*Araştırma Makalesi* ● *Research Article*

# Investigation of The Relationship Between Methods of Coping With Stress and Psychological Resilience Levels of Football Referees

## *Futbol Hakemlerinin Stres ile Başa Çıkma Yöntemleri ile Psikolojik Sağlamlık Düzeyleri Arasındaki İlişkinin İncelenmesi*

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**Abstract**: This study aims to examine the relationships between referees' coping methods with stress and their psychological resilience levels. Our study adopts a quantitative research model. The sample consisted of 212 football referees in Turkey in 2022. For the study, Muş Alparslan University Scientific Research and Publication Ethics Committee provided the ethical permission with the date 10.03.2023 and number 34. The data were obtained by random method with 5-point Likert-type questionnaires, using Demographic Information Form, Brief Resilience Scale and Coping Response Inventory. Descriptive statistics, t-test, One-Way ANOVA, correlation test and post-hoc (Tamhane's) T2 were used for data analysis. Based on the playing football variable, it was observed that scores of Brief Resilience Scale and subscale of seeking professional support in Coping Response Inventory demonstrated statistically significant differences, favoring those who previously played football (p<0.05). Based on age and years of refereeing, it was observed that the scores of the subscales of Coping Response Inventory demonstrated statistical differences (p<0.05). Furthermore, a positive relationship between Brief Resilience Scale scores and Coping Response Inventory scores was determined. In our study, it was concluded that age, experiences as referees and previous sports experience were helpful in psychological resilience and coping with stress.

**Keywords:** Stress, Psychological Resilience, Referee

**Öz:** Bu çalışmanın amacı hakemlerin stresle başa çıkma yöntemleri ile psikolojik dayanıklılık düzeyleri arasındaki ilişkileri incelemektir. Çalışmamız nicel araştırma modelini benimsemektedir. Örneklem 2022 yılında Türkiye'deki 212 futbol hakeminden alınmıştır. Çalışma için Muş Alparslan Üniversitesi Bilimsel Araştırma ve Yayın Etiği Kurulu'ndan 10.03.23 tarih ve 34 numaralı etik izin alınmıştır. Veriler 5'li Likert ile rastgele yöntemle elde edilmiştir. - Demografik Bilgi Formu, Kısa Dayanıklılık Ölçeği ve Başa Çıkma Tepki Envanteri'ni kullanarak anketleri yazın. Verilerin analizinde tanımlayıcı istatistikler, t-testi, Tek Yönlü ANOVA, korelasyon testi ve post-hoc (Tamhane's) T2 kullanılmıştır. Futbol oynama değişkenine göre Kısa Dayanıklılık Ölçeği ve Başa Çıkma Tepkileri Envanteri'ndeki profesyonel destek arama alt boyutu puanlarının daha önce futbol oynayanlar lehine istatistiksel olarak anlamlı farklılık gösterdiği görüldü (p<0,05). Yaş ve hakemlik yılına göre Başa Çıkma Tepki

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Envanteri alt ölçek puanlarının istatistiksel olarak farklılık gösterdiği görüldü (p<0,05). Ayrıca Kısa Dayanıklılık Ölçeği puanları ile Başa Çıkma Tepki Envanteri puanları arasında pozitif bir ilişki olduğu tespit edilmiştir. Çalışmamızda yaşın, hakemlik deneyiminin ve daha önceki spor deneyiminin psikolojik dayanıklılık ve stresle baş etmede faydalı olduğu sonucuna ulaşılmıştır.

**Anahtar Sözcükler:** Stres, Psikolojik Sağlamlık, Hakem

### Introduction

In the world, various sports are watched and followed by different and large groups of people. Among these sports, football emerges as the most common one (Yaşar & Sunay, 2018). The intense interest in football within the realm of sports makes scientific studies conducted in this field valuable due to its appeal to wide audiences, reliance on financial elements, and social mobility. Football can be sustained under suitable conditions by increasing the enjoyment and excitement for spectators, providing social gains, and offering high status and financial returns to those who participate in the matches (Yıldız, B.S., Kepoğlu & Yıldız, S.M., 2018). Each match is controlled by a referee who has full authority to apply the Laws of the Game in connection with the match (The Fa, 2023) The origin of the word "referee" in English comes from the word "refer." Therefore, it is defined as a person chosen by participating teams to be referred to in moments of complexity or uncertainty, or to resolve a dispute and calm a disputed matter. According to a different definition, it is described as a person selected by those responsible for sports activities to manage games with pre-known rules, determine the winning, losing, or tied team, identify individuals or teams receiving penalties, keep records of points obtained, perform on-field activities along with the athletes, and have a direct impact on the outcome of the competition (Selvi, 2018).

Resilience research in sports has gained popularity in recent times. Athletes' ability to handle the highest psycho-emotional loads, intense training, loads exceeding human capacities, maintaining the level of performance to win, and preserving the capacity to resist ideal conditions for athletes have always been significant competitive advantages (Staude & Radzyshevska, 2021). Accordingly, resilience covers complex mechanisms, diverse aspects, and dynamic sets of psychological resources of athletes. The phenomenon of resilience is examined in the related sports literature on triple levels. These include resilience as an individual quality or skill, resilience process, and personal adaptive mechanisms of athletes (Hrishyn, 2021). Resilience is the ability of athletes to sustain comparatively stable levels of mental, psychological, and physical functions following potentially disruptive events such as losses of loved ones, wars, natural disasters, accidents, or traumas (Bonanno, 2004). The ability to recover from adversity and adapt to unpleasant or traumatic circumstances is referred to as resilience (Walker et al., 2017). Wang et al., (2023) in their study on referees, showed that while training senior basketball referees, increasing psychological indicators related to the coping styles and psychological resilience of senior basketball referees can avoid their big emotional fluctuations and increase their accuracy in making decisions when they encounter unexpected events on the field. Wolfson & Neave (2007) stated in their study that referees must deal effectively with a wide range of physical (e.g., traveling a distance of 10 km per match), psychological (e.g., coping with stress and aggression) and professional (i.e., making the right decisions in a match, controlling players) stressors and should devote a significant amount of time to match preparation and post-evaluation. In the context of training camps, sports competitions, and tournament matches, all participants—including athletes, coaches, medical personnel, and sports psychologists—are required to possess strong nerves and high stress resistance. These individuals are recognized for their resilience. Resilient individuals exhibit three key characteristics: a stable acceptance of reality, a profound and steadfast belief in the value of life, and the ability to improvise and innovate (Coutu, 2002).

The concept of resilience is defined as "self-recovery" in Latin, corresponding to the word "reislere" (Wille & Ravens-Sieberer, 2010). The meaning of psychological resilience is defined as the variable and diverse processes that enable an individual to react or adapt to the pressure of negative conditions that limit their environmental, material, emotional, or personal qualities (Thornton & Sanchez, 2010). The concept of psychological resilience first emerged through scientific studies

conducted by psychologist Suzanne Kobasa. In the 1970s, Kobasa conducted research to measure the stress levels of top-level executives who worked at Illinois Bell Telephone Company and had experienced job dismissals and challenging times. The researcher found that these executives responded to stress in two different ways. It was observed that some executives and employees were healthier, while others had fewer psychological and health problems. Kobasa argued that this was due to certain personality traits coming into play in response to high stress (Tekin, 2016).

Psychological resilience can be approached from two perspectives: as a trait and as a process. From a trait viewpoint, it refers to a collection of stable and consistent traits that empower individuals to adapt to significant stressors or disruptions (Connor & Davidson, 2003). These traits, also known as protective factors, contribute to the ability to cope effectively. On the other hand, resilience is also observed as a dynamic response that facilitates positive adaptation in the face of adversity (Luthar et al., 2000). In this context, the impact of personal characteristics varies depending on the specific situation and context. Consequently, the response to stressors emerges as a process developed through the interaction between an individual and their environment (Egeland et al., 1993). Furthermore, responses to stressful events can evolve throughout an individual's lifespan, influenced by timing, the presence of risk factors, and the availability of protective factors. Therefore, while resilience is conceptualized as both a trait and a process, it can be regarded as a psychological trait that supports positive adaptation during challenging experiences or periods (Rutter, 2006).

The variability in the definitions of psychological resilience does not stem from differences among researchers but rather from the individual differences in people's psychological resilience due to different circumstances and reactions. Since each individual's psychological state is unique, there are variations in the level of psychological resilience for each person. As individuals exhibit different responses to stress and stressors, their qualities and competencies interact with their social lives, leading to diverse reactions and actions. Some individuals can overcome stress and all its factors better than others during certain times. These individuals are described as having "high psychological resilience" (Mumford, 2001).

Stress, on the other hand, is a psychological condition that affects individuals' mental and physiological foundations, negatively impacting their actions, job potential, and relationships with others (Selye, 1997). Another definition of stress states that it involves intense and challenging physical and mental events that push the limits of the organism (Baltaş, A. & Baltaş, Z., 2012). Personal sources of stress include anxiety levels, insufficient or excessive self-confidence, coping abilities in uncertain situations, family-related problems, excitement levels, financial issues, disappointment, and perceiving work life as unpleasant, among other differences in living standards. The most significant factor that characterizes stress is personality traits (Sabuncuoğlu, 2003).

Physical activity and sports inherently involve multiple aspects, including effort, struggle, sacrifice, overcoming challenges, competition, evaluation, risk of injury, accepting defeat, and confronting negative and stressful situations to some degree (Sarkar, 2017). Adequate levels of stress have an enhancing and positive impact on the performance of any physical activity or its outcome. The level of stress that positively influences performance varies among individuals. A sufficient and balanced level of stress motivates individuals and provides them with energy during competitions. The concept of stress that positively affects individuals and enhances their performance and success in competitions or matches is referred to as "eustress." On the other hand, the concept of stress that negatively affects health, performance, and energy is defined as excessive stress and poorly managed stress. Excessive stress, or in other words, poorly managed stress, can lead to performance decline and significantly influence decision-making in the wrong direction. This concept is also known as "distress" (Donuk & Güllü, 2018). It is expected that referees make quick and accurate decisions under challenging conditions and high pressure, as these decisions can have a significant impact on the outcome of the match. The mental resilience to trust one's abilities and aspire to be better than competitors under difficult circumstances to achieve one's goals is referred to as "mental toughness" (Sheard, 2013).

Football referees can be exposed to various levels and forms of stress. If the referee's stress is positive during a match, it can be described as positive stress. Poorly managed or excessive stress, on the other hand, has negative effects on health, leads to a decline in performance, and can result in making incorrect decisions. This is referred to as distress, which includes feelings of discomfort, anxiety, and sadness (Güllü & Yıldız, 2019). In this context, our study aims to examine the relationship between referees' coping strategies for dealing with stress and their level of psychological resilience.

## Materials and Methods

### Research Design

The current study adopted a correlational survey design, which seeks to establish the presence and magnitude of the co-variation between two or more variables (Karasar, 2011).

### Research Sample

The sample of the study consisted of 212 football referees who officiate in football leagues in Turkey in the year 2022. Among the participants, 61.8% were male (n=131) and 38.2% were female (n=81).

**Table 1.** Demographic Characteristics and Frequencies of Participants

| Variables | Groups | n | % |
|---|---|---|---|
| Gender | Female | 81 | 38.2 |
| | Male | 131 | 61.8 |
| Age | 21 Years and Below | 67 | 31.6 |
| | 22 to 25 Years | 75 | 35.4 |
| | 26 Years and Above | 70 | 33.0 |
| Marital Status | Married | 52 | 24.5 |
| | Single | 160 | 75.5 |
| Years of Refereeing Experience | 2 Years and Below | 81 | 38.2 |
| | 3 to 5 Years | 71 | 33.5 |
| | 6 Years and Above | 60 | 28.3 |
| Monthly Income Level | 1000 TL and Below | 61 | 28.8 |
| | 1001-2000 TL | 44 | 20.8 |
| | 2001-3000 TL | 47 | 22.2 |
| | 3001 TL and Above | 60 | 28.3 |
| Refereeing Class | Provincial Referee | 140 | 66.0 |
| | Other Classes | 72 | 34.0 |
| Previous Football Playing Experience | Yes | 141 | 66.5 |
| | No | 71 | 33.5 |
| | Total | 212 | 100 |

### Data Collection Tools

In this study, the Coping Response Inventory, Demographic Information Form, and Brief Resilience Scale were used.

### Demographic Information Form

This form was developed by the researcher to determine the participants' demographic characteristics, including gender, age, monthly income level, refereeing class, and previous football playing experience.

### Brief Resilience Scale

The Brief Resilience Scale, adapted into Turkish by Doğan (2015) from the validity and reliability study conducted by Smith et al. (2008), consists of a single subscale and a total of 6 items. Three items (2, 4, and 6) are reverse-coded. Participants in the study responded to the scale using a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." To interpret the scores, applicable items were reversed, such that higher scores indicate greater levels of psychological resilience. The researchers reported a reliability coefficient (alpha) of 0.83 for the scale. However, in this specific study, the reliability coefficient (alpha) of the scale was calculated to be 0.70.

### Coping Response Inventory

The Coping Response Inventory, adapted into Turkish by Koca-Ballı and Kılıç (2016) with the validity and reliability study, was developed by Moos (1993) and covers 5 subscales and 24 items. The scale is measured on a 5-point Likert scale ranging from "strongly agree" to "strongly disagree." The 5 subscales of the scale are "positive reappraisal," "problem-solving," "seeking professional support," "logical analysis," and "seeking environmental support." In this study, the reliability coefficients (alpha) of the subscales were determined as 0.77 for problem-solving, 0.71 for positive reappraisal, 0.85 for logical analysis, 0.81 for seeking professional support, and 0.69 for seeking environmental support. Additionally, the coefficient of reliability (Cronbach's Alpha) for all the items in the scale was calculated as 0.91 in this study.

### Data Analysis

Data analysis for the study was conducted using the SPSS 22.0 software package. A significance level of $p < 0.05$ was considered statistically significant. Descriptive analysis methods, such as percentages and frequencies, were employed to summarize the data. Additionally, various statistical techniques were utilized, including One-Way Analysis of Variance (ANOVA), Pearson's correlation analysis, and t-tests, to examine relationships and differences between variables in the study. Furthermore, to determine which groups the differences occurred between in a statistically significant manner, the homogeneity of variances was examined, and as the variances did not exhibit homogeneous characteristics, Tamhane's T2 post hoc multiple comparison tests were used. In order to assess the reliability of the scales utilized in the study, internal consistency coefficients (Cronbach's alpha) were computed. The results of these calculations are presented in a table format to provide an overview of the obtained findings.

### Findings

**Table 2.** Descriptive Statistics and Reliability Values of Brief Resilience Scale and Coping Response Inventory Scores

| Variables | Score Range | n | $\bar{x}$ | Sd. | Skewness | Kurtosis | C. Alpha |
|---|---|---|---|---|---|---|---|
| **Brief Resilience Scale** | 1-5 | 212 | 3.67 | 0.68 | -0.11 | 0.29 | 0.70 |
| **Problem-Solving Subscale** | 1-5 | 212 | 4.32 | 0.58 | -1.14 | 0.87 | 0.77 |
| **Positive Evaluation Subscale** | 1-5 | 212 | 4.07 | 0.59 | -0.49 | -0.01 | 0.71 |
| **Logical Analysis Subscale** | 1-5 | 212 | 4.29 | 0.62 | -0.84 | 0.98 | 0.85 |
| **Seeking Professional Support Subscale** | 1-5 | 212 | 3.45 | 1.04 | -0.24 | -0.61 | 0.81 |
| **Seeking Environmental Support Subscale** | 1-5 | 212 | 3.41 | 0.89 | -0.32 | 0.12 | 0.69 |

According to Table 2, it can be observed that the skewness and kurtosis values of the scales utilized in the study, within the range of -1.5 to +1.5 as indicated by Tabachnick and Fidell (2010), indicate a normal distribution. Cronbach's Alpha reliability coefficient varies between 0 and 1, and as the values approach 1, the reliability/consistency increases (Cronbach, 1990).

**Table 3.** Descriptive Statistics and Reliability Values of Brief Resilience Scale and Coping Response Inventory Scores

| Variables | Gender | N | $\overline{x}$ | *ss* | *t*-test | | |
|---|---|---|---|---|---|---|---|
| | | | | | *t* | Sd | p |
| **Brief Resilience Scale** | Female | 81 | 3.77 | 0.76 | 0.47 | 210 | 0.64 |
| | Male | 131 | 3.72 | 0.62 | | | |
| **Problem-Solving Subscale** | Female | 81 | 4.34 | 0.52 | 1.04 | 210 | 0.30 |
| | Male | 131 | 4.26 | 0.58 | | | |
| **Positive Evaluation Subscale** | Female | 81 | 4.08 | 0.52 | 1.05 | 210 | 0.29 |
| | Male | 131 | 4.01 | 0.52 | | | |
| **Logical Analysis Subscale** | Female | 81 | 4.30 | 0.50 | 0.10 | 210 | 0.92 |
| | Male | 131 | 4.30 | 0.63 | | | |
| **Seeking Professional Support Subscale** | Female | 81 | 3.48 | 0.87 | 1.18 | 210 | 0.24 |
| | Male | 131 | 3.30 | 1.11 | | | |
| **Seeking Environmental Support Subscale** | Female | 81 | 3.38 | 0.75 | 0.18 | 210 | 0.86 |
| | Male | 131 | 3.36 | 0.95 | | | |

p>0.05

In the examination of Table 3, it is found that there is no statistically significant difference in the subscale scores of participants in the Brief Resilience Scale and Coping Response Inventory according to the gender variable (t=0.47, p>0.05; t=1.04, p>0.05; t=1.05, p>0.05; t=0.10, p>0.05; t=1.18, p>0.05; t=0.18, p>0.05).

**Table 4.** Comparison of the Subscale Scores of Participants in the Brief Resilience Scale and Coping Response Inventory According to Marital Status Variable

| Variables | Marital Status | N | $\overline{x}$ | *ss* | *t*-test | | |
|---|---|---|---|---|---|---|---|
| | | | | | *t* | Sd | p |
| **Brief Resilience Scale** | Married | 52 | 3.67 | 0.46 | -0.86 | 210 | 0.39 |
| | Single | 160 | 3.76 | 0.73 | | | |
| **Problem-Solving Subscale** | Married | 52 | 4.21 | 0.68 | -1.20 | 210 | 0.23 |
| | Single | 160 | 4.32 | 0.51 | | | |
| **Positive Evaluation Subscale** | Married | 52 | 4.07 | 0.55 | 0.48 | 210 | 0.63 |
| | Single | 160 | 4.03 | 0.51 | | | |
| **Logical Analysis Subscale** | Married | 52 | 4.26 | 0.79 | 0.48 | 210 | 0.63 |
| | Single | 160 | 4.31 | 0.50 | | | |
| **Seeking Professional Support Subscale** | Married | 52 | 3.26 | 1.23 | -0.85 | 210 | 0.40 |
| | Single | 160 | 3.40 | 0.95 | | | |
| **Seeking Environmental Support Subscale** | Married | 52 | 3.40 | 0.91 | 0.27 | 210 | 0.79 |
| | Single | 160 | 3.36 | 0.87 | | | |

p>0.05

Based on the results presented in Table 4, it is observed that there is no statistically significant difference in the subscale scores of the Brief Resilience Scale and the Coping Response Inventory based on the

marital status variable (t = -0.86, p > 0.05; t = -1.20, p > 0.05; t = 0.48, p > 0.05; t = 0.48, p > 0.05; t = -0.85, p > 0.05; t = 0.27, p > 0.05).

**Table 5.** Comparison of the Scores of Participants in the Subscales of Brief Resilience Scale and Coping Response Inventory according to the Variable of the Refereeing Class

| Variables | Referee Class | N | x̄ | SS | t-test | | |
|---|---|---|---|---|---|---|---|
| | | | | | t | Sd | p |
| Brief Resilience Scale | Provincial Referee | 140 | 3.80 | 0.68 | 1.72 | 210 | 0.09 |
| | Other Classes | 72 | 3.63 | 0.66 | | | |
| Problem-Solving Subscale | Provincial Referee | 140 | 4.34 | 0.51 | 1.86 | 210 | 0.07 |
| | Other Classes | 72 | 4.19 | 0.64 | | | |
| Positive Evaluation Subscale | Provincial Referee | 140 | 4.06 | 0.56 | 0.89 | 210 | 0.38 |
| | Other Classes | 72 | 3.99 | 0.45 | | | |
| Logical Analysis Subscale | Provincial Referee | 140 | 4.34 | 0.52 | 1.44 | 210 | 0.15 |
| | Other Classes | 72 | 4.22 | 0.69 | | | |
| Seeking Professional Support Subscale | Provincial Referee | 140 | 3.41 | 1.12 | 0.77 | 210 | 0.44 |
| | Other Classes | 72 | 3.29 | 0.81 | | | |
| Seeking Environmental Support Subscale | Provincial Referee | 140 | 3.34 | 0.85 | -0.74 | 210 | 0.46 |
| | Other Classes | 72 | 3.43 | 0.92 | | | |

p>0.05

In Table 5, it was discovered that there was no statistically significant difference in the scores of participants on the subscales of the Brief Resilience Scale and Coping Response Inventory in terms of the referee classification variable (t=1.72, p>0.05; t=1.86, p>0.05; t=0.89, p>0.05; t=1.44, p>0.05; t=0.77, p>0.05; t=-0.74, p>0.05).

**Table 6.** Comparison of Participants' Scores on Subscales of the Brief Resilience Scale and Coping Response Inventory According to the Variable of Previous Football Playing Status

| Variables | Previous Football Playing Experience | N | x̄ | SS | t-test | | |
|---|---|---|---|---|---|---|---|
| | | | | | t | Sd | p |
| Brief Resilience Scale | Yes | 141 | 3.95 | 0.68 | -2.57 | 210 | 0.11 |
| | No | 71 | 3.61 | 0.65 | | | |
| Problem-Solving Subscale | Yes | 141 | 4.27 | 0.61 | -0.94 | 210 | 0.35 |
| | No | 71 | 4.34 | 0.44 | | | |
| Positive Evaluation Subscale | Yes | 141 | 4.02 | 0.56 | -0.46 | 210 | 0.65 |
| | No | 71 | 4.06 | 0.45 | | | |
| Logical Analysis Subscale | Yes | 141 | 4.26 | 0.64 | -1.48 | 210 | 0.14 |
| | No | 71 | 4.38 | 0.43 | | | |
| Seeking Professional Support Subscale | Yes | 141 | **3.49** | 1.04 | 2.38 | 210 | **0.02*** |
| | No | 71 | 3.14 | 0.96 | | | |
| Seeking Environmental Support Subscale | Yes | 141 | 3.36 | 0.96 | -0.14 | 210 | 0.89 |
| | No | 71 | 3.38 | 0.68 | | | |

*p<0.05

Based on the results demonstrated in Table 6, it was observed that there was a statistically significant difference (t=2.38, p<0.05) in the scores of the seeking professional support subscale of the Coping

Response Inventory based on the variable of previous football experience, favoring those who had previous football experience (x̄=3.49). However, it was found that there was no statistically significant difference (t=-0.94, p>0.05; t=-0.46, p>0.05; t=-1.48, p>0.05; t=-0.14, p>0.05) in the scores of the problem-solving, positive reappraisal, logical analysis, and seeking environmental support subscales of the Coping Response Inventory based on the variable of previous football experience.

**Table 7.** Comparison of Participants' Scores on the Subscales of the Brief Resilience Scale and Coping Response Inventory According to the Age Variable

| Variable | Age | | n | x̄ | sd | F | p | Significant Difference |
|---|---|---|---|---|---|---|---|---|
| **Brief Resilience Scale** | 21 Years and Below | (A) | 67 | 3.69 | 0.69 | 2.27 | 0.11 | |
| | 22 to 25 Years | (B) | 75 | 3.87 | 0.71 | | | |
| | 26 Years and Above | (C) | 70 | 3.65 | 0.61 | | | |
| | Total | | 212 | 3.74 | 0.68 | | | |
| **Problem-Solving Subscale** | 21 Years and Below | (A) | 67 | 4.38 | 0.51 | 4.41 | **0.01\*** | **A-C** |
| | 22 to 25 Years | (B) | 75 | 4.36 | 0.50 | | | |
| | 26 Years and Above | (C) | 70 | 4.13 | 0.63 | | | |
| | Total | | 212 | 4.29 | 0.56 | | | |
| **Positive Evaluation Subscale** | 21 Years and Below | (A) | 67 | 3.97 | 0.58 | 4.69 | **0.01\*** | **B-C** |
| | 22 to 25 Years | (B) | 75 | 4.18 | 0.49 | | | |
| | 26 Years and Above | (C) | 70 | 3.95 | 0.46 | | | |
| | Total | | 212 | 4.04 | 0.52 | | | |
| **Logical Analysis Subscale** | 21 Years and Below | (A) | 67 | 4.31 | 0.55 | 1.26 | 0.29 | |
| | 22 to 25 Years | (B) | 75 | 4.37 | 0.53 | | | |
| | 26 Years and Above | (C) | 70 | 4.21 | 0.67 | | | |
| | Total | | 212 | 4.30 | 0.58 | | | |
| **Seeking Professional Support Subscale** | 21 Years and Below | (A) | 67 | 3.39 | 0.96 | 7.74 | **0.00\*** | **B-C** |
| | 22 to 25 Years | (B) | 75 | 3.68 | 1.09 | | | |
| | 26 Years and Above | (C) | 70 | 3.02 | 0.91 | | | |
| | Total | | 212 | 3.37 | 1.02 | | | |
| **Seeking Environmental Support Subscale** | 21 Years and Below | (A) | 67 | 3.24 | 0.91 | 0.81 | 0.35 | |
| | 22 to 25 Years | (B) | 75 | 3.44 | 0.79 | | | |
| | 26 Years and Above | (C) | 70 | 3.42 | 0.92 | | | |
| | Total | | 212 | 3.37 | 0.88 | | | |

\*p<0.05

In Table 7, it was discovered that there was a statistically significant difference in the scores of the problem-solving, positive reappraisal, and seeking professional support subscales of the stress Coping Response Inventory among participants based on the age variable (F=4.41, p<0.05; F=4.69, p<0.05; F=7.74, p<0.05). However, it was found that there was no statistically significant difference in the scores of the logical analysis and seeking environmental support subscales of the Brief Resilience Scale and the stress Coping Response Inventory based on the age variable (F=2.27, p>0.05; F=1.26, p>0.05; F=0.81, p>0.05).

Specifically, in the problem-solving subscale of the stress Coping Response Inventory, a statistically significant difference was observed between participants in the "21 and Under" and "26 and Above" age groups. Additionally, in the positive reappraisal and seeking professional support subscales, a statistically significant difference was found between participants in the "22 to 25" and "26 and Above" age groups.

**Table 8**. Comparison of Participants' Scores on Subscales of the Brief Resilience Scale and Coping Response Inventory According to the Variable of Refereeing Years

| Variable | Refereeing Years | | n | x̄ | sd | F | p | Significant Difference |
|---|---|---|---|---|---|---|---|---|
| **Brief Resilience Scale** | 2 Years and Below | (A) | 81 | 3.73 | 0.69 | 0.47 | 0.63 | |
| | 3 to 5 Years | (B) | 71 | 3.80 | 0.77 | | | |
| | 6 Years and Above | (C) | 60 | 3.68 | 0.52 | | | |
| | Total | | 212 | 3.74 | 0.68 | | | |
| **Problem-Solving Subscale** | 2 Years and Below | (A) | 81 | 4.31 | 0.48 | 1.56 | 0.18 | |
| | 3 to 5 Years | (B) | 71 | 4.36 | 0.55 | | | |
| | 6 Years and Above | (C) | 60 | 4.18 | 0.65 | | | |
| | Total | | 212 | 4.29 | 0.56 | | | |
| **Positive Evaluation Subscale** | 2 Years and Below | (A) | 81 | 4.02 | 0.55 | 0.55 | 0.58 | |
| | 3 to 5 Years | (B) | 71 | 4.09 | 0.49 | | | |
| | 6 Years and Above | (C) | 60 | 4.00 | 0.52 | | | |
| | Total | | 212 | 4.04 | 0.52 | | | |
| **Logical Analysis Subscale** | 2 Years and Below | (A) | 81 | 4.32 | 0.58 | 0.81 | 0.45 | |
| | 3 to 5 Years | (B) | 71 | 4.34 | 0.46 | | | |
| | 6 Years and Above | (C) | 60 | 4.22 | 0.71 | | | |
| | Total | | 212 | 4.30 | 0.58 | | | |
| **Seeking Professional Support Subscale** | 2 Years and Below | (A) | 81 | 3.36 | 1.03 | 3.30 | **0.04*** | **B-C** |
| | 3 to 5 Years | (B) | 71 | 3.59 | 0.86 | | | |
| | 6 Years and Above | (C) | 60 | 3.13 | 1.15 | | | |
| | Total | | 212 | 3.37 | 1.02 | | | |
| **Seeking Environmental Support Subscale** | 2 Years and Below | (A) | 81 | 3.45 | 1.01 | 4.89 | **0.01*** | **A-C** **B-C** |
| | 3 to 5 Years | (B) | 71 | 3.52 | 0.75 | | | |
| | 6 Years and Above | (C) | 60 | 3.08 | 0.74 | | | |
| | Total | | 212 | 3.37 | 0.88 | | | |

*p<0.05

In the examination of Table 8, it was discovered that there was a statistically significant difference in the scores of the subscales of the Coping Response Inventory, specifically in the professional support seeking and Seeking Environmental Support Subscales, according to the variable of refereeing years (F=3.30, p<0.05; F=4.89, p<0.05). However, it was found that there was no statistically significant difference in the scores of the problem-solving, positive evaluation, and logical analysis subscales of the Brief Resilience Scale and Coping Response Inventory according to the variable of refereeing years (F=0.47, p>0.05; F=1.56, p>0.05; F=0.55, p>0.05; F=0.81, p>0.05).

In the subscale of seeking professional support in the Coping Response Inventory, it was determined that a statistically significant difference occurred between the participants in the "3-5 Years" and "6 Years and Above" groups. Additionally, in the subscale of seeking environmental support, it was found that a statistically significant difference occurred among the participants in the "2 Years and Below" and "6 Years and Above," as well as between the participants in the "3-5 Years" and "6 Years and Above" groups.

**Table 9.** Relationship between Scores of Brief Resilience Scale and Coping Response Inventory Subscales

| Variables | Problem-Solving Subscale | Positive Evaluation Subscale | Logical Analysis Subscale | Seeking Professional Support Subscale | Seeking Environmental Support Subscale |
|---|---|---|---|---|---|
| **Brief Resilience Scale** | 0.375** | 0.172* | 0.352** | 0.156* | 0.183** |
| n=212. Significance of *p<0.05 - **p< 0.01 | | | | | |

As can be seen in Table 9, it was discovered that there is a positive and very low-level relationship between the scores of the Brief Resilience Scale and the subscale scores of the Coping Response Inventory, specifically positive evaluation (r=0.172: p<0.05), seeking professional support (r=0.156: p<0.05), and seeking environmental support (r=0.183: p<0.01). Furthermore, there is a positive and statistically significant relationship at a low level between the scores of the problem-solving (r=0.375: p<0.01) and logical analysis (r=0.352: p<0.01) subscales.

### Discussion, Conclusion, and Suggestions

The present study revealed that there were no significant differences in the scores of the subscales of the Coping Response Inventory and Brief Resilience Scale based on gender among the participants. This finding aligns with previous research conducted by Çelik in 2018, which also reported no significant difference in overall levels of psychological resilience between male and female athletes. Similarly, Kumar, Singh, and Mitra (2016) found no significant difference in the levels of mental resilience based on gender in their study. Hosseini and Besharat (2010) also reported no statistically significant difference in the levels of psychological resilience between male and female athletes. The lack of significant difference in terms of gender is thought to be due to the strong psychological resilience required for making decisions in refereeing and the equal response given to the atmosphere created on the field.

In the study, it was also determined that there was no statistically significant difference based on the marital status variable. Demir and Kabakçı (2020) concluded that participants' levels of psychological resilience did not differ based on marital status in their research. This finding is similar to our study. It is believed that marital status does not play a role in entering the refereeing profession or in problems experienced in refereeing, hence there is no significant relationship with this aspect of the study. In a study conducted by Kimi and Eshel in 2015, the researchers examined the levels of psychological resilience in athletes and the factors that contribute to it and found that the participating athletes had high average scores of psychological resilience. When the levels of psychological resilience and marital status of athletes were analyzed, it was concluded that married athletes had higher levels of psychological resilience compared to unmarried athletes. This finding differs from our study.

Furthermore, no statistically significant difference was observed in the scores of participants' Brief Resilience Scale and Coping Response Inventory subscales based on the Classification variable. A study conducted by Selvi (2018) found similar results to our study.

When examined based on the variable of football playing status, a significant difference was observed in the seeking professional support subscale of the Coping Response Inventory. However, contrary to our findings, a study conducted by Bar (2016) with secondary school students revealed that participation in sports increased psychological resilience.

In a study conducted by Connaughton, Wadey, Hanton, and Jones in 2008, it was found that athletes with a longer sports history had higher psychological resilience compared to inexperienced athletes or athletes with shorter training history. The study in question supports the results of our study in terms of the subscale of the duration of refereeing.

In the current study, it is observed that there is a statistically significant difference in the scores of the problem-solving, positive reappraisal, and Seeking Professional Support Subscales of the Coping Response Inventory based on the age variable. However, it is observed that there is no statistically significant difference in the scores of the logical analysis and seeking environmental support subscales of the Brief Resilience Scale and Coping Response Inventory based on the age variable. A study by Çelik et al. (2019) differs from our study in this aspect, as they found a negative significant relationship between participants' age and their level of psychological resilience. Therefore, it is stated that psychological resilience decreases as age increases.

Additionally, it was determined that there was a statistically significant difference in the scores of the seeking professional support and seeking environmental support subscales of the Coping Response Inventory based on the years of refereeing experience variable. However, it is observed that there is no statistically significant difference in the scores of the positive reappraisal, problem-solving, and logical analysis subscales of the Brief Resilience Scale and Coping Response Inventory based on the years of refereeing experience variable. Similar findings to our study were found in the study conducted by Selvi (2018), where it was concluded that there was no difference in the psychological resilience of football referees based on the number of years they have been refereeing. On the other hand, Demir (2018) found no significant difference in decision-making self-esteem (confidence) and decision-making style among participating football referees based on their years of refereeing experience. Based on this result, it is suggested that as the experience and duration of refereeing increase, the number of challenging matches also increases, leading referees to seek professional support and social support.

According to the results obtained from our study, it is observed that referees generally have sufficient psychological resilience but require professional and social support. This need is thought to arise from the negative manifestations, high responsibility, conflicting situations, and stress experienced by referees in the field. On the other hand, it is assumed that the experienced threats and pressure trigger this need. In addition to making incorrect or wrong decisions, "conflicting decisions" are considered a stress factor for referees. Making a controversial decision indicates that the referee is not fully confident about the situation or the incident at hand. The justification for a controversial decision may stem from the referee's lack of self-confidence. Referee superiors or experienced referees advise newcomers to have self-confidence in their decisions (Sayıner, Ekmekçi, Sözen, & Anshel, 1993). Being a successful referee can be detrimental to mental health due to the pressure from club officials, players, and spectators to avoid making mistakes. Throughout a referee's career, they may be exposed to numerous stressors that can cause a mental disorder. This high level of pressure may stem from factors such as being scrutinized by the media. Additionally, it is believed that many elite referees do not understand the importance of mental health and how to properly improve or maintain it. Therefore, they may be prone to mental health issues and may not perform successfully. Referees are there for physical health, mental well-being, social competence, emotional development, and achievement. This means that the referee is strong in all aspects of performance (i.e., physical, tactical, technical, and mental) to meet the demands placed on them in sports and life, has access to resources, and can thrive in a pressured environment (within sports) and overall development. As a result, if a referee maximizes their performance by showcasing their skills but has low mental well-being, the process of success becomes unsustainable. Within this framework, it is known that the Turkish Football Federation provides professional psychological support to top-tier referees. Accordingly, it is believed that implementing this support in lower leagues would be beneficial for referee development.

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