turnitin unesa1

149 Production

Project 10

Document Details

Submission ID
trn:oid:::3618:142100657

Submission Date
Jun 8, 2026, 12:09 PM GMT+7

Download Date
Jun 8, 2026, 12:18 PM GMT+7

File Name
similarity erta_10+Layout+Article+176.pdf

File Size
1.8 MB

20 Pages

9,984 Words

59,034 Characters

*% detected as AI

AI detection includes the possibility of false positives. Although some text in this submission is likely AI generated, scores below the 20% threshold are not surfaced because they have a higher likelihood of false positives.

Caution: Review required.

It is essential to understand the limitations of AI detection before making decisions about a student's work. We encourage you to learn more about Turnitin's AI detection capabilities before using the tool.

Journal of Current Studies in SDGs
Homepage : https://journal.i-ros.org/index.php/JOCSIS
Email : jocsis@i-ros.org

e-ISSN 3089-7564
Vol.2, No.1, March 2026

Mindfulness for Optimizing Mental Health in Sports: A Systematic Literature Review and Implications for SDG 3

Dhevy Puswiartika*, Humaedi, Addriana Bulu Baan, Ajriana Safana

Universitas Tadulako, Palu, Indonesia

DOI : https://doi.org/10.63230/jocsis.2.1.149

Sections Info

Article history:
Submitted: May 20, 2026
Final Revised: June 4, 2026
Accepted: June 5, 2026
First Available Online: June 17, 2026
Publication Date: June 27, 2026

Keywords:
Athletes;
Mental Health;
Mindfulness-Based Intervention;
Sports Performance;
Systematic Literature Review.

ABSTRACT

Objective: *To synthesize and critically appraise recent empirical evidence on the role of mindfulness in optimizing mental health in sports, particularly among athletes and coaches.* ***Method:*** *Employed a systematic literature review using the PRISMA guidelines. Articles were searched through ScienceDirect and Google Scholar using the keywords mindfulness, sport, and mental health. The inclusion criteria covered English-language, open-access journal articles published between 2020 and 2024 that involved athletes or coaches and discussed dispositional mindfulness, mindfulness practice, or mindfulness-based interventions. After screening 65 full-text articles, 14 studies met the eligibility criteria and were analyzed narratively.* ***Results:*** *The findings indicate that mindfulness contributes positively to sports performance and mental health outcomes. Mindfulness-based interventions were reported to improve resilience, self-confidence, emotion regulation, subjective performance satisfaction, mindful awareness, well-being, and sleep quality. In addition, mindfulness helped reduce stress, anxiety, depression, tension, and the likelihood of choking during sports performance.* ***Novelty:*** *The review highlights mindfulness not only as a psychological training strategy to enhance sports performance but also as a promising approach to optimizing mental health in sports. The study also identifies the need for more rigorous randomized controlled trials with larger sample sizes and across diverse sports contexts. Furthermore, the findings offer important implications for SDG 3 (Good Health and Well-Being) by supporting the integration of evidence-based mindfulness approaches to promote psychological well-being, resilience, and mental health among athletes and coaches*

INTRODUCTION

Athletes' goal in competitive sports is to pursue optimal performance. Over the past decades, sports psychologists have developed diverse psychological training approaches to help athletes promote their competitive performance. Performance and success in sports rely on physical and psychological capacity and readiness. For this purpose, athletes must successfully navigate discipline-specific requirements and potential disruptions. Various forms of mental training might contribute to physiological and psychological performance surrogates or performance outcomes (Bühlmayer et al., 2017; Wang et al., 2023)

One such form is psychological skills training, which generally refers to cognitive behavioral techniques, including goal setting, imagery, mental rehearsal, arousal control, self-talk, and pre-competitive routines. Mindfulness practice is another form of mental training that is becoming increasingly popular with athletes. Mindfulness has raised growing concerns, but it has shown great potential to enhance athletes' competitive performance as an alternative to traditional psychological training approaches.

The term mindfulness is derived from Eastern Zen (Kabat-Zinn, 1994), which is defined as a nonjudgmental, conscious, purposeful focus, understanding, and acceptance of the things around one in the present moment (Bishop et al., 2004). In contrast to traditional behavioral therapies, mindfulness emphasizes that individuals should be aware of and experience their internal and external thoughts and feelings without any judgments. Every individual can be

mindful, especially when consciously carrying out behavior. However, a person's capacity to remain mindful is also a skill that can be learned. In this regard, mindfulness can be viewed from two perspectives: as a trait (a general tendency) or as a temporary state (Good et al., 2016).

Mindfulness is a stable dispositional trait that encompasses tendencies related to innate individual differences. In this case, mindfulness is a natural human capacity that individuals can possess to varying degrees, even those who have not been trained (Brown et al., 2007; Dane, 2011; Glomb et al., 2011). Mindfulness can also be viewed as a state or a set of situationally specific skills that are not permanent and can be developed through intervention, training, and practice in daily life (Brown et al., 2015). This state of mindfulness occurs when a person focuses on a particular experience with acceptance and curiosity. State mindfulness can be measured through engagement in mindfulness practices and state self-report (Lau et al., 2006). Mindfulness practice includes focusing attention (readiness of perception through breathing regulation) and openness to various sensory stimuli, which can be practiced with mindful movement (Lutz et al., 2015). This practice is usually included in intervention programs, such as Mindfulness-Based Stress Reduction (MBSR) (Kabat-Zinn, 2006).

In the sports domain, mindfulness has been used to cultivate athletes' ability to accept and realize, inspire them to control their attention effectively, and improve their body perception. Mindfulness emphasizes the process of perceiving and experiencing the constant changes in current events and one's own emotions, without inhibiting or controlling undesirable responses, thereby alleviating emotional distress from past worries, avoiding performance failure under pressure, and adjusting athletes' mental state. Mindfulness can improve performance and decrease the risks of mental health problems (Wang et al., 2023).

The growing concern for athletes' mental health aligns with Sustainable Development Goal 3 (SDG 3), which emphasizes ensuring healthy lives and promoting well-being for all at all ages. In sports settings, protecting and strengthening psychological well-being is increasingly recognized as an essential component of athlete development and sustainable performance. Therefore, identifying evidence-based approaches, such as mindfulness, to prevent psychological distress and enhance mental well-being represents an important contribution to promoting health and well-being in sport.

The first mindfulness intervention in sport was reported by Kabat-Zinn et al. in rowing in the early 1980s (Kabat-Zinn, 2006). Following the introduction of mindfulness in the sporting world, only a few mindfulness-fostering meditation practices were used before the turn of the century. Nevertheless, despite many years of rapidly growing popularity of mindfulness in clinical psychology, increasing interest in mindfulness-based interventions has also been observed in sports. With an increasing understanding of the mechanisms of mindfulness with different outcomes, a series of mindfulness training approaches have been developed, such as Mindfulness-Acceptance-Commitment (MAC) training, Mindfulness-Based Stress Reduction (MBSR) training, and Mindfulness-based Cognitive Therapy (MBCT) (Creswell, 2017).

Coaches and athletes understand that there is a mental component to success in sports. However, many need to learn how to prepare mentally properly. This is where the concept of mindfulness can be helpful. Mindfulness can help coaches and athletes strengthen their mental side and improve performance (Puswiartika, 2022). Keith Kaufman, a psychologist from the Catholic University of Washington, DC, believes that mental problems influence at

least 50% of sports. That percentage can increase to 80-90% in certain sports. This is an enormous influence, so mental problems must be a serious concern. Kaufman and his friends conducted research and summarized it in the book Mindful Sport Performance Enhancement (Kaufman et al., 2009). Several psychological studies support the importance of mental preparation. One of them involved more than 200 Canadian athletes at the 1984 Olympics. The three factors assessed were mental, physical, and technical. Of the three, only mental readiness was significantly associated with their success at the Olympics (Puswiartika, 2022).

Based on the results of these studies, Kaufman and his colleagues developed a specific mindfulness program for sports. The program consists of six exercise sessions that focus on routine activities such as eating and breathing. Then, gradually, more and more movements are included in the training. The program also provides sports-specific meditation training. In addition to formal training, the program offers informal mindfulness practices in daily activities, helping participants integrate mindfulness into training, practice, and competition. What Kaufman and his friends have done, and perhaps other experts in various countries, demonstrates that mindfulness can be practiced across multiple fields, including sports and other branches, because every human needs mental factors to support success in life (Kaufman et al., 2009).

Previous research by the authors has demonstrated the effectiveness of mindfulness interventions in maintaining participants' mental health. Nurses' stress levels can decrease after attending mindfulness training (Puswiartika & Ratu, 2020). The positive mental health of employees after attending mindfulness training has been shown to increase service commitment to customers and the community (Puswiartika et al., 2021; Puswiartika et al., 2023). Therefore, the present study aimed to systematically review evidence on the effects of mindfulness on mental health in sports among athletes and coaches to determine its merits. The findings may contribute to future mindfulness research, interventions, and policymaking to promote mental health in sports and develop optimal performance among athletes and coaches.

RESEARCH METHOD

The current systematic literature review followed the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) guidelines. Based on a predefined literature search strategy, the following two electronic databases were searched: ScienceDirect and Google Scholar. In addition, the reference lists of relevant review papers were also checked. We combined three groups of keywords in the search: (1) mindfulness, (2) sport, and (3) mental health. The literature search was limited to human participants and to English-language publications from the psychology subject area in the last five years (2020-2024).

Following the population, mindfulness type, comparison, outcome, and study design principles, the study selection criteria included:

1. Population: Any athlete was included regardless of demographics and sports levels (e.g., collegiate, recreational/amateur, professional, elite, retired, or handicapped).
2. Mindfulness Type: Any mindfulness, such as dispositional mindfulness and mindfulness-based intervention (MBI), was included without limits to the training types and components (e.g., traditional Mindfulness-Acceptance-Commitment intervention, Mindfulness-Based Stress Reduction intervention, mindfulness-based yoga, or mindfulness-based cognitive therapy), frequency, and duration.

3. Comparison: any control conditions without mindfulness components (e.g., nontreatment control, waiting-list control, and active control using CBT) were eligible.
4. Outcome: objectively or subjectively measured performance was the primary outcome, and secondary outcomes included the mindfulness level, physiological aspects, psychological components (e.g., acceptance, self-compassion, psychological flexibility, flow, and reflective response), and mental health indicators (e.g., anxiety, stress, and depression).
5. Study design: Randomized controlled trials (RCTs), as this type of study provides the highest standard of evidence, survey research (both cross-sectional and longitudinal study), and conceptual review.

In addition, book chapters, editorial letters, commentaries, and conference proceedings were not eligible for inclusion. All the initially searched articles were exported to Mendeley to remove duplicates. Two investigators independently screened the titles and abstracts of all remaining articles, excluding irrelevant articles. Afterward, the full texts of all the identified articles were independently checked for eligibility by two investigators according to the inclusion criteria.

One investigator used a standardized form to extract data from the full texts of eligible articles, and a second investigator verified the accuracy of the data extraction. All the information, including authors, publication year, study design, participants, sample size, mean age, intervention duration, frequency, measures, and main findings, was extracted into an Excel sheet for the following systematic literature review

RESULTS AND DISCUSSION

Results

Figure 1 shows the PRISMA flow diagram. Initially, we retrieved 1877 records from the database search. After the duplicates were removed, 935 articles were screened by two investigators at the title and abstract level, and the full texts of 65 potential articles were assessed. Finally, we included 14 articles after removing ineligible articles.

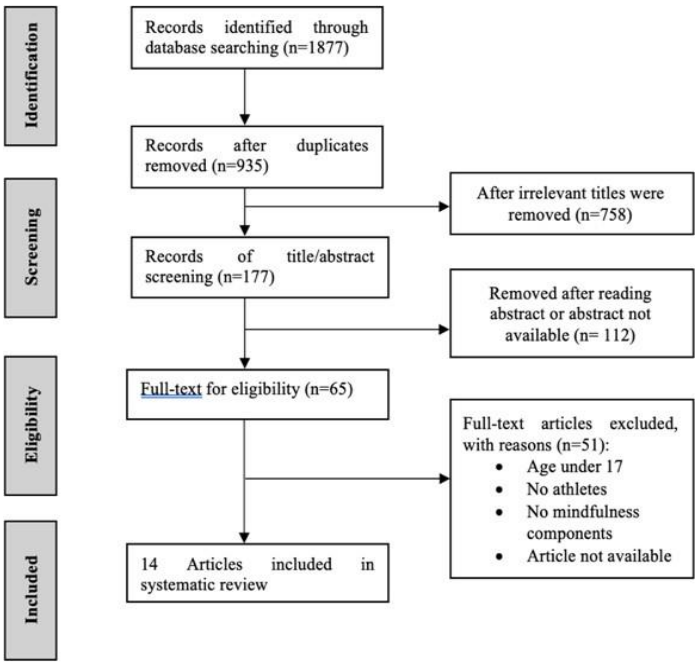

Figure 1. PRISMA flow chart

Table 1 presents an overview of the studies included in this review by outlining their research designs, participant characteristics, measurement tools, analytical approaches, and principal findings. This summary facilitates comparisons across studies and provides a clearer understanding of the current evidence regarding the role of mindfulness in enhancing athletes' psychological well-being and performance.

Table 1. Study overview

Study Design	Participants	Measures and Data Analysis	Findings
Quasi-experimental design (Augustus et al., 2024; Hut et al., 2021; Jones et al., 2020; Oguntuase & Sun, 2022; Röthlin et al., 2020; Sondt et al., 2024; Tebourski et al., 2022)	- Male elite football player (n=34) - Young BMX riders (n=24) - College athletes from the United States (n=55) - Female student-athletes (n=60) - Women's Rowing team (n=25) - Tunisian basketball players (n=17) - Athletes (n=95)	- FFMQ, MIS, MAAS, AMQ, APDQ, SAS-2, DERS-SF, PSS, BAI, BDI-II, SPWB, TOPS. - SEM, multiple regressions, independent-samples t-tests, ANOVA, chi-square.	- Mindfulness-based intervention is effective in increasing resilience, self-confidence, and emotion regulation of athletes from any type of sports. - There is a significant improvement in subjective performance satisfaction, mindful awareness, and emotion regulation. - Mindfulness skills potentially confer protection against anxiety and depression.
Survey research (Amemiya & Sakairi, 2021; Bulğay et al., 2022; Chang et al., 2022; Myall et al., 2021; Vveinhardt & Kaspare, 2022)	- Adolescent athletes (n=287) - Coaches(n=50) - University athletes (n=120) - Certified athletes (n=213) - Elite rugby players (n=160) - Kyokushin karate athletes (n=371)	- MAAS, SCQ, EDMCQ-C, SVS, AMQ, APDQ. - Regression analyses, interaction plot, simple slope analysis, Pearson's product-moment correlation	- The positive relationship between mindfulness and subjective vitality was stronger under high coach control and low coach autonomy support interpersonal styles. - Athletes with low mindfulness are more likely to evaluate their performance negatively than athletes with high mindfulness.
Single subject design/case study (Hussey et al., 2020).	- A college track-and-field athlete - Self-identified as choking - susceptible (CS)	- SAS, SCS, CSIA. - Quantitative data analysis: - visual inspection and descriptive statistics. - Qualitative data analysis: - triangulation and thematic analysis.	- Reduced likelihood of choking in future performances. - Enhanced mindfulness levels promoted greater awareness and acceptance, which may help counter the negative effects of stressful sport performances.

Study Design	Participants	Measures and Data Analysis	Findings
Conceptual review (Kee et al., 2021).	-	-	Incorporating local wisdom concept (wu-wei) as part of mindfulness training for athletes and possible future research directions are provided.

Discussion

This research showed that the literature systematically reviewed evidence on mindfulness for optimizing mental health and sports outcomes among athletes and coaches. We aimed to determine whether mindfulness, as a dispositional trait, mindfulness practice, or a mindfulness-based intervention, improves participants' performance and mental health in sports. Fourteen eligible studies were included in the narrative synthesis. Narratively, mindfulness, in many forms such as dispositional mindfulness, mindfulness practice, or mindfulness-based interventions, effectively promotes athletes' sports performance.

The literature review also found that mindfulness effectively improved mental health outcomes among athletes. The most common research methods are quasi-experimental design (n=8), survey methods (n=5), and conceptual review (n=1). The systematic literature review identified the main significant effects of mindfulness on sports performance, physiological aspects, and psychological aspects, including mental health. Current evidence from studies in sports such as athletics, volleyball, rowing, basketball, rugby, football, and cycling.

For sports performance, our narrative synthesis found that the included studies reported significant improvements in performance indicators after receiving mindfulness-based interventions. However, a quantitative synthesis is unavailable due to limited evidence and considerable variation in outcome measures. Seven studies (Amemiya & Sakairi, 2021; Augustus et al., 2024; Bulğay et al., 2022; Hut et al., 2021; Jones et al., 2020; Tebourski et al., 2022; Vveinhardt & Kaspare, 2022) observed performance improvements upon mindfulness or mindfulness-based practice in sports performance in athletics, rowing, and basketball. All these sports can be categorized as power sports. After implementing mindfulness practice or mindfulness-based interventions, there were significant improvements in athletes' performance from pre- to post-testing. These findings cannot elucidate whether mindfulness directly improves motor skill changes or whether psychological pathways merely reduce the negative impact on performance. Mindful athletes reported less performance anxiety and less performance-impairing effects of anxiety (both were associated with better subjective performance under pressure). However, anxiety might be an insensitive psychological correlate because mindfulness training does not necessarily target the symptoms of anxiety but rather the ability to skillfully relate to the presence of anxiety by being open and accepting and then taking charge of one's attention (Hussey et al., 2020; Hut et al., 2021; Röthlin et al., 2020).

The goal of mindfulness training is awareness and acceptance of present-moment experience, combined with the ability to focus one's attention on where to pay it for a given task or activity in sports. The latter can be considered a critical component for athletes. The low level of tension leads to overall good performance after mindfulness practice, or feeling more relaxed results in a successful performance. Other processes of change are possible (e.g.,

meta-cognitive awareness and acceptance). Our systematic literature review also showed that mindfulness could improve mental health in sports. It provided preliminary support for the effectiveness of dispositional mindfulness, mindfulness practice, or mindfulness-based interventions in mental health symptoms. For mental health outcomes, our findings are consistent with previous research showing that mindfulness significantly improved positive effects and reduced negative impacts among athletes and coaches.

Three studies (Augustus et al., 2024; Jones et al., 2020; Oguntuase & Sun, 2022) found that mindfulness, in various forms, could increase resilience, self-confidence, emotion regulation, and well-being among athletes. On the other hand, three studies (Hut et al., 2021; Sondt et al., 2024; Vveinhardt & Kaspare, 2022) found that mindfulness in many forms, whether mindfulness as dispositional mindfulness, mindfulness practice, or mindfulness-based intervention, could reduce stress, anxiety, and depression. In the context of the relationship between athletes and coaches, the study by Chang et al. (2022) found that the positive relationship between mindfulness and subjective vitality was stronger under high coach control and low coach autonomy support interpersonal styles. These results have demonstrated the importance of mindfulness in helping athletes respond to adverse conditions, thereby increasing their subjective vitality.

Beyond its implications for sports performance, the evidence synthesized in this review also highlights the relevance of mindfulness to SDG 3 (Good Health and Well-Being). The consistent findings regarding reduced stress, anxiety, depression, and choking tendencies, alongside improvements in resilience, well-being, and emotion regulation, suggest that mindfulness-based approaches may serve as accessible and evidence-informed strategies for promoting psychological health among athletes and coaches. Integrating such interventions into sports settings may therefore contribute to broader efforts to foster mental well-being and support healthy participation in sport.

Interestingly, one study incorporated the local-wisdom concept of wu-wei into mindfulness training for athletes, and it provides possible future research directions. Wu-wei, or a non-striving mindset, can help support athletes' well-being and pursuit of goals beyond winning and striving (Kee et al., 2021). Based on the literature review, we also observed the impact of mindfulness on physiological aspects. Two studies (Hussey et al., 2020; Jones et al., 2020) found that mindfulness, whether as a dispositional trait or through mindfulness-based interventions, reduced the likelihood of choking and improved athletes' sleep quality, heart rate, and tension.

A mindfulness intervention can change behavior by helping individuals mindfully experience emotional and cognitive processes. By being indulgent towards negative experiences, mindfulness-based interventions may foster openness to negative thoughts, which in turn leads to more positive coping with adverse circumstances in performance situations and daily life. Therefore, evaluating the present-moment experience is crucial to successful mindfulness practice. Kaufman and colleagues discussed intervention continuance and recommended that mindfulness practice periods longer than four weeks have a greater impact on an athlete's personal development than short-term approaches (Kaufman et al., 2009). Mindfulness practice is dependent on tenacity and engagement in the intervention. This statement is supported by research showing that mindfulness levels are associated with present-moment practice rather than accumulated practice over the years.

Several limitations of this systematic literature review should be noted. First, despite our efforts to conduct a thorough literature search within the available databases, we might omit

some studies due to the search strategy settings (e.g., limited to English). Moreover, due to the limited number of studies, we could not conduct a subgroup analysis to identify moderators (e.g., participants' characteristics, MBI types, and outcome measures) that might explain the high degree of heterogeneity. Despite a notable age range of included participants in our study, we did not include children.

The small number of studies could also lead to cautious interpretation of the research findings. In addition, we did not examine potential mediators in the MBI programs due to a lack of relevant data, so we were unable to identify the underlying mechanisms. Despite these limitations, our research findings add value to future research about mindfulness in sports. Our findings suggest that mindfulness may be a potentially practical approach for improving athletes' sports performance and mental health among athletes and coaches. More research on mindfulness interventions in sports is needed to confirm and potentially extend the promising results reported in this systematic literature review. Studies with larger sample sizes and different performance requirements are needed to improve the application of the discussed intervention programs in the future. Mindfulness practice influences specific facets of mindfulness, physiological and psychological performance surrogates, and various forms of sports performance; these should be investigated.

However, studies on mindfulness have yet to precisely evaluate the potentially distinct effects of its components, such as present-moment awareness, acceptance, and non-judgment. Research on the impact of various forms of mindfulness meditation on facets of mindfulness is still in its infancy. Future research might explore how these processes function in athletes.

CONCLUSION

Fundamental Finding: This systematic literature review confirms that mindfulness has an important role in optimizing mental health in sports. The reviewed studies show that dispositional mindfulness, mindfulness practice, and mindfulness-based interventions can support athletes and coaches by improving resilience, self-confidence, emotion regulation, well-being, sleep quality, and subjective satisfaction with performance. Mindfulness also helps reduce stress, anxiety, depression, tension, and the likelihood of choking during sports performance. **Implication:** These findings suggest that mindfulness can serve as a psychological training strategy in sports settings, not only to enhance performance but also to protect and strengthen athletes' mental health. Coaches, sport psychologists, and sports institutions may consider integrating mindfulness practices into regular training programs to support athletes' psychological readiness and overall well-being. These implications also support SDG 3 (Good Health and Well-Being) by highlighting the potential of evidence-based mindfulness practices to promote mental well-being, prevent psychological distress, and foster healthier sporting environments for athletes and coaches. **Limitation:** This review is limited by the small number of eligible studies, the use of only two databases, and the restriction to English-language open-access articles published between 2020 and 2024. The heterogeneity of study designs, participants, intervention types, and outcome measures also limits the ability to draw stronger conclusions. **Future Research:** Future studies should employ more rigorous empirical designs, particularly randomized controlled trials, with larger sample sizes and more diverse sports contexts. Further research is also needed to examine the specific mechanisms of mindfulness, including present-moment awareness, acceptance, and non-judgment, in improving athletes' mental health and sports performance.

Our systematic literature review provided preliminary support for the effectiveness of mindfulness in optimizing mental health in sports. The research findings also suggest that more high-quality studies using rigorous empirical designs (randomized controlled trials) are warranted in future research, especially regarding athletes' mental health domains.

AUTHOR CONTRIBUTIONS

Dhevy Puswiartika contributed to the conceptualization of the study, research design, data collection, formal analysis, interpretation of findings, and preparation of the original manuscript draft. **Humaedi** contributed to methodology development, validation of research findings, supervision of the research process, and critical review of the manuscript. **Addriana Bulu Baan** contributed to data curation, investigation, literature review, and manuscript editing. **Ajriana Safana** contributed to data management, project administration, manuscript review, and refinement of the final draft. All authors have read, reviewed, and approved the final version of the manuscript for submission and publication.

CONFLICT OF INTEREST STATEMENT

The authors state that no financial or personal conflicts of interest exist that may have affected the content or findings of this research.

STATEMENT ON THE USE OF AI OR DIGITAL TOOLS IN WRITING

The authors declare that no artificial intelligence (AI) tools or other digital writing assistants were used in the preparation, analysis, or writing of this manuscript. All stages of the research process, including data analysis, interpretation, and manuscript writing, were conducted solely by the authors. The authors take full responsibility for the originality, accuracy, and integrity of the content presented in this article.

REFERENCES

Amemiya, R., & Sakairi, Y. (2021). Relationship between mindfulness and cognitive anxiety in athletes. *Asian Journal of Sport and Exercise Psychology, 1*(2), 67–74. https://doi.org/10.1016/j.ajsep.2021.06.001

Augustus, A., Zizzi, S., Voelker, D., & Costalupes, B. (2024). Living your best life: The mindful pursuit of student-athlete thriving. *Asian Journal of Sport and Exercise Psychology, 4*(1), 11–20. https://doi.org/10.1016/j.ajsep.2023.09.004

Bishop, S. R., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Segal, Z. V., Abbey, S., Speca, M., Velting, D., & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230–241. https://psycnet.apa.org/doi/10.1093/clipsy.bph077

Brown, K. W., Creswell, J. D., & Ryan, R. M. (Eds.). (2015). *Handbook of mindfulness: Theory, research, and practice*. Guilford Press.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*(4), 211–237. https://doi.org/10.1080/10478400701598298

Bühlmayer, L., Birrer, D., Röthlin, P., Faude, O., & Donath, L. (2017). Effects of mindfulness practice on performance-relevant parameters and performance outcomes in sports: A meta-analytical review. *Sports Medicine, 47*(11), 2309–2321. https://doi.org/10.1007/s40279-017-0752-9

Bulğay, C., Tingaz, E. O., Bayraktar, I., & Çetin, E. (2022). Athletic performance and mindfulness in track and field athletes. *Current Psychology, 41*(7), 4482–4489. https://doi.org/10.1007/s12144-020-00967-y

Chang, W. H., Kuo, C. C., & Ni, Y. L. (2022). Mindfulness enhances changes in athletes' subjective vitality: The moderating role of coach interpersonal style. *Asian Journal of Sport and Exercise Psychology, 2*(3), 190–197. https://doi.org/10.1016/j.ajsep.2021.10.002

Creswell, J. D. (2017). Mindfulness interventions. *Annual Review of Psychology, 68*, 491–516. https://doi.org/10.1146/annurev-psych-042716-051139

Dane, E. (2011). Paying attention to mindfulness and its effects on task performance in the workplace. *Journal of Management, 37*(4), 997–1018. https://doi.org/10.1177/0149206310367948

Glomb, T. M., Duffy, M. K., Bono, J. E., & Yang, T. (2011). Mindfulness at work. *Research in Personnel and Human Resources Management, 30*, 115–157. https://doi.org/10.1108/S0742-7301(2011)0000030005

Good, D. J., Lyddy, C. J., Glomb, T. M., Bono, J. E., Brown, K. W., Duffy, M. K., Baer, R. A., Brewer, J. A., & Lazar, S. W. (2016). Contemplating mindfulness at work: An integrative review. *Journal of Management, 42*(1), 114–142. https://doi.org/10.1177/0149206315617003

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

Hut, M., Glass, C. R., Degnan, K. A., & Minkler, T. O. (2021). The effects of mindfulness training on mindfulness, anxiety, emotion dysregulation, and performance satisfaction among female student-athletes: The moderating role of age. *Asian Journal of Sport and Exercise Psychology, 1*(2), 75–82. https://doi.org/10.1016/j.ajsep.2021.06.002

Jones, B. J., Kaur, S., Miller, M., & Spencer, R. M. C. (2020). Mindfulness-based stress reduction benefits psychological well-being, sleep quality, and athletic performance in female collegiate rowers. *Frontiers in Psychology, 11*, 572980. https://doi.org/10.3389/fpsyg.2020.572980

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hyperion.

Kabat-Zinn, J. (2006). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10*(2), 144–156. https://doi.org/10.1093/clipsy.bpg016

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

Kee, Y. H., Li, C., Zhang, C. Q., & Wang, J. C. K. (2021). The wu-wei alternative: Effortless action and non-striving in the context of mindfulness practice and performance in sport. *Asian Journal of Sport and Exercise Psychology, 1*(2), 122–132. https://doi.org/10.1016/j.ajsep.2021.11.001

Lau, M. A., Bishop, S. R., Segal, Z. V., Buis, T., Anderson, N. D., Carlson, L., Shapiro, S., Carmody, J., Abbey, S., & Devins, G. (2006). The Toronto mindfulness scale: Development and validation. *Journal of Clinical Psychology, 62*(12), 1445–1467. https://doi.org/10.1002/jclp.20326

Lutz, A., Jha, A. P., Dunne, J. D., & Saron, C. D. (2015). Investigating the phenomenological matrix of mindfulness-related practices from a neurocognitive perspective. *American Psychologist, 70*(7), 632–658. https://doi.org/10.1037/a0039585

Myall, K., Montero-Marin, J., & Kuyken, W. (2021). Anxiety and depression during COVID-19 in elite rugby players: The role of mindfulness skills. *International Journal of Environmental Research and Public Health, 18*(22), 11940. https://doi.org/10.3390/ijerph182211940

Oguntuase, S. B., & Sun, Y. (2022). Effects of mindfulness training on resilience, self-confidence and emotion regulation of elite football players: The mediating role of locus of control. *Asian Journal of Sport and Exercise Psychology, 2*(3), 198–205. https://doi.org/10.1016/j.ajsep.2022.08.003

Puswiartika, D. (2022). *Mindfulness in everyday life: Teknik praktis mindfulness untuk menjaga kesehatan mental* (1st ed.). Azkiya Publishing.

Puswiartika, D., Bettega, M., Ratu, B., & Misnah. (2021). The effect of mindfulness-based intervention on service commitment of the employees of telecommunication service provider in COVID-19 pandemic. *Academy of Entrepreneurship Journal, 27*(5), 1–7.

Puswiartika, D., & Ratu, B. (2020). The effect of mindfulness-based intervention on work stress of nurses who work in an emergency department in a hospital in Indonesia. *Jurnal Aisyah: Jurnal Ilmu Kesehatan, 5*(1), 113–118. https://doi.org/10.30604/jika.v5i1.728

Puswiartika, D., Ratu, B., Hasan, H., Misnah, M., Rizal, R., & Aditya, R. (2023). Pelatihan mindfulness sebagai upaya peningkatan komitmen pelayanan perangkat Desa Kabupaten Sigi. *JPPI (Jurnal Penelitian Pendidikan Indonesia), 9*(4), 331–339. https://doi.org/10.29210/020232325

Röthlin, P., Horvath, S., Trösch, S., Holtforth, M. G., & Birrer, D. (2020). Differential and shared effects of psychological skills training and mindfulness training on performance-relevant psychological factors in sport: a randomized controlled trial. *BMC Psychology, 8*, 80. https://doi.org/10.1186/s40359-020-00449-7

Sondt, N., Bernier, M., Kermarrec, G., & Vacher, P. (2024). Exploring the role of mindfulness in the stress-recovery balance: 10-day monitoring of young BMX riders in an intensive training center during a pre-competition cycle. *Psychology of Sport and Exercise, 74*, 102680. https://doi.org/10.1016/j.psychsport.2024.102680

Tebourski, K., Bernier, M., Ben Salha, M., Souissi, N., & Fournier, J. F. (2022). Effects of mindfulness for performance programme on actual performance in ecological sport context: Two studies in basketball and table tennis. *International Journal of Environmental Research and Public Health, 19*(19), 12950. https://doi.org/10.3390/ijerph191912950

Vveinhardt, J., & Kaspare, M. (2022). The relationship between mindfulness practices and the psychological state and performance of kyokushin karate athletes. *International Journal of Environmental Research and Public Health, 19*(7), 4001. https://doi.org/10.3390/ijerph19074001

Wang, Y., Lei, S. M., & Fan, J. (2023). Effects of mindfulness-based interventions on promoting athletic performance and related factors among athletes: A systematic review and meta-analysis of randomized controlled trial. *International Journal of Environmental Research and Public Health, 20*(3), 2038. https://doi.org/10.3390/ijerph20032038

***Dhevy Puswiartika (Corresponding Author)**
Master of Physical Education Study Program, Postgraduate Department, Faculty of Teacher Training and Education, Universitas Tadulako
Jl. Soekarno-Hatta KM.9, Palu, Central Sulawesi, Indonesia, 94148
Email: dhevy_p@untad.ac.id

Humaedi
Master of Physical Education Study Program, Postgraduate Department, Faculty of Teacher Training and Education, Universitas Tadulako
Jl. Soekarno-Hatta KM.9, Palu, Central Sulawesi, Indonesia, 94148
Email: hum771@gmail.com

Addriana Bulu Baan
Master of Physical Education Study Program, Postgraduate Department, Faculty of Teacher Training and Education, Universitas Tadulako
Jl. Soekarno-Hatta KM.9, Palu, Central Sulawesi, Indonesia, 94148
Email: addriana.palu@gmail.com

Ajriana Safana
Master of Physical Education Study Program, Postgraduate Department, Faculty of Teacher Training and Education, Universitas Tadulako
Jl. Soekarno-Hatta KM.9, Palu, Central Sulawesi, Indonesia, 94148
Email: ajrianasafanatolla@gmail.com