



INTEGRATING MINDFULNESS-ACCEPTANCE-COMMITMENT TREATMENT INTO SPORTS: A CASE STUDY

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Abstract: This study aimed to integrate mindfulness-acceptance-commitment training into sports and to find the effect of this treatment on coping skills, competitive state anxiety, and athletic performance satisfaction. A case study approach was used to help two athletes from different sporting backgrounds. Case one experienced anxiety, panic attacks, self-doubt, and other physiological changes during the game. Case two had issues with performance satisfaction due to a high perfectionism urge. The athletes were tested on different psychological variables such as coping skills and competitive anxiety scale for case one athlete and athlete's performance satisfaction scale was used for case two athlete. An eight-week MAC-based treatment plan was developed and the training sessions were administered accordingly. The scores obtained post-treatment suggested that MAC training successfully helped the athletes improve their psychologically weaker areas by providing insight into themselves which eventually leads to positive growth in psychological health and wellbeing.

Key words: Mindfulness, coping skill, performance satisfaction, competitive anxiety.

I. INTRODUCTION

Sports psychology is said to be one of the youngest branches in the field of psychology and sports science. Psychology is applied in the field of sports to enhance performance and allow the athlete to reach his/her potential level by developing motivation, confidence, self-control, and self-awareness. Mental health is as important as exercises and physical activities in sports, this helps athletes to improve performance, overcome the pressure situations during the competition, and develop health and well-being. In recent years a main concern was raised by sports psychologists and athletes on cognitive skills and to support this few researchers have thrown light on the need for mental skill training in athletes but still, we have insufficient data that could claim the need for mental skills improvement programs. From the available literature, it is evident that different aspects of sports activities are explained with the help of a few psychological approaches like humanistic, behaviourist, cognitive, experimental, and psychoanalytic. This article tries to introduce a new performance enhancement approach to India, which is specifically developed for the athletic population. It's a modified therapeutic clinical model of Mindfulness-Based Cognitive Therapy (Segal, Williams, & Teasdal, 2002), Acceptance and Commitment Therapy (ACT), and from the traditional Psychological Skill Training (PST); this approach is termed as Mindfulness-Acceptance-Commitment (MAC) (Hayes, Strosahl, & Wilson, 1999).

Psychological skills stimulate an athlete's performance. Coping strategies are a set of cognitive and behavioral efforts put by an individual to change and adjust in a stressful situation. The inability of an athlete to cope with stress is one of the main factors that contribute to failure or poor athletic performance (Lazarus, 2000). Lazarus and Folkman (1984) defined coping as "constantly changing cognitive and behavioral efforts

to manage specific external and/ or internal demands that are appraised as taking or exceeding resources of the person". A high level of mental and physical stress is seen to be exhibited while participating in sports events.

Athletes take sports as challenging as well a few others claim it to be enjoyable as they know how to cope with the situation to eliminate stress. According to Belem et al. (2014), athletes need to develop coping strategies to adapt to the changing contextual demands for maintaining a quality performance during competitions. A cognitive and behavioral effort is been involved in coping (Folkman,2000). In recent studies more than 100 sports coping strategies have been identified, relaxation, arousal control, goal setting, wishful thinking, time management, positive self-talk, asking for social support, visualization, and imagery are some of the most common coping strategies used by athletes. These coping strategies were categorized into two groups: problem-focused coping and emotional-focused coping. One refers to how to deal with the demands of the situation and the other focuses on how to deal with the demands of the emotions raised by the situation. Athletes use coping strategies to eliminate stress and arousal at the pre-competition phase (Mesagno, 2010).

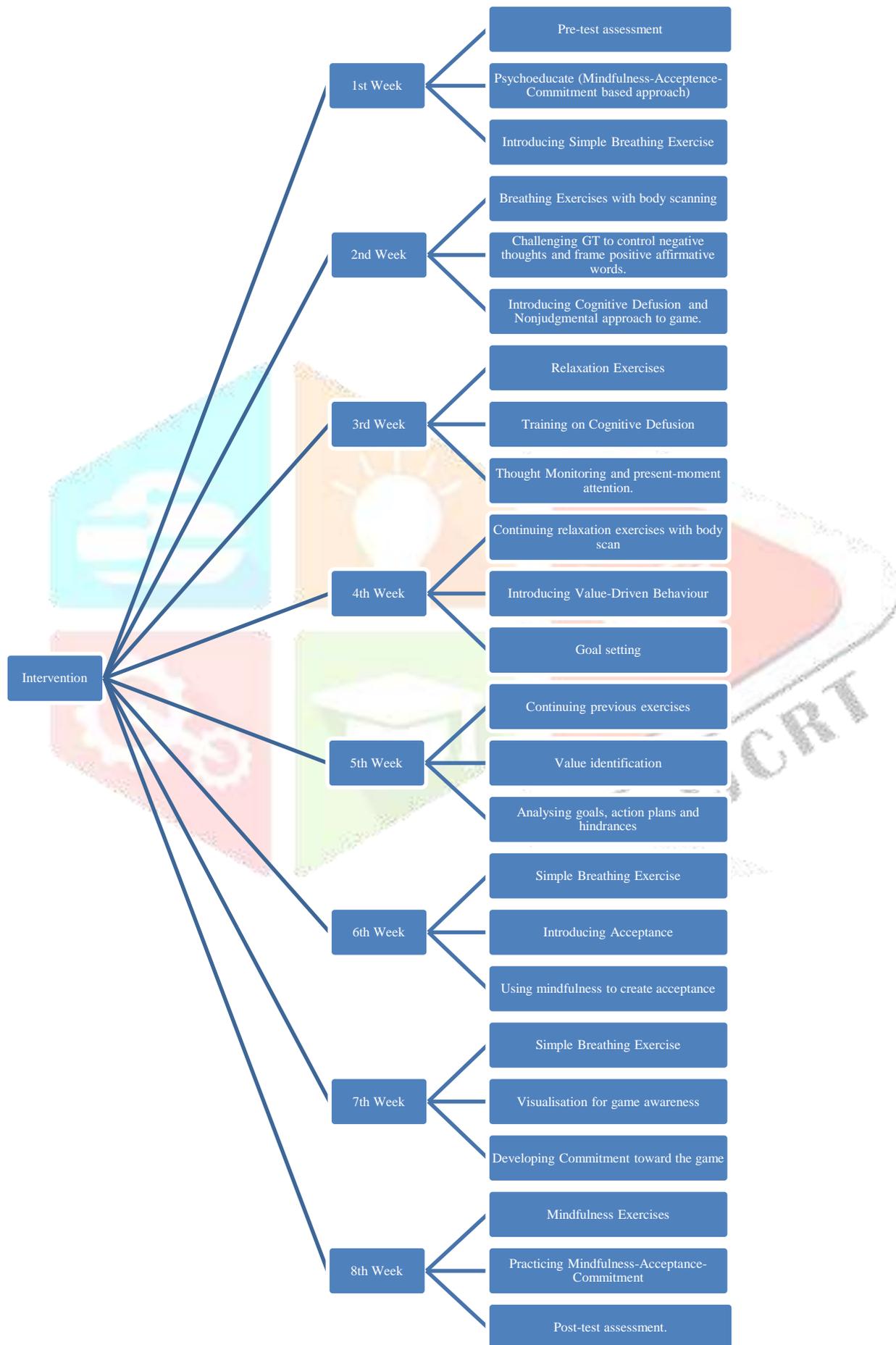
Anxiety is manifested as an important factor in the psychological context that affects the performance of an athlete (Jamshidi, Bagherzadeh, Arab Ameri, & Rastegar, 2009). According to Har (2006), an increased level of physiological arousal is seen even in elite players due to the competitive anxiety a player experiences. Subcomponents of anxiety are cognitive worries and somatic anxiety according to Liebert and Morrise (1967) to use for evaluation during performance. In their research it was also mentioned that prior to evaluation an increase in somatic anxiety is seen but in the case of cognitive worry one will be able to notice the change only when there is change in the performance.

MAC is an integrated approach to mindfulness (Segal, Williams, & Teasdal, 2002) and acceptance-commitment (Hayes, Strosahl, & Wilson, 1999). The different interventions based on mindfulness approach to enhance and adapt to the future of games. Mindfulness-based stress reduction (Kabat-Zinn, 2003), mindfulness-based cognitive therapy (Segal, Williams, & Teasdal, 2002), acceptance and commitment therapy (Hayes, Strosahl, & Wilson, 1999), and the Mindfulness-Acceptance-Commitment approach (Gardner & Moore, 2007). Gardner & Moore in 2004 researched theoretical considerations of a mindfulness-acceptance-commitment-based approach to enhance athletic performance and the research suggests that athletic performance is achieved through the techniques and by the strategic constraints used to develop a non-judgemental, clear image of one's goal, attending to external cues, present-moment acceptance, cognitive defusion and reediness to accept uncertainties in athletic performance.

In the current study, the researcher tries to promote the Mindfulness-Acceptance-Commitment (MAC) approach to gain self-satisfaction in the game as well as to learn how to handle anxiety and unexpected situations during the game and to increase their coping abilities. To attain the anticipated goal, one must practice MAC to accept internal experiences such as physical sensations, and focus on the appropriate external incidental experiences. A clarification of pre-set targets/ goals and the commitment towards achieving them in a competitive face can be insisted effectively by utilizing the MAC approach in the sporting field. Based on recent studies carried out in this field, it is hypothesized that those athletes undergoing this treatment plan will showcase a non-judgemental positive attitude towards the game and a high level of self-satisfaction with their performance.

II. MAC INTERVENTION

MAC intervention consisted of 24-sessions, 60 min for each session for 8 week (3days a week). The protocol was set with eight agenda's for each week.



III. CASE STUDY OF MAC-BASED APPROACH

CASE STUDY 1: DJ

DJ is a 22-year-old male university volleyball player who is performing well in academics and in sports. He sought out sports psychological help on the recommendation of his coach and friends. He is a 2nd-year physical education student who performed well in the practice hours but could not make up for the state competition. He has a high potential to perform well at the competitive level. DJ has a history of being bullied in public by the opposite team players in the past. This has developed into anxiety, panic attacks, self-doubt and which eventually leads to muscle tightening, swatting, and high levels of palpitation. In the initial stages, these symptoms were taken lightly, and thought these were the result of a lack of physical training or exercise. As these issues persisted for a long duration, it was emphasized on or taken care of and sports psychological help was taken.

The MAC protocol was introduced to DJ as a treatment plan for the physical and mental issues he faced. The training aimed to develop a positive outlook towards the game and to eliminate fear and anxiety by introducing an acceptance mind-set in the game. A self-assessment test was administered to DJ and the scores obtained for each test were documented. The self-assessment tools used for DJ were the Competitive State Anxiety Inventory-2 (CSAI-2; Martens et al., 1983) which showed scores of 79 (somatic anxiety as 21 which is moderate, cognitive anxiety as 22 which is again moderate and self-confidence as 36 which is interpreted to be higher level) and Athletic Coping Skills Inventory-28 (ACSI-28; Smith et al. 1995) with scores 49.

The MAC protocol designed for DJ emphasized on the systematic growth in his performance. It was an 8-week treatment program, which had a pre-set agenda for each session. At the initial session, a brief introduction was provided to DJ on the Mindfulness-Acceptance-Commitment approach, and was also introduced to breathing exercises. In addition, intervention training on mindfulness exercises for body scanning and cognitive defusion was given. However, DJ showed an observational positive change towards the game by the last week. In the end, on the last session of the MAC intervention program, DJ's scores had increased to a notable level. The scores he gained for the Competitive State Anxiety Inventory were as follows 48 (somatic anxiety 10 which is low, cognitive anxiety 18 which is again low and self-confidence 20 which shows a moderate level) and score of 67 on the Athletic Coping Skills Inventory which is significant and it shows a relationship between the intervention and test. By the end of the treatment, it was evident that DJ had started accepting things as it is in the game and had also become mindful towards these issues he earlier encountered.

After completion of the 8-week MAC training, DJ reported to have experienced a change in self. The benefit of the MAC intervention training for DJ was evident during the competition. DJ played a game soon after completing the intervention where the selection committee was present, after the match where they were pleased with his game and competition spirit. After the completion of the training, a feedback session was also arranged for him in which he stated that this training could have an impact on his life. Where he could identify that, mental skill training is also important for an athlete in his or her growth. DJ also promised to continue MAC practice regularly which was taught to him in the psychological sessions.

CASE STUDY 2: JB

JB is a university-level hockey player, who is 20 years old female from Haryana and has been playing hockey for 7 years. She approached the sports psychologist on the advice of her coach. JB was doing her 2nd year in college; she always wanted to be perfect in everything she did, which has led to a low level of satisfaction in her activities. Though JB performed well in matches and tournaments she was never satisfied with her performance kept her restless all day long. These were the details that were collected in the initial meeting regarding JB's case. JB worked extra and gave her best, even the coaches and teammates were happy with her performance but she was never satisfied with what she performed and it was evident that this was leading her to do excessive workouts and overtraining which would again affect her negatively.

After the 2nd session and in the light of the observation done during the match Athlete's Subjective Performance Satisfaction test was taken which is a self-assessment test, and the scores obtained from the test were 19 which shows that JB has a low athletic performance satisfaction. So it was decided to carry out a sports psychological treatment program, which is an 8-week training plan. JB was first introduced to the treatment plan and was also made aware of the benefits she would be receiving or the change she would be noticing in herself on the completion of the treatment program. She was also informed that she could quit the training program anytime she felt like.

MAC training was an 8-week (24 days) treatment plan. In the first session of MAC, a simple breathing exercise was introduced to JB. In addition, training on mindfulness exercises for body scanning and cognitive defusion was given. However, JB showed a commendable positive change in her attitude and she was also pleased with the treatment program. In the last session, JB was again asked to rate the Athlete's Subjective Performance Satisfaction Scale and in it, she scored 53, which is significant and shows a relationship between the treatment and the test. After a few weeks, JB contacted to say that she could very well see a change in her behaviour and she stated that now she feels happy for what she does and is able to achieve performance satisfaction. The irritability, anxiety, and mental pressure that she faced have come down. With this JB also assured that she will be continuing some parts of this training by herself in her regular practice session as this treatment created an impact on her athletic career.

IV. CONCLUSION

Athlete's anxiety related to competition depends upon how well they cope with the unexpected setbacks in the game. MAC is a therapeutic program recently developed exclusively for the athletic population. This study also emphasizes that MAC training can be used to elevate performance satisfaction in athletes. In this article, the focus was given to mindfulness-acceptance-commitment training. The study found that athletic coping skills have a significant contribution to reducing competitive anxiety in athletes. Therefore, it's recommended that all athletes, coaches, and sports science teams incorporate MAC training into the practice sessions and to recommend athletes have periodic visits to psychologists for the assessment of psychological health and well-being to enhance their performance.

Conflict Of Interest Statement

The authors declare no conflict of interest.

REFERENCES

- [1] Alderman, R. B. (1974). *Psychological Behaviour in Sports* (1st ed.). W. B. Saunders.
- [2] Archana, S., & Kannadasan, K. (2024). Neuro linguistic programming as an educational-Therapeutic programme: Two case studies. *European Journal of Physical Education and Sports Science*, 10(5). doi:<http://dx.doi.org/10.46827/ejpe.v10i5.5191>
- [3] Bandura, A. (1977). *Self-efficacy: Towards a unifying theory of behavioural change*. *psychological Review*.
- [4] Catterall, D. (2023). *Coping Strategies in Elite Sport*. Retrieved from Believe Perform: <https://members.believeperform.com/coping-strategies-in-elite-sport/>
- [5] Ciampolini, V., Columa, L., Lapolli, B., Iha, T., Grosso, E. C., Silva, D. A., et al. (2017). Quality of life of Brazilian wheelchair tennis athletes across competitive and elite levels. *Motriz: Revista de Educacao Fisica*, 23 (02).
- [6] Gallucci, N. T. (2014). *Sports Psychology: Performance Enhancement, Performance Inhibition, Individuals, and Teams* (Second Edition ed.). New York: Psychology Press.
- [7] Gardner, F. L., & Moore, Z. E. (2004). A Mindfulness-Acceptance-Commitment-Based Approach to Athletic Performance Enhancement: Theoretical Considerations. *Behavior Therapy*(35), 707-723.
- [8] Gardner, F. L., & Moore, Z. E. (2007). *The psychology of enhancing human performance: The Mindfulness-Acceptance-Commitment (MAC) approach*. New York: Springer Publishing.
- [9] Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). Acceptance and commitment therapy: An experiential approach to behaviour change.
- [10] Jamshidi, A., Bagherzadeh, F., Arab Ameri, E., & Rastegar, A. (2009). Compare sports orientation athletes participating in the eighth olympiad student sports in Iran. *Journal of Harekat*(38), 39-52.
- [11] Jamshidi, A., Hossien, T., Sajadi, S. S., Safari, K., & Zare, G. (2011). The relation between sport orientation and competitive anxiety in elite athletes. *Procedia-Social and Behavioral Sciences*, 1161-1165.
- [12] Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present and future. *Clinical Psychology: Science and Practice*, 10, 144-156.
- [13] Kadir, N. S., Pital, P. P., & Wahed, W. J. (2020, June). Quality of Life Among Malaysian University Students: A Cross-Sectional Study. *Malaysian Journal of Social Sciences and Humanities (MJSSH)*, 5(6), 11-18.
- [14] León-Navarrete, M. M., Flores-Villavicencio, M. E., Mendoza-Ruvalcaba, N., Colunga-Rodríguez, C., Salazar-Garza, M. L., Sarabia-López, L. E., et al. (2017, October). Coping Strategies and Quality of Life in Elderly Population. *Open Journal of Scial Sciences*, 5(No.10), 207-216.

- [15] Martens, R., Burton, D., Vealey, R., Bump, L., & Smith, D. (1983). The development of the Competitive State Anxiety Inventory-2 (CSAI-2). *Unpublished manuscript*.
- [16] Naess. (1999). Quality of Life and Well-being: Measuring. The benefits of culture and sport: Literature Review and Thinkpiece. *Scottish Executive Social Research*, 115.
- [17] Nahum, Ben-Ami, Cohen, & Shivek. (2016). Athlete's Subjective Performance Scale.
- [18] Nicholls, A. R., & Polman, R. C. (2007). Coping in sport: A systematic review. *Journal of Sports Sciences*, 25(1), 11-31.
- [19] Niwlikar, B. (2022, March 7). *What is Quality of life (QoL)? It's definitions, components, importance, etc* . Retrieved from Careeshodh: <https://www.careershodh.com/what-is-quality-of-life-qol-its-definitions-components-importance-etc/>
- [20] Nowak, P. F., Kusnierz, C., & Bajkowski, D. (2021, December 30). Quality of Life Determinants in Professional Athletes. *Psychology Research and Behavior Management*, 2221–2229.
- [21] Segal, Z. V., Williams, J. M., & Teasdal, J. D. (2002). Mindfulness-based cognitive therapy for depression.
- [22] Singh, D. A. (2022). *Introduction to Sports Psychology*. New Delhi: Khel Sahitya Kendra.
- [23] Sperber, S. (2023). *Quality of Life: Definition, Measures, and Examples*. Retrieved from Berkeley well-being institute: <https://www.berkeleywellbeing.com/quality-of-life.html>
- [24] Wrisberg, C. A. (1996). Quality of Life for Male and Female Athletes. *American Academy of Kinesiology and Physical Education*, 392-408.

