
- A4 "... I would suggest that they should have confidence in themselves because they have trained a lot. I give motivational speeches to the athletes that they have trained enough and are ready to compete. When the athlete's heart rate is high, his/her thinking capacity decreases. While the athlete is looking for a target, he/she should lower his/her heart rate in that process, slow down his/her tempo, control the pulse and enable him/her to make the right decisions for the right target points. "His focus may increase."
- A 5"... Breathing exercises, yoga, there are things that should not be done at certain hours before the competition, I give an example, mental training 1 day before the competition, running mental track, complying with the diet hours on the morning of the competition, not listening to music one hour before the competition, not reading books, turning off communication during the warm-up phase. I psychologically prepare for not talking to anyone, focusing on the track, analyzing the terrain visually, breathing exercise 20 minutes before the race, and a short breathing exercise before the start.

A6 "... We try to give the athlete the feeling of living there with mental training before the competition on the map where he will run in the competition. Because our competitors can go to the place where the current competition will be held and train, our athletes do not have this opportunity, and we provide mental training to our athletes so that they are not disadvantaged and do not cause stress and anxiety. I also go to the field one day before the competition and help them relax psychologically. We also try to give goal motivation to our athletes. What are we doing? For example, we have to come without mistakes. I think it is important for the athlete to provide his own internal motivation, not to be 1st, but to finish the competition without mistakes, to compete with himself. As an external coach, I advise him that what he should focus on is a competition that he can have fun without making mistakes, and I tell him to leave the negativities out. I emphasize that it is more important for the athlete to focus on the map and recover faster from the mistake he made. I advise him to learn from his mistakes. If he makes a mistake in his route planning and it is difficult to return, he should continue on the route he started. Here, while progressing on the track, he should talk to himself and reassure himself about how he can turn it into an advantage by making new plans on the route he is on. Additionally, athletes should make positive speeches during the competition. In orienteering, there is a practice of checking ourselves as we progress through the course. I talk to myself about what I will encounter between the goals, and as I see the things I encounter, I check them, and in this way, I know that I am moving on the right route, and I relieve myself psychologically. In this way, I can move more confidently on the course and adapt better, and I think it is effective in reaching the goal. And this process reduces stress and anxiety and increases self-confidence. It also provides internal motivation.

# **DISCUSSION**

This study aims to reveal the opinions of orienteering coaches regarding the psychological strains their athletes face in the competitive sports environment and their solution suggestions against these strains. The findings from the study are; Two themes have been put forward as orienteering coaches' psychological strains that their athletes face in the competition environment and solution suggestions against these strains, and two categories have been put forward as psychological strains experienced by athletes before and during the competition. Researchers have addressed many physiological, cognitive, psychological and educational studies of orienteering athletes and tried to examine the relationship and effects between these concepts. For example, in a study analysing the speed strategies of orienteers participating in the world championships, Gasser (2018) stated that although the method used does not allow a precise distinction between cognitive and biological factors, elite orienteers will achieve the best results if they run at as constant a pace as possible, possibly slightly below the anaerobic threshold. Hébert-Losier et al., (2015) analysed the sources of variability in performance times at the world orienteering championships and found that elite orienteers should focus on training and strategies that improve performance by at least 1.0 - 3.5% for the smallest valued improvement. Lauenstein et al., (2013) examined the differences in horizontal and uphill running performance in male and female Swiss world-class orienteers and concluded that adjusting route selection to the advantage of athletes based on the relationship between uphill and horizontal running performance and the individual equivalence factor can positively affect overall performance in orienteering competitions. Moreover, it has been stated that orienteering can be used as an education and training tool, specifically in nature sports and orienteering (Asma & Yıldız, 2023; Yıldız et al., 2017), and it also contributes positively to the feelings of curiosity and discovery and the motivation to explore (Sümbül et al., 2019). Newton and Holmes (2017) tried to answer the question of psychological characteristics of champion orienteers: should they be taken into account in talent identification and development? In their study, it was suggested that a range of cognitive skills that support the development of sporting potential are important for athletes and coaches. Furthermore, he investigated the psychological characteristics of performers among orienteering athletes. The results showed that elite orienteering athletes as young people reported less support for long-term success compared to Swiss young people, perhaps due to their earlier adoption of self-coaching, but were not significantly different from both groups of young people in all other factors. The Newton and Holmes (2017) study also emphasises the need to develop psychological demands that specifically affect orienteers, including decision-making under fatigue and refocusing after mistakes. Dantas et al., (2022) adventurous physical activities at school: orienteering race as a proposal for the development of socio-emotional skills Orienteering race proved to be effective in students' emotional performance because the highest averages were for Openness, kindness and conscientiousness. This intervention also fulfils the requirements found in the National Common Curriculum Base on emotional development and the need for adventure practices for Physical Education. Ayala-Jiménez et al., (2017) analysed the effects of QR code orienteering in physical education in the educational dimension. He stated that current technological developments allow us to integrate this technology into orienteering practice and enable new and innovative activities. In addition, these breakthroughs mean an extra motivation for students and also help to make the activity more attractive and get more out of them. In the same way, it teaches students another possibility of use and appropriate use of mobile devices. In the light of this information, there are important points that orienteering athletes and coaches should pay attention to in every aspect to improve performance in the sport. There is no doubt that in orienteering, as in every sport, the ambition to compete and win is at the forefront. It is also related to the psychological state of the athletes to keep the competition performance high and to achieve the successful results they want. Many coaches have stated that 50% of the victory against an opponent with similar physical abilities depends on psychological preparation (Weinberg & Gould, 2024). The physiological, biomechanical and psychological efficiency of the athlete during the activity is defined as performance (Altıntaş & Akalan, 2008). For this reason, in recent years, the importance given by coaches and athletes to exercises that increase psychological performance as well as training to develop basic motor skills has increased. Mental training is founded on the assumption that psychological factors increase physical performance (Vealey, 2007).

For example, excessive levels of psychological stress disrupt cognitive focus on the task and increase focus on the self, resulting in poorer sports performance (Hill et al., 2010; Mesagno et al., 2012). In this context, compared to other sports branches, orienteering athletes experience more psychological strains as well as physiological strains while running on the field and searching for a target. A recent systematic review found that the heart rate of trained

and national orienteers was between 150 and 200 beats during a simulated race or orienteering race. summarized that it varies between minute-1(Batista et al., 2020; Creagh & Reilly, 1997). Moreover, elite orienteers have an average heart rate of 167 beats when running on horizontal and sloping terrain. The duration of an orienteering race varies between 25 and 90 minutes, depending on the type of competition (Creagh & Reilly, 1997). There are four types of orienteering events: sprint, middle distance, long distance and relay, with estimated distances ranging from 3 km to 16 km (Ferguson & Turbyfill, 2013). The overall running distance is estimated because orienteers must use the map and compass to determine the most effective route selection to each checkpoint, taking into account their physical abilities. This reveals the conscious decision-making that goes on in orienteering when interpreting the complexity of a map and recognizing surrounding features (Batista et al., 2020; Creagh & Reilly, 1997). More importantly, missing a checkpoint during the competition will lead to orienteers being disqualified as they must maintain a high level of concentration and precise decision-making throughout the race (Lam et al., 2022). Because the competition performance of the orienteering athlete must be able to cope with many mental and psychological factors such as making sudden and correct decisions under stress and pressure, focusing, using memory, thinking about the structure of the land in three dimensions, correctly reading the color change on the map, and calculating scale and distance. When the literature is examined, it is emphasized that orienteering athletes mostly experience mental fatigue in the decision-making process while choosing the route and interpreting the map (Habay et al., 2021; Trecroci et al., 2020). Additionally, orienteering experts identified the following for mental fatigue: "difficulty reacting to mistakes" (Thompson et al., 2020) "inconsistency of the competitive environment" (Russell et al., 2022) "internal stress for success" (Thompson et al., 2020) "external pressures/stress" and "complexity of the task" (Lam et al., 2023). In the study of Lam et al. (2022) revealing the opinions of orienteering coaches, athletes and sports psychologists; It is agreed that mental fatigue causes negative psychological changes such as confusion, loss of motivation, distraction and fatigue in orienteering, but it does not cause stress, anger and tension. It has been stated that athletes in the trained and elite athlete population have superior cognitive skills and performance than amateur athletes (Batista et al., 2020; Scharfen & Memmert, 2019). This also applies to athletes doing orienteering. Martin et al., (2019) found that individuals who were regularly exposed to a cognitively challenging environment were less susceptible to mental fatigue. In this context, orienteering athletes who are adequately exposed to a highly cognitively challenging training environment may adapt to cope with increased cognitive stress and thus reduce mental fatigue in orienteering (Lam et al., 2022). In the study of Lam et al., (2023) in which they compared mental fatigue changes after orienteering races of various lengths (sprint, middle and long distance), it was stated that the difference in perceived mental fatigue between sprint, middle and long distance competitions was highest in the sprint competition. Additionally, Lam et al., (2023) revealed that there was a small decrease in athletes' motivation to participate in an upcoming competition after completing an orienteering competition, while their mental fatigue increased moderately. This is consistent with research in the literature suggesting that mentally fatigued individuals are likely to have lower motivation for the upcoming task (Abbott et al., 2020; Giboin & Wolff, 2019; Martin et al., 2019; Russell et al., 2022).

In this context, when the opinions of orienteering coaches regarding the psychological difficulties faced by their athletes before the competition are examined (Table 3 and Table 4), it is seen that they are divided into categories as before the competition and during the competition. Athletes before the competition; They expressed them with concepts such as stress, anxiety, inadequacy, fear, lack of focus, attention, high expectations. They stated that these psychological strains vary according to gender, age and competition categories. Orienteering coaches talk about the psychological difficulties experienced by athletes during the competition; They expressed it with concepts such as stress, anxiety, focus, fear, arousal, attention. Coaches stated that athletes are exposed to these psychological strains in various ways. Some athletes stated that they disrupted their running rhythm due to the worry of being followed, which created stress and anxiety. Some athletes stated that they experienced stress when faced with a track area in which they were weak and out of condition. They also stated that young or beginner athletes have a fear of getting lost or being alone. Some coaches stated that their athletes had problems focusing and staying calm when they could not find the target on the track. They also stated that if athletes have subconscious fears such as seeing the forest area as a scary place or being alone in the forest, such situations create an extra psychological burden on the athlete. If the expectations of the athletes from their families, friends or coaches are high, this is seen as another psychological strain that the coaches draw attention to.

In this context, when the opinions of the above-mentioned orienteering coaches regarding the solutions to the athlete's psychological strain in the competitive sports environment (Table 5) are examined; Concepts such as increasing motivation, technical information, balancing expectations, memory work, internal positive speech, interrupting communication, breathing exercises, yoga, visually analyzing the terrain, increasing selfconfidence, and visual check are seen. As suggestions for solutions to the psychological difficulties experienced by the athletes in the competitive competition environment, coaches should read the competition bulletin and examine it in a way that does not put a question mark in their minds about the competition, that they should enter into a psychological regime 1 day before the competition and do visualization exercises related to the competition area to increase focus, and that 1 hour before the competition, all He stated that he should stop communicating and concentrate and relax by doing breathing exercises. Some coaches stated that they should try to relieve stress and pressure by making audio and visual checks while choosing the route and approaching the target, suggesting that they are following the correct route to their target and that they are on the right track. Some coaches stated that the athlete should increase his motivation by making positive internal conversations during the competition. Some coaches stated that the athlete should face himself in front of the mirror and try to reduce the negative psychological effects on himself by making positive speeches and increase self-confidence. Some coaches stated that they should do relaxation exercises with breathing exercises.

# **CONCLUSION**

The opinions of orienteering coaches regarding the psychological difficulties experienced by the athletes in the competitive sports environment and their solution suggestions were discussed and accordingly, 2 themes and 2 categories were created regarding

the opinions. Themes; "Psychological Strains Encountered by Athletes and Solution Suggestions for Psychological Strains Encountered by Athletes". The categories are "Psychological Strains of the Athlete Before the Competition, Psychological Strains of the Athlete During the Competition". The codes formed under the themes and categories create concepts such as athletes before and during the competition, stress, anxiety, focus, excitement, fear, low motivation, high expectation, lack of self-confidence and focus. The opinions of the coaches regarding the solution proposals are as follows; Concepts such as entering a psychological regime, breathing stretches, positive inner speech of the athlete before and during the competition, visual and auditory checking during the competition, visualization work, interrupting communication, increasing motivation and visually analyzing the terrain are seen.

By taking into account the findings obtained from this study, orienteering coaches and athletes can experience solutions to the psychological difficulties they will experience before and during the competition.

In future research, according to competition categories; Psychological difficulties experienced by elites, masters and junior and their solution suggestions can be researched.

Researchers can conduct research to identify the source of psychological strain experienced by orienteering athletes before and after the competition.

Researchers can produce empirical findings by conducting studies examining the relationship between competition performance and psychological preparation of orienteering athletes.

#### **Conflict of Interest:**

There is no conflict of interest with any person or organisation in the study.

#### **Researchers' Statement of Contribution Rate:**

All processes of the research were carried out by the author.

#### **Ethical Approval**

Board Name: Kırıkkale University Social and Human Sciences Research Ethics Committee

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