



### THE INVESTIGATION OF THE RELATIONSHIP BETWEEN MENTAL TOUGHNESS AND COPE WITH SPORTING PROBLEMS IN TEAM AND INDIVIDUAL SPORTS

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A Çalışma Deseni (Study Design)

B Verilerin Toplanması (Data Collection)

C Veri Analizi (Statistical Analysis)

D Makalenin Hazırlanması (Manuscript Preparation)

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#### ABSTRACT

#### Original Article

**Aim:** The study was carried out to examine the relationship between the mental toughness of the athletes in team and individual sports and their ability to cope with sportive problems.

**Method:** The sample of the research; consists of athletes aged 18 and over, who play team sports (99 athletes) and individual sports (109 athletes) in the national team and in the upper leagues. It consists of a total of 208 people, 80 female and 128 male athletes, with a minimum age of 18 and a maximum of 30, determined by the convenience sampling method. In the research, the Skills for Coping with Sportive Problems, developed by Ozcan and Gunay (2017), validity and reliability studies, and the Mental Toughness Inventory in Sports, developed by Altıntaş, Bayar-Koruç (2017) Pearson Correlation Analysis, Independent Groups T Test techniques were used in the analysis of the data.

**Findings and Conclusion:** According to the findings of the research; There was a difference between the total score in terms of coping with sportive problems and the ability to be free from anxiety and to show high performance under pressure. In terms of mental toughness, the confidence sub-dimension scores of the athletes who do team sports were higher than the athletes who do individual sports. Considering the relationship between mental toughness and the ability to cope with sportive problems, a moderate positive relationship was observed in team sports, and a relationship level of 13% was found. In individual sports, this rate was found at the level of 5%.

**Keywords:** Team and individual sports, mental toughness, cope with sporting problems

## TAKIM VE BİREYSEL SPORLARDA SPORCULARIN ZİHİNSEL DAYANIKLILIKLARI VE SPORTİF SORUNLARLA BAŞA ÇIKMA BECERİLERİ ARASINDAKİ İLİŞKİ

ÖZET

Orijinal Makale

**Amaç:** Çalışma, takım ve bireysel sporlarda sporcuların zihinsel dayanıklılıkları ve sportif sorunlarla başa çıkma becerileri arasındaki ilişkinin incelenmesi amacıyla gerçekleştirilmiştir.

**Yöntem:** Araştırmanın örneklemini; milli takımda ve üst liglerde yer alan takım sporları (99 sporcu) ve bireysel sporlar (109 sporcu) yapan, 18 yaş ve üzeri sporculardan oluşmaktadır. Kolayda örnekleme yöntemi ile belirlenen, minimum 18, maksimum 30 yaş aralığındaki 80 kadın, 128 erkek sporcu olmak üzere toplam 208 kişiden oluşmaktadır. Araştırmada, Özcan ve Günay (2017) tarafından geliştirilmiş, geçerlik, güvenilirlik çalışması yapılmış Sportif Sorunlarla Başa Çıkma Becerileri Envanteri ile Altıntaş, Bayar-Koruç (2017) tarafından geliştirilmiş, geçerlik, güvenilirlik çalışması yapılmış Sporda Zihinsel Dayanıklılık Envanteri kullanılmıştır. Verilerin analizinde Pearson Korelasyon Analizi, Bağımsız Gruplarda T Testi tekniklerinden faydalanılmıştır.

**Bulgular ve Sonuç:** Araştırmanın bulgularına göre; sportif sorunlarla başa çıkma becerileri bakımından toplam puan ile kaygıdan uzak olma ve baskı altında yüksek performans gösterebilen becerileri bakımından fark görülmüştür. Zihinsel dayanıklılık bakımından ise takım sporları yapan sporcuların güven alt boyutu puanları bireysel spor yapan sporculara göre daha yüksek çıkmıştır. Zihinsel dayanıklılığın sportif sorunlarla başa çıkma becerileri ile ilişkisine bakıldığında takım sporlarında orta düzeyde pozitif ilişki görülmüş, %13 oranında bir ilişki düzeyi saptanmıştır. Bireysel sporlarda ise bu oran %5 düzeyinde bulunmuştur.

**Anahtar Kelimeler:** Takım ve bireysel sporlar, sporda zihinsel dayanıklılık, sportif sorunlarla başa çıkma becerileri

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### 1. INTRODUCTION

Mental toughness is also defined as the positive thinking capacity of the individual to immediately take control of himself/herself in the face of negative situations such as conflict, failure, unexpected situations and tension. People with high mental toughness are more controlling in their daily lives, prepared for unexpected situations, and have the capacity to turn a crisis into an opportunity, while people with low mental toughness show behaviors such as distancing themselves and resisting changes.

Mental toughness is a concept frequently used by athletes, coaches, sports psychologists and leaders. It generally consists of a set of positive traits that enable a person to cope with stress and difficult situations without losing confidence. (Güven and Yazıcı, 2020)

Researchers have noted that almost any positive and desirable psychological trait associated with success is labeled as mental toughness (Jones et al., 2002),

Jones et al. (2002);

- Mental toughness is having a natural or developed psychological advantage:  
- In general, it enables you to cope better than your competitors with the many demanding situations that sport places on the athlete (competition, training, lifestyle, etc.).

- It allows you to be more consistent and better than your competitors, especially in terms of staying determined, focused, confident and controlled under pressure.

When we look at the literature, many studies have defined mental toughness as coping effectively with pressure and difficulties, so that the performance will be affected very little (Clough et al., 2002; Jones et al., 2002; Loehr, 1995; Middleton et al., 2004; Williams, 1988),

At the same time, the importance of mental toughness has been emphasized in many studies such as the belief in controlling one's own destiny (Clough et al., 2002; Middleton et al., 2004 Jones et al., 2002;), being successful under pressure (Bull et al., 2005; Jones et al., 2002; Thelwell et al., 2005) and having superior mental skills (Bull, Albinson, & Shambrook, 1996; Golby et al., 2003; Loehr, 1995).

One of the widely known theoretical approaches to coping is Folkman and Lazarus (1985) cognitive appraisal approach, which divides coping into problem- and emotion-focused, and another is the proactive coping approach revised by Aspinwall and Taylor (1997). According to Folkman and Lazarus (1985), coping is the cognitive and behavioral efforts people make to manage (reduce or tolerate) the problems they experience in their relationships with the environment.

Another coping theory is proactive coping, which states that measures should be taken against future stressful situations (Aspinwall & Taylor, 1997). Aspinwall and Taylor (1997) defined proactive coping, which they evaluated in five stages, as efforts to prevent a potentially stressful event.

When we look at the literature, in the studies on sporting problems, it is stated that coping with problems is positively significant in athletes' commitment, concentration, confidence and success motivation and high performance under pressure, and it is effective in goal setting and inner speech and maximizing performance (Megss & Cohen, 2019; Morgan, 2006; Ozcan, 2021).

Therefore, athletes' ability to cope with sporting problems consists of a combination of dimensions such as goal setting and mental preparation, ability to cope with difficulties, confidence and achievement motivation, concentration, being open to learning, performing well under pressure, and getting rid of worries (Erhan et al., 2015).

## **2. MATERIAL AND METHOD**

In this section, the materials and methods used in the study, the population and sample group, the data collection tool, data collection, and data analysis are discussed.

### **2.1. Method of the Study**

This research is a descriptive and correlational study prepared with the quantitative method. The quantitative method is a type of research that objectifies facts and events and presents them in an observable, measurable, and numerically expressible way. Quantitative research aims to objectively measure the social behaviors of individuals through observation, experiment, and test and to explain them with numerical data.

### **2.2. Population and Sample of the Study**

The population of this study consists of athletes who play team and individual sports. The sample of the research consists of national team athletes aged 18 and over and athletes in the teams in the top leagues. The minimum reasonable sample size was calculated as 384.16 in order to make statistical estimations with a 5% sampling error at a 95% confidence interval and unknown population size. The criteria for inclusion in the study were that the individuals agreed to participate in the study and were over 18 years of age. The research

received responses from 215 athletes. Seven individuals who did not meet the research criteria were not included in the study. The athletes participating in the study consisted of 208 people, 80 female and 128 male athletes, with an average age of 23 years, a minimum age of 18, and a maximum age of 30 years.

### **2.3. Data Collection Tools**

#### ***Personal Information Form***

In the study, a personal information form was developed by the researcher to measure athletes' mental toughness in sports and their level of coping with sportive problems.

The personal information form was also used for variables including personal information such as demographic characteristics (age, gender, nationality status, year, competitions and achievements).

#### ***Mental Toughness Inventory in Sports***

It is a 4-point Likert-type scale developed by Altıntas et al. (2017). The three-factor structure determined as a result of the exploratory factor analysis conducted to test the construct validity of the inventory explains 54.58% of the variance. The results of the confirmatory factor analysis conducted to test the construct validity of the inventory showed that the fit indices of the inventory consisting of three sub-dimensions and a total of 14 items were at an acceptable level. The internal consistency coefficients obtained for all participants were 0.84 for the "Trust" sub-dimension, 0.79 for the "Control" sub-dimension, and 0.51 for the "Persistence" sub-dimension.

The scale, which consists of 14 items, has 3 sub-dimensions. These are

1. Trust
2. Control
3. Continuity

#### ***Inventory of Coping Skills for Sportive Problems***

The scale developed by Smith et al. (1995) was adapted into Turkish by Ozcan and Gunay (2017). First-order confirmatory factor analysis was applied to determine the validity of the scale, and it was determined that the test-retest reliability coefficients were high. It is applied to adolescents and adult athletes between the ages of 10-17.

The scale consists of 26 items and has 7 sub-dimensions. These are;

1. Goal setting / Mental preparation
2. Concentration
3. Non-anxiety
4. High performance under pressure
5. Coping with difficulty
6. Confidence and achievement motive
7. Coaching status

## 2.4. Data Collection

In this study, athletes over the age of 18 who voluntarily participated in the study were reached, necessary explanations were made, scales were distributed online and by hand via Google Forms, and their participation in the study was ensured. Before the application, the participants were explained the purpose and process of the study. The scales were filled in by each participant who voluntarily wanted to participate in the study.

## 2.5. Data Analysis

The data obtained from the scales were coded on the computer and the collected data were analyzed with the statistical package program. As a result of the answers obtained, it was examined whether there was a significant difference between the levels of mental toughness and coping with sportive problems according to the status of the athletes doing team and individual sports. In addition, the question of whether there is a relationship between athletes' mental toughness and coping with sportive problems and the question of what the most important problem is that athletes try to cope with was sought.

## 3. FINDINGS

**Table 1.** Independent Sample T-Test Results Regarding the Difference Between Team and Individual Athletes' Coping Skills with Sportive Problems Scores

| Sub-Dimension                                    | Status     | N   | $\bar{X}$ | Ss    | sd  | t     | P            |
|--|------------|-----|-----------|-------|-----|-------|--------------|
| <b>Goal Setting/<br/>Mental<br/>Preparation</b>  | Team       | 99  | 55.51     | 14.27 | 206 | -.646 | .519         |
|  | Individual | 109 | 51.52     | 12.15 |     |       |              |
| <b>Concentration</b>                             | Team       | 99  | 8.58      | 2.63  | 206 | 1.561 | .120         |
|  | Individual | 109 | 8.80      | 2.34  |     |       |              |
| <b>Non-Anxiety</b>                               | Team       | 99  | 8.34      | 2.79  | 206 | 4.405 | <b>.000*</b> |
|  | Individual | 109 | 7.77      | 2.51  |     |       |              |
| <b>High<br/>Performance<br/>under Pressure</b>   | Team       | 99  | 6.30      | 1.91  | 206 | 2.805 | <b>.006*</b> |
|  | Individual | 109 | 5.02      | 2.26  |     |       |              |
| <b>Coping with<br/>Difficulty</b>                | Team       | 99  | 7.69      | 3.03  | 206 | 1.709 | .089         |
|  | Individual | 109 | 6.54      | 2.86  |     |       |              |
| <b>Confidence and<br/>Achievement<br/>Motive</b> | Team       | 99  | 7.84      | 2.80  | 206 | 1.614 | .108         |
|  | Individual | 109 | 7.21      | 2.49  |     |       |              |
| <b>Coaching Status</b>                           | Team       | 99  | 9.73      | 1.93  | 206 | .744  | .458         |
|  | Individual | 109 | 9.27      | 2.17  |     |       |              |
| <b>Total Score</b>                               | Team       | 99  | 9.54      | 2.13  | 206 | 2.173 | <b>.031*</b> |
|  | Individual | 109 | 9.31      | 2.19  |     |       |              |

As a result of T-Test analysis, according to the scores of team and individual athletes' coping skills with sporting problems, athletes' goal setting [t (-.646)=.519 p>.05], concentration [t (1.561)=.120 p>.05], coping with difficulty [t(1.709)=.089p>.05], confidence and achievement motivation [t (1.614)=.108 p>.05], coaching status [t (.744)=.458 p>.05] and total scores [t (2.173)=.031 p>.05]. However, in the sub-dimensions of being free from anxiety [t (4.405)=,000, p<.05] and high performance under pressure [t (2.805)=,006, p<.05], there is a statistically significant difference between the scores of team and individual athletes' coping skills with sportive problems. According to these results, team athletes' scores of

being free from anxiety ( $x=8.34$ ) and high performance under pressure ( $x=6.30$ ) are higher than individual athletes.

**Table 2.** Independent Sample T-Test Results Regarding the Difference Between Mental Toughness in Sports Scores of Team and Individual Athletes

| Sub-dimension      | Status     | N   | $\bar{X}$ | Ss   | sd  | t      | P            |
|--------------------|------------|-----|-----------|------|-----|--------|--------------|
| <b>Confidence</b>  | Team       | 99  | 19.63     | 3.02 | 206 | 2.394  | <b>.018*</b> |
|                    | Individual | 109 | 18.60     | 3.17 |     |        |              |
| <b>Control</b>     | Team       | 99  | 9.29      | 2.62 | 206 | -1.477 | .141         |
|                    | Individual | 109 | 9.83      | 2.67 |     |        |              |
| <b>Continuity</b>  | Team       | 99  | 10.26     | 1.08 | 206 | .463   | .644         |
|                    | Individual | 109 | 10.19     | 1.09 |     |        |              |
| <b>Total Score</b> | Team       | 99  | 39.18     | 3.19 | 206 | 1.205  | .229         |
|                    | Individual | 109 | 38.62     | 3.46 |     |        |              |

As a result of the T-Test analysis, there is no statistically significant difference between the control [ $t (-1.477) = .141, p > .05$ ], continuity [ $t (10.26) = .644, p > .05$ ] and total scores [ $t (1.205) = .229, p > .05$ ] of the athletes according to the mental toughness scores of the athletes playing team and individual sports. However, in the sub-dimension of Mental Toughness confidence [ $t (2.394) = .018, p < .05$ ], it is seen that there is a statistically significant difference between the scores of team and individual athletes' mental toughness in sports. According to these results, the confidence scores ( $x=19.63$ ) of team athletes are higher than those of individual athletes.

**Table 3.** Pearson Correlation Analysis Results of Team and Individual Athletes' Coping Skills with Sportive Problems and Mental Toughness

| Status            |                             |                     | Cope with Sporting Problems | Mental Toughness |
|-------------------|-----------------------------|---------------------|-----------------------------|------------------|
| <b>Team</b>       | Cope with Sporting Problems | Pearson Correlation | 1                           | .356**           |
|                   |                             | Sig. (2-tailed)     |                             | .000             |
|                   |                             | N                   | 99                          | 99               |
|                   | Mental Toughness            | Pearson Correlation | .356**                      | 1                |
|                   |                             | Sig. (2-tailed)     | .000                        |                  |
|                   |                             | N                   | 99                          | 99               |
| <b>Individual</b> | Cope with Sporting Problems | Pearson Correlation | 1                           | .230*            |
|                   |                             | Sig. (2-tailed)     |                             | .016             |
|                   |                             | N                   | 109                         | 109              |
|                   | Mental Toughness            | Pearson Correlation | .230*                       | 1                |
|                   |                             | Sig. (2-tailed)     | .016                        |                  |
|                   |                             | N                   | 109                         | 109              |

When Table 3. is examined, it is seen that there is a moderate, positive, and significant relationship between the ability to cope with sportive problems and mental toughness of athletes who play team sports ( $r= 0.356, p < 0.05$ ). According to this, it can be said that as mental toughness in sports increases in athletes who play team sports, the ability to cope with sportive problems also increases. It is seen that there is a weak positive and significant relationship between the ability to cope with sportive problems and mental toughness of individual athletes ( $r= 0.230, p < 0.05$ ). According to this, it can be said that as mental toughness increases in athletes practicing individual sports, coping with sportive problems also increases.

**Table 4.** Analysis Results of the Most Important Problems Athletes to Cope with in Team and Individual Sports

| Type of Problem              | Problem  | Team      |            | Individual |            |
|------------------------------|--|-----------|------------|------------|------------|
|                              |  | N         | %          | N          | %          |
| Physical Problems            | (Fatigue, Muscle pain and spasms, Injuries, Weight)  | 53        | 53.5       | 36         | 33         |
| Psychological Problems       | ((Fear-Stress-Anxiety-Panic-Lack of self-confidence, Anger control, competition)           | 20        | 20.2       | 44         | 40.4       |
| Social/Enviromental Problems | (Coach and Family pressure, Discipline, School, Team communication, Gender discrimination) | 12        | 12.1       | 10         | 9.2        |
| Mental Problems              | (Directing the mind, Attention deficit, Mental toughness, Mental conception)               | 9         | 9.1        | 13         | 11.9       |
| Economical Problems          | (Economical problems)  | 5         | 5.1        | 6.0        | 5.5        |
| <b>TOTAL</b>                 |  | <b>99</b> | <b>100</b> | <b>109</b> | <b>100</b> |

When Table 4 is examined, it is seen that the most important problems that athletes try to cope with in team sports are physical (53.5%), psychological (20.2%), social and environmental (12.1%), mental/mental (9.1%) and economic (5.1%) problems, respectively. In individual sports, the most important problems that athletes try to cope with are psychological (40.4%), physical (33%), mental/mental (11.9%), social and environmental (9.2%), and economic (5.5%) problems, respectively.

#### 4. DISCUSSION

In the study, while there was no significant difference between team and individual sports athletes in terms of their ability to cope with sportive problems, the levels of being free from anxiety and being able to show high performance under pressure were higher in team sports athletes than in individual sports athletes. It is the expected result that the level of anxiety in individual sports is higher than that of team sports athletes. In the study, the fact that psychological problems were found in individual athletes in relation to the sportive problems that the athletes tried to cope with supports this result. In terms of goal setting and mental preparation, coping with difficulties, confidence and sense of achievement, and coaching status, the ability of team and individual athletes to cope with sportive problems is at a similar level. Although it is not statistically significant, it is seen that the concentration of individual athletes is higher. In the study of Karademir et al., (2021) with elite volleyball players, it is seen that the coping skills of volleyball athletes who play team sports are at a medium level.

Again, in the study, while team and individual athletes did not differ in terms of their mental toughness, the confidence levels of team athletes were higher than those of individual athletes. In terms of control and continuity, the ability of team and individual athletes to cope with sportive problems is at a similar level. When the related literature is examined; there are studies showing that the mental toughness levels of team athletes and individual athletes do not differ (Juan & Lopez, 2015; Nicholls et al., 2009; Bull et al. Yarayan, Yıldız, & Gülşen; 2018).

Madrigal et al. (2013) stated that team athletes' mental toughness levels will be positively affected by the social support they can receive from their friends, while individual athletes should make more effort to close this gap. Unlike the results of this study, in the study conducted by Yarayan et al., (2018) with elite-level athletes, it was seen that individual athletes were higher in the control and continuation sub-dimensions and the total score of mental toughness, while there was no difference in the trust dimension. The research was conducted with Athletics, Boxing, Karate, Cycling from individual sports and Football, Basketball, Volleyball, and Handball from team sports. It can be thought that the difference between the study results is due to the difference in branches.

When we look at the relationship between Mental Toughness and Sportive Problems in the research, it is seen that there is a moderate positive relationship between mental toughness and the ability to cope with sportive problems of athletes engaged in team sports. According to this, as mental toughness in sports increases in athletes engaged in team sports, their ability to cope with sportive problems will also increase. There was a weak positive relationship between the ability to cope with sportive problems and mental toughness of athletes engaged in individual sports.

## **5. RESULTS**

Consequently, some questions were asked in the research to determine what the problem is in coping with mental toughness and sportive problems, and it was stated that the most important problems that athletes try to cope with in team sports are physical, psychological, social and environmental, mental/mental and economic problems, respectively. In individual sports, the most important problem that athletes try to cope with is psychological problems, followed by physical, mental/mental, social and environmental, and economic problems.

As a result, it can be said that the reason for the low role of mental toughness in coping with sportive problems in both teams and individual sports is that specific and precede mental or mental problems.

## **6. CONFLICT OF INTEREST AND ETHICS COMMITTEE APPROVAL**

**Conflict of Interest:** The author declared that writing this review does not include any conflicts of interest.

**Researchers' Contribution:** The processes related to the introduction, methods, findings and discussion sections of the study were carried out by author.

**Financial support:** It has been reported by the author that there is no financial support.

**Ethics Committee Approval:** The study was taken from Pamukkale University Social and Human Sciences Research and Publication Ethics Committee.

**Informed Consent:** Informed consent was obtained from the participants.

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## GENİŞLETİLMİŞ ÖZET

### GİRİŞ

Zihinsel dayanıklılık, çatışma, başarısızlık, beklenmeyen durumlar, gerilim gibi negatif durumlar karşısında bireyin hemen kendisini kontrol altına alarak eski durumuna dönme yönünde gösterdiği pozitif düşünce kapasitesi olarak da tanımlanmaktadır. Zihinsel dayanıklılığı yüksek olan kişiler, gündelik yaşamlarında daha kontrolcü, beklenmedik durumlara hazırlıklı, krizi fırsata çevirme kapasitesine sahip iken, düşük olan kişilerde ise kendini uzaklaştırma, değişikliklere karşı direnç gösterme gibi davranışlar gözlemlenmektedir.

Zihinsel dayanıklılık özellikle sporcular, koçlar, spor psikologları ve liderler tarafından sıklıkla kullanılan bir kavramdır. Bu kavram genel olarak bir insanın stres ve zor bir durumla karşılaştığında güvenini kaybetmeden başa çıkmasını sağlayan bir takım olumlu özelliklerinden oluşur.

Araştırmacılar, başarı ile ilişkilendirilen hemen hemen her türlü olumlu ve istenen psikolojik özelliğin zihinsel dayanıklılık olarak etiketlendiğini belirtmişlerdir. (Jones ve diğerleri, 2002),

Jones ve ark. (2002);

- Zihinsel dayanıklılık, doğal veya gelişmiş psikolojik üstünlüğe sahip olmaktır:
- Genel olarak, sporun sporcuya yüklediği pek çok talepkâr durumlar ile (rekabet, antrenman, yaşam tarzı vb.) rakiplerinizden daha iyi başa çıkmanızı sağlar.
- Özellikle baskı altında kararlı, odaklanmış, kendinden emin ve kontrollü kalma konusunda rakiplerinizden daha tutarlı ve daha iyi olmanızı sağlar.

Baş çıkma, insanların çevre ile ilişkilerinde yaşadıkları sorunları yönetmek (azaltmak veya tolere etmek) için ortaya koydukları bilişsel ve davranışsal çabalarıdır.

Bir diğer başa çıkma teorisi gelecekte ortaya çıkacak stresli durumlara karşı önlem alınması gerektiğini belirten proaktif başa çıkmadır (Aspinwall ve Taylor, 1997). Aspinwall ve Taylor (1997), beş aşamalı olarak değerlendirdiği proaktif başa çıkmayı, potansiyel olarak stresli bir olayın önüne geçmek için sergilenen çabalar olarak tanımlamıştır.

Sportif sorunlar ile ilgili yapılan çalışmalarda sorunlarla başa çıkmanın sporcuların bağlılığını, konsantrasyonunu, güven ve başarı güdüsünü ve baskı altında yüksek performans göstermede pozitif yönde anlamlı olduğunu ayrıca hedef belirleme ve içsel konuşma ve performansı üst seviyeye çıkarmada etkili olduğunu belirtmişlerdir (Özcan, 2021; Morgan, 2006; Megss ve Cohen, 2019).

Bu bağlamda, sporcuların sportif sorunlarla başa çıkma becerileri, hedef belirleme ve mental hazırlık, zorluklarla baş edebilme yeteneği, güven ve başarı motivasyonu, konsantrasyon, öğrenmeye açık olabilme, baskı altında iyi performans gösterebilme ve endişelerden kurtulma gibi boyutların birleşiminden oluşmaktadır (Erhan ve diğerleri, 2015).

## **MATERYAL VE METOD**

Bu bölümde arařtırmada kullanılan materyal- metot, evren ve örneklem grubu, veri toplama aracı, verilerin toplanması ve verilerin analizinden bahsedilmiştir.

### **Arařtırmanın Yöntemi**

Bu arařtırma nicel yöntemle hazırlanmış, betimsel ve korelasyonel bir arařtırmadır. Nicel yöntem, olgu ve olayları nesnelleřtirerek gözlemlenebilir, ölçülebilir ve sayısal olarak ifade edilebilir bir şekilde ortaya koyan bir arařtırma türüdür. Nicel arařtırmanın amacı bireylerin toplumsal davranışlarını gözlem, deney ve test yoluyla nesnel bir şekilde ölçmek ve sayısal verilerle açıklamaktır.

### **Arařtırmanın Evreni ve Örnekleme**

Bu arařtırmanın evrenini takım ve bireysel sporlar yapan sporcular oluşturmaktadır. Arařtırmanın örnekleme ise 18 yaş ve üzeri milli takım sporcuları ve üst liglerdeki takımlarda yer alan sporculardan oluşmaktadır. Evren sayısı bilinmeyen ve %95 güven aralığında %5 örnekleme hatası ile istatistiki tahminlerin yapılabilmesi amacıyla en az makul örnekleme sayısı 384,16 olarak hesaplanmıştır. Arařtırma dahil edilme kriterleri; bireylerin çalışmaya katılmayı kabul etmesi, 18 yaşından büyük olmasıdır. Arařtırmaya 215 sporcudan yanıt gelmiştir. Arařtırma kriterlerine uymayan 7 kiři arařtırmaya dahil edilmemiştir. Arařtırmaya katılan sporcular minimum 18, maksimum 30 yaş aralığında, yaş ortalaması 23 olan 80 kadın 128 erkek sporcu olmak üzere 208 kiřiden oluşmaktadır.

## **TARTIřMA**

Yapılan arařtırmada takım ve bireysel spor yapan sporcuların sportif sorunlarla başa çıkma becerileri bakımından karşılaştırıldığında anlamlı farklılık göstermezken, takım sporları yapan sporcuların kaygıdan uzak olma, baskı altında yüksek performans gösterebilme düzeyleri bireysel spor yapan sporculara göre daha yüksektir. Bireysel sporlarda kaygı düzeyinin takım sporları yapan sporculardan daha yüksek olması beklenen sonuçtur. Çalışmada sporcuların başa çıkmaya çalıştığı sportif sorunlarla ilgili olarak bireysel sporcularda psikolojik sorunların çıkması bu sonucu destekler niteliktedir. Hedef belirleme ve zihinsel hazırlık, zorlukla başa çıkma, güven ve başarı duygusu, antrenörlük durumu bakımından takım sporu yapan ve bireysel spor yapan sporcuların sportif sorunlarla başa çıkma becerileri benzer düzeydedir. İstatistiksel olarak çok anlamlı görünmese de bireysel spor yapan sporcuların konsantrasyonunun daha yüksek olduğu görülmektedir. Karademir, Var, Pakyıldırım ve Paksoy'un (2021) elit voleybolcularla yaptıkları çalışmalarında takım sporu olan voleybol sporcularının sportif sorunlarla başa çıkma becerilerinin orta düzeyde olduğu görülmektedir.

Yine arařtırmada takım ve bireysel spor yapan sporcular zihinsel dayanıklılıkları bakımından karşılaştırıldığında farklılık göstermezken, takım sporları yapan sporcuların güven düzeyleri bireysel spor yapan sporculara göre daha yüksektir. Kontrol ve devamlılık bakımından takım sporu yapan ve bireysel spor yapan sporcuların sportif sorunlarla başa çıkma becerileri benzer düzeydedir. İlgili literatür incelendiğinde; takım sporcularının ve bireysel sporcuların zihinsel dayanıklılık düzeylerinin farklılaşmadığını gösteren çalışmalar bulunmaktadır (Juan ve Lopez, 2015; Nicholls ve diğ., 2009; Bull ve diğ., 2005, Akt. Yarayan, Yıldız ve Gülşen; 2018). Madrigal ve diğ. (2013), takım sporcularının arkadaşlarından

alabileceği sosyal destek ile zihinsel dayanıklılık düzeylerinin olumlu etkileneceğini, bireysel sporcuların ise bu açığı kapanması adına daha çok çaba sarf etmeleri gerektiğini belirtmektedir. Bu araştırmanın sonuçlardan farklı olarak Yarayan, Yıldız ve Gülşen (2018) tarafından elit düzeyde sporcularla yapılan araştırmada bireysel sporcuların kontrol ve devam alt boyutlarında ve zihinsel dayanıklılık toplam puanında daha yüksek olduğu, güven boyutunda fark olmadığı görülmüştür. Araştırma, bireysel sporlardan Atletizm, Boks, Karate, Bisiklet, takım sporlarından Futbol, Basketbol, Voleybol, Hentbol branşları ile yapılmıştır. Çalışma sonuçları arasındaki farkın branş farkından kaynaklandığı düşünülebilir.

Araştırmada Zihinsel Dayanıklılık ve Sportif Sorunlar arasındaki ilişkiye baktığımızda ise, takım sporları ile uğraşan sporcuların sportif sorunlarla başa çıkabilme durumları ile zihinsel dayanıklılıkları arasında orta düzeyde pozitif bir ilişki olduğu görülmüştür. Buna göre takım sporları ile uğraşan sporcularda sporda zihinsel dayanıklılık arttıkça sportif sorunlarla başa çıkabilmesi de artacaktır. Bireysel spor ile uğraşan sporcuların sportif sorunlarla başa çıkabilme durumları ile zihinsel dayanıklılıkları arasında ise zayıf düzeyde pozitif ilişki olduğu görülmüştür.

Son olarak araştırmada Zihinsel dayanıklılık ve Sportif sorunlarla başa çıkmada sorunun ne olduğunun tespitine yönelik bazı sorular sorulmuş ve takım sporlarında sporcuların başa çıkmaya çalıştığı en önemli sorunların sırasıyla fiziksel, psikolojik, sosyal ve çevresel, zihinsel/mental ve ekonomik sorunlar olduğu belirtilmiştir. Bu durum bireysel sporlarda ise sporcuların başa çıkmaya çalıştığı en önemli sorunun psikolojik sorunlar olduğu, daha sonra fiziksel, zihinsel/mental, sosyal ve çevresel ve ekonomik sorunlar olduğu belirtilmiştir.

Sonuç olarak, hem takım sporlarında hem de bireysel sporlarda sportif sorunlarla başa çıkabilmede zihinsel dayanıklılığın rolünün düşük çıkmasının sebebinin fiziksel ve psikolojik sorunların zihinsel yada mental sorunlardan önce gelmesi olduğu söylenebilir.