

HUBUNGAN KECEMASAN, KECERDASAN EMOSIONAL DAN KONSENTRASI BERPIKIR
TERHADAP KEMAMPUAN PENGAMBILAN KEPUTUSAN WASIT SEPAKBOLA

*THE RELATIONSHIP OF ANXIETY EMOTIONAL INTELLIGENCE AND CONCENTRATION OF
THINKING TO THE DECISION-MAKING ABILITY OF FOOTBALL REFEREES*

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Abstrak

Penelitian ini bertujuan untuk mengetahui hubungan antara kecemasan, kecerdasan emosional, dan konsentrasi berpikir dengan pengambilan keputusan wasit sepak bola di Kabupaten Aceh Besar. Penelitian ini mengadopsi pendekatan kuantitatif dengan metode deskriptif korelasional. Populasi yang menjadi fokus penelitian ini adalah wasit sepak bola di Kabupaten Aceh Besar, yang berjumlah 55 orang. Teknik sampling yang digunakan adalah Total Sampling. Hasil penelitian 1) Hubungan antara Kecemasan Terhadap Pengambilan Keputusan Wasit Sepakbola dengan Hasil $F_{hitung} 24,522 > F_{tabel} 4,02$, 2) Hubungan antara Kecerdasan Emosional Terhadap Pengambilan Keputusan Wasit Sepakbola dengan Hasil $F_{hitung} 17,977 > F_{tabel} 4,02$, 3) Hubungan antara Konsentrasi Berfikir Terhadap Pengambilan Keputusan Wasit Sepakbola dengan Hasil $F_{hitung} 15,858 > F_{tabel} 4,02$, 4) Hubungan antara Kecemasan, Kecerdasan Emosional dan Konsentrasi Berfikir Terhadap Pengambilan Keputusan Wasit Sepakbola dengan Hasil $F_{hitung} 28,356 > F_{tabel} 2,79$. Kesimpulannya adalah terdapat hubungan signifikan antara tingkat kecemasan dan pengambilan keputusan wasit sepakbola, terdapat hubungan signifikan antara tingkat kecerdasan emosional dan pengambilan keputusan wasit sepakbola, terdapat hubungan signifikan antara tingkat konsentrasi berpikir dan pengambilan keputusan wasit sepakbola, terdapat hubungan signifikan antara tingkat kecemasan, kecerdasan emosional, dan konsentrasi berpikir dengan pengambilan keputusan wasit sepakbola Kabupaten Aceh Besar.

Kata kunci: psikologi, sepakbola, wasit, pengambilan keputusan, kabupaten aceh besar

Abstract

This study aims to determine the relationship between anxiety, emotional intelligence, and concentration of thinking with the decision making of football referees in Aceh Besar Regency. This study adopts a quantitative approach with a correlational descriptive method. The population that was the focus of this study was football referees in Aceh Besar Regency, which amounted to 55 people. The sampling technique used is Total Sampling. The results of the study 1) The Relationship between Anxiety About Football Referee Decision Making with F_{count} Results $24.522 > F_{table} 4.02$, 2) The Relationship between Emotional Intelligence on Football Referee Decision Making with F_{count} Results $17.977 > F_{table} 4.02$, 3) The Relationship between Thinking Concentration on Football Referee Decision Making with F_{count} Results $15.858 > F_{table} 4.02$, 4) The Relationship between Anxiety, Emotional Intelligence and Thinking Concentration on Decision Making Football Referee with F_{count} results $28.356 > F_{table} 2.79$. The conclusion is that there is a significant relationship between the level of anxiety and decision making of football referees, there is a significant relationship between the level of emotional intelligence and decision making of football referees, there is a significant relationship between the level of concentration of thinking and decision making of football referees, there is a significant relationship between the level of anxiety, emotional intelligence, and concentration of thinking with the decision making of football referees Aceh Regency Big.

Keywords: psychology, football, refereeing, decision making, aceh besar

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INTRODUCTION

Decisions made by referees on the pitch often take center stage in any football match. Amidst the spotlight, it is not uncommon for those decisions to become controversial subjects that spark heated debates among fans, players, and coaches. This phenomenon has become an indispensable part of football culture, where every decision made by the referee has the potential to change the course of the match and affect the final result. Essentially, the role of the referee in a football match cannot be underestimated. According to (Saputra et al., 2018) Not only are they the on-field supervisors, but they are also the rule enforcers who must ensure that the match is fair and in accordance with the rules. However, the decisions they make are not always well received by all parties involved. At the heart of the smooth running of a soccer match is the role of the referee, who serves as an impartial adjudicator and is trusted to enforce the rules of the game. Equipped with a comprehensive knowledge and understanding of soccer rules, referees are expected to carry out their duties objectively, ensuring fairness and order throughout the match (Lago-Peñas et al., 2016), has full authority (Kuswoyo et al., 2017), rule enforcer (Russell et al., 2022), and also the court (Eggleston et al., 2020; Vater et al., 2024). Despite their pivotal role, referees are often the ones under scrutiny and criticism, indicating a lack of understanding by players, coaches, and spectators of the intricacies of soccer rules. Despite their pivotal role, referees are often the ones under scrutiny and criticism, indicating a lack of understanding by players, coaches, and spectators of the intricacies of soccer rules (Ramadhani, 2019). A better understanding of the rules and a commitment to fair play values can help reduce pressure on referees and create a more sportsmanlike environment on the field (Komarudin, 2015).

According to the results of surveys and interviews with the Aceh Besar District football refereeing committee, it was revealed that the performance of C1 and C2 Football referees (in this case only Male referees) within the scope of the Aceh Besar District Football Association still shows a tendency to make decisions that are not in accordance with applicable regulations. These incorrect decisions often lead to protests from players, coaches, and even spectators, which have the potential to trigger riots with the action of throwing objects by the audience, resulting in the termination of the match. There are many factors that contribute to the performance of football referees in Aceh Besar Regency, both internal and external. However, internal factors, especially psychological aspects, are seen as the most dominant in influencing referee performance, in addition to their knowledge and experience.

Recognizing the importance of improving the quality of referees, the Indonesian Football Association (PSSI) is committed to improving the standard of referees. Referees are required to demonstrate quick and accurate decision-making abilities, coupled with the application of different rules in various circumstances (Buraimo et al., 2017). Nevertheless, protests against referees continue to occur, indicating a persistent gap in the understanding and adherence to football rules in the Indonesian football community. In addition, referees face unprecedented external pressure and greater scrutiny, necessitating increased oversight from the Indonesian Football Federation (PSSI). Amidst the complex and ever-changing soccer environment, referees operate under enormous pressure, and their role entails many aspects of the soccer industry.

From an applied sport psychology perspective, cognitive-behavioral models often dominate the field, focusing on interventions to increase emotional support and reduce the psychological challenges referees face (Campo et al., 2017; Collins & Winter, 2020).

Psychological issues such as stress management, concentration difficulties, and anxiety symptoms have a significant impact on referee performance, underscoring the need for a strong mental health support system (Palazzolo, 2020). Psychological factors such as anxiety, emotional intelligence, and concentration level of thinking have the potential to influence the decision-making process of a football referee when officiating a match. According to (Hayashi, 2016) The impact of these psychological factors can vary, both positively and negatively, on the referee's decision-making performance.

Anxiety is a common psychological experience experienced by individuals in high-pressure situations, including for soccer referees. High anxiety makes a referee fearful of failing to officiate a match and worried about social consequences, deterioration, injury, and physical or verbal aggression from spectators, players, or coaches (Saeful Putra et al., 2017). When dealing with the pressure to make the right decisions under the scrutiny of players, coaches and spectators, referees' anxiety levels can increase significantly. Research shows that increased anxiety can impair cognitive function and decision-making ability, potentially leading to in-game errors (Rossato et al., 2018), anxiety causes symptoms synonymous with negative feelings (Nova et al., 2021), may affect various types of Sports (Kusuma & Bin, 2017), future-oriented mood (Jatmika & Linda, 2016).

Emotional intelligence refers to an individual's ability to recognize, understand, and manage emotions, both their own and those of others (Schütz et al., 2021); (Ratnasari et al., 2020). In the context of refereeing, emotional intelligence plays an important role in maintaining composure, managing conflict, and making impartial decisions. The environment plays a big role (Maitrianti, 2021) in line with research conducted by (Nurcahya, 2017) A referee who has emotional intelligence will be able to face challenges with responsibility, be more productive, and optimistic in solving problems, this is very necessary in the work environment (officiating). Referees with high emotional intelligence are better able to handle the intense emotions displayed by players and coaches during matches, thus facilitating fair play and conflict resolution. Emotional thinking serves as the basis for understanding and analyzing emotions which in turn facilitates the management of emotions (Juravich & Babiak, 2015).

The concentration of mind of a soccer referee is crucial in performing their duties well. They must focus on various aspects of the match such as the rules of the game, player behavior, and field dynamics. This involves the ability to process information quickly and accurately to make fair and correct decisions in often rapidly changing situations. Concentration also involves the ability to block out external distractions such as pressure from spectators, players, or opposing coaches, so that the referee can stay focused on his task without being affected by irrelevant external factors. Concentration of thought refers to the ability to maintain focus and attention on relevant stimuli while filtering out distractions (Idarraga & Valencia-Sánchez, 2024). In the fast-paced environment of a soccer match, referees must constantly process information from multiple sources, including player movements, fouls and game situations. Emotional thinking serves as the basis for understanding and analyzing emotions which in turn facilitates the management of emotions (Juravich & Babiak, 2015); Emotional intelligence, which is influenced by the environment, is dynamic and can change over time (Ardian & Valentino, 2017).

This study aims to investigate the psychological challenges faced by referees in Aceh Besar District, Indonesia. The aim is to shed light on the root causes of the problems and propose concrete solutions. By deepening the understanding of the psychological factors that affect referees, this research aims to improve the quality of referees. This is expected to encourage the practice of fair play and strengthen the development of soccer, from the local to the national level. The novelty of this research lies in deepening the understanding of the psychological challenges faced by soccer referees in Aceh Besar District, as well as efforts to

identify the root causes of existing problems and offer concrete solutions to improve the quality of referees. This research not only highlights the problems faced by referees, such as anxiety, emotional intelligence, and concentration of thinking, but also tries to understand how these psychological factors affect referee decision-making on the field. In addition, this research has a specific focus on the local context, namely Aceh Besar District, so that the results can provide valuable insights to improve the quality of referees at the local level and encourage fair play practices in Indonesian football.

METHOD

This research adopts a quantitative approach with a descriptive correlational method. According to (Sugiyono, 2015) The descriptive method is “a method that serves to describe or provide an overview of the object under study through data or samples that have been collected as they are”. The main purpose of this research is to explore the possible relationship between the four variables under investigation, which is then evaluated through the correlation coefficient. The population that is the focus of this research is soccer referees in Aceh Besar Regency, totaling 55 people. The sampling technique used is Total Sampling, so that the entire population of football referees in Aceh Besar Regency totaling 55 people is included in this study.

The variables studied in this research consist of three elements, namely anxiety, emotional intelligence, and concentration of thinking as independent variables, and football referee decision making as the dependent variable. The data collection tools used in this study include questionnaires, documentation studies, and interviews.

This study used four research instruments, namely; 1) Anxiety Instrument, using a questionnaire that has been developed by (Prasetyo, 2023). 2) Emotional Intelligence instrument using a questionnaire developed by the researcher. 3) Thinking concentration instrument, using the grid concentration exercise test. 4) Football Referee Decision Making Instrument, using the Referee Decision Making Test developed by FIFA to measure the referee's ability to make accurate and precise decisions in complex game situations.

Pearson Product Moment Correlation is used to evaluate the direct relationship between one independent variable (X1, X2, X3) and the dependent variable (Y), while Multiple Correlation is used to assess the relationship between two or more independent variables (X) jointly on the dependent variable (Y). Multiple Regression, on the other hand, is used to predict the impact of two or more independent variables on the dependent variable, thus allowing for the identification of a functional or causal relationship between those independent variables and the dependent variable.

RESULTS

Table 1. Descriptive Statistics

	N	Minimum	Mximum	Maen	Std. Deviation
Anxiety	55	120.00	149.00	137.8727	5.47741
Emotional Intelligence	55	147.00	165.00	156.2182	4.46256
Concentration of Thought	55	7.00	24.00	16.4909	4.02710
Decision Making	55	74.00	98.00	91.7091	4.22371
Valid N (listwise)	55				

Source: Researcher data

The measurement results are then described descriptively for each variable. For the Anxiety variable, the minimum value is 120, the maximum value is 149, with an average of 137.87 and a standard deviation of 5.47. Meanwhile, for the Emotional Intelligence variable, the

minimum value was 147, the maximum value was 165, with an average of 156.21 and a standard deviation of 4.46. Furthermore, for the Concentration of Thought variable, there is a minimum value of 7, a maximum value of 24, with an average of 16.49 and a standard deviation of 4.02. Finally, for the Decision-Making variable, there is a minimum value of 75, a maximum value of 98, with an average of 91.70 and a standard deviation of 4.22.

Table 2. ANOVA Regression Test of Anxiety and Decision Making

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	909.028	1	909.028	24.522	.000 ^b
	Residual	1964.718	53	37.070		
	Total	2873.745	54			

Source: Researcher data

In testing the significant relationship between anxiety variables and soccer referee decision making, the F test was used. The results showed that the F_{count} value obtained was 24.522, while the F_{table} value used in this study was 4.02. In the comparison between the F_{count} value and the F_{table} value, it is found that the F_{count} value (24.522) is much greater than the F_{table} value (4.02). Therefore, the alternative hypothesis (H_a) is accepted, which indicates that there is a significant relationship between the anxiety variable and the decision-making of football referees in Aceh Besar District.

Table 3. ANOVA Regression Test of Emotional Intelligence and Decision Making

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	727.865	1	727.865	17.977	.000 ^b
	Residual	2145.880	53	40.488		
	Total	2873.745	54			

Source: Researcher data

In testing the significant relationship between emotional intelligence variables and soccer referee decision making, the F test was used. The results showed that the F_{count} value obtained was 17.977, while the F_{table} value used in this study was 4.02. In the comparison between the F_{count} value and the F_{table} value, it is found that the F_{count} value (17.977) is much greater than the F_{table} value (4.02). Therefore, the alternative hypothesis (H_a) is accepted, which indicates a significant relationship between the variables of emotional intelligence and the decision-making of football referees in Aceh Besar District.

Table 4. ANOVA Regression Test of Concentration of Thought and Decision Making

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	661.809	1	661.809	15.858	.000 ^b
	Residual	2211.936	53	41.735		
	Total	2873.745	54			

Source: Researcher data

In testing the significant relationship between the thinking concentration variable and the

decision making of football referees, the F test was used. The results showed that the F_{count} value obtained was 15.858, while the F_{table} value used in this study was 4.02. In the comparison between the F_{count} value and the F_{table} value, it was found that the F_{count} value (15.858) was much greater than the F_{table} value (4.02). Therefore, the alternative hypothesis (H_a) is accepted, indicating a significant relationship between the variables of concentration of thinking and decision making of football referees in Aceh Besar Regency.

Table 5. ANOVA Regression Test of Anxiety, Emotional Intelligence, and Concentration of Thought on Decision Making

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1796.627	3	598.876	28.356	.000 ^b
	Residual	1077.118	51	21.120		
	Total	2873.745	54			

Source: Researcher data

In testing the significant relationship between the variables of anxiety, emotional intelligence, and concentration of thinking with soccer referee decision making, the F test was used. The results showed that the F_{count} value obtained was 28.356, while the F_{table} value used in this study was 2.79. From the comparison between the F_{count} value and the F_{table} value, it can be seen that the F_{count} value (28.356) is much greater than the F_{table} value (2.79). Therefore, the alternative hypothesis (H_a) is accepted, which indicates a significant relationship between the variables of anxiety, emotional intelligence, and concentration of thinking with the decision making of soccer referees in Aceh Besar Regency.

DISCUSSION

In the world of football, the role of the referee is vital in maintaining the smooth running of the match and ensuring fairness in every decision made. However, just like any other profession, a referee is also vulnerable to psychological pressures and challenges that can affect his or her performance, especially in terms of decision-making. Research investigating the relationship between anxiety, emotional intelligence, and concentration of thought on the decision-making ability of soccer referees is highly relevant. Understanding these psychological factors can identify strategies and approaches that can help referees improve their performance on the pitch, thereby supporting fair and quality matches.

Relationship between Anxiety and Decision Making of Aceh Besar Football Referees.

Anxiety experienced by referees can have a significant impact on their performance, in the case of the referee speakbola aceh besar, in the field it was found that the referee who was leading the match felt anxiety caused by surrounding pressures such as supporter pressure factors, host pressure, as well as pressure from coaches to players who were competing, which in turn could affect the outcome of the match. The results of the study found that there is a significant relationship between anxiety and the decision making of soccer referees. In line with the results of research conducted by [\(Hartley & Phelps, 2015\)](#) found that high anxiety can interfere with information processing and reduce one's ability to make informed decisions. Anxiety in referees has the potential to negatively impact their performance. Referees who experience high levels of anxiety may feel psychologically burdened when officiating a match, which can further affect their overall performance. The psychological burden that referees experience while officiating a match can disrupt their focus and impact on making the right decisions. Meanwhile, research conducted by [\(Abdul Fatah et al., 2022\)](#) found that high levels

of anxiety may be associated with increased errors in decision-making. Referees who feel anxious may be more likely to make impulsive or irrational decisions that are not in accordance with the rules or the actual situation. Thus, there is consensus in the literature that anxiety can have a significant impact on the decision-making of football referees. It is important for sports organizations to consider strategies to help referees manage their anxiety, whether through psychological training, social support, or other methods. By doing so, it can be expected that referees can maintain a high level of performance and preserve the integrity of the match.

The Relationship between Emotional Intelligence and Decision Making of Aceh Besar Football Referees.

Emotional intelligence affects the decision-making of soccer referees, which means that the higher the emotional intelligence, the better the decision-making ability. Just like anxiety, researchers find problems with referees related to their emotional intelligence when they are leading matches, with the pressures around when the match takes place can affect their emotional intelligence, causing mistakes in decision making that can be fatal. In line with research (Lane et al., 2017) It was found that emotional intelligence makes a significant contribution to performance in various sports. This finding can be a reference that the ability to manage emotions effectively can improve one's ability to make the right decisions on the field. It is important to understand how emotional intelligence can affect the decision-making of soccer referees. Emotional intelligence helps referees to remain calm and focused under pressure, so they can make objective and well-considered decisions. Referees who have the ability to manage their emotions well tend to be more trustworthy in making fair and objective decisions, without being affected by pressure or emotions associated with certain situations on the pitch. Another opinion according to research conducted by (Morales & Pérez-Mármol, 2019) It is argued that training focused on developing emotional intelligence can improve performance in competitive situations. This suggests that emotional intelligence is not an innate trait, but can be developed through practice and experience. As such, sports organizations may consider providing the necessary training and support to help referees develop their emotional intelligence, which in turn may improve the quality of their decision-making on the field. Overall, emotional intelligence has an important role to play in the decision-making of football referees. Studies on emotional intelligence in the context of sport in general show that the ability to manage emotions effectively can improve athletes' performance, and this is also true for referees. Therefore, it is important for referees and sports organizations to recognize the importance of emotional intelligence and provide the necessary support to develop these skills.

The Relationship between Concentration of Thought and Decision Making of Aceh Besar Football Referees.

Strong concentration of thought is key in making good and effective decisions. When a person is able to focus their attention well on relevant information and ignore distractions, they can access deeper knowledge and thoughts to support the decision-making process. ASKAB Aceh Besar soccer referees have problems in terms of concentration, it was found that referees when leading matches often lose concentration and momentum to determine quick and precise decisions, errors that occur such as, violations that should be no cards become yellow cards and errors in making decisions due to loss of concentration on them, so that it can cause chaos and can also make a threat to the referee. The results of this study found that there is a significant relationship between concentration of thinking on the decision making of soccer referees. Like the research conducted by (Ehrlinger et al., 2016) Strong concentration involves not only the ability to focus attention, but also the ability to maintain that concentration over an extended period of time. In line with research conducted by (Liu et al., 2020) highlighted the importance

of concentration endurance in sport, where a person who can maintain a high level of concentration until the end of the match tends to have a more consistent and effective performance. As such, it is important for football referees to develop and maintain a strong concentration of thought during the entire match. This can be achieved through regular mental and physical exercise, as well as by practicing relaxation and focused attention techniques before and during matches. By improving concentration of thought, referees can become more effective in making the right decisions and supporting the integrity and fairness of the match.

Relationship between Anxiety, Emotional Intelligence and Thinking concentration with Decision Making of Aceh Besar Football Referees.

The results of this study also showed a significant relationship between anxiety, emotional intelligence, and concentration of thinking with soccer referee decision making. Descriptive analysis of data, multiple linear regression tests, and hypothesis testing revealed that anxiety, emotional intelligence, and concentration of thinking simultaneously affect the referee's ability to make decisions on the field. The implications of these findings confirm the importance of taking psychological aspects into account in the training and management of football referees. Previous research, such as that conducted by (Wu et al., 2013), (Lane et al., 2017), and (Draheim et al., 2022), also corroborated these findings by highlighting the relationship between anxiety, emotional intelligence, concentration of thought, and decision-making in various contexts. These results confirm that these psychological factors are not only relevant in the context of football refereeing, but also have broad implications in a variety of fields, including education, organizations, and mental health. The practical implications of these findings suggest the need for the development of training programs that specifically strengthen the emotional intelligence and concentrated thinking of referees. Measures such as empathy training, self-awareness, emotion regulation, and focusing and cognitive techniques can help referees deal with pressure and make better decisions on the field. This approach will not only improve the quality of matches, but can also optimize individual performance in situations where quick and precise decision-making is essential. As such, this study makes a valuable contribution to the understanding of the complexity of psychological factors that influence soccer referees' decision-making. By better understanding the relationship between anxiety, emotional intelligence, concentration of thought, and decision-making, more effective intervention strategies can be designed to improve match quality and the psychological well-being of referees.

CONCLUSION

Based on the results of the research and discussion, the conclusions that can be drawn are as follows: 1) There is a significant relationship between anxiety levels and decision making of soccer referees in Aceh Besar Regency. 2) There is a significant relationship between the level of emotional intelligence and decision making of soccer referees in Aceh Besar Regency. 3) There is a significant relationship between the level of concentration of thinking and the decision making of football referees in Aceh Besar Regency. 4) There is a significant relationship between anxiety levels, emotional intelligence, and concentration of thinking with the decision making of football referees in Aceh Besar Regency.

REFERENCES

- Abdul Fatah, F., Subarjah, H., & Firmansyah, H. (2022). The effect of anxiety, mental toughness, critical thinking on decision making of badminton umpire. *Bisma The Journal of Counseling*, 6(2), 242–248. <https://doi.org/10.23887/bisma.v6i2.51576>
- Ardian, A., & Valentino, R. F. (2017). Hubungan antara kecerdasan emosional dengan prestasi

belajar siswa kelas khusus olahraga. *Jurnal Olahraga*, 3(1), 44.
<https://doi.org/10.37742/jo.v3i1.71>

Buraimo, B., Forrest, D., & Simmons, R. (2017). The 12th man?: refereeing bias in english and german soccer. *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 173(2), 431–449. <https://doi.org/10.1111/j.1467-985X.2009.00604.x>

Campo, M., Sanchez, X., Ferrand, C., Rosnet, E., Friesen, A., & Lane, A. M. (2017). Interpersonal emotion regulation in team sport: mechanisms and reasons to regulate teammates' emotions examined. *International Journal of Sport and Exercise Psychology*, 15(4), 379–394. <https://doi.org/10.1080/1612197X.2015.1114501>

Collins, D., & Winter, S. (2020). Psychological models in sport psychology: a preliminary investigation. *European Journal of Sport Science*, 20(9), 1235–1244. <https://doi.org/10.1080/17461391.2019.1694588>

Draheim, C., Pak, R., Draheim, A. A., & Engle, R. W. (2022). The role of attention control in complex real-world tasks. In *Psychonomic Bulletin and Review* (Vol. 29, Issue 4). Springer US. <https://doi.org/10.3758/s13423-021-02052-2>

Eggleston, D., Hawkins, L. G., & Fife, S. T. (2020). As the lights fade: a grounded theory of male professional athletes' decision-making and transition to retirement. *Journal of Applied Sport Psychology*, 32(5), 495–512. <https://doi.org/10.1080/10413200.2019.1626514>

Ehrlinger, J., Readinger, W. O., & Kim, B. (2016). Decision-making and cognitive biases. *Encyclopedia of Mental Health: Second Edition*, 2, 5–12. <https://doi.org/10.1016/B978-0-12-397045-9.00206-8>

Hartley, C. A., & Phelps, E. A. (2015). Anxiety and decision-making. *Biological Psychiatry*, 72(2), 113–118. <https://doi.org/10.1016/j.biopsych.2011.12.027>

Hayashi, C. T. (2016). Foundations of Sport and Exercise Psychology. *Journal of Sport and Exercise Psychology*, 20(3), 336–338. <https://doi.org/10.1123/jsep.20.3.336>

Idarraga, J. F. V., & Valencia-Sánchez, W. G. (2024). Enhancing ball passing creativity and effectiveness in youth women's football: a single-case study. *Journal of Physical Education and Sport*, 24(1), 172–186. <https://doi.org/10.7752/jpes.2024.01022>

Jatmika, D., & Linda. (2016). Efektivitas pelatihan pengelolaan kecemasan terhadap kecemasan berkompetisi pada atlet bulu tangkis remaja. *Jurnal Psikologi Psibernetika*, 9(2), 102–112. <https://doi.org/10.30813/psibernetika.v9i2.462>

Juravich, M., & Babiak, K. (2015). Examining positive affect and job performance in sport organizations: a conceptual model using an emotional intelligence lens. *Journal of Applied Sport Psychology*, 27(4), 477–491. <https://doi.org/10.1080/10413200.2015.1048382>

Komarudin, D. M. (2015). Penerapan metode latihan keterampilan psikologis untuk peningkatan kinerja wasit sepakbola. *Jurnal Kajian Pendidikan*, 5(2), 179–190.

Kusuma, D. W. Y., & Bin, W. (2017). Effect of yoga program on mental health: competitive anxiety in semarang badminton athletes. *Jurnal Kesehatan Masyarakat*, 13(1), 121–130. <https://doi.org/10.15294/kemas.v13i1.9862>

- Kuswoyo, D. D., Pramono, H., & Rifai, A. R. (2017). Kontribusi percaya diri, konsentrasi dan motivasi terhadap kinerja wasit persatuan sepak bola seluruh indonesia provinsi sumatera selatan. *Journal of Physicak Education and Sports*, 6(3), 241–247. <https://doi.org/10.15294/jpes.v6i3.20587>
- Lago-Peñas, C., Lago-Ballesteros, J., Dellal, A., & Gómez, M. (2016). Game-related statistics that discriminated winning, drawing and losing teams from the spanish soccer league. *Journal of Sports Science and Medicine*, 9(2), 288–293.
- Lane, A. M., Devonport, T. J., Soos, I., Karsai, I., Leibinger, E., & Hamar, P. (2017). Emotional intelligence and emotions associated with optimal and dysfunctional athletic performance. *Journal of Sports Science and Medicine*, 9(3), 388–392.
- Liu, S., Xin, H., Shen, L., He, J., & Liu, J. (2020). The influence of individual and team mindfulness on work engagement. *Frontiers in Psychology*, 10(January), 1–8. <https://doi.org/10.3389/fpsyg.2019.02928>
- Maitrianti, C. (2021). Hubungan antara kecerdasan intrapersonal dengan kecerdasan emosional. *Jurnal Mudarrisuna: Media Kajian Pendidikan Agama Islam*, 11(2), 291–305. <https://doi.org/10.22373/jm.v11i2.8709>
- Morales, F. M., & Pérez-Mármol, J. M. (2019). The role of anxiety, coping strategies and emotional intelligence on general perceived self-efficacy in university students. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.01689>
- Nova, A., Hamzah, M. A., Sinulingga, A. R., & Firmansyah, G. (2021). The level of anxiety's referees of langsa (football association of indonesia) when enforcing the laws of the game during a match. *Jp.Jok (Jurnal Pendidikan Jasmani, Olahraga Dan Kesehatan)*, 4(2), 224–234. <https://doi.org/10.33503/jp.jok.v4i2.1688>
- Nurchahya, Y. (2017). Hubungan antara kecerdasan intelektual, kecerdasan emosional, dan kebugaran jasmani dengan kinerja wasit sepak bola. *Jurnal Kepeleatihan Olahraga, Volume 10(02)*, 12–25.
- Palazzolo, J. (2020). Anxiety and performance. *Encephale*, 46(2), 158–161. <https://doi.org/10.1016/j.encep.2019.07.008>
- Prasetyo, A. D. (2023). Tingkat kecemasan wasit sepakbola ber lisensi c-2 dan c-1 di provinsi daerah istimewa yogyakarta saat memimpin pertandingan. *Integration of Climate Protection and Cultural Heritage: Aspects in Policy and Development Plans. Free and Hanseatic City of Hamburg*. https://eprints.uny.ac.id/76345/1/fulltext_angga_dwi_prasetyo_16602241056.pdf
- Ramadhani, A. A. J. (2019). Penyebab kecemasan atlet pencak silat pada saat uji coba tandi di smanor tadulako. *Tadulako Journal Sport Sciences and Physical Education*, 7(2), 32–40. <http://jurnal.untad.ac.id/jurnal/index.php/PJKR/index>
- Ratnasari, S. L., Supardi, S., & Nasrul, H. W. (2020). Kecerdasan intelektual, kecerdasan emosional, kecerdasan spiritual, dan kecerdasan linguistik terhadap kinerja karyawan. *Journal of Applied Business Administration*, 4(2), 98–107. <https://doi.org/10.30871/jaba.v4i2.1981>

- Rossato, C. J. L., Uphill, M. A., Swain, J., & Coleman, D. A. (2018). The development and preliminary validation of the challenge and threat in sport (cat-sport) scale. *International Journal of Sport and Exercise Psychology*, 16(2), 164–177. <https://doi.org/10.1080/1612197X.2016.1182571>
- Russell, S., Renshaw, I., & Davids, K. (2022). Sport arbitration as an emergent process in a complex system: decision-making variability is a marker of expertise in national-level football referees. *Journal of Applied Sport Psychology*, 34(3), 539–563. <https://doi.org/10.1080/10413200.2020.1831651>
- Saeful Putra, B. Y., Ugelta, S., & Imanudin, I. (2017). Tingkat kecemasan wasit sebelum, selama dan sesudah memimpin pertandingan futsal. *JTIKOR (Jurnal Terapan Ilmu Keolahragaan)*, 3(2), 37–40.
- Saputra, M. Y., Sagitarius, S., & Rismayadi, A. (2018). *Decision making of football referee and assistant referee in liga 1 indonesia*. 1(229), 435–439. <https://doi.org/10.5220/0007062604350439>
- Schütz, K., Rahders, F., Mosley, E., & Laborde, S. (2021). Emotional competences training in equestrian sport—a preliminary study. *International Journal of Sport and Exercise Psychology*, 19(4), 613–625. <https://doi.org/10.1080/1612197X.2020.1819367>
- Vater, C., Schnyder, U., & Müller, D. (2024). That was a foul! How viewing angles, viewing distances, and visualization methods influence football referees' decision-making. *German Journal of Exercise and Sport Research*. <https://doi.org/10.1007/s12662-024-00947-5>
- Wu, T., Luo, Y., Broster, L. S., Gu, R., & Luo, Y. J. (2013). The impact of anxiety on social decision-making: behavioral and electrodermal findings. *Social Neuroscience*, 8(1), 11–21. <https://doi.org/10.1080/17470919.2012.694372>