

## Examining the relationship between the decision-making styles of basketball referees and their mental well-being

### Examinando la relación entre los estilos de toma de decisiones de los árbitros de baloncesto y su bienestar mental

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**Abstract.** In this study, the influence of mental well-being on the decision-making styles of basketball referees was examined. This descriptive study was conducted using a screening model. Active field referees within the Turkish Basketball Federation for the 2023-2024 season were included in the study. Due to the ongoing basketball season, the sample was formed using a convenience sampling method. Of the referees participating in the study, 86.4% (n: 342) were male and 13.6% (n: 54) were female. Among these referees, 7.6% were Class A, 14.6% were Class B, 46.7% were Class C, and 31.1% were local referees. The average age of the participating referees was 27.85, with an average refereeing experience of 7.77 years. For data collection, a personal information form, the "Melbourne Decision Making Scale" adapted to Turkish by Deniz (2004), and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) developed by Keldal (2015), were utilized. Data analysis involved using t-tests for pairwise comparisons, Pearson's correlation coefficient for determining relationships between variables, and multiple linear regression. The study found no significant difference between referees' genders regarding decision-making styles and mental well-being. A positive and significant relationship was found between referees' age and experience with self-respect in decision-making and mental well-being. A negative relationship was observed between the referees' age and experience with buck-pasing, procrastination, and hypervigilance. There was a positive and significant relationship between basketball referees' levels of mental well-being, self-respect, and vigilant. A negative and significant relationship was found between mental well-being and avoidant, procrastinating, and panic decision-making styles. This suggests a strong relationship between mental well-being and decision-making styles.

**Key Words:** Referee, Basketball, Decision Making, Mental Well-being

**Resumen.** En este estudio se examinó la influencia del bienestar mental en los estilos de toma de decisiones de los árbitros de baloncesto. Este estudio descriptivo se llevó a cabo utilizando un modelo de cribado. Se incluyeron en el estudio árbitros de campo activos dentro de la Federación Turca de Baloncesto para la temporada 2023-2024. Debido a la temporada de baloncesto en curso, la muestra se formó utilizando un método de muestreo por conveniencia. De los árbitros que participaron en el estudio, el 86.4% (n: 342) eran hombres y el 13.6% (n: 54) mujeres. Entre estos árbitros, el 7.6% eran de Clase A, el 14.6% de Clase B, el 46.7% de Clase C y el 31.1% árbitros locales. La edad promedio de los árbitros participantes fue de 27.85 años, con una experiencia promedio de 7.77 años en el arbitraje. Para la recolección de datos, se utilizó un formulario de información personal, la "Escala de Toma de Decisiones de Melbourne" adaptada al turco por Deniz (2004) y la Escala de Bienestar Mental de Warwick-Edinburgh (WEMWBS) desarrollada por Keldal (2015). El análisis de datos incluyó el uso de pruebas t para comparaciones por pares, el coeficiente de correlación de Pearson para determinar las relaciones entre variables y la regresión lineal múltiple. El estudio no encontró diferencias significativas entre los géneros de los árbitros con respecto a los estilos de toma de decisiones y el bienestar mental. Se encontró una relación positiva y significativa entre la edad y la experiencia de los árbitros con el autorespeto en la toma de decisiones y el bienestar mental. Se observó una relación negativa entre la edad y la experiencia de los árbitros con la evitación, la procrastinación y el pánico en la toma de decisiones. Hubo una relación positiva y significativa entre los niveles de bienestar mental de los árbitros de baloncesto, el autorespeto y la toma de decisiones vigilante. Se encontró una relación negativa y significativa entre el bienestar mental y los estilos de toma de decisiones evitativos, procrastinadores y de pánico. Esto sugiere una fuerte relación entre el bienestar mental y los estilos de toma de decisiones.

**Palabras clave:** Árbitro, Baloncesto, Toma de Decisiones, Bienestar Mental

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### Introduction

Referees undertake a pivotal role during competitions, operating under considerable pressure and striving to carry out their duties effectively and flawlessly. This role demands the integrated use of various competencies. For instance, referees evaluate the actions that unfold during the match, make rapid decisions, manage the game, communicate accurately, pay attention to the different aspects of the game, maintain order, and resolve disputes, all while under adverse conditions and pressure (Tuero et al., 2002; Karaçam & Pular, 2016; Karaçam & Pular, 2017; Leilane da Silva et al., 2023). Additionally, referees, especially in popular sports, may be exposed to the pressure of spectators,

players, and clubs before, during, and after the match. Thus, despite their role's challenges and exhaustiveness, referees must display a strong character and perform successfully (Estrada Fernandez et al., 2022; Karaçam et al., 2023; Guillén & Feltz, 2011). Ensuring that sports competitions are concluded within the framework of official rules and by objective decisions falls directly under the responsibility of referees. Therefore, referees, who are responsible for managing the competition correctly from all aspects, play a significant role in the success of individuals or teams (Durna, 1997; Yetim, 2010; Kırtape & Çetinkaya, 2018; Lugo Virguez et al., 2024). The ability of referees to make accurate and critical decisions impartially and fearlessly is considered of utmost importance due to their position

(Öztürk Çelik, 2020; Yerebatan, 2019). Moreover, quick and accurate decision-making is regarded as one of the most crucial aspects of referee performance (Guillén & Feltz, 2011). It is noted that having many options or the situation's complexity can lead to stress when making significant decisions, which may result in adverse outcomes. The importance of a decision, its complexity, or the presence of many alternatives can lead to a stressful decision-making process and potentially harmful results, highlighting the influence of decision-making styles in such scenarios (Filipe, Alvarez, Roberto, & Ferreira, 2020; Shiloh, Koren, & Zakay, 2001).

When making a critical decision, a referee follows a unique path or tactic according to their experiences and the critical nature of the situation (Deniz, 2004). In the decision-making process, it is believed that individual differences and variations related to the sport can influence referees' decision-making processes. In addition to this, considering the general characteristics of basketball competitions, which are anaerobic sports based on aerobic efforts combining periods of high-intensity activity with low-intensity movements, requires the ability to make fast and effective decisions (Delextrat, 2009; Alemdaroğlu, 2011; Kırtepe & Çetinkaya, 2018). Despite the difficulty and exhaustiveness of their roles, referees must display a strong character and demonstrate successful performance. Therefore, it is critical to understand the decision-making styles of referees in crucial positions and the variables that affect these styles. Some studies have concluded that certain positive beliefs held by referees can positively influence their performance (Guillén & Feltz, 2011; Myers et al., 2012; Karaçam & Pulur, 2016; Karaçam & Pulur, 2017; Karaçam & Pulur, 2018; Karaçam & Adigüzel, 2019; karaçam et al., 2024). The current study addresses the positive psychology variable of mental well-being, which influences referees' performance and decision-making styles.

Mental well-being encompasses interpersonal aspects, such as understanding others and forming solid relationships with peers, as well as interactive components, like engaging in community activities and hobbies (Beiser, 1974). Self-esteem and life satisfaction are critical for good mental health and are closely linked to success and happiness. Individuals with good mental health exhibit self-efficacy, work towards their goals, and can positively influence those around them (Beiser, 1974; Thoits & Link, 2016). They find meaning and purpose in life, effectively manage life's ups and downs, and are resilient and equipped with skills and resources to handle complex situations (Trenoweth, 2017). According to Stewart-Brown (2013), mental well-being is more than just happiness; it involves both the body and mind and includes living in a way that benefits oneself and others. Feeling at peace, joyful, confident, and connected to the world are all aspects of good mental health. A sense of self-esteem and confidence arises from the belief in one's capabilities (Stewart-Brown, 2013).

Research has shown that individuals with high levels of mental well-being have better psychological and physical

health and a higher quality of life (Keyes, 2002; Keyes, Dhingra, & Simoes, 2010; Karaçam et al., 2023). Additionally, individuals with high mental well-being have been found to possess greater creativity and more robust immune systems, form better relationships with others, and exhibit higher productivity in the workplace (Lyubomirsky, King, & Diener, 2005; Monterrosa Quintero et al., 2023; Ntoli, Theodorou & Alexandris, 2024). Furthermore, individuals with high levels of mental well-being also have better decision-making abilities (Bavol'ar et al., 2015; Tekkurşun et al., 2018; Paez-Gallego et al., 2020).

Building on this premise, basketball referees with high levels of mental well-being may more easily overcome internal or external barriers and adversities, leading to accurate decision-making. This capability is expected to enable referees to exhibit high-level performance. In this context, the present study considers mental well-being, along with certain demographic variables, as potential influences on the decision-making styles of basketball referees.

## Method

### Model

This descriptive research, which adopts a relational screening model to examine the effect of mental well-being on the decision-making styles of basketball referees in terms of various variables, is an approach that aims to describe a past or present condition as it exists. Screening models are research approaches that aim to depict an event, individual, or object in its own conditions and as it is (Fraenkel & Wallen, 2009).

### Study Group

The study comprises referees actively officiating in the field under the Turkish Basketball Federation during the 2023-2024 season. Due to the ongoing basketball season, the study's sample was created using a convenience sampling method. Approximately 10 percent of the active referees within the Turkish Basketball Federation are women. For this reason, the number of women referees in the research group is lower than that of men. It was observed that 86.4% of the referees participating in the study were male, and 13.6% were female. Among the participating referees, 7.6% held a Class A level, 14.6% Class B, 46.7% Class C, and 31.1% were local referees. The average age of the referees was 27.85 years, and they had an average officiating experience of 7.77 years. Participants were informed about the study during the data collection phase, and their consent was obtained through a consent form before data collection. Due to the ongoing season, scales were administered to the referees using an online survey

### Data Collection Tools

In the study, data collection tools included a personal information form, the "Melbourne Decision Making Questionnaire" adapted to Turkish by Deniz (2004), and the Turkish version of the "Warwick-Edinburgh Mental

Well-being Scale (WEMWBS)” adapted by Keldal (2015).

The *Warwick-Edinburgh Mental Well-Being Scale* (WEMWBS) has been adapted for Turkish use by Keldal (2015). This 14-item scale encompasses both psychological well-being and subjective well-being. It is a 5-point Likert-type scale, with possible scores ranging from a minimum of 14 to a maximum of 70. The scale's internal consistency reliability has been found to be 0.89 using Cronbach's Alpha coefficient. The test-retest reliability correlation coefficient of the scale has been reported as 0.83 (Keldal, 2015).

*Melbourne decision-making questionnaire*, developed by Mann et al. (1998) and adapted to Turkish by Deniz (2004). In the first part of the scale, which consists of two parts, 6 items aim to measure self-esteem in decision-making (self-confidence) and 22 items in the second part aim to measure decision-making styles. Scoring the items of the scale with 4 sub-dimensions including vigilance (6 items), buck-passing (6 items), procrastination (5 items) and hypervigilance (5 items) decision-making style, are True for me = 2, Sometimes True = 1, Not True for me = 0. Deniz (2004) concluded that the reliability coefficients were between  $r = .68$  and  $r = .87$ , in addition, he conducted validity studies using the content validity and convergent and discriminant validity method.

### Data Analysis

In the data analysis, the dataset was initially examined for incorrect values, outliers, normality, and multicollinearity. It was observed that the data were correctly entered. Data analysis was conducted using SPSS version 25. The Shapiro-Wilk Test was used to determine the normality of the distribution, and the data were found to be normally distributed ( $p > .05$ ). A t-test was utilized for comparing the mental well-being and decision-making styles of referees by gender. The Pearson product-moment correlation coefficient was used to identify the relationship between referees' age and tenure and their mental well-being and decision-making styles. Multiple linear regression analysis was employed to predict the influence of mental well-being on the decision-making styles of basketball referees. The level of significance was set at  $p < .05$ .

### Results

Table 1. Participant Demographic Characteristics

| Variable                   | Factor | Frequency | %    |
|----------------------------|--------|-----------|------|
| Gender                     | Male   | 342       | 86.4 |
|                            | Female | 54        | 13.6 |
|                            | Total  | 396       | 100  |
| Officiating Classification | A      | 30        | 7.6  |
|                            | B      | 58        | 14.6 |
|                            | C      | 185       | 46.7 |
|                            | Total  | 123       | 31.1 |
|                            | Total  | 396       | 100  |

Table 1 indicates that among the referees participating in the study, 86.4% were male, and 13.6% were female. Regarding the officiating classification, 7.6% of the referees are in Class A, 14.6% in Class B, 46.7% in Class C, and

31.1% are local referees.

Table 2. T-test Results for Mental Well-Being Levels of Basketball Referees by Gender

| Variables         | Male (n = 342) | Female (n = 54) | t    | df  | p   |
|-------------------|----------------|-----------------|------|-----|-----|
| Mental Well-Being | 63.76          | 64.74           | 1.13 | 394 | .25 |
| Self-confidence   | 8.02           | 7.88            | .73  | 394 | .46 |
| Vigilance         | 9.60           | 8.96            | 3.34 | 394 | .07 |
| Buck-passing      | 1.81           | 1.79            | .06  | 394 | .94 |
| Procrastination   | 1.19           | 1.12            | .29  | 394 | .77 |
| Hypervigilance    | 1.02           | 1.31            | 1.16 | 394 | .17 |

\* $p < .05$

Upon examining Table 2, it can be observed that there is no significant difference between the genders of referees in terms of Mental Well-Being, Self-confidence in decision-making, Buck-passing, Procrastination, and Hypervigilance levels ( $p > .05$ ). This can be interpreted to suggest that gender is not an influential variable in referees' Mental Well-Being, decision-making Self-confidence, Buck-passing, Procrastination, and Hypervigilance levels. However, it is noted that in the Vigilance subscale, male referees scored significantly higher than female referees ( $p < .05$ ).

Table 3. Correlation Results Between Mental Well-Being, Decision-Making Styles, Age, and Years of Officiating (Tenure) of Basketball Referees

| Variables         | n   | Age    | Years of Officiating |
|-------------------|-----|--------|----------------------|
| Mental Well-Being | 396 | .14**  | .11*                 |
| Self-confidence   | 396 | .17**  | .16**                |
| Vigilance         | 396 | .08    | .07                  |
| Buck-passing      | 396 | -.25** | -.25**               |
| Procrastination   | 396 | -.10*  | -.11*                |
| Hypervigilance    | 396 | -.19** | -.17**               |

\*\* $p < .01$ , \* $p < .05$

Upon examining Table 3, a positive and significant relationship is observed between the levels of Mental Well-Being and Self-confidence with age and years of officiating (tenure) (\*\* $p < .01$ , \* $p < .05$ ). This suggests that as referees' age and experience increase, so do their Mental Well-Being and decision-making Self-confidence. A negative and significant relationship is found between Buck-passing, Procrastination, and Hypervigilance levels with age and years of officiating (\*\* $p < .01$ , \* $p < .05$ ). This could be interpreted that with increased age and experience, referees exhibit less Buck-passing, Procrastination, and Hypervigilance. No significant relationship was found between Vigilance decision-making levels and age or tenure ( $p > .05$ ). This suggests that referees maintain a consistent level of Vigilance regardless of their age or years of experience.

When examining Table 4, a positive and significant relationship is found between the Mental Well-Being levels and Self-confidence as well as Vigilance in decision-making among basketball referees. Additionally, there is a significant negative relationship between Mental Well-Being and Buck-passing, Procrastination, and Hypervigilance (\*\* $p < .01$ , \* $p < .05$ ).

Table 4. Relationship Between Mental Well-Being Levels and Decision-Making Styles of Basketball Referees

| Variables | n | Self-confidence | Vigilance | Buck-passing | Procrastination | Hypervigilance |
|-----------|---|-----------------|-----------|--------------|-----------------|----------------|
|-----------|---|-----------------|-----------|--------------|-----------------|----------------|

| Variable        | B      | Sd B  | $\beta$ | t      | p    |
|-----------------|--------|-------|---------|--------|------|
| Constant        | 59.166 | 2.254 |         | 26.254 | .00* |
| Self-confidence | .632   | .238  | .136    | 2.656  | .00* |
| Vigilance       | .210   | .127  | .076    | 1.648  | .10  |
| Buck-passing    | -.620  | .195  | -.181   | -3.186 | .00* |
| Procrastination | -.712  | .226  | -.182   | -3.148 | .00* |
| Hypervigilance  | -.357  | .242  | -.089   | -1.473 | .14  |

F = 58.151, p = .000; R = .56. R<sup>2</sup> = .32

Upon examining Table 5, it can be seen that the decision-making styles of Self-confidence, Buck-passing, and Procrastination significantly predict Mental Well-Being among basketball referees (R = .56, p < .05). These variables together explain 32% of the variance in Mental Well-Being. However, it appears that the styles of Buck-passing and Hypervigilance do not significantly predict Mental Well-Being (R = .56, p > .05). Therefore, it can be said that Buck-passing and Hypervigilance are not significant predictors of Mental Well-Being.

## Discussion

Referees are of vital importance in all sports organizations due to their direct impact on the game through their decisions. The decision-making skills of referees are crucial in sports and other areas. Fair and impartial decisions enhance credibility and prevent conflicts. They are necessary for the order of sporting events and the correct application of rules. In this context, the study examines Mental Well-Being, thought to influence referees' decision-making styles, in conjunction with certain demographic variables.

No significant difference was found between the levels of Mental Well-Being and the gender of basketball referees, suggesting that gender is not a significant variable in their Mental Well-Being. This finding is consistent with the results of research conducted by Karaçam et al. (2020a), Karaçam et al. (2020b) and Karaçam et al. (2023) on referees. Thus, the current study corroborates similar findings in the literature regarding studies on referees.

No significant differences were observed between the genders of referees in the levels of Self-confidence, Vigilance, Buck-passing, Procrastination, and Hypervigilance in decision-making processes. This finding indicates that gender does not have a determining effect on referees' decision-making abilities. The research results show that both female and male referees possess similar levels of Self-confidence and exhibit the same careful approach in their decision-making processes. Furthermore, it has been determined that both genders exhibit low levels of Buck-passing, Procrastination, and Hypervigilance and display similar attitudes in decision-making processes. This highlights that gender is not a factor affecting decision-making abilities in the refereeing profession. These findings emphasize the importance of gender equality in the field of

refereeing and objectivity in decision-making processes. In the literature, Açııcı and Çebi (2020) have found no significant differences based on gender in their study investigating decision-making styles of volleyball referees. Similar results are found in the literature from studies conducted with referees in different sports, paralleling our findings (Bahadır & Certel, 2013; Dikmen, 2022; Öztürk Çelik, 2020; Selvi & Karagün, 2017; Alper et al., 2023).

A positive and significant relationship is observed between referees' Mental Well-Being levels and their age. This could be interpreted as an indication that Mental Well-Being levels increase with age. There is also a positive and significant relationship between referees' Mental Well-Being levels and their years of officiating. This suggests that referees' Mental Well-Being levels improve with increased years of officiating. Karaçam et al. (2020a), Karaçam et al. (2020b), and Karaçam et al. (2023) have found that age and experience have a positive effect on Mental Well-Being, which supports the findings of this current research. Based on other studies, the age and experience in officiating are positive factors for referees' Mental Well-Being. A review of other studies in the literature reveals supportive studies (Görener et al., 2017; Öner, 2019) as well as those offering contrasting views (Demir, 2018; Üstün, 2019). The differing results in the literature may stem from the unique characteristics of the study groups involved.

The decision-making processes of basketball referees demonstrate a positive relationship between their levels of Self-confidence and both age and years of officiating (tenure). This indicates that as referees age and gain experience, their self-confidence and sense of self-efficacy increase. Additionally, a negative relationship has been found between referees' levels of Buck-passing, Procrastination, and Hypervigilance and their age and years of officiating, suggesting that with greater age and experience, referees exhibit less Buck-passing, Procrastination, and panicky responses, displaying a more stable attitude in decision-making processes. However, no significant relationship was found between the level of Vigilance and age or tenure, indicating that referees consistently exhibit a careful approach in decision-making regardless of their age and experience. In conclusion, age and experience are significant factors affecting referees' decision-making abilities, and the conscious management of these factors can facilitate more effective decision-making. In the literature, there are studies that support (Uzunoğlu, 2008; Kirath, 2015) and those that do not support (Alver, 2003; Vural, 2013; Açııcı, S. & Çebi, M., 2020; Dikmen, 2022; Alper et al., 2023) these findings. The differing results may be attributed to the unique characteristics of the sample groups studied.

A positive and significant relationship has been found between basketball referees' levels of Mental Well-Being and their Self-confidence and Vigilance. There was also a significant negative relationship observed between Mental Well-Being and Buck-passing, Procrastination, and Hypervigilance. These findings suggest a strong relationship

between Mental Well-Being and decision-making styles. Moreover, it has been observed that Self-confidence, Buck-passing, and Procrastination, as decision-making styles of basketball referees, collectively influence their Mental Well-Being. However, the styles of Buck-passing and Hypervigilance do not appear to influence Mental Well-Being significantly. Thus, it can be said that Buck-passing and Hypervigilance are not significant predictors of Mental Well-Being. Studies by Bavořár, J., & Orosová, O. (2015) and Tekkurşun et al. (2018) have reached conclusions parallel to this study, indicating that Mental Well-Being affects decision-making styles. In this regard, the study is consistent with the existing literature.

### Limitations

This study describes the positive attitudes of basketball referees towards Decision-Making Styles and Mental Well-Being at a perceptual level. In addition, we examine the demographic variables that may impact these attitudes, including gender, age, seniority and refereeing level. We only included referees authorised by the basketball federation in our research. As the referees were busy with matches, we administered the questionnaire through online forms for those we could not meet in person.

### Conclusion

In conclusion, it was determined that there is no significant difference between the levels of Mental Well-Being and gender among basketball referees. Similarly, no significant differences were observed in the levels of Self-confidence, Vigilance, Buck-passing, Procrastination, and Hypervigilance in their decision-making processes. The research has revealed a positive and significant relationship between referees' Mental Well-Being levels and their age. It has been found that as age and experience increase, referees' self-confidence and sense of self-efficacy also increase. Furthermore, with greater age and experience, referees show decreased levels of Buck-passing, Procrastination, and Hypervigilance, indicating a more robust attitude in decision-making processes. A positive and significant relationship was also found between referees' Mental Well-Being levels and their Self-confidence and Vigilance in decision-making. This suggests a strong relationship between Mental Well-Being and decision-making styles.

In this context, to enhance the performance of basketball referees, training programs aimed at strengthening Self-confidence and Vigilance skills based on their age and experience can be organized. At the same time, support programs incorporating stress management and positive thinking techniques can be developed to bolster the Mental Well-Being of referees.

### References

- Açıci, S. (2020). Ulusal ve Uluslararası Voleybol Hakemlerinin Karar Verme Stilllerinin İncelenmesi. *Journal Of International Social Research*, 13(70), 1212–1222. <https://doi.org/10.17719/Jisr.2020.4169>
- Alemdaroğlu, B.U. (2011). Basketbolda Farklı Oyuncu Sayılarıyla Oynanan Yarı Saha ve Tam Saha Oyunlarına Verilen Fizyolojik Cevapların Karşılaştırılması. Doktora Tezi, Ankara Üniversitesi, Beden Eğitimi ve Spor Anabilim Dalı, Ankara.
- Alper, R., Karagün, E., & Görün, L. (2023). Düzce İlinde Görev Yapan Hakemlerin Karar Verme Stilllerinin İncelenmesi. *Spor Ve Rekreasyon Araştırmaları Dergisi*, 5(2), 27–41. <https://doi.org/10.52272/Srad.1344671>
- Alver, B. (2003). Çeşitli kamu kurum ve kuruluşlarında çalışanların empatik becerileri, karar stratejileri ve psikolojik belirtileri arasındaki ilişkiler. Doktora Tezi, Atatürk Üniversitesi Sosyal Bilimler Enstitüsü, Erzurum.
- Bahadır, Z., & Certel, Z. (2013). Evaluation of life satisfaction, self-esteem in decision-making and decision-making styles of weightlifting referees. *Science, Movement and Health*, 13(2), 582-587.
- Bavořár, J., & Orosová, O. (2015). Decision-making styles and their associations with decision-making competencies and mental health. *Judgment and Decision Making*, 10(1), 115–122. <https://doi.org/10.1017/s1930297500003223>
- Beiser, M. (1974). Components and correlates of mental well-being. *Journal of Health and Social Behavior*, 15(4), 320–327. <https://doi.org/10.2307/2137092>
- Delextrat, A., Cohen, D. (2009) Strength, power, speed, and agility of women basketball players according to playing position. *Journal of Strength and Conditioning Research*. 23(7): 1974–1981. doi: 10.1519/JSC.0b013e3181b86a7e
- Demir, G. T., Namlı, S., Hazar, Z., Türkeli, A., & Cicioğlu, H. İ. (2018). Bireysel ve takım sporcularının karar verme stilleri ve Mental Well-Being düzeyleri. *CBÜ Beden Eğitimi ve Spor Bilimleri Dergisi*, 13(1), 176-191.
- Deniz, M. E., (2004). Investigation of the Relation between Decision Self-Esteem, Decision Making Style and Problem Solving Skill of the University Students. *Eurasian Journal of Educational Research*, vol.4, no.15, 23-35.
- Dikmen, A. (2022). Farklı Branşlarda Görev Yapan Takım Sporcu Hakemlerinin Karar Verme Stilllerinin İncelenmesi. Yüksek Lisans Tezi, Ondokuz Mayıs Üniversitesi, Lisansüstü Eğitim Enstitüsü. Samsun.
- Dikmen, A. (2022). Farklı Branşlarda Görev Yapan Takım Sporcu Hakemlerinin Karar Verme Stilllerinin İncelenmesi. Yüksek Lisans Tezi, Ondokuz Mayıs Üniversitesi, Lisansüstü Eğitim Enstitüsü. Samsun.
- Durna E (1997) Türkiye’de Futbol ve Hakem, Yıldızlar Matbaacılık, İstanbul.

- Estrada Fernandez, X., Priego-Ojeda, M., Ros Morente, A., & Alsinet Mora, C. (2022). Relación entre inteligencia emocional, burnout y percepción subjetiva de salud en árbitros españoles de fútbol (Relationship between emotional intelligence, burnout and health perception in a sample of football Spanish referees). *Retos*, 44, 960-975. <https://doi.org/10.47197/retos.v44i0.91642>
- Filipe, L., Alvarez, M. J., Roberto, M. S., & Ferreira, J. A. (2020). Validation and invariance across age and gender for the Melbourne Decision-Making Questionnaire in a sample of Portuguese adults. *Judgment and Decision Making*, 15(1), 135-148. <https://doi.org/10.1017/S1930297500006951>
- Fraenkel, J.R. & Wallen, N.E. (2009). *How to Design and Evaluate Research in Education*, seventh ed., McGrawHill, New York.
- Gönener, A., Öztürk, A., & Yılmaz, O. (2017). Kocaeli üniversitesi spor bilimleri fakültesi öğrencilerinin mental (psikolojik) iyi olma düzeylerinin mutluluk düzeylerine etkisi. *Sportif bakış: Spor ve eğitim bilimleri dergisi*, 4(1), 44-55.
- Guillén, F., & Feltz, D. L. (2011). A conceptual model of referee efficacy. *Frontiers in psychology*, 2, 25. <https://doi.org/10.3389/fpsyg.2011.00025>
- Karaçam A. & Pulur A. (2016). Identification the Relation between Active Basketball Classification Referees' Empathetic Tendencies and Their Problem Solving Abilities. *Universal Journal of Educational Research*, 4, 1912 - 1917. DOI: 10.13189/ujer.2016.040822
- Karacam, A., & Adiguzel, N. S. (2019). Examining the Relationship between Referee Performance and Self-Efficacy. *European Journal of Educational Research*, 8(1), 377-382. <https://doi.org/10.12973/eu-jer.8.1.377>
- Karaçam, A., & Pulur, A. (2018). Basketbol ve Futbol Hakemlerinin Mesleki Haz Düzeylerinin Bazı Demografik Değişkenler Açısından İncelenmesi. *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi*, 16(4), 288-295. DOI: 10.1501/Sporm\_00000000411
- Karaçam, A., Orhan, B. E., Özdemir, A. S., Canlı, U., Astuti, Y. & Mario, D. T., (2024). Exploring the relationship between zest for work and self-efficacy in referee career retention. *Journal of Physical Education and Sport (JPES)*, 24(7), 1659-1666., Doi: 10.7752/jpes.2024.07186
- Karaçam, A., Orhan, B. E., Özdemir, A. S., Sabuncu, A. A., ve Mereuță, C. (2023). Examination of the relationship between basketball referee's mental well-being and emotional regulation levels. *Heliyon*, 9(6). <https://doi.org/10.1016/j.heliyon.2023.e16768>
- Karaçam, A., Pulur, A. & Adıgüzel, N.S. (2020a). Hakem Performansında Mental İyi Oluş Basketbol Hakemleri Örneği. III. Uluslararası Beden Eğitimi, Spor, Rekreasyon ve Dans Kongresi (Özet Bildiri/Sözlü Sunum).
- Karaçam, A., Sivrikaya, K. & Uca, M. (2020b). Basketbol Hakemlerinin Mental İyi Oluş Düzeylerinin İncelenmesi. III. Uluslararası Beden Eğitimi, Spor, Rekreasyon ve Dans Kongresi (Özet Bildiri/Sözlü Sunum).
- Karacam. A. & Pulur A. (2017). Examining the relationship between referee self-efficacy and general self-efficacy levels of basketball referees in terms of certain variables. *Journal of Education and Training Studies*. 5(8). 37-45 doi:10.11114/jets.v5i8.2450
- Keldal, G. (2015). Warwick-Edinburgh Mental Well-Being ölçeği'nin Türkçe formu: Geçerlik ve güvenilirlik çalışması. *The Journal of Happiness & Well-Being*, 3(1), 103-115.
- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of health and social behavior*, 207-222. <https://doi.org/10.2307/3090197>
- Keyes, C. L., Dhingra, S. S., & Simoes, E. J. (2010). Change in level of positive mental health as a predictor of future risk of mental illness. *American journal of public health*, 100(12), 2366-2371. <https://doi.org/10.2105/AJPH.2010.192245>
- Kıratlı, E. (2015). Tenis hakemlerinin karar verme stilleri ve empatik eğitim düzeylerinin karşılaştırılması olarak değerlendirilmesi. Doktora Tezi, Marmara Üniversitesi Sağlık Bilimler Enstitüsü, İstanbul.
- Kırtepe, A., & Çetinkaya, T. (2018). Farklı Branştaki Hakemlerin Karar Verme Stilllerinin Bazı Değişkenler Açısından İncelenmesi. *Electronic Turkish Studies*, 13(10).
- Leilane da Silva, M., Barbosa Filho, V. C., de Lima e Silva, L., Moreira Nunes, R. de A., Preciado, M., Vieira de Andrade Barreira, D. B., & Gomes Campaniço, J. M. (2023). Árbitro asistente de vídeo en el fútbol: una revisión del alcance (Video Assistant Referee in soccer: A Scoping Review). *Retos*, 50, 1163-1171. <https://doi.org/10.47197/retos.v50.95409>
- Lugo Virguez, I. R., Silveira Pérez, Y., Castellanos Montiel, A. G., & Sanabria Navarro, J. R. (2024). Toma de decisiones sobre el talento deportivo para el crecimiento económico endógeno: Talentos Colombia (Decision-making on sports talent for endogenous economic growth: Talents Colombia). *Retos*, 51, 1174-1184. <https://doi.org/10.47197/retos.v51.100740>
- Lyubomirsky, S., King, L., & Diener, E. (2005). The Benefits of Frequent Positive Affect: Does Happiness Lead to Success? *Psychological Bulletin*, 131(6), 803-855. <https://doi.org/10.1037/0033-2909.131.6.803>
- Mann, L, Radford, M, Burnett, P, Ford, S, Bond, M, Leung, K, Nakamura, H, Vaughan, G, & Yang, KS (1998). *Cross-cultural differences in self-reported decision-making style and confidence*. *International Journal of Psychology* 33 (5) 325-335. <https://doi.org/10.1080/002075998400213>
- Monterrosa Quintero, A., De la Rosa, A., Báez San Martín, E., Fuentes García, J. P., Poblete

- Valderrama, F. ., Setiawan, Edi., & Ojeda Aravena, A. . (2023). Impacto de los factores sociales y físicos en el bienestar psicológico bajo el confinamiento de covid-19 en atletas de taekwondo: un estudio transversal (Impact of social and physical factors on psychological well-being under covid-19 lockdown in taekwondo athletes: A cross-sectional study). *Retos*, 50, 364–369. <https://doi.org/10.47197/retos.v50.99302>
- Myers, N. D., Feltz, D. L., Guillén, F., & Dithurbide, L. (2012). Development of, and initial validity evidence for, the Referee Self-Efficacy Scale: A multistudy report. *Journal of Sport and Exercise Psychology*, 34(6), 737-765. DOI: <https://doi.org/10.1123/jsep.34.6.737>
- Ntovoli, A., Theodorou, S. ., & Alexandris, K. (2024). La relación entre la experiencia de un evento deportivo y el bienestar psicológico: el caso de una “Maratón de Vela” (The relationship between sport event experience and psychological well-being: the case of a “Sailing Marathon”). *Retos*, 57, 484–493. <https://doi.org/10.47197/retos.v57.105983>
- Öner, Ç. (2019). Egzersiz katılımcılarının temel psikolojik ihtiyaçları ve Mental Well-Beinglerinin incelenmesi. *Akdeniz Spor Bilimleri Dergisi*, 2(2), 159-174.
- Öztürk Çelik, D. (2020). Farklı Spor Dallarında Görev Yapan Hakemlerin Karar Verme Stilllerinin İncelenmesi. *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 5(4), 385-398. <https://doi.org/10.31680/gaunjs.776473>
- Paez-Gallego, J., Gallardo-López, J. A., Lopez-Noguero, F., & Rodrigo-Moriche, M. P. (2020). Analysis of the relationship between psychological well-being and decision making in adolescent students. *Frontiers in Psychology*, 11, 1195. <https://doi.org/10.3389/fpsyg.2020.01195>
- Selvi, S., & Karagün, E. (2017). An analysis of decision making strategies of Kocaeli region football referees. In SHS Web of Conferences (Vol. 37, p. 01043). EDP Sciences
- Shiloh, S., Koren, S., & Zakay, D. (2001). Individual differences in compensatory decision-making style and need for closure as correlates of subjective decision complexity and difficulty. *Personality and Individual Differences*, 30(4), 699-710. [https://doi.org/10.1016/S0191-8869\(00\)00073-8](https://doi.org/10.1016/S0191-8869(00)00073-8)
- Stewart-Brown, S. (2013). The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS): Performance in Different Cultural and Geographical Groups. In: Keyes, C. (eds) *Mental Well-Being*. Springer, Dordrecht. [https://doi.org/10.1007/978-94-007-5195-8\\_7](https://doi.org/10.1007/978-94-007-5195-8_7)
- Tekkurşun Demir, G., Namlı, S., Hazar, Z., Türkeli, A., et al. (2018). Bireysel ve Takım Sporcularının Karar Verme Stilleri ve Mental İyi Oluş Düzeyleri. *CBÜ Beden Eğitimi ve Spor Bilimleri Dergisi*, 13(1), 176-191.
- Thoits, P. A., & Link, B. G. (2016). Stigma Resistance and Well-being among People in Treatment for Psychosis. *Society and Mental Health*, 6(1), 1-20. <https://doi.org/10.1177/2156869315591367>
- Trenoweth, S. (2017). Strengths and mental well-being. *Psychosocial assessment içinde*, 164-183.
- Tuero, C., Taberero, B., Marquez, S., & Guillen, F. (2002). Análisis de los factores que influyen en la práctica del arbitraje. *Revista Scape*, 1(1), 7-16.
- Üstün, S. (2019). *Sosyal bir topluluk olan amatör çoksesli kadrolarda yer alan bireylerin Mental Well-Being durumları* (Master's thesis, Sakarya Üniversitesi).
- Uzunoglu, U. Ö. (2008). Türk futbol hakemlerinin karar verme stillerinin klasmanlarına ve bazı değişkenlerine göre incelenmesi. Yüksek Lisans Tezi, Selçuk Üniversitesi Sağlık Bilimleri Enstitüsü, Konya.
- Vural, M. (2013). Spor genel müdürlüğü merkez ve taşra teşkilatında görev yapan spor yöneticilerinin düşünme ve karar verme stillerinin incelenmesi. *Yayınlanmamış Yüksek Lisans Tezi, Selçuk Üniversitesi Sağlık Bilimleri Enstitüsü Konya*.
- Yerebatan, Z. (2019). Basketbol klasman hakemlerinin karar verme stilleri ve özgüven düzeylerinin incelenmesi (Doctoral dissertation, Marmara Üniversitesi (Turkey)).
- Yetim, A., Cengiz, R., (2010), *İletişim ve Spor*, Berikan Yayınevi. Ankara.

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