



Perceptions and Practices (CHECKLIST OBSERVATION) of Physiotherapists Regarding the Integration of Mind-Body Techniques in Rehabilitation

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Abstract

Background:

Mind-body techniques, including mindfulness, meditation relaxation etc have shown promise in enhancing rehabilitation outcomes by addressing both physical and psychological aspects of patient care. However, the extent to which these techniques are perceived and integrated into physiotherapy practice remains unclear.

Aims:

This study aims to explore the perceptions and practices of physiotherapists regarding the integration of mind-body techniques in rehabilitation. Specifically, it seeks to identify the barriers and facilitators influencing the incorporation of these techniques in clinical settings.

Setting:

The study was conducted across various rehabilitation centres and physiotherapy clinics, providing a diverse range of settings for comprehensive data collection.

Design:

A mixed-methods design was employed, combining quantitative surveys with qualitative interviews and observational checklists to capture a holistic view of physiotherapists' perceptions and practices.

Subjects and Method:

The study involved a sample of 53 physiotherapists, selected through purposive sampling. Data were collected using a structured questionnaire assessing familiarity, beliefs, and practices regarding mind-body techniques.

Keywords: Mind-body techniques, physiotherapy, rehabilitation, perceptions, practices, barriers, facilitators, integration.

Introduction

In coming years, the incorporation of mind-body techniques into rehabilitation practices has gathered significant attention due to their potential to enhance holistic wellness and improve

patient outcomes. Physiotherapy, is focal in this basic change toward more comprehensive and patient-centered care. Mind-body techniques encompass a wide range of interventions, including mindfulness, relaxation techniques, cognitive-behavioral strategies, and biofeedback, all of which have been shown to positively impact physical and psychological health.^{16,17}

Despite the mounting evidence supporting the efficacy of these interventions, their incorporation into routine physiotherapy practice remains inconsistent.⁸ This inconsistency highlights a critical gap in understanding how physiotherapists perceive and implement mind-body techniques within their clinical settings. Addressing this gap is essential for fostering the adoption of evidence-based rehabilitation strategies that not only focus on physical recovery but also on overall well-being.¹⁴

The current study seeks to explore the perceptions and practices of physiotherapists regarding the integration of mind-body techniques in rehabilitation. By examining the attitudes, beliefs, and utilization patterns of these professionals, this research aims to provide valuable insights that can inform future practices, education, and policy development in the field of physiotherapy. Understanding these perspectives is crucial for several reasons: it can identify existing barriers and facilitators to the integration of mind-body techniques, illuminate gaps in knowledge and training, and contribute to the broader discourse on patient-centered care.¹²

The need for this study arises from the increasing interest within the healthcare community in mind-body approaches and their potential implications for rehabilitation practice. While research has demonstrated the effectiveness of mind-body techniques in improving both physical and psychological outcomes^{9,15} there is a notable gap in understanding how these approaches are perceived and implemented by physiotherapists in real-world setting.⁷

By investigating the perceptions and practices of physiotherapists, this research aims to contribute to the advancement of evidence-based rehabilitation strategies, ultimately improving patient outcomes. The study will assess the current trends and attitudes within the profession towards holistic approaches to patient care, identify potential barriers and facilitators influencing the adoption of these techniques, and highlight the training and education needs of physiotherapists to effectively incorporate mind-body techniques into their practice.¹²

The findings from this research will be instrumental in shaping future educational initiatives, practice guidelines, and policy developments, ensuring that physiotherapists are well-equipped to integrate mind-body techniques into their rehabilitation programs, thereby enhancing the quality of care provided to patients^{5,6,8}

SUBJECT AND METHOD

Participation: Total no. of 53 physiotherapists participated in the study. Out of which 30 were males and 23 were females, between the experience of 2 years to 20 years of practice.

The physiotherapist comprises of minimum 2 years of experience and max 20 years of experience and working in personal physiotherapy settings or in corporate hospitals.

Physiotherapist are excluded from the study are only having academic experience and not indulging in clinical practice in the last 1 year. An interview was to check the eligibility of therapist

Study design and research setting:

This cross section of study was done by google forms, by the survey method from feb 10, 2024 to april27, 2024 with physiotherapist working in clinical settings and in hospitals from more than one year.

Which was the major inclusion criteria. Participants are invited to participate in this study through social media i.e., whatsapp.

INTRUMENTATION AN STUDY TOOL:

The tool used for the data collection of this study was a self-structured questionnaire. the questionnaire was validated beforehand by three expertise in the field if physiotherapy before putting it in the motion for the data collection. It was a single visit study where participants had to fill out a questionnaire containing few questions for both knowledge and perception of mind-body technique. All participants are screened for eligibility by checking if they fit in the inclusion criteria, Eligible participants were asked to fill out the consent form to provide consent for taking part in this study voluntarily. They were asked to fill out the questionnaire providing complete description about the procedure of the study using Google Form link containing the description of the study, consent form, and questionnaire. Data were collected by the method of convenience sampling. By the end of the study, all the responses were recorded

Results

The findings indicated that nearly 54.9% of physiotherapists acknowledged the potential benefits of mind-body techniques 9.8% rarely and 35.3% occasionally use this practice. Key barriers included lack of training (34%), limited patient interest (34%), time constrain (12%) and limited resources (20%). Facilitators for integration were identified as Supportive organizational culture (14%), availability of resources (20%), patient interest (54%) and adequate training opportunities (12%).

The data analysis yielded the following key results:

Correlation Analysis: There is a statistically significant positive correlation between perception and practice of mind-body techniques among physiotherapists (correlation coefficient = 0.6143).The t-test supports this finding with a very low p-value (2.663e-06), indicating a negligible probability of this result occurring by chance.

Descriptive Analysis:

There were 49 physiotherapists who participated in the study.

Demographic Variable:

1. Age:

Figure 1: Distribution of Age

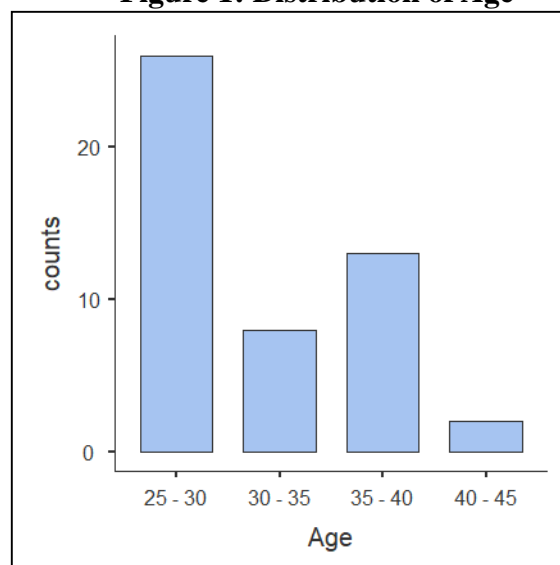
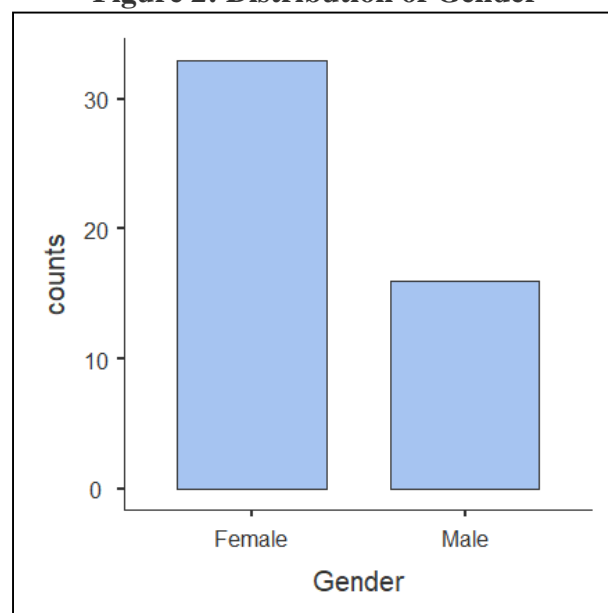


Table 1: Frequencies of Age

Age	Counts	% of Total	Cumulative %
25 - 30	26	53.1 %	53.1 %
30 - 35	8	16.3 %	69.4 %
35 - 40	13	26.5 %	95.9 %
40 - 45	2	4.1 %	100.0 %

Table 1 shows the majority of the sample (53.1%) falls within the 25-30 age range, and nearly all of the sample (95.9%) is under 40 years old. Only a small fraction (4.1%) is in the 40-45 age range.

2. Gender

Figure 2: Distribution of Gender**Table 2: Frequencies of Gender**

Gender	Counts	% of Total	Cumulative %
Female	33	67.3 %	67.3 %
Male	16	32.7 %	100.0 %

Table 2 shows that there is a higher proportion of females in the sample compared to males, with females constituting over two-thirds of the participants.

Inferential Analysis:

H0_1: There would be no significant relation between perception and practice of physiotherapist concerning integration of Mind Body Techniques.

Figure 3: Scatter Plot

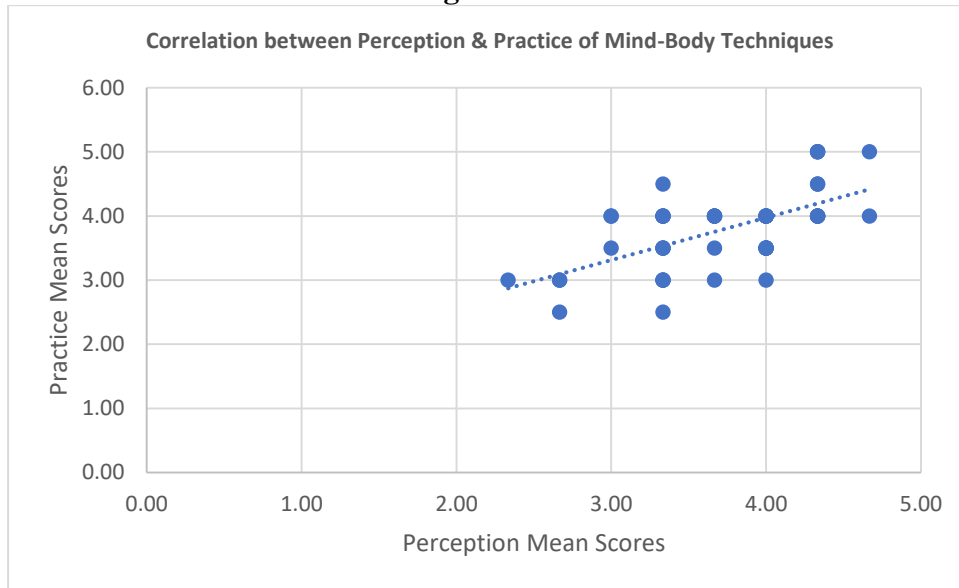


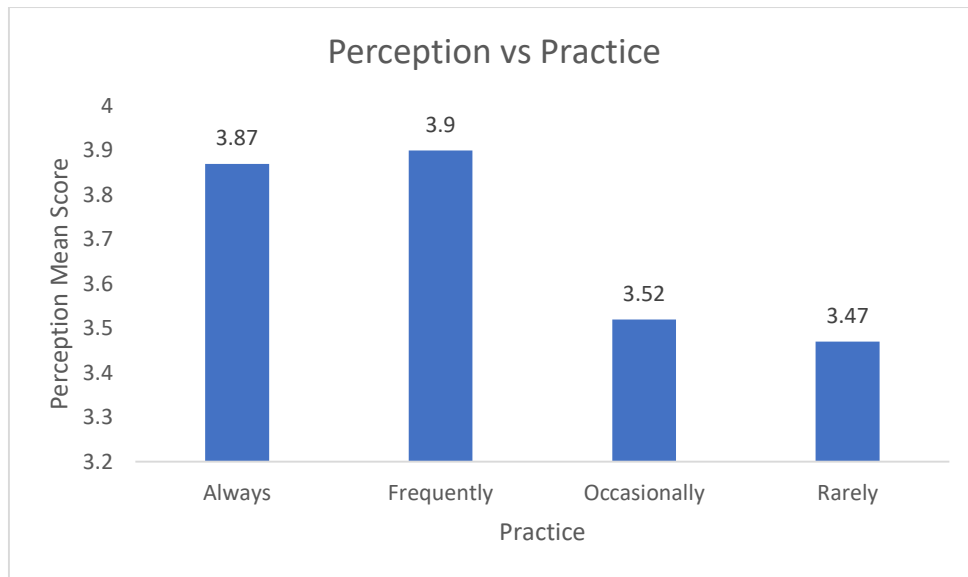
Table 3: Correlation t-test between Perception & Practice of Mind-Body Techniques

Variables of Mind-Body Techniques	Karl Pearson's Coefficient of Correlation (r)	t-value	df	p-value
Perception	0.6143	5.3377	47	2.663e-06
Practice				

There is a statistically significant positive correlation between the perception and practice of mind-body techniques, with a correlation coefficient of 0.6143. The t-test supports this finding, with a very low p-value (2.663e-06), indicating that the likelihood of this result occurring by chance is extremely low. Therefore, we can conclude that as people's perception of mind-body techniques improves, their practice of these techniques tends to increase. In other words, there was significant relation found between perception and practice of physiotherapist concerning integration of Mind Body Techniques.

H0_2: There would be no significant Gap between perception and practice of physiotherapist concerning integration of Mind Body Techniques.

Figure 4



One-Way ANOVA (Welch's)

	F	df1	df2	p
Perception_Mean_Score	1.83	3	10.9	0.201

The Welch's ANOVA test indicates that there is no statistically significant difference in the perception mean scores among the four groups (Always, Frequently, Occasionally, Rarely) as the p-value is 0.201, which is above the typical threshold for significance (0.05). Thus, we fail to reject the null hypothesis that the means are equal across these groups.

3

RESULTS

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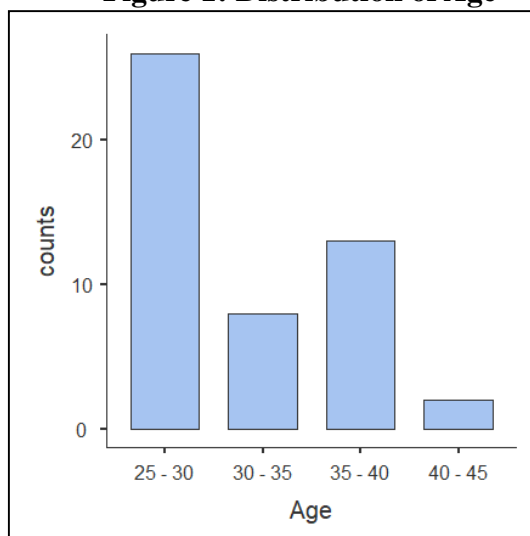
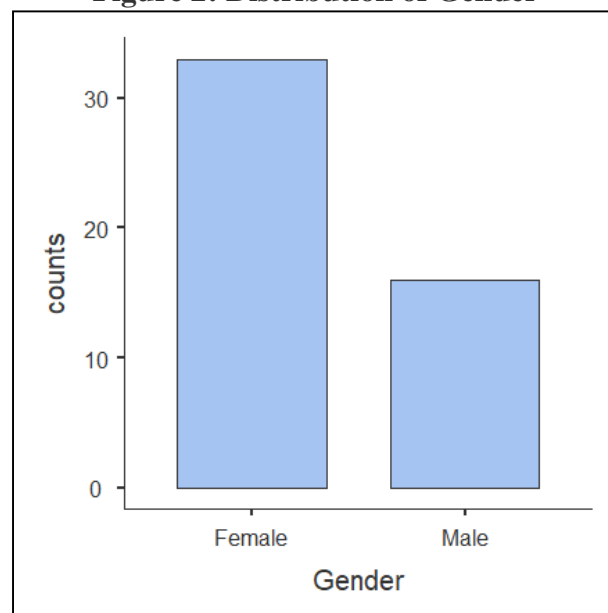


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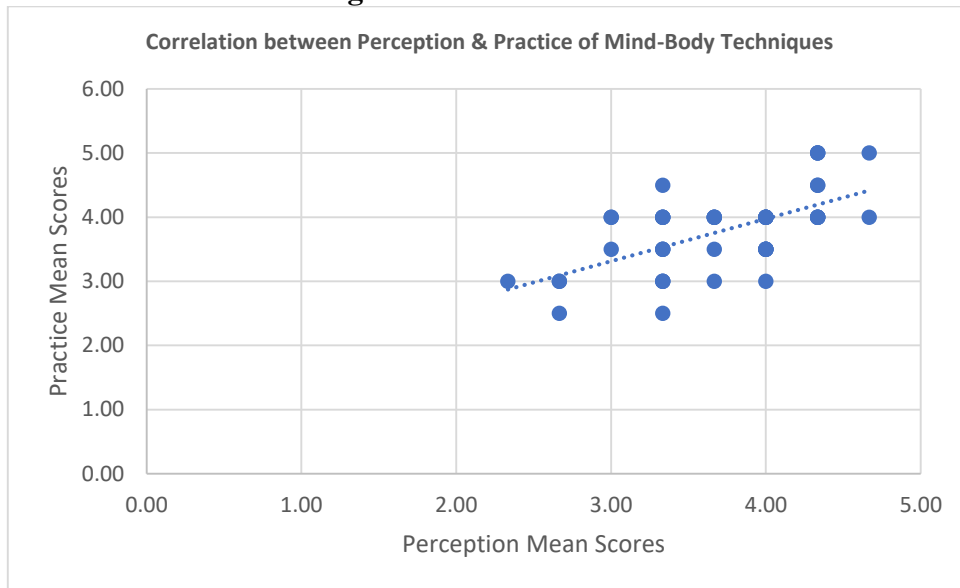


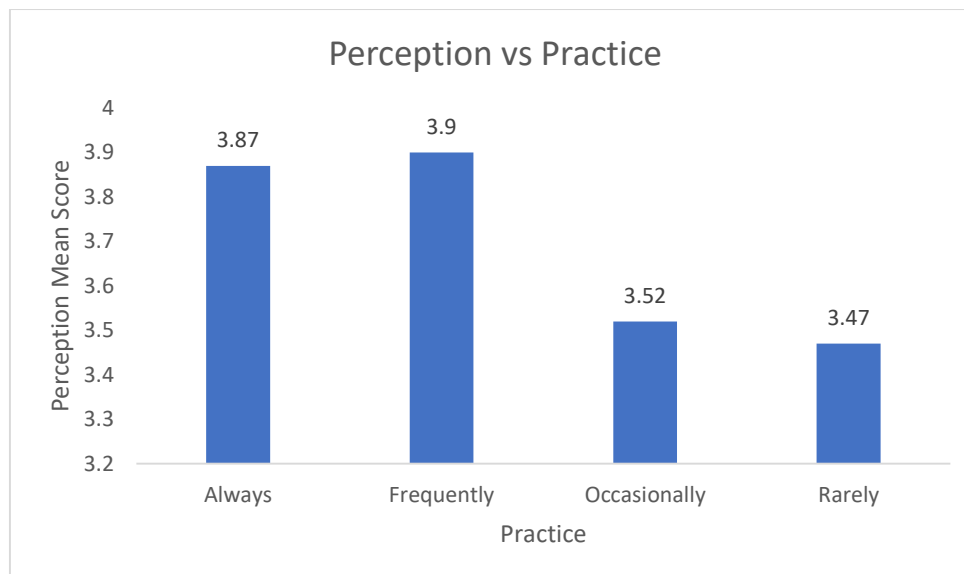
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There is a statistically significant positive correlation between the perception and practice of mind-body techniques, with a correlation coefficient of 0.6143. The t-test supports this finding, with a very low p-value (2.663e-06), indicating that the likelihood of this result occurring by chance is extremely low. Therefore, we can conclude that as people's perception of mind-body techniques improves, their practice of these techniques tends to increase. In other words, there was significant relation found between perception and practice of physiotherapist concerning integration of Mind Body Techniques.

H0_2: There would be no significant Gap between perception and practice of physiotherapist concerning integration of Mind Body Techniques.

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The Welch's ANOVA test indicates that there is no statistically significant difference in the perception mean scores among the four groups (Always, Frequently, Occasionally, Rarely) as the p-value is 0.201, which is above the typical threshold for significance (0.05). Thus, we fail to reject the null hypothesis that the means are equal across these groups.

Welch's ANOVA Test:

The Welch's ANOVA test showed no statistically significant difference in the perception mean scores among the four practice frequency groups (Always, Frequently, Occasionally, Rarely), with a p-value of 0.201. This result suggests that perceptions of mind-body techniques do not significantly vary across different levels of practice frequency.

Overall, these findings underscore the importance of enhancing physiotherapists' perceptions of mind-body techniques to promote their practical application, while also recognizing the consistency in perceptions across different levels of practice. Efforts to improve perceptions through education and professional development could potentially lead to better integration of these techniques in rehabilitation settings, benefiting both practitioners and patients.

Discussion

This study provides a comprehensive analysis of the relationship between physiotherapists' perceptions and practices regarding the integration of mind-body techniques in rehabilitation. The findings offer several critical insights that can inform both clinical practice and future research in this area¹

Correlation Between Perception The statistically significant positive correlation between perception and practice, with a correlation coefficient of 0.6143, suggests a robust relationship. Physiotherapists who view mind-body techniques more approvingly are significantly more likely to incorporate these techniques into their rehabilitation practices. The strength of this correlation highlights the impact of perception on clinical behavior. The

very low p-value (2.663e-06) associated with this Correlation reinforces its reliability, indicating that the probability of this finding occurring by chance is extremely low

This finding aligns with previous literature suggesting that healthcare professionals' attitudes and beliefs significantly influence their clinical practices. In the context of physiotherapy, where holistic and integrative approaches are increasingly valued, enhancing positive perceptions of mind-body techniques could be a key driver in their broader adoption and effective application.

The results from the Welch's ANOVA test add another layer of understanding to the dynamics between perception and practice. The test indicates no statistically significant difference in perception mean scores among the four groups categorized by practice frequency (Always, Frequently, Occasionally, Rarely). With a p-value of 0.201, the analysis suggests that perceptions of mind-body techniques are consistent across different levels of practical engagement. This consistency is noteworthy as it implies that while physiotherapists' practice of mind-body techniques varies, their overall perception of these methods does not. This finding could indicate a general consensus or uniformity in the understanding and appreciation of mind-body techniques among physiotherapists. It also suggests that factors other than perception, such as institutional support, training opportunities, and patient demand, might influence the frequency of practice.

Implications for Clinical Practice and Education

The significant correlation between perception and practice underscores the potential benefits of targeted educational interventions. By improving physiotherapists' perceptions of mind-body techniques through professional development programs, workshops, and continuous education, healthcare institutions can promote the integration of these techniques into regular practice. This could lead to more holistic and patient-centered care approaches, improving rehabilitation outcomes. The lack of significant differences in perception across practice frequencies suggests that these educational interventions need not be differentiated based on current practice levels. Instead, a uniform approach in training and development could effectively elevate the general perception and thereby increase the practice of mind-body techniques^{1,2}

Recommendations for Future Research

The future research should explore the underlying factors that contribute to the uniformity in perception despite varying levels of practice. Qualitative studies could provide deeper insights into the barriers and facilitators influencing the adoption of mind-body techniques in rehabilitation. Additionally, longitudinal studies could examine how changes in perception over time impact clinical practice and patient outcomes.

Investigating the role of organizational culture, peer influence, and patient feedback in shaping physiotherapists' perceptions and practices could also offer valuable perspectives. Understanding these dynamics could help design more effective strategies to integrate mind-body techniques into mainstream physiotherapy practices⁴

Conclusion

the study highlights a significant and positive relationship between physiotherapists' perceptions and their practice of mind-body techniques in rehabilitation, as evidenced by a correlation coefficient of 0.6143 and a very low p-value (2.663e-06). This suggests that fostering positive perceptions could enhance the integration of mind-body techniques in clinical practice

Additionally, the results of the Welch's ANOVA test, with a p-value of 0.201, indicate that there is no significant difference in perception mean scores among the four groups of practice frequency. This suggests a general consensus in perception, irrespective of practice

frequency, highlighting that perceptions are stable across varying levels of practical engagement with mind-body techniques.

There is a significant gap between the perceived benefits and actual implementation of mind-body techniques in physiotherapy practice. Addressing barriers through targeted training and organizational support can enhance the integration of these techniques, potentially leading to improved rehabilitation outcomes.

REFERENCES:

1. Divya kashyap et.al (2024) Integrating Mind Body Technique in Physiotherapy rehabilitation ISSN(261686-8634)
2. Soulé, I., Littzen-Brown, C., Vermeesch, A. L., & Garrigues, L. (2022). Expanding the Mind–Body–Environment Connection to Enhance Development of Cultural Humility. *International journal of environmental research and public health*, 19(20), 13641
3. Bagheri, S., Naderi, A., Mirali, S., Calmeiro, L., & Brewer, B. W. (2021). Adding mindfulness practico exercise therapy for female recreational runners with patellofemoral pain: a randomized controlled trial. *Journal of athletic training*, 56(8), 902-911
4. Zadeh, M. M., Ajilchi, B., Salman, Z., & Kisely, S. (2019). Effect of a mindfulness programme training to prevent the sport injury and improve the performance of semi-professional soccer players. *Australasian Psychiatry*, 27(6), 589-595
5. de Vibe, M., et al. (2017). Mindfulness-based stress reduction (MBSR) for improving health, quality of life and social functioning in adults. *Cochrane Database of Systematic Reviews.*, (5), CD010784.
6. Goyal, M., et al. (2014). Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. *JAMA Internal Medicine.*, 174(3), 357-368.
7. Khoury, B., et al. (2013). Mindfulness-based therapy: A comprehensive meta-analysis. *Clinical Psychology Review.*, 33(6), 763-771.
8. L anche, R., et al. (2013). A systematic review and meta-analysis of mindfulness-based stress reduction for the fibromyalgia syndrome. *Journal of Psychosomatic Research*, 75(6), 500-510.
9. Hempel, S., et al. (2012). Mindfulness-based interventions for chronic pain: a systematic review. *Evidence Report/Technology Assessment.*, (208), 1-226.
10. Mayden, K.D (2012). Mind-body therapies: evidence and implications in advanced oncologypractice. *Journal of the advanced practitioner in oncology*, 3(6), 357.
11. . Moyer, C. A., et al. (2011). Massage therapy for pain: an evidence-based approach. *Pain Medicine.*, 12(1), 3-13.
12. Bohlmeijer, E., et al. (2010). The effects of mindfulness-based stress reduction therapy on mental health of adults with a chronic medical disease: A meta-analysis. *Journal of Psychosomatic Research.*, 68(6), 539-544.
13. Ernst, E. (2006). The efficacy of various forms of mind-body therapy. *Medicine.*, 34(8), 660-668.
14. Bishop, S. R., et al. (2004). Mindfulness: A Proposed Operational Definition. *Clinical Psychology: Science and Practice.*, 11(3), 230-241.
15. Grossman, P., et al. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, 57(1), 35-43.
16. . Kabat-Zinn, J. (2003). Mindfulness-Based Interventions in Context: Past, Present, and Future. *Clinical Psychology: Science and Practice.*, 10(2), 144-156.
17. Astin, J. A. (1998). Why Patients Use Alternative Medicine: Results of a National Study. *JAMA.*, 279(19), 1548-1553.

18. exercise therapy for female recreational runners with patellofemoral pain: a randomized controlled trial. *Journal of athletic training*, 56(8), 902-911.