14 (1) (2025) 265 - 272
Journal of Physical Education, Sport, Health and Recreations
https://journal.unnes.ac.id/journals/peshr

Exploring the Level of Mindfulness and Choking Under Pressure in Senior Taekwondo Athletes

Alodia Syahda Nadindra[1], Komarudin Komarudin[2], Mochamad Yamin Saputra[3], Geraldi Novian[4]✉

Study Program of Sport Coaching Education, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Bandung, Indonesia[123]
Study Program of Sport Physical Coaching, Faculty of Sport and Health Education, Universitas Pendidikan Indonesia, Bandung, Indonesia[4]

Article History

Received February 2025
Accepted February 2025
Published Vol.14 No.(1) 2025

Keywords:
Senior Taekwondo Athletes; Choking Under Pressure; Mindfulness

Abstract

Background Problems: For senior taekwondo athletes, a problem that often arises is the phenomenon of choking under pressure, where competitive pressure causes athletes to fail to manage stress and experience sudden changes in concentration. This condition occurs mainly in athletes with low levels of awareness, meaning they cannot maintain focus and self-awareness in high-pressure situations. As a result, the maximum potential seen during training is not realized on the field, which hinders the achievement of optimal match results. Research Objectives: This study aims to explore the relationship between mindfulness levels and choking under pressure in senior taekwondo athletes. Methods: This study uses a quantitative descriptive method involving 25 senior taekwondo athletes from the Victory Bandung Taekwondo Club. The instruments used in the study were questionnaires consisting of MIS to measure mindfulness and SAS, SCS, and ACSI-28 to measure choking under pressure. Results: The results of the study showed that the level of mindfulness of senior taekwondo athletes reached 74.1% with the highest indicator in awareness (78.7%), followed by refocusing (75.2%) and non-judgmental (68.4%), while the level of choking under pressure reached 67.6% with the highest value in ACSI (71.4%), followed by SAS (65.6%) and SCS (64%). Conclusion: This study concludes that the higher the level of mindfulness in athletes, the lower the tendency for them to experience the phenomenon of choking under pressure.

How to Cite

Nadindra, A. S., Komarudin., Saputra, M. Y., & Novian, G. (2025). Exploring the Level of Mindfulness and Choking Under Pressure in Senior Taekwondo Athletes. Journal of Physical Education, Sport, Health and Recreation, 14 (1), 265-272.

✉ Correspondence address :
E-mail: geraldi.novian@upi.edu

p-ISSN 2460-724X
e-ISSN 2252-6773

INTRODUCTION

Pressure during competition is something that cannot be avoided in sports (Arfanda et al., 2022). There are many cases in the field, especially in taekwondo, that prove an athlete's performance can be suboptimal due to shortcomings in their psychological state (Novian & Noors, 2020). One of the psychological challenges often experienced by athletes in this situation is choking under pressure, which is a condition where high pressure causes a significant decrease in performance (Hill et al., 2010). Various psychological factors contribute to the emergence of choking under pressure, including competitive anxiety, lack of focus, and inability to manage stress during competition (Yu, 2015). The phenomenon of choking under pressure is often seen in Taekwondo matches, where athletes have difficulty making decisions, hesitate in attacking, or lose control of techniques that are usually well mastered during training (Ouergui et al., 2015). This can lead to failure in matches that could have been avoided and affect the athlete's self-confidence, motivation, and mental readiness to face the next competition. (Mylsidayu, 2022).

Studies show that the process of good appearance is 70-90% determined by psychological aspects (Komarudin, 2016). Specific training is required to enhance athletes' mental readiness through various methods organized within a structured psychological training program (Saputra et al., 2022). By training mental skills systematically, athletes can be better prepared to face challenges in training and matches, so that their performance remains optimal even under pressure (Rachman et al., 2024). Inability to control oneself under pressure often makes athletes have difficulty in making decisions, lose control over techniques they have mastered, and experience concentration problems that impact match performance (Komarudin et al., 2024). In this context, managing psychological aspects is the main factor that must be considered by athletes and coaches so that they can face the pressure of competition with much better mental readiness (Arisman, 2024).

In this study, the author highlights mindfulness as a method that is starting To be broadly utilized in the field of sports. to manage psychological stress (Putri et al., 2024). Mindfulness is defined as full awareness of thoughts and emotions without overreacting to the stressors encountered. This method has been proven effective in reducing stress, anxiety, and depression thereby enabling athletes to maintain optimal performance in competitive situations (Sihombing et al., 2024). Athletes possessing elevated levels of mindfulness are better able to maintain focus, accept the pressures of competition, and manage emotional responses better (Röthlin et al., 2016). On the other hand, low levels of mindfulness increase vulnerability to psychological disorders that can trigger choking under pressure, especially in sports such as Taekwondo which require quick reactions and decision-making in a short time.

Several literature studies show that choking under pressure and mindfulness have a significant influence on athlete performance. According to Hussey, Weinberg, and Assar (2020), choking under pressure is influenced by levels of anxiety (trait anxiety) and excessive self-consciousness, which can lead to decreased performance due to high psychological pressure. In this context, mindfulness acts as a strategy that can help athletes manage anxiety and reduce excessive self-awareness, so that they can remain concentrated on the current task without being distracted by external or internal pressures (Koop & Jooste, 2023). Several studies have also indicated that one of the mindfulness training methods, namely the Mindful Sport Performance Enhancement (MSPE) program proposed by Keith A. Kaufman (2009), is effective in reducing anxiety and enhancing athletes' awareness. However, these studies are still limited to individual sports such as track and field, which have different characteristics from Taekwondo (Ramalingam et al., 2021).

This study aims to examine the role of mindfulness in helping Taekwondo athletes cope with psychological pressure during competitions, particularly when experiencing choking under pressure. High levels of pressure often lead to loss of focus, hesitation in decision-making, and failure to execute well-mastered techniques (Morineau et al., 2024). The research explores how choking under pressure affects performance, the role of mindfulness in managing it, and whether there is a relationship between mindfulness levels and an athlete's ability to handle pressure. The novelty of this study lies in its focus on Taekwondo, a sport with different demands compared to those commonly studied like athletics or swimming. It also offers a conceptual understanding of mindfulness as a non-technical strategy to enhance mental readiness in martial arts.

METHODS

This research uses a descriptive method because the author wants to describe the object being studied using data or samples in a format that

explains numbers (Ramadhan & Syafii, 2022). This study involved senior Taekwondo athletes at the Victory Bandung Taekwondo Club with a total of 25 athletes who had experience competing in city to international level championships. This study used four questionnaires, where each questionnaire was given once to each subject. The four instruments consist of one questionnaire to measure mindfulness and three questionnaires to measure choking under pressure. Choking under pressure measurements are carried out from three different aspects so that the results obtained are more in-depth and accurate (Murayama & Sekiya, 2015).

The authors used the Mindfulness Inventory for Sport (MIS) instrument to asses the level of mindfulness in the context of sport. This instrument was developed through three stages, as explained by Thienot et al (2014). First, measure the athlete's capability to recognize pressure (awareness). Second, evaluate the degree to which the athlete can embrace the situation without self-judgment (nonjudgmental thinking). Third, observe the athlete's capability to rapidly redirect their attention. (refocusing) (Baykose & Çelik, 2021). The MIS uses a 6-point Likert scale, with responses ranging from 1 "Almost Never" to 6 "Almost Always." (Thienot et al., 2014). Each subscale in this instrument has an adequate level of stability, with reliability values ranging from 0.77 to 0.78, which is concluded by the higher the MIS score, the higher the athlete's level of mindfulness in facing competitive situations. (J. Hussey et al., 2020).

Furthermore, to measure choking under pressure in this study includes the Sport Anxiety Scale (SAS), Self-Consciousness Scale (SCS), and Athletic Coping Skills Inventory (ACSI). Because there are main criteria in identifying the tendency of choking under pressure, namely trait anxiety (TA), self-consciousness (SC), and coping style (J. K. Hussey, 2015). The first measurement of choking under pressure, namely the Sport Anxiety Scale (SAS) developed by Smith, Smoll and Schutz is used to assess the level of anxiety that may impact an athlete's performance in competition. (Rohman & Wahyudi, 2019). This instrument has been adapted into Indonesian by Amir, (2013) through research entitled Development of a Sports Anxiety Measurement Tool. Therefore, this study adopts the version of SAS that has been developed by Smith and adapted by Amir for use in the Indonesian-speaking population. Consisting of twenty-one statement items with alternative answers that presented as a Likert scale spanning from 1 "Never" to 4 "Very Often". This instrument consists of three subscales, each of which has an adequate level of internal consistency (Rasyid & Rambey, 2024). The concentration disturbance subscale has a reliability value between 0.74 to 0.81, physical anxiety ranges from 0.88 to 0.92, while the worry subscale has a range of 0.82 to 0.87 based on Cronbach's alpha calculations (Smith et al., 1990).

The second measure of choking under pressure, the Self-Consciousness Scale (SCS) was developed by Carver & Glass (1976) which is used to measure the level of self-awareness that has the potential to increase vulnerability to stress. Contains 23 items covering three main dimensions, namely private self-consciousness, public self-consciousness, and social anxiety. Which refers to an individual's awareness of internal thoughts and feelings that can increase psychological stress, an individual's awareness of how others judge him/her, and how external factors can worsen choking tendencies. Statements with alternative answers in the form of a Likert scale with an assessment format of 3 "Very Reflective of Me" to 0 "Not at All Reflective of Me". Overall scores vary from 23 to 92, with higher values reflecting increased self-awareness and each subscale having good levels of reliability with values greater than 0.73 (J. Hussey et al., 2020).

The third measure for choking under pressure is the Athletic Coping Skills Inventory (ACSI-28). The ACSI-28 is a multidimensional measurement tool designed to assess specific psychological skills in sports developed by Smith & Ptacek (1995). This study tests the accuracy and consistency of the Indonesian-translated ACSI-28 by Firdausi et al (2022). This translation maintains the original structure of the ACSI-28 without any changes. The ACSI-28 Indonesian version includes 28 statements and seven subscales, which are identical to the original version. These subscales comprise goal setting and mental preparation, concentration, freedom from worry, coping with adversity, performing under pressure, as well as confidence and achievement motivation. (Ozcan & Gunay, 2017). The validity of each item based on each subscale in this study ranged from 0.46 to 0.83 and the reliability test the ACSI-28 adaptation in Indonesian showed a reliability value of 0.845. The results of this research confirms that the Indonesian adaptation of the ACSI-28 is a valid and reliable tool for assessing athletes' psychological skills in sports within Indonesia (Dzihan et al., 2022). In this version, the rating scale has been adapted to use a Likert scale of 1 to 4, whereas in the original ACSI-28, the scale used was 0 to 3. (Firdausi et al., 2022).

RESULTS AND DISCUSSION

The data obtained in this study were subsequently processed and examined utilizing SPSS software version 25 by conducting statistical descriptions, normality tests, correlation tests and percentage results. The analysis results are displayed through **Table 1. Table 2. Table 3.** and illustrations, which are then interpreted in the results and discussion sections.

Table 1. Statistical Description

Variable	N	Min.	Max.	Sum	Mean	Std. Dev.
Mindfulness	25	45	83	1667	66.68	11.375
Choking Under Pressure	15	135	201	4431	177.24	19.229

Based on **Table 1**, it is known that the mindfulness variable has the smallest value of 45 and the largest value of 83, with an average of 66.68 and a standard deviation of 11.375. Meanwhile, the choking under pressure variable has the smallest value of 135 and the largest value of 201, with an average of 177.24 and a standard deviation of 19.229. Furthermore, to determine the distribution of data, a normality test was carried out which can be seen in **Table 2.**

Table 2. Normality Test

Variable	Statistic	df	Sig.
Mindfulness	.948	25	.222
Choking Under Pressure	.926	25	.069

Based on **Table 2**, the results of the normality test with Kolmogorov-Smirnov statistics show that the mindfulness variable has a statistical value of 0.948 with a significance of 0.222, while the choking under pressure variable has a statistical value of 0.926 with a significance of 0.069. Because the significance value of both variables is greater than 0.05, it can be concluded that the data is normally distributed. Furthermore, the analysis is continued with the hypothesis test presented in **Table 3.**

Table 3. Correlation Test between Mindfulness Variables and Choking Under Pressure

Variable	Pearson Correlation	N	Sig. (2-tailed)
Mindfulness - Choking Under Pressure	.496	25	.012

Based on **Table 3**, the results of the Pearson correlation test show that there is a relationship between the mindfulness variable and choking under pressure with a correlation coefficient value of 0.496. The significance value (2-tailed) of 0.012 indicates that this relationship is significant at 95% ($p < 0.05$). This means that the higher the athlete's mindfulness level, the lower the tendency to experience choking under pressure. Next, the author presents the percentage of the mindfulness levels of senior taekwondo athletes based on each indicator, as shown in **Figure 1.**

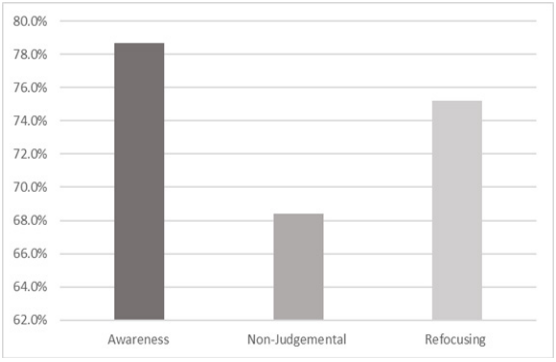
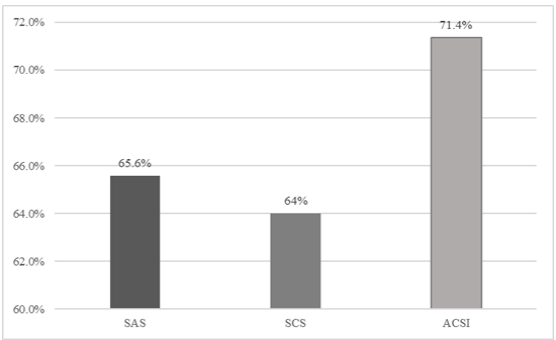


Figure 1. Mindfulness Level of Senior Taekwondo Athletes Based on Each Indicator

Figure 1 shows the level of mindfulness of senior Taekwondo athletes based on three indicators, namely Awareness, Non-Judgemental, and Refocusing. From the graph, it can be seen that the Awareness indicator has the highest percentage of 78.7%, followed by Refocusing with 75.2%. Meanwhile, the Non-Judgemental indicator has the lowest value, namely 68.4%. These results indicate that athletes have a higher level of awareness compared to other aspects of mindfulness. Furthermore, the author presents a comparison of the level of Choking Under Pressure of Senior Taekwondo Athletes based on each indicator, which can be seen in **Figure 2.**



*Notes: SAS = Sport Anxiety Scale. SCS = Self-Consciousness Scale. ACSI = Athletic Coping Skills Inventory

Figure 2. Level of Choking Under Pressure of Senior Taekwondo Athletes Based on Each Indicator

Figure 2 shows the level of Choking Under Pressure in senior Taekwondo athletes based on three indicators, namely SAS (Sport Anxiety Scale), SCS (Self-Consciousness Scale), and ACSI (Athletic Coping Skills Inventory). From the results shown, the ACSI indicator has the highest value of 71.4%, which indicates that athletes' skills in dealing with pressure are at a higher level than the other two indicators. The SAS indicator has a value of 65.6%, which indicates that athletes' competitive anxiety levels are quite high. Meanwhile, the SCS indicator has the lowest percentage, namely 64%, which indicates that athletes' self-awareness in match situations is lower than the other two indicators.

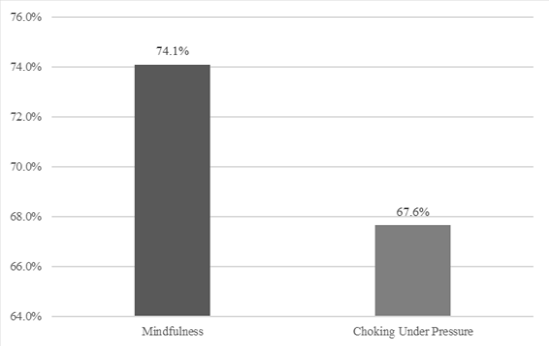


Figure 3. Level of Mindfulness and Choking Under Pressure of Senior Taekwondo Athletes

Figure 3 shows that the Mindfulness level reached 74.1%, while the Choking Under Pressure level was at 67.6%. This shows that the higher the level of mindfulness in senior Taekwondo athletes, the lower the level of choking under pressure they experience. In other words, athletes who are more aware, focused, and not easily affected by pressure tend to be better able to control themselves in competitive situations, thereby reducing the possibility of experiencing choking under pressure.

The findings of this research suggest that mindfulness contributes to reducing choking under pressure in senior Taekwondo athletes. Mindfulness in the context of sports refers to an athlete's ability to stay focused on the current situation without being distracted by anxiety or external pressure. (Hopper, 2017). In open-skill sports such as taekwondo, calmness, and concentration are very much needed because every movement must be done quickly and precisely (Bayani et al., 2024). Athletes who have high mindfulness are better able to control their thoughts, do not panic easily, and remain focused on match strategy, so that the pressure that arises does not interfere with their performance (Saltzman, 2018).

On the other hand, choking under pressure will easily occur when an athlete experiences excessive pressure that cannot be controlled by himself, resulting in a decrease in performance (Gröpel & Mesagno, 2019). This condition often occurs when athletes think too much about the outcome of the match, feel burdened by expectations, or have no control over their emotions. When the pressure increases, the body becomes tense, breathing is irregular, and the brain has difficulty making decisions quickly. As a result, movements become stiff, technical errors increase, and strategies that should be implemented become chaotic (Marini, 2023). Even though athletes show excellent performance during training, if athletes are prone to experiencing the phenomenon of choking under pressure, their performance will decrease drastically during the match. In a Taekwondo match, this situation can be the deciding factor in winning or losing because even a small mistake can be exploited by the opponent.

Based on the data obtained, the mindfulness indicator with the highest score is Awareness (78.7%). This shows that senior Taekwondo athletes have quite a good awareness of their own condition and the surrounding environment when competing. This awareness allows them to more quickly read their opponent's moves and adjust their strategy quickly and swiftly (Nurdiani, 2024). The Refocusing indicator also has a high score (75.2%), which means that athletes are able to regain their focus after being distracted by mistakes or other distractions. Meanwhile, the Non-Judgemental indicator has the lowest score (68.4%), which indicates that some athletes still tend to judge or criticize themselves when they make mistakes. This excessive self-criticism can be the main trigger for choking under pressure because it makes it difficult for athletes to get up and focus on the match again (McDuff, 2016).

On the other hand, Choking under pressure is measured through three main aspects, namely coping skills, competitive anxiety, and self-awareness. Coping skills have the highest value (71.4%), which shows that most senior taekwondo athletes have quite good abilities in dealing with pressure during matches. However, competitive anxiety reached 65.6%, which shows that there is still a fairly high level of anxiety among senior athletes. Anxiety before competing is normal, but if excessive, it can have a negative impact on performance (Rohmansyah, 2017). Meanwhile, self-awareness has the lowest value (64%), which shows that athletes' self-awareness in match situations is still relatively low. Low self-

awareness makes athletes less sensitive to changes in emotions or tensions they experience, making it difficult to exercise good self-control (Hogarth, 2018).

From the above explanation, it can also be inferred that in the field of sports Taekwondo, psychological aspects such as mindfulness and choking under pressure are very important to pay attention to. Athletes not only have to face their opponents physically, but also have to be able to control their emotions, manage stress, and stay focused throughout the match. If an athlete does not have good control over their mind, then they are likely to experience choking under pressure when facing crucial moments. Therefore, coaches need to include mental exercises such as mindfulness in training programs, so that athletes are better prepared to face pressure and remain calm in competitive situations (Pratama & Utami, 2024). If athletes never do psychological training, then it is very likely that athletes will have difficulty dealing with various problems that they will face when training or competing (Komarudin et al., 2021).

Several previous studies have also shown that mindfulness can be an effective strategy in overcoming choking under pressure. Matthew Marini (2023) stated that athletes who frequently practice mindfulness are more capable of sustaining their performance in stressful situations. In Taekwondo training, mindfulness can be applied through breathing techniques, meditation, or visualization exercises before competing, so that athletes are more mentally prepared and can control stress better (Pakulanon & Petviset, 2025). Various mindfulness programs have also been developed to improve athlete performance, such as MBSR (Mindfulness-Based Stress Reduction), MBCT (Mindfulness-Based Cognitive Therapy), MAC (Mindfulness-Acceptance Commitment), MSPE (Mindful Sports Performance Enhancement), and MMTS (Mindfulness Meditation Training for Sports). These programs help athletes manage stress, improve focus, and build mental resilience under the pressure of competition (Ramalingam et al., 2021).

The findings of this research validate that mindfulness plays an important role in helping senior Taekwondo athletes overcome choking under pressure. By increasing self-awareness, focus, and the ability to manage pressure, athletes can compete more calmly and maintain optimal performance (Rachman et al., 2024). This psychological aspect is crucial in open-skill sports like Taekwondo, where quick decisions and precise execution of techniques determine the outcome of the match (Shih & Lin, 2016). Therefore, coaches and athletes need to include mindfulness practices in their training programs to build mental resilience and reduce the risk of impaired performance due to excessive stress.

CONCLUSION

Based on the research conducted, it can be concluded that senior Taekwondo athletes with high levels of mindfulness tend to experience a reduced risk of choking under pressure, the higher the level of mindfulness in athletes, the lower the tendency of athletes to experience the phenomenon of choking under pressure. In other words, choking under pressure occurs due to a lack of application of the principle of mindfulness, especially in the aspect of awareness and the ability to shift focus after being disturbed. Athletes who do not have good self-awareness tend to be too focused on internal and external pressures and overthink the results of the match, resulting in a sudden decline in performance. The authors suggest the importance of integrating mindfulness training into regular training programs to improve mental resilience and help athletes manage stress more effectively, thereby maintaining optimal performance in competitive situations.

REFERENCES

Amir, N. (2013). Pengembangan Alat Ukur Kecemasan Olahraga. Jurnal Penelitian Dan Evaluasi Pendidikan, 16(1), 325–347. https://doi.org/10.21831/pep.v16i1.1120

Arfanda, P. E., Puspita, L., & Wahid, W. M. (2022). Implementasi Ilmu Keolahragaan Dalam Perkembangan Olahraga Disabilitas Indonesia. Penerbit NEM.

Arisman, A. (2024). Faktor-Faktor yang Mempengaruhi Mental Thoughness pada Atlet Cabang Olahraga Permainan. Prosiding Seminar Nasional Pendidikan Jasmani Dan Kesehatan Mental Peserta Didik, 645–662.

Bayani, S. N., Komarudin, K., Saputra, M. Y., & Novian, G. (2024). Meningkatkan Percaya Diri Atlet Intelektual Rendah Pada Cabang Olahraga Open-Skill Melalui Latihan Kognisi. Jambura Journal of Sports Coaching, 6(2), 84–97.

Baykose, N., & Çelik, B. (2021). The psychometric properties of mindfulness inventory in sport and examination of its measurement invariance. Propósitos y Representaciones, 9(2), 59.

Carver, C. S., & Glass, D. C. (1976). The self-consciousness scale: A discriminant validity study. Journal of Personality Assessment, 40(2), 169–172.

Firdausi, D. K. A., Simbolon, M. E. M., Oktarina, Khadavi, M. R., Walton, E. P., & Ulfah, W.

A. (2022). ACSI-28 Indonesian Version Validity and Reliability. International Journal of Human Movement and Sports Sciences, 10(2), 309–315. https://doi.org/10.13189/saj.2022.100222

Gröpel, P., & Mesagno, C. (2019). Choking interventions in sports: A systematic review. International Review of Sport and Exercise Psychology, 12(1), 176–201.

Hill, D. M., Hanton, S., Matthews, N., & Fleming, S. (2010). Choking in sport: A review. International Review of Sport and Exercise Psychology, 3(1), 24–39.

Hogarth, B. T. (2018). Shining Light on the Dark Side of Flow: Is Mindfulness in High-Flow-State Athletes Predictive of Improved Emotion-Regulation and Self-Control? John F. Kennedy University.

Hopper, D. (2017). Practical application of mindfulness techniques in sport.

Hussey, J. K. (2015). Mindfulness in sport: A proposed intervention for choking susceptible athletes. Miami University.

Hussey, J., Weinberg, R., & Assar, A. (2020). Mindfulness in Sport: An Intervention for a Choking-Susceptible Athlete. Case Studies in Sport and Exercise Psychology, 4(1), 1–10. https://doi.org/10.1123/cssep.2019-0025

Kaufman, K. A., Glass, C. R., & Arnkoff, D. B. (2009). Evaluation of mindful sport performance enhancement (MSPE): A new approach to promote flow in athletes. Journal of Clinical Sport Psychology, 3(4), 334–356. https://doi.org/10.1123/jcsp.3.4.334

Komarudin. (2016). Pengantar psikologi olahraga. 1–162.

Komarudin, K., Rismayadi, A., Saputra, M. Y., Novian, G., Lai, X. Q., Juliantine, T., & Tajri, A. A. (2024). Psychological Skill of University Basketball Athletes in Each Playing Position in Indonesia. International Journal of Disabilities Sports and Health Sciences, 7(July), 1098–1105. https://doi.org/10.33438/ijdshs.1508145

Koop, L., & Jooste, J. (2023). Mindfulness traits as potential inhibitor of irrational performance beliefs and intolerance of uncertainty amongst elite female basketball players. Apunts Sports Medicine, 58(220). https://doi.org/10.1016/j.apunsm.2023.100428

Marini, M. (2023). Uncovering the Psychological and Physiological Factors that Influence Performance and Choking Under Pressure.

McDuff, D. R. (2016). Adjustment and anxiety disorders. Oxford University Press Oxford.

Morineau, Thierry. (2024.). Cognitive Aids to Support Health Professionals.

Mulyadi, A., Komarudin, K., Sartono, H., & Novian, G. (2021). Meningkatkan konsentrasi atlet sepak bola melalui metode latihan life kinetik. Jurnal Patriot, 3(4), 387–396.

Murayama, T., & Sekiya, H. (2015). Factors related to choking under pressure in sports and the relationships among them. International Journal of Sport and Health Science, 13, 1–16.

Mylsidayu, A. (2022). Psikologi olahraga. Bumi Aksara.

Novian, G., & Noors, I. P. M. (2020). Hubungan gaya kepemimpinan pelatih dengan prestasi atlet taekwondo. Gladi: Jurnal Ilmu Keolahragaan, 11(02), 151–164.

Nurdiani, T. W. (2024). Mindfulness Leadership. Penerbit NEM.

Ouergui, I., Haddad, M., Hammami, N., & Chamari, K. (2015). Time motion and technical and tactical analysis of taekwondo competition. Performance Optimization in Taekwondo: From Laboratory to Field, 38.

Ozcan, V., & Gunay, M. (2017). The Turkish adaptation of athletic coping skills inventory-28 (ACSI-28): The validity and reliability study. Turkish Journal of Sport and Exercise, 19(1), 130–136.

Pakulanon, S., & Petviset, H. (2025). The comparison of imagery training and mindfulness meditation training on competitive anxiety and heart rate variability in university athletes: a randomised controlled trial. Journal of Imagery Research in Sport and Physical Activity, 20(1).

Pratama, E. Y., & Utami, R. J. (2024). Psikologi olahraga: Pendekatan holistik bagi atlet. JPKO Jurnal Pendidikan Kepelatihan Olahraga.

Putri, H. A., Hardi, Y., Alghiffari, E. K., & Siswanto, D. H. (2024). Penerapan teknik mindfulness dalam proses pembelajaran di sekolah menengah atas. Jurnal Praktik Baik Pembelajaran Sekolah Dan Pesantren, 3(03), 152–162.

Rachman, M. E., Raharjo, B. B., Setyawati, H., & Hartono, M. (2024). Break The Limit Mental Juara Atlet Biliar Jawa Tengah Dalam Menggapai Prestasi Dunia. Prosiding Seminar Nasional Pendidikan Jasmani Dan Kesehatan Mental Peserta Didik, 204–220.

Ramadhan, A. S., & Syafii, I. (2022). Tingkat Kecemasan Pemain Sepakbola Persenga Nganjuk U17 Dalam Pertandingan. Jurnal Prestasi Olahraga, 1(1), 36–41.

Ramalingam, V., Keng, C. S., & Lee, P. F. (2021). A narrative review on mindfulness practices in optimizing performance among sports individuals. Journal of Experimental Biology and Agricultural Sciences, 9(Specialissue 1), S62–S70. https://doi.org/10.18006/2021.9(SPL-1-GCSGD_2020).S62.S70

Rasyid, A. F., & Rambey, I. R. (2024). Efikasi Diri dan Kecemasan Kompetitif : Perbedaan Atlet Individu dan Atlet Bertim. 5(September), 389–396.

Rohman, M., & Wahyudi, H. (2019). Tingkat Kecemasan Atlet Pencak Silat Persaudaraan Setia Hati Terate Pada Siti Aminah Surabaya. Jurnal Kesehatan Olahraga, 7(2).

Rohmansyah, N. A. (2017). Kecemasan dalam olahraga. JURNAL ILMIAH PENJAS (Penelitian, Pendidikan Dan Pengajaran), 3(1).

Röthlin, P., Horvath, S., Birrer, D., & Grosse Holtforth, M. (2016). Mindfulness promotes the ability to deliver performance in highly demanding situations. Mindfulness, 7(3), 727–733.

Saltzman, A. (2018). A still quiet place for athletes: Mindfulness skills for achieving peak performance and finding flow in sports and life. New Harbinger Publications.

Saputra, M. Y., Subarjah, H., Komarudin, K., Hidayat, Y., & Nurcahya, Y. (2022). Psychological skill training implementation to improve football referee decision-making skills. Jurnal Pendidikan Jasmani Dan Olahraga, 7(1), 81–89.

Shih, Y.-L., & Lin, C.-Y. (2016). The relationship between action anticipation and emotion recognition in athletes of open skill sports. Cognitive Processing, 17, 259–268.

Sihombing, M., Akademik, S., & Psikologis, K. (2024). MINDFULNESS. 7, 15062–15067.

Smith, R. E., Schutz, R. W., Smoll, F. L., & Ptacek, J. T. (1995). Development and validation of a multidimensional measure of sport-specific psychological skills: The Athletic Coping Skills Inventory-28. Journal of Sport and Exercise Psychology, 17(4), 379–398.

Smith, R. E., Smoll, F. L., & Schutz, R. W. (1990). Measurement and correlates of sport-specific cognitive and somatic trait anxiety: The Sport Anxiety Scale. Anxiety Research, 2(4), 263–280.

Thienot, E., Jackson, B., Dimmock, J., Grove, J. R., Bernier, M., & Fournier, J. F. (2014). Development and preliminary validation of the mindfulness inventory for sport. Psychology of Sport and Exercise, 15(1), 72–80. https://doi.org/10.1016/j.psychsport.2013.10.003

Yu, R. (2015). Choking under pressure: The neuropsychological mechanisms of incentive-induced performance decrements. Frontiers in Behavioral Neuroscience, 9(FEB), 1–8. https://doi.org/10.3389/fnbeh.2015.00019.