



Examination of the relationship between the self-efficacy and decision-making styles of wrestling referees

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Abstract

The present study aims to determine and comparatively examine the relationship between the self-efficacy and decision-making styles of wrestling referees. In the research, the relational screening model, one of the quantitative models, was used, and the criterion sampling method, one of the purposeful sampling methods, was used in sampling selection. A total of 106 man referees, 77 national and 29 international, participated in the study. The mean age of the participating referees was 39.18 ± 7.60 years, and the mean years of wrestling refereeing was 13.62 ± 7.53 years. The decision-making styles of the wrestling referees were measured using the Melbourne Decision Making Questionnaire and their self-efficacy was measured using the Referee Self-Efficacy Scale. Cronbach's Alpha coefficients of the scales were determined as 0.78 for the Melbourne Decision Making Scale and 0.92 for the Referee Self-Efficacy Scale. The data obtained were transferred to the SPSS 26.0 program and the Pearson Correlation Analysis, Independent Samples T-Test, One-Way ANOVA and descriptive statistics were applied. According to the findings of the study, there was a significant positive correlation between the self-efficacy scores of the referees and their self-esteem in decision-making and careful decision-making scores, and a significant negative correlation between the suspensive and panic decision-making scores ($p < 0.05$). In conclusion, it was determined that as referee self-efficacy increased, the level of self-esteem in decision-making and careful decision-making increased, and the level of suspensive and panic decision-making decreased.

Keywords: Wrestling, referee, decision-making, self-efficacy, attention

Güreş hakemlerinin öz yeterlik ile karar verme stilleri arasındaki ilişkinin incelenmesi

Öz

Bu araştırmanın amacı; güreş hakemlerinin öz yeterlik ve karar verme stillerinin arasındaki ilişkiyi tespit ederek karşılaştırılmalı olarak incelenmesidir. Araştırmada nicel modellerden ilişkisel tarama modeli, örnekleme seçiminde ise amaçlı örnekleme yöntemlerinden olan ölçüt örnekleme yöntemi kullanılmıştır. Araştırmaya 77 ulusal ve 29 uluslararası olmak üzere toplam 106 erkek hakem katılım sağlamıştır. Katılım gösteren hakemlerin yaş ortalamaları 39.18 ± 7.60 , güreş sporu hakemliği yapma yılı ise 13.62 ± 7.53 yıl olarak tespit edilmiştir. Güreş hakemlerinin karar verme stilleri Melbourne Karar Verme Ölçeği; öz yeterlikleri ise Hakem Öz Yeterlik Ölçeği aracılığıyla ölçülmüştür. Ölçeklerin Cronbach's Alpha katsayıları incelendiğinde Melbourne Karar Verme Ölçeği'nin 0,78, Hakem Öz Yeterlik Ölçeği'nin ise 0,92 olarak tespit edilmiştir. Elde edilen veriler SPSS 26.0 programına aktarılıp Pearson Korelasyon Analizi, Independent Sample T-Testi, One-Way ANOVA ve tanımlayıcı istatistikler uygulanmıştır. Araştırma bulgularına göre hakem öz yeterlik puanı ile karar vermede öz saygı ve dikkatli karar verme puanı arasında pozitif, erteleyici ve panik karar verme puanı arasında ise negatif yönde anlamlı bir ilişki tespit edilmiştir ($p < 0.05$). Sonuç olarak hakem öz yeterliği arttıkça karar vermede öz saygı ve dikkatli karar verme seviyesinin arttığı, erteleyici ve panik karar verme seviyesinin düştüğü tespit edilmiştir.

Anahtar Kelimeler: Güreş, hakem, karar verme, öz yeterlik, dikkat

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INTRODUCTION

Refereeing has played a very crucial role throughout the history of world sports and has been one of the most essential elements that constitute the building blocks of all sports competitions. Referees need to decide instantly on the positions that develop during competitions and these decisions directly affect the outcome of the competition. In sports competitions with a high level of contact, it is very important for the referee to possess certain characteristics that require attention, awareness, self-efficacy, decision-making and a high level of concentration and to be able to apply these characteristics during the game. Referees serve a crucial role in wrestling, which is one of the oldest sports in the history of world sports and also requires physical contact. Wrestling is a sport branch in which athletes seek to physically and technically overcome each other within a certain period of time and space and under specified rules without the need for any equipment or tools (Açak, 2005). Due to this structure of the sport, there are various qualities that wrestling referees are required to have. These include accurate and fast reaction, attention, decision making, self-efficacy and cognitive flexibility. These characteristics vary according to the educational background, athletic background, refereeing background and refereeing classifications of the referees (Guillen & Feltz, 2011). Referees are classified within themselves, as in other sports, and in order to have these classifications, they are required to have successfully completed the necessary refereeing courses. Referees who successfully complete their refereeing courses are divided into the following categories: Candidate Referee, Provincial-Regional Referee, National Referee, International Referee, third category international referee, second category international referee, first category international referee and 1S international referee (Turkish Wrestling Federation, 2014). During wrestling competitions, one of the three referees follows the contest inside the mat area, while the other two referees follow the contest just outside the mat area and help the on-field referee to make the most accurate decision by advising them based on their observations (Cicioğlu, 2001). In wrestling, where intense contact takes place, the decision-making and self-efficacy levels of the referees affect the decisions made during the competition and these factors also play an important role in the promotion of the referees in the classification or in the assignment of the competition (Atılğan, 2018). Decision-making is defined as making a choice in the face of various events and situations and processing it in the mind and translating it into behavior (Kurt, 2003). In order to make the right decision during the competition, having a good knowledge of the rules, relying on past competition experiences and successfully analyzing the situations that can be encountered instantly are the factors that help the referees

to make the most accurate decision by using their self-efficacy in the decision-making phase (Atılğan & Tükel, 2019). Self-efficacy, on the other hand, is related to decision-making and is the evaluation of a person's capacity to perform or realize any event or phenomenon, and the internal evaluation of a person to solve or eliminate any problem encountered (Karancı & Bozo, 2007).

In this context, it is thought to be very important to determine the relationship between the concepts of self-efficacy and decision-making, which are the determinants of wrestling referee performance. It is anticipated that determining how referees self-efficacy varies depending on their decision-making style may be an important criterion when appointing referees to competitions. In this way, referees can be assigned to matches at a level appropriate to their competence, thus reducing the risk of making mistakes. It is also thought that the research will contribute to the field in terms of designing training seminars that will increase self-efficacy and preparing programs suitable for the decision-making style of referees. Therefore, the aim of the research is; by determining the relationship between wrestling referees self-efficacy and decision-making styles; It is a comparison of self-efficacy and decision-making styles according to referee classification, educational status, sports and referee background.

METHOD

In this title, regarding the method used in the research; the research model, study group, data collection process, data collection tools, publication ethics and analyzes used in the research are given.

Research model

Relational survey design, one of the quantitative models, was used in the research. Relational screening designs are research models that aim to determine the existence and/or degree of change between two or more variables (Karasar, 2009). Criterion sampling method, one of the purposeful sampling methods, was used in sampling selection. Purposive sampling is a sampling method that is suitable for individuals with specific, limiting and hard-to-reach individual characteristics (Erkuş, 2013).

Research group (population-sample)

The sample group of the study consisted of a total of 106 man referees (77 national and 29 international) actively serving in the Turkish Wrestling Federation. Criteria for inclusion in the research; being an active wrestling referee, having a national or international classification,

and having at least a bachelor's degree. The mean age of the referees was 39.18 ± 7.60 years, the mean duration of practicing wrestling as a licensed wrestler was 13.05 ± 7.02 years, and the years of officiating wrestling as a referee was 13.62 ± 7.53 years.

Data collection tools

Referee self-efficacy scale

The Referee Self-Efficacy Scale was first developed by Myers, et al. (2012). The scale was improved by Karaçam and Pular (2017) with an additional physical competence factor and adapted to Turkish through a reliability and validity study. The Referee Self-Efficacy Scale is structured as a Likert-type rating scale and includes 18 items and 5 sub-dimensions. The scale has five sub-factors, 5 of which are physical competence, 3 are game knowledge, 3 are decision making, 3 are pressure and 4 are communication. The rating options of the scale items are as follows; "1-2 Low, 3 Moderate and 4-5 High". There are no reverse-scored items in the scale and high scores obtained from each item of the scale indicate that the self-efficacy in that item is high in the individual (Karaçam & Pular, 2017). Cronbach's Alpha coefficients of the scale sub-dimensions ranged between 0.71 and 0.88, but were found to be 0.90 for the entire scale. Within the scope of this research, Cronbach's Alpha coefficient was found to be 0.92 for the entire scale.

Melbourne decision making scale

The Melbourne Decision Making Scale, which was first developed by Mann et al. (1998), was adapted into Turkish for the first time by Deniz (2004), who conducted the validity and reliability study of the scale. The Melbourne Decision Making Scale is divided into two parts. The first part aims to determine self-esteem (self-confidence) in decision making. Three items of the first part consisting of six items are scored directly and the other three items are reverse scored. In scoring, the answer "True" in response to the items is 2 points, "Occasionally True" response is 1 point and "Not True" is 0 points. The highest score that can be obtained from the scale is 12. High scores indicate that the individual has high self-esteem in decision making. The second part consists of 22 items and measures the decision-making styles of the individual. The decision-making scale has four sub-dimensions (Deniz, 2004). These sub-dimensions; The six items are listed as Careful Decision Making Style (2, 4, 6, 8, 12, 16), Avoidant Decision Making Style (3, 9, 11, 14, 17, 19) and the five items are Suspensive Decision Making Style (5, 7, 10, 18, 21) and Panic Decision Making Style (1, 13, 15, 20, 22). Cronbach's Alpha coefficients of the scale sub-dimensions vary between 0.65 and 0.80. Within the scope of this research, Cronbach's Alpha coefficient was found to be 0.78 for the entire scale.

Publication Ethics

The study was conducted in accordance with the Declaration of Helsinki and approved by Gazi University Ethics Committee (Code: 2022 - 1458)

Data collection/processing method

The self-efficacy of wrestling referees was determined using the Referee Self-Efficacy Scale consisting of 18 questions and their decision-making styles were determined in a face-to-face environment using the Melbourne Decision Making Scale consisting of 28 questions. The study was conducted on a voluntary basis and a voluntary consent form was signed and information about the details of the study was given to the participants.

Data analysis

In order to evaluate the data obtained from the participants, Pearson Correlation Analysis, Independent Sample T-Test, One-Way ANOVA and descriptive statistics were applied in the SPSS 26.0 package program. The significance level for this study was determined as $p < 0.05$.

FINDINGS

Table 1. The relationship between referee self-efficacy scores and decision-making scores

		Self-Esteem in Decision Making	Careful Decision Making	Avoidant Decision Making	Suspensive Decision Making	Panic Decision Making
Self-Efficacy	r	0.313**	0.192*	-0.124	-0.229*	-0.232*
	p	0.001*	0.049*	0.204	0.018*	0.017*

*= $p < 0.05$

According to the results of the Pearson correlation analysis in Table 1, there was a significant positive correlation between referee self-efficacy score and self-esteem in decision making and careful decision making score, and a significant negative correlation between suspensive decision making and panic decision making scores ($p < 0.05$).

Table 2. Comparison of self-efficacy and decision-making scores according to refereeing classification

	Refereeing Classification	N	\bar{x}	sd.	t	p
Self-Efficacy	National	77	83.31	8.32	-3.071	0.003*
	International	29	87.10	4.25		
Self-Esteem in Decision Making	National	77	9.75	2.15	-2.602	0.012*
	International	29	10.79	1.69		
Careful Decision Making	National	77	8.45	3.09	-0.195	0.846
	International	29	8.58	3.09		
Avoidant Decision Making	National	77	3.85	2.84	2.748	0.007*
	International	29	2.27	1.98		
Suspensive Decision Making	National	77	3.38	2.57	4.799	0.000*
	International	29	1.44	1.50		
Panic Decision Making	National	77	3.27	2.44	5.410	0.000*
	International	29	1.06	1.60		

*= $p < 0.05$

According to the results of the Independent Sample T-Test in Table 2, it was determined that self-efficacy, self-esteem in decision making, avoidant decision making, suspensive decision making and panic decision making scores of the wrestling referees differed according to the refereeing classification ($p < 0.05$), but careful decision making score did not differ according to the refereeing class ($p > 0.05$).

Table 3. Comparison of self-efficacy and decision-making scores according to educational status

	Educational Status	N	\bar{x} .	sd.	t	p
Self-Efficacy	Postgraduate	33	86.81	4.40	2.861	0.005*
	Undergraduate	73	83.23	8.46		
Self-Esteem in Decision Making	Postgraduate	33	11.09	1.15	4.633	0.000*
	Undergraduate	73	9.56	2.23		
Careful Decision Making	Postgraduate	33	8.93	2.56	1.106	0.272
	Undergraduate	73	8.28	3.28		
Avoidant Decision Making	Postgraduate	33	2.69	2.03	-2.140	0.035*
	Undergraduate	73	3.75	2.93		
Suspensive Decision Making	Postgraduate	33	2.21	2.07	-1.825	0.071
	Undergraduate	73	3.15	2.60		
Panic Decision Making	Postgraduate	33	2.03	2.24	-1.831	0.070
	Undergraduate	73	2.95	2.49		

*= $p < 0.05$

According to the Independent Sample T-Test results in Table 3, it was determined that self-efficacy, self-esteem in decision making and avoidant decision making scores of wrestling referees differed according to educational status ($p < 0.05$), but careful decision making, suspensive decision making and panic decision making scores did not differ according to educational status ($p > 0.05$).

Table 4. Comparison of self-efficacy and decision-making scores according to refereeing backgrounds

	Refereeing Backgrounds (year)	N	\bar{x}	sd.	f	p
Self-Efficacy	Under 10	37	84.08	7.35	0.068	0.934
	Between 10-15	33	84.24	9.52		
	Over 15	36	84.72	5.89		
Self-Esteem in Decision Making	Under 10	37	9.37	2.38	3.682	0.029*
	Between 10-15	33	10.09	2.021		
	Over 15	36	10.66	1.60		
Careful Decision Making	Under 10	37	8.32	3.14	0.095	0.910
	Between 10-15	33	8.51	2.89		
	Over 15	36	8.63	3.26		
Avoidant Decision Making	Under 10	37	4.43	3.27	4.405	0.015*
	Between 10-15	33	3.12	2.16		
	Over 15	36	2.66	2.28		
Suspensive Decision Making	Under 10	37	4.43	2.85	15.804	0.000*
	Between 10-15	33	2.42	1.90		
	Over 15	36	1.63	1.55		
Panic Decision Making	Under 10	37	3.78	2.60	10.434	0.000*
	Between 10-15	33	2.81	2.36		
	Over 15	36	1.38	1.67		

*=p<0,05

According to the results of the One-Way ANOVA analysis in Table 4, it was determined that self-esteem, avoidant decision making, suspensive decision making and panic decision making scores differed according to refereeing background (p<0.05), but self-efficacy and careful decision making scores did not differ according to refereeing background (p>0.05).

Table 5. Comparison of self-efficacy and decision-making scores according to athletic background

	Athletic Background (year)	N	\bar{x}	sd.	f	p
Self-Efficacy	Under 10	34	84.02	7.60	0.074	0.929
	Between 10-15	36	84.27	9.17		
	Over 15	36	84.72	5.89		
Self-Esteem in Decision Making	Under 10	34	9.41	2.33	3.321	0.040*
	Between 10-15	36	10.00	2.12		
	Over 15	36	10.66	1.60		
Careful Decision Making	Under 10	34	8.32	3.13	.090	0.914
	Between 10-15	36	8.50	2.93		
	Over 15	36	8.63	3.26		
Avoidant Decision Making	Under 10	34	4.32	3.28	3.421	0.036*
	Between 10-15	36	3.33	2.34		
	Over 15	36	2.66	2.28		
Suspensive Decision Making	Under 10	34	4.38	2.88	13.538	0.000*
	Between 10-15	36	2.63	2.08		
	Over 15	36	1.63	1.55		
Panic Decision Making	Under 10	34	3.82	2.59	10.426	0.000*
	Between 10-15	36	2.86	2.39		
	Over 15	36	1.38	1.67		

*=p<0.05

According to the results of One-Way ANOVA analysis in Table 5, it was determined that self-esteem, avoidant decision making, suspensive decision making and panic decision making scores differed according to athletic background ($p < 0.05$), but self-efficacy and careful decision making scores did not differ according to athletic background ($p > 0.05$).

DISCUSSION AND CONCLUSION

The present study was conducted on a total of 106 referees, 77 national and 29 international. When the relationship between referee self-efficacy and decision-making scores was examined, it was observed that as the self-efficacy scores of the referees increased, their self-esteem in decision-making and careful decision-making scores increased, while their suspensive and panic decision-making scores decreased. When the literature is examined, it has been determined that as referee self-efficacy increases, commitment to the profession increases and this positively affects referee performance (Guillén & Feltz, 2011; Farshad et al., 2013). In a study conducted on basketball referees, it was observed that as the self-efficacy of referees increased, their self-esteem and careful decision-making in decision-making increased, while their suspensive and panic decision-making decreased (Kılıç & Öner, 2019). In a similar study conducted on football referees, it was observed that there was a positive relationship between referees' self-esteem levels and careful decision-making style and a negative relationship between avoidant decision-making style, while there was no relationship between self-esteem in decision-making, suspensive and panic decision-making styles (Aksu, 2016). In this context, in the study conducted on basketball referees, all parameters support the study findings, while in the study conducted on football referees, only the results in the careful decision-making parameter support the study findings. In the light of this information, it can be said that as referee self-efficacy increases, the level of careful decision-making of referees also increases. The fact that there was no significant relationship between the self-efficacy of football referees and self-esteem, suspensive and panic decision-making styles in decision-making in contrast to wrestling and basketball referees is thought to be due to the differences in terms of competition flow and duration between football branch and wrestling and basketball branches.

When self-efficacy and decision-making scores were compared according to referee classification, it was found that international referees had significantly higher self-efficacy and self-esteem scores in decision-making than national referees, and national referees had significantly higher scores in avoidant, suspensive and panic decision-making than international referees ($p > 0.05$). When the literature is examined, in a study conducted on volleyball referees, it was found that prospective referees made higher avoidant decisions than national and

international referees, and in panic decision-making style, candidate referees tended to make higher panic decisions than provincial, national and international referees (Saridede, 2018). In another study conducted on volleyball referees, it was found that the self-efficacy levels of candidate referees were significantly lower in the dimensions of game knowledge, physical competence and decision-making compared to provincial and national referees (Koçak, 2019). In a study conducted with football referees, unlike the other results, when the decision-making styles of football referees were examined according to classification, no significant positive difference was found in self-esteem score and careful, avoidant, suspensive and panic decision-making styles (Baydemir, 2023). In the study conducted with basketball referees, in parallel with the results in football referees, it was found that there was no statistically significant difference between the classification types of referees and their self-confidence levels (Yerebatan, 2019). In this context, it was determined that self-efficacy increased and avoidant decision-making decreased as the classification level increased in wrestling and volleyball branches. In football and basketball branches, no difference was found in terms of self-efficacy and decision-making styles according to classification. It is thought that the difference in the findings obtained in the branches is due to the fact that the number of referee classifications of each branch and the criteria for promotion in the classification are different.

When the self-efficacy and decision-making scores of the referees were compared according to their educational status, it was found that the self-efficacy and self-esteem in decision-making scores of the postgraduate referees were higher and the avoidant decision-making score was lower than the undergraduate referees ($p < 0.05$). However, it was determined that careful, suspensive and panic decision-making scores did not differ according to educational status ($p > 0.05$). When the literature was examined, it was found that referees with postgraduate education showed better performance in terms of various psychological activities, especially stress control (Aguirre-Loaiza et al., 2020; Mendes et al., 2020). In a study conducted on basketball referees, it was found that there was no statistically significant difference between the education levels and self-confidence levels of referees in different classifications (Yerebatan, 2019). In a study conducted on football referees, when the decision-making styles of referees were examined in terms of their educational levels, it was determined that there was no significant difference between careful and suspensive decision-making and the educational levels of football referees, but there was a significant positive difference between self-esteem in decision-making, avoidant and panic decision-making and the educational level of football referees. According to this result, it was determined that high school graduates made more

avoidant and panic decisions and had lower self-esteem than undergraduate and graduate referees (Aksu, 2016). In a study conducted on volleyball referees, it was found that individuals with high school education were significantly lower than individuals with undergraduate and graduate education in terms of careful decision-making scores (Arslan, 2022). In another study conducted on volleyball referees, a significant positive difference was found in the self-esteem score in decision making according to the level of education. According to this result, it was observed that as the level of education increased, the self-esteem score in decision-making also increased (Açııcı & Çebi, 2020). In this context, it can be said that as the education level of referees in wrestling, football and volleyball branches increases, their self-esteem in decision-making also increases. In addition, it was observed that the increase in the level of education of the referees in wrestling and football branches caused a decrease in the avoidant decision-making style. However, when self-efficacy and decision-making styles are analyzed holistically, it is thought that there are contradictions in the results obtained according to the branches and this situation is thought to be due to the fact that the branches have different cognitive requirements.

When the self-efficacy and decision-making scores of the referees were compared according to their backgrounds, it was found that as the referee's background increased, the self-esteem score of the referees in decision-making increased, while the avoidant, suspensive and panic decision-making scores decreased ($p < 0.05$). However, no significant difference was detected in terms of self-efficacy and careful decision-making ($p > 0.05$). When the literature is examined, it is observed that referee experience plays a predictive role on referee self-efficacy (Diotaiuti et al., 2017; Johansen et al., 2018). In the study conducted on football referees, when the decision-making styles of the referees were examined according to their refereeing background, no significant difference was found in self-esteem score in decision-making and careful and suspensive decision-making styles. However, a significant difference was found in avoidant and panic decision-making styles according to the years of refereeing. According to this result, it was determined that the avoidant and panic decision-making scores decreased as the refereeing background increased (Baydemir, 2023). In a study conducted on volleyball referees, as a result of the comparison of the mean ranks of panic and avoidant decision-making sub-dimensions according to the experience variable of the referees on the basis of duration, significant positive results were obtained in terms of variable groups. According to this result, it was determined that panic and avoidant decision-making scores decreased as the referee's background increased (Arslan, 2022). In this context, it can be said that panic and avoidant

decision-making style decreases as the referee's self-history increases in wrestling, football and volleyball branches.

When the self-efficacy and decision-making scores of the referees were compared according to their athletic backgrounds, it was found that as the athletic background increased, the self-esteem score in decision-making increased, while the avoidant, suspensive and panic decision-making scores decreased ($p < 0.05$). However, it was determined that self-efficacy and careful decision-making scores did not differ according to athletic background ($p > 0.05$). In a study conducted on football referees, when the decision-making styles of the referees were examined according to the history of athletic participating before refereeing; no significant difference was found in self-esteem scores and suspensive decision-making style in decision-making. However, it was found that the careful decision-making scores of those who practiced sports and the avoidant and panic decision-making scores of those who did not practice sports were higher (Baydemir, 2023). In a study conducted on volleyball referees, no statistically significant difference was found in the groups as a result of the comparison of the rank averages of self-esteem, decision-making scale and sub-dimensions of the referees according to the variable "athletic background in the branch of refereeing" (Arslan, 2022).

In this context, it can be said that the avoidant and panic decision-making scores decrease as the athletic background of the referees in wrestling and football branches increases. However, there are contradictions in the findings obtained when the self-efficacy and decision-making styles of the referees according to their sports backgrounds are analyzed holistically according to the branches. It is thought that conducting similar studies in various branches will contribute to the interpretation of the specified parameters more clearly according to the sport background variable.

Recommendations

In conclusion, it has been observed that the increase in self-efficacy of wrestling referees increases their decision-making styles that can increase their refereeing performance. In this context, it is thought that it is important for wrestling federations to increase the activities and trainings that will improve referee self-efficacy in terms of referee performances. In addition, it was determined that self-efficacy increased as the refereeing classification, educational status and refereeing and sports background increased; while avoidant, suspensive and panic decision styles decreased. It is recommended that referees with a high refereeing classification, education

level and refereeing and athletic background should be assigned to competitions with high stress levels where decision making becomes difficult.

REFERENCES

- Açak M. (2005). *Beden eğitimi öğretmeninin el kitabı*. Morpa Kültür Yayınları.
- Açııcı, S. & Çebi, M. (2020). Ulusal ve uluslararası voleybol hakemlerinin karar verme stillerinin incelenmesi. *Journal of International Social Research*, 13(70).
- Aguirre-Loaiza, H., Holguín, J., Arenas, J., Núñez, C., Barbosa-Granados, S., & García-Mas, A. (2020). Psychological characteristics of sports performance: Analysis of professional and semiprofessional football referees. *Journal of Physical Education and Sport*, 20(4), 1861-1868.
- Aksu, A. (2016). *Farklı klasmanlardaki futbol hakemlerinin karar verme stilleri ve özgüven düzeylerinin incelenmesi*. [Yüksek lisans tezi, Fırat Üniversitesi]. Sağlık Bilimleri Enstitüsü.
- Arslan, F. (2022). *Voleybol hakemlerinin benlik saygısı ve karar verme düzeylerinin incelenmesi*. [Yüksek lisans tezi, Atatürk Üniversitesi]. Kış Sporları ve Spor Bilimleri Enstitüsü.
- Atılğan, D., (2018). Beden eğitimi öğretmenleri ve antrenörlerin özgüven düzeyleri ile karar verme stilleri arasındaki ilişkinin incelenmesi. *Atatürk Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi*, 20(4), 8-22.
- Atılğan, D., Tükel, Y., (2019). Hakemlerin karar verme stillerinin incelenmesi. *Sport Sciences*, 14(2), 22-32.
- Baydemir, U. (2023). *Futbol hakemlerinin karar verme ve özgüven düzeylerinin incelenmesi*. [Yüksek lisans tezi, Fırat Üniversitesi]. Sağlık Bilimleri Enstitüsü.
- Cicioğlu, İ. (2001). *Türk güreş hakemliğinin bugünkü durumu*. Güreş Kurultayı, Antalya.
- Deniz, M. E. (2004). Investigation of the relation between decision making self-esteem, decision making style and problem solving skills of university students. *Eurasian Journal of Educational Research*, Vol: 15. 23-35.
- Diotaiuti, P., Falese, L., Mancone, S., & Purromuto, F. (2017). A structural Model of Self-efficacy in Handball Referees. *Frontiers in Psychology*, 8, 811.
- Erkuş, A. (2013). *Davranış Bilimleri İçin Bilimsel Araştırma Süreci*. Seçkin
- Farshad, T., Esmaili, M. R., & Bavandpour, R. (2013). The effect of self-efficacy on job satisfaction of sport referees. *European Journal of Experimental Biology*, 3(2), 219-225.
- Guillén, F. & Feltz, D. L. (2011). A conceptual model of referee efficacy. *Frontiers in Psychology*, 2, 25.
- Johansen, B. T., Ommundsen, Y., & Haugen, T. (2018). Referee efficacy in the context of Norwegian soccer referees—A meaningful construct?. *Psychology of Sport and Exercise*, 38, 184-191.
- Karaçam, A. & Pular, A. (2017). Hakem öz yeterlik ölçeği'nin (höyö) türkçeye uyarlama çalışması. *Niğde Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi*, 11(1), 118.
- Karancı, A. N. & Bozo, Ö. (2007). *Psikolojik sağlığımızı nasıl koruruz*. ODTÜ Yayıncılık.
- Karasar, N. (2009). *Bilimsel Araştırma Yöntemleri*. Nobel Yayın Dağıtım.
- Kılıç, A. & Öner, Ç. (2019). *Basketbol hakemlerinin öz yeterlikleri ve karar verme stillerinin incelenmesi*. In 4. International EMI Entrepreneurship and Social Sciences Congress. pp: 1238.
- Koçak, Ç. V. (2019). Voleybol hakemlerinin hakem öz yeterlik düzeylerinin incelenmesi. *Sportmetre Beden Eğitimi ve Spor Bilimleri Dergisi*, 17(2), 33-40.

- Kurt, Ü. (2003). *Karar verme sürecinde yöneticilerin kişilik yapılarının etkileri*. [Yüksek lisans tezi, Başkent Üniversitesi]. Sosyal Bilimler Enstitüsü.
- Mann, L., Radford, M., Burnett, P., Ford, S., Bond, M., Leung, K. & Yang, K. S. (1998). Cross-cultural differences in self-reported decision-making style and confidence. *International Journal of Psychology*, 33(5), 325-335.
- Mendes, S., Travassos, B., & Oliveira, E. P. (2020). Desenvolvimento de carreiras e percepção de fatores para a excelência do árbitro de futebol em Portugal. *Retos: nuevas tendencias en educación física, deporte y recreación*, (37), 694-701.
- 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.
- Sarıdede, Ç. (2018). *Voleybol Hakemlerinin Öz yeterlik düzeyleri ve karar verme becerilerinin incelenmesi*. [Yüksek lisans tezi, İstanbul Gelişim Üniversitesi]. Sağlık Bilimler Enstitüsü.
- Turkish Wrestling Federation. (2014, October). *Turkish wrestling federation referee instruction*. Republic of Turkey Ministry of Youth and Sports. Retrieved from <https://124.im/LsSYM>
- Yerebatan, Z. (2019). *Basketbol klasman hakemlerinin karar verme stilleri ve özgüven düzeylerinin incelenmesi*. [Doktora tezi, Marmara Üniversitesi]. Sağlık Bilimler Enstitüsü.

KATKI ORANI CONTRIBUTION RATE	AÇIKLAMA EXPLANATION	KATKIDA BULUNANLAR CONTRIBUTORS
Fikir ve Kavramsal Örgü <i>Idea or Notion</i>	Araştırma hipotezini veya fikrini oluşturmak <i>Form the research hypothesis or idea</i>	Musab CAGIN Sezen CIMEN POLAT
Tasarım <i>Design</i>	Yöntem ve araştırma desenini tasarlamak <i>To design the method and research design.</i>	Musab CAGIN Halil İbrahim CICIOGLU
Literatür Tarama <i>Literature Review</i>	Çalışma için gerekli literatürü taramak <i>Review the literature required for the study</i>	Musab CAGIN Selim ASLAN
Veri Toplama ve İşleme <i>Data Collecting and Processing</i>	Verileri toplamak, düzenlemek ve raporlaştırmak <i>Collecting, organizing and reporting data</i>	Musab CAGIN Sezen CIMEN POLAT Selim ASLAN
Tartışma ve Yorum <i>Discussion and Commentary</i>	Elde edilen bulguların değerlendirilmesi <i>Evaluation of the obtained finding</i>	Musab CAGIN Halil İbrahim CICIOGLU
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