IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

MINDFULNESS TRAINING IN SPORTS INJURY REHABILITATION: ITS INFLUENCE ON PSYCHOLOGICAL READINESS, FEAR OF RE-INJURY, AND ATHLETIC PERFORMANCE

[1]Raksha T Sonigara, [2]Kavya Vijayan

PG student, [2]Assistant Professor

[1]Depatment Of Psychology

[1]CODE, JAIN (Deemed to-be-University) Bengeluru-78, INDIA

ABSTRACT:

Sports injuries often result in both physical limitations and significant psychological challenges that can affect recovery and return-to-sport outcomes. The present study aimed to explore the role of mindfulness training in sports injury rehabilitation, with a specific focus on psychological readiness, fear of re-injury, and athletic performance. A qualitative case study approach was employed, involving semi-structured interviews with seven injured athletes aged between 18 and 25 years. Data were analysed using thematic analysis.

Findings revealed that injury was experienced as both physically and emotionally distressing, with athletes reporting frustration, anxiety, and disruption to identity. Fear of re-injury emerged as a dominant and persistent psychological barrier, influencing confidence and performance even after physical recovery. Psychological readiness was found to be a gradual and dynamic process shaped by both mental and physical recovery. Importantly, athletes who engaged in mindfulness practices such as breathing, meditation, and visualization reported improved emotional regulation, reduced anxiety, enhanced focus, and increased confidence.

The study highlights mindfulness as a valuable psychological tool that supports holistic rehabilitation by bridging the gap between physical recovery and mental preparedness. The findings underscore the need for integrating structured psychological interventions into sports rehabilitation programs.

Keywords: mindfulness, sports injury, psychological readiness, fear of re-injury, athletic performance.

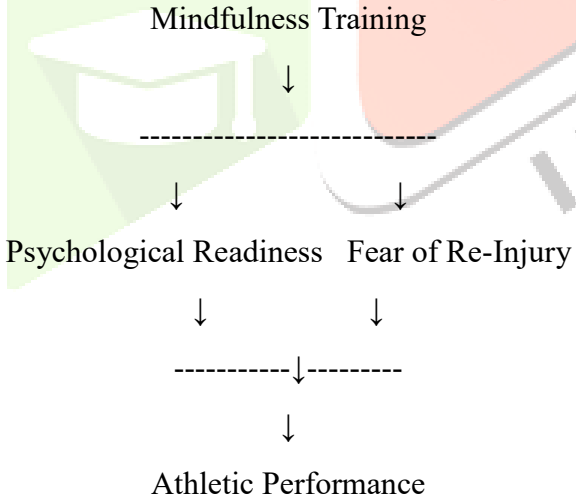
1.INTRODUCTION

Sports injury is an inherent risk in athletic participation, yet its impact extends beyond physical damage to include significant psychological challenges. For many athletes, injury disrupts not only performance but also identity, routine, and sense of control. Although rehabilitation has traditionally emphasized physical recovery, there is growing recognition that psychological factors play a crucial role in shaping recovery outcomes and return-to-sport success (Diane M. Wiese-Bjornstal et al., 1998; Britton W. Brewer, 2007).

Athletes commonly experience emotional distress, uncertainty, and reduced confidence following injury. Among these responses, fear of re-injury has been identified as a persistent barrier that can limit performance even after physical healing (Lars Podlog & Robert C. Eklund, 2007). Closely related is psychological readiness, which reflects an athlete's confidence and mental preparedness to return to sport. Research indicates that physical recovery alone is insufficient, as successful return also depends on psychological readiness (Clare L. Ardern et al., 2013).

Mindfulness has emerged as a promising approach to support psychological recovery. Defined as present-moment awareness with a non-judgmental attitude, mindfulness helps individuals regulate emotions and respond more effectively to stress (Jon Kabat-Zinn, 2003). In sport contexts, mindfulness-based approaches have been associated with improved focus, emotional regulation, and resilience (Frank L. Gardner & Zella E. Moore, 2007).

However, existing research has largely focused on performance rather than rehabilitation, and often relies on quantitative methods that overlook athletes lived experiences. Consequently, there remains limited understanding of how mindfulness influences psychological readiness and fear of re-injury during recovery. Addressing this gap, the present study explores athletes' experiences of injury rehabilitation, with particular attention to the role of mindfulness in shaping their psychological journey.



2.LITERATURE REVIEW

The recognition of psychological factors in injury rehabilitation has expanded considerably over time. Early conceptual models emphasized that recovery is influenced not only by physical factors but also by how athletes interpret and emotionally respond to injury-related events.

Research has consistently shown that injury can trigger emotional disturbances, including frustration, anxiety, and loss of athletic identity. These psychological responses can interfere with motivation and adherence to rehabilitation protocols.

A substantial body of work has identified re-injury concern as a major obstacle in the return-to-sport process. Even after physical healing, athletes may experience lingering apprehension, which can limit performance engagement and confidence.

Mindfulness-based approaches, originally developed within clinical psychology, have demonstrated effectiveness in reducing stress and enhancing emotional regulation. When applied to sport, these approaches have been associated with improved concentration, resilience, and performance consistency.

Similarly, acceptance-based frameworks emphasize psychological flexibility, suggesting that athletes who can acknowledge and manage internal experiences without avoidance are better equipped to perform under pressure.

However, much of the existing literature isolates these constructs rather than examining their interaction. Additionally, the predominance of quantitative methods has limited insight into athletes' subjective experiences. This study addresses these limitations through an integrative and qualitative approach.

3.METHODOLOGY

3.1 Research Design

The study employed a qualitative, case-oriented research design to gain an in-depth understanding of athletes' psychological experiences during injury rehabilitation. This approach was considered appropriate for exploring subjective meanings, emotional processes, and individual recovery journeys.

3.2 Participants

The sample consisted of seven athletes 2 male and 5 female athletes aged between 18 and 25 years who had experienced sports-related injuries and were either undergoing or had completed rehabilitation. Participants were selected using purposive sampling to ensure relevance to the research objectives.

3.3 Inclusion Criteria

Participants were included in the study if they met the following criteria:
(a) were actively involved in sports prior to injury,
(b) had experienced a sports-related injury requiring rehabilitation,
(c) were either currently undergoing or had completed the rehabilitation process,
(d) had exposure to or experience with mindfulness-based practices (e.g., breathing exercises, meditation, or visualization), and
(e) were within the age range of 18 to 25 years.

3.4 Exclusion Criteria

Participants were excluded if they:
(a) had no history of sports-related injury,
(b) had not undergone any form of rehabilitation,
(c) had no exposure to mindfulness or mental training practices, and
(d) were unwilling or unable to provide informed consent or participate in the interview process.

3.5 Data Collection

Data were collected through semi-structured interviews, allowing participants to describe their experiences in detail. Each interview lasted approximately 30–60 minutes and was conducted either in person or through online platforms. All interviews were audio-recorded with consent and transcribed verbatim for analysis.

3.6 Data Analysis

The data were analysed using reflexive thematic analysis, which involved systematic coding, theme development, and interpretation of patterns across participants' narratives. This method facilitated a comprehensive understanding of psychological processes during rehabilitation.

3.7 Trustworthiness

To enhance the rigor of the study, several strategies were employed to ensure trustworthiness. Credibility was established through prolonged engagement with the data and member checking, wherein participants were provided with summaries of interpretations for validation. Dependability and confirmability were supported through systematic documentation of the research process, including coding decisions and theme development. Transferability was addressed by providing detailed descriptions of the research context and participants.

3.8 Ethical Considerations

Ethical standards were strictly maintained throughout the study. Participants provided informed consent and were assured of confidentiality and anonymity. They were also informed of their right to withdraw from the study at any stage without consequence.

4. RESULTS AND DISCUSSION

The analysis revealed a progression of psychological experiences throughout rehabilitation.

Initially, injury was perceived as a destabilizing event, marked by emotional distress and a loss of control. This aligns with previous findings indicating that injury disrupts both routine and identity.

Concern about re-injury emerged as a persistent and influential factor. Participants described heightened vigilance and hesitation, suggesting that psychological recovery does not necessarily coincide with physical healing.

Readiness to return to sport was not immediate but developed gradually. Athletes reported fluctuating confidence levels, reflecting an ongoing process of psychological adjustment.

A key finding of this study is the role of mindfulness in facilitating recovery. Participants who engaged in mindfulness practices demonstrated greater emotional regulation, reduced stress, and improved focus. These individuals appeared better equipped to manage uncertainty and maintain engagement in rehabilitation.

Furthermore, the findings suggest that rehabilitation can foster psychological growth. Athletes reported increased self-awareness, patience, and resilience, indicating that adversity can lead to positive psychological adaptation.

Overall, mindfulness appears to function as a regulatory mechanism that mitigates psychological barriers and supports adaptive recovery.

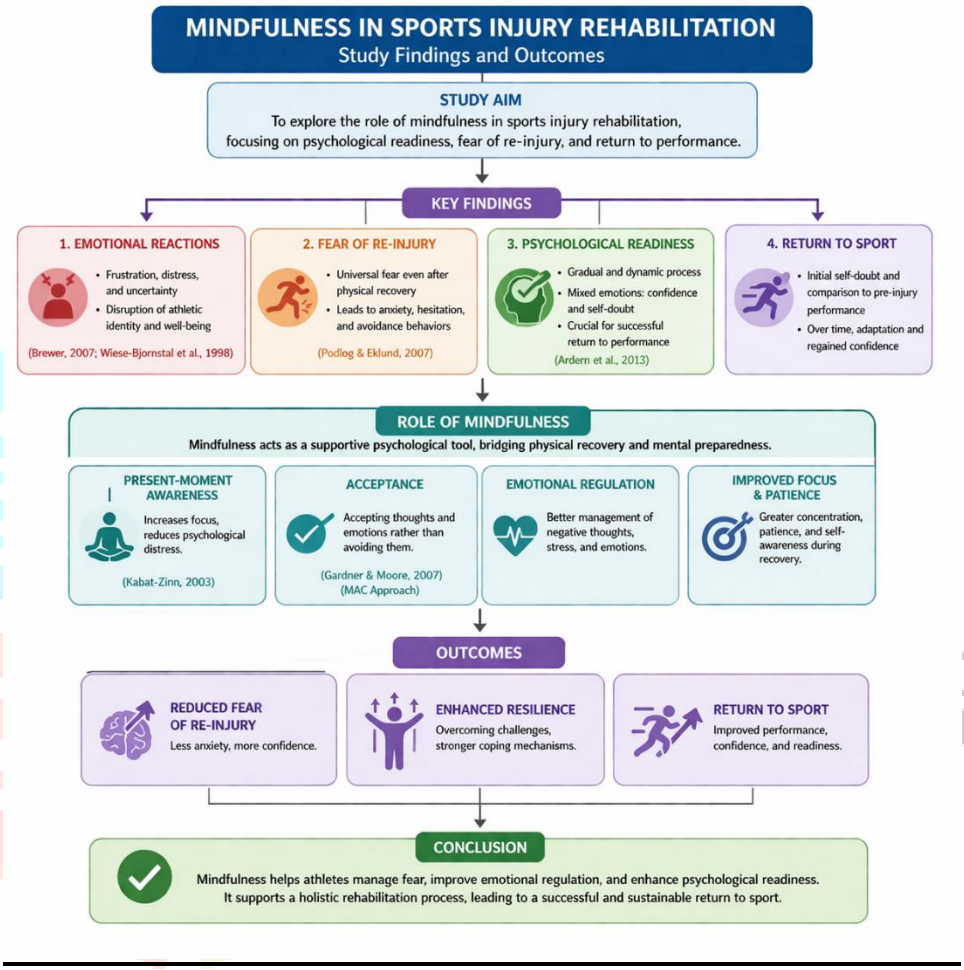
Table 1

Themes, Codes, and Representative Quotes from Participants (N = 7)

Theme	Codes	Description	Representative Quotes
Injury Experience & Emotional Response	Pain, frustration, emotional distress, disruption, acceptance	Athletes reported intense emotional and physical distress immediately following injury, followed by gradual psychological adjustment and acceptance.	"I cried for almost one week…" (P2); "It was very disturbing for me…" (P6); "I was getting very frustrated…" (P7)
Mindfulness & Mental Training	Breathing, meditation, visualization, lack of exposure	Engagement with mindfulness practices varied; some athletes received structured psychological support, while others had no exposure to such techniques.	"Breathing and visualization helped me…" (P5); "She taught us breathing exercises…" (P6); "No, I didn't do anything…" (P7)
Psychological Readiness	Confidence, uncertainty, self-belief, gradual progress	Athletes experienced fluctuating levels of confidence and uncertainty during the return-to-sport phase, reflecting a gradual rebuilding of self-belief.	"I was not sure if I could perform…" (P2); "I was pretty confident…" (P7)
Fear of Re-Injury	Anxiety, hesitation, hypervigilance, precaution	Persistent fear of re-injury influenced athletes' movement patterns, decision-making, and willingness to fully engage in sport.	"I kept checking if pain came back…" (P2); "I didn't want to take the chance…" (P7)
Focus & Emotional Regulation	Calmness, patience, stress management, coping	Mindfulness practices contributed to improved emotional regulation, increased patience, and better attentional focus over time.	"Now I am very calm…" (P2); "I got patience…" (P6)
Return to Performance	Self-doubt, comparison, adaptation, performance adjustment	Athletes compared their pre- and post-injury performance levels, often adapting their strategies and roles	"I thought if I could perform like before…" (P4); "I shifted to doubles and did better…" (P7)

		to regain competence.	
Perception of Mindfulness	Awareness, confidence, coping, mental strength	Athletes perceived mindfulness as a valuable tool for enhancing mental strength, emotional control, and recovery outcomes.	"Mindset plays a big role…" (P6); "It helped me stay calm…" (P2)

Note. P = Participant. Ellipses (…) indicate pauses or omitted words from the original responses. Themes were generated through thematic analysis.



5. CONCLUSION

Injury rehabilitation is often treated as a physical process, yet this study highlights that it is equally a psychological journey. Athletes do not simply recover their bodies; they must also rebuild confidence, manage uncertainty, and learn to navigate the fear of getting injured again. The findings show that fear of re-injury can persist even after physical healing, influencing movement, decision-making, and overall performance. At the same time, psychological readiness does not occur instantly but develops gradually through experience, reflection, and adaptation.

A key insight from this study is the role of mindfulness in supporting this process. Rather than eliminating fear or discomfort, mindfulness appears to help athletes relate to these experiences differently—allowing them to remain engaged in rehabilitation without becoming overwhelmed. Athletes who practiced mindfulness described greater emotional balance, improved focus, and a stronger sense of control during recovery.

Importantly, the findings suggest that injury can also become a space for growth. Many athletes reported increased patience, self-awareness, and resilience as a result of their experiences. This shifts

the narrative from injury as purely negative to one that also holds potential for psychological development.

Overall, the study emphasizes the need for a more holistic approach to rehabilitation—one that integrates both physical and psychological care. Incorporating mindfulness-based strategies within rehabilitation programs may not only support recovery but also enhance long-term well-being and performance.

6. LIMITATIONS

While this study provides valuable insights, several limitations should be considered. First, the small sample size limits the ability to generalize the findings to a wider population of athletes. The experiences captured are specific to the participants involved and may not reflect all sporting contexts or levels of competition.

Second, the qualitative design relies on self-reported data, which may be influenced by memory, personal interpretation, or social desirability. Participants may have emphasized certain experiences while overlooking others, which can affect the depth and balance of the findings.

Additionally, there was variation in the extent to which participants were exposed to mindfulness practices. Some athletes had structured guidance, while others had minimal or informal exposure. This inconsistency may have influenced how mindfulness was experienced and reported.

Finally, the study captures experiences at a single point in time, rather than examining how psychological recovery evolves over the long term. As a result, it does not fully account for changes that may occur after athletes return to sport.

7.FUTURE SCOPE FOR RESEARCH

Future research can build on these findings by exploring larger and more diverse samples, including athletes from different sports, competitive levels, and cultural backgrounds. This would enhance the generalizability of the results and provide a broader understanding of psychological recovery in sport.

Longitudinal studies are particularly important, as they would allow researchers to track how psychological readiness, fear of re-injury, and mindfulness practices evolve over time. Such research could offer deeper insight into the long-term impact of mindfulness on both recovery and performance.

There is also a need for intervention-based studies that examine structured mindfulness programs within rehabilitation settings. Comparing athletes who receive guided mindfulness training with those who do not could provide stronger evidence of its effectiveness.

Finally, future research could explore the role of coaches, physiotherapists, and sports psychologists in supporting psychological recovery. Understanding how mindfulness can be integrated into everyday rehabilitation practices may help bridge the gap between theory and application.

8. REFERENCES

Ardern, C. L., Taylor, N. F., Feller, J. A., & Webster, K. E. (2013). Psychological responses matter in returning to sport. *British Journal of Sports Medicine*, 47(17), 1120–1126.

Brewer, B. W. (2007). Psychology of sport injury rehabilitation. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology*.

Gardner, F. L., & Moore, Z. E. (2007). *The psychology of enhancing human performance: The mindfulness-acceptance-commitment approach*. Springer.

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context. *Clinical Psychology: Science and Practice*, 10(2), 144–156.

Podlog, L., & Eklund, R. C. (2007). Return to sport after injury. *Psychology of Sport and Exercise*, 8(4), 535–566.

Wiese-Bjornstal, D. M., et al. (1998). Psychological response to sport injury. *Journal of Applied Sport Psychology*, 10(1), 46–69.