

Impact of Cultural Context on the Effectiveness of Mindfulness-Based Interventions for Chronic Pain in Older Adults

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Abstract. The increasing proportion of the population that is aged presents healthcare with the challenge of providing effective pain management for patients from a variety of cultural backgrounds. Mindfulness-based interventions (MBIs) have demonstrated efficacy in the alleviation of pain. However, there is limit research on how different ethnic groups view and benefit from them. The paper seeks to explore the impact of culture on the acceptance and effectiveness of multidisciplinary, comprehensive pain management for people aged 65 years and older. By analyzing prior research, it examines how cultural influences interact with age-related worries and attitudes to utilize positive thoughts for pain control. The findings show that matching norms significantly affects how well MBIs are accepted and perceived as effective with views traditional healing methods and self-perception playing important roles. In addition, this paper highlights the need for culturally adapted MBI and enhanced cultural competence in the delivery of healthcare services. These insights can facilitate the development of more effective, culturally sensitive pain management strategies for older adults, thereby improving the health and quality of life of this growing population.

Keywords: Chronic Pain Management, Mindfulness-based Interventions (MBIs), Cultural Competence, Older Adults.

1. Introduction

A large number of older adults are affected by pain worldwide at varying rates, ranging from 25% to 76% [1]. Acceptance and perceived benefits of Mindfulness Based Interventions (MBIs) can vary greatly depending on the setting in which they are implemented. Relevant research has shown that cultural beliefs and practices can have an impact on health behaviors, pain sensitivity, and attitudes toward psychotherapeutic approaches such as MBIs [2]. Despite the growing recognition of the importance of cultural context in healthcare, there are still major gaps in understanding how cultural factors specifically influence the acceptance and effectiveness of MBIs in treating pain among older adults from different ethnic backgrounds. This paper seeks to fill this gap by providing insight into how cultural beliefs and practices influence the acceptance and perceived efficacy of MBIs in the 65 and older population. By synthesizing previous research, it investigates the complex interplay between cultural factors, age-related concerns, and positive attitudes toward pain management. The results are intended to provide insights for healthcare professionals and policy makers as they can help to develop culturally appropriate and efficient approaches to pain relief for older adults.

2. Chronic pain and mindfulness-based interventions in older adults

2.1. Overview of Chronic Pain in Older Adults

Persistent pain creates health problems in the population. Approximately half of older adults living independently and four-fifths of those living in nursing homes endure chronic pain, which may lead to consequences such as an increased chance of falling and disturbed sleep patterns [3]. It can also lead to increased levels of depression, anxiety, and cognitive difficulties [4]. In addition, it is found that older adults who experienced pain had significantly reduced functional capacity compared to those who did not report pain symptoms. The management of long-term pain in older adults can present a significant challenge, as they often express concerns about the potential adverse effects and drug interactions associated with single doses of medication [5]. And the presence of a health condition has brought to the attention of physicians that older people may not speak out about their pain as they see it as a natural part of getting older [6,7]. Social isolation is also a factor that affects how seniors perceive and manage their pain [8]. Moreover, the importance of using pain assessment methods for patients with cognitive impairment has been emphasized [9]. There may be limitations to the implementation of this treatment [10], as it may be less effective or have a risk of reaction, and these barriers highlight the need for strategies to manage pain in the population by considering alternative therapies such as MBIs.

2.2. Mindfulness-Based Interventions (MBIs) for Chronic Pain

MBIs are considered a promising intervention for older patients with chronic pain that centers on non-judgmental observation of the present moment, which relieve symptoms by helping patients perceive pain as a product of thoughts and emotions [11]. Its key elements include present-moment awareness, nonjudgmental acceptance, and self-compassion, which can reduce pain catastrophizing as well as overidentification with physical limitations [12]. For example, Positive Thought-Based Stress Reduction (MBSR) has been shown to be effective in patients with low back pain, reducing pain and improving function [13]. Positive mindfulness cognitive therapy (MBCT) and acceptance and commitment therapy (ACT) also have potential for pain management in older adults, with ACT in particular excelling in promoting pain acceptance and overall quality of life improvement [14]. Exercise-based positive thinking practices, such as Tai Chi and yoga, are increasingly recognized for relieving pain and enhancing mobility, while providing exercise benefits that help maintain physical function [15]. Positive thinking meditation also enhances brain function associated with self-awareness and reduces activity in areas of the brain that process pain signals, resulting in effective pain relief [16].

2.3. Efficacy of MBIs for Chronic Pain Management in Older Adults

Multiple studies support the use of MBIs to help manage pain in adults effectively. MBIs have shown improvements, in reducing pain levels and enhancing functioning in individuals, with various chronic pain conditions commonly observed in this age group [11]. In addition, participants experiencing lower back pain were found to have significant reductions in self-reported pain levels and pain-related limitations after attending an 8-week course of positive thinking [13]. The benefits of MBI extend beyond pain relief. And older adults who completed the MBSR program had an improved ability to come to terms with pain, as well as improved quality of life and quality of sleep. Besides, MBIs significantly improved feelings of sadness and worry in adults with chronic pain problems, addressing a key psychological issue in pain management in this population. Importantly, MBIs' impact appears to be sustainable. The study showed that older adults who participated in the MBIs indicated lasting improvements in pain control and physical functioning twelve months after program completion [17]. This suggests that MBI may provide older adults with valuable skills to effectively manage pain, potentially reducing their dependence on medications. However, it is important to note that its impact may vary depending on the specific pain conditions and individual characteristics of older adults. There is an urgent need for more rigorous research targeting older populations, taking into account factors such as the state of cognitive functioning, underlying health conditions and cultural influences.

3. Cultural factors in mbi acceptability and effectiveness for older adults

3.1. Cultural Context in Healthcare and Pain Management

The cultural context in healthcare greatly affects the experiences and outcomes of patients with chronic pain. Asian Americans generally view pain as a natural part of aging and are therefore less proactive in seeking medical help. In contrast, African American older adults tend to seek pain relief through religious beliefs and prayer [18]. And cultural factors influence the experience of pain in different groups, with significant differences in pain tolerance and thresholds across ethnicities, suggesting that pain assessment and treatment should take into account the importance of cultural background and traditions. Language and communication styles are likewise strongly influenced by culture and are particularly important in pain expression and management. Older adults in cultures that promote collectivism often do not express discomfort directly but use metaphors, making it more important to focus on the impact of pain on daily life rather than just the intensity of pain [19]. Failure to consider these cultural differences may result in inaccurate assessments and suboptimal treatment outcomes. Besides, beliefs and practices regarding pain management exhibit considerable variation across cultures. It is therefore recommended that traditional approaches be incorporated into pain management programs, with a view to improving patient acceptance and compliance.

3.2. Cultural Variations Affecting MBI Acceptance and Efficacy

Cultural differences exert a profound influence on the acceptance and efficacy of MBIs for older adults with chronic pain. In some cultures that prioritize the collective over the individual, these interventions may be perceived as inconsequential [20]. Furthermore, cultures that prioritize health tend to be more open and welcoming. The integration of MBI with personal beliefs into a unified therapeutic approach has been shown to enhance both acceptance and perceived effectiveness [21]. It is of the utmost importance to align self-awareness and positive thinking principles with cultural norms in order to ensure resonance [22]. The effectiveness of MBIs is influenced by various cultural factors, including approaches to pain management and bodily awareness [23].

3.3. Cultural Congruence in MBI Delivery

Ensuring that MBIs are culturally aligned is vital to enhance their impact on adults dealing with pain from various cultural backgrounds. Studies indicate that adjusting terms and practices to fit conceptual preferences can boost participant involvement and reported advantages. Providing MBIs in a way that respects participants' cultural communication standards results in compliance and improved pain management results. The provision of multidisciplinary integrated therapies in the participant's native language has been shown to result in superior treatment outcomes, particularly with regard to mental health and pain acceptance [24]. They tend to yield enhancements in reducing pain severity levels and boosting abilities and overall quality of life as compared to standard treatment options. Cultural congruence also positively affects long-term adherence to mindfulness practices and fosters stronger therapeutic alliances between facilitators and participants [23,25]. Therefore, it is important to adapt MBIs to be culturally sensitive and flexible in order to adequately address pain in the older adult community [26].

4. Implementing culturally sensitive mbis for older adults: challenges and strategies

4.1. Challenges in Cultural Adaptation

There are significant barriers to acceptance of MBIs for adults in diverse cultural settings, such as limitations in the cultural awareness of healthcare providers and the absence of culturally specific MBI programs. Cultural factors influencing the adoption of MBIs include conflicting perceptions, stigmatization of health, and preference for traditional therapies [27]. Many healthcare professionals do not have an adequate understanding of the effective delivery of interventions. There is a lack of customized MBI programs supported by evidence-based research, which often relies on programs

developed in Western settings. Existing protocols frequently overlook the influence of differences on perceptions of self and mindfulness [22]. To address such challenges, a multifaceted approach should be used that encompasses intensive cultural competency training, promotion of community engagement, and systematic construction and validation of culturally adapted MBI protocols. There is an urgent need to explore and enable mindfulness-based interventions that can be adapted to a variety of geriatric populations experiencing chronic pain in different cultural contexts [25].

4.2. Strategies for Enhancing Cultural Sensitivity

Recent research has identified key strategies for enhancing the cultural sensitivity of the MBI for older adults with chronic pain. It is recommended that healthcare providers receive training in cultural competence, that the MBI be adapted to the specific context, and that the community be integrated into the process through active participation. The study underscores the necessity for cultural competency training for MBI facilitators and puts forth a model that integrates learning with mentorship. It is of the utmost importance to adapt and structure a team of facilitators when implementing mental health interventions for older adults with chronic pain symptoms. It is imperative that healthcare professionals and researchers collaborate closely with local communities in the development of interventions, with the aim of ensuring enhanced services and outcomes for this diverse population [24].

4.3. Case Studies: Successful Implementation of Culturally Sensitive MBIs

The adaptation of MBIs to the context of adults in diverse communities has been demonstrated to enhance their well-being and pain management outcomes. For example, in China, integrating traditional beliefs and language into a positive thinking intervention significantly improved pain control and overall quality of life; in the United States, customizing MBIs by incorporating spiritual and community-based coping methods increased participation rates and positive outcomes; tailoring a positive thinking-based intervention that incorporates cultural principles to Latino individuals increased participation and sustained commitment; and in Canada, combining traditional healing methods with indigenous beliefs about health and well-being significantly improved pain relief and overall well-being. These case studies demonstrate that effective integration of MBI requires a deep grasp of cultural nuances, along with active community engagement and careful customization of intervention content and delivery methods.

5. Interpretation and future direction

5.1. Implications for Clinical Practice

Recent findings on culturally sensitive MBIs have significant implications for clinical practice in the management of pain in older adults. Healthcare providers need to be cognizant of the factors that influence an individual's experience of and response to pain management, and as cultural beliefs play an important role in an individual's help-seeking and adherence to treatment, clinicians should always consider the patient's point of view and incorporate it into their approach to pain management. They should strive to tailor measures to fit the patient's cultural context, such as adapting language, incorporating empathic metaphors, or incorporating therapeutic techniques, such as an emphasis on helping older adults in collectivist cultures to build family relationships and community cohesion when working with them. There is a need for increased cultural competency training for healthcare providers, many of whom lack the skills to customize interventions, and clinics and healthcare organizations should prioritize ongoing cultural competency education, with the potential to incorporate experiential learning and mentorship programs.

5.2. Policy Recommendations

There are also implications for health care policy. First, there is a clear need for policies that promote the development and implementation of culturally adapted MBIs. It is critical for funding agencies and healthcare organizations to prioritize initiatives and research that specifically target the development of interventions for a wide range of older adult populations. Second, policies should be implemented to

ensure that healthcare providers who provide pain management services to patients receive cultural competency training as a mandatory practice requirement. It is insufficient for such training to focus solely on cultural awareness; it must also provide insight into how cultural influences affect pain experience and treatment outcomes. Third, it is recommended that healthcare policy should encourage community participation in the development and implementation of pain management interventions. And policies should address the language barriers often faced by older persons from diverse backgrounds.

5.3. Future Research Directions

Future research on culturally sensitive MBIs for older adults with chronic pain should focus on several key areas. First, studies should assess the long-term effects of these interventions in terms of pain control, quality of life improvement, and healthcare resource use. In particular, comparative studies must be conducted to analyze differences in the effects of adapted interventions versus standard interventions in different cultural settings to measure the advantages of cultural adaptation. Also, studying the mechanisms by which consistent interventions affect pain-processing regions of the brain through neuroimaging methods may provide insights into their physiological effects. Understanding cultural intersectionality is critical as it relates to how culture affects an individual's response to MBI, especially in the interaction of factors such as gender, socioeconomic status, or education level. In the context of increasingly pervasive technology use, it is particularly important to examine how MBIs can be adapted to different cultural contexts, especially given the wide variation in skill levels among older adults. And cost-effectiveness analyses are essential and should not only compare the direct healthcare costs of customized MBIs with conventional treatments, but assess their indirect economic impact in pain management. These research directions will lay the foundation for more efficient and equitable pain management solutions for the elderly population in different cultural settings.

6. Conclusion

This paper examines how cultural beliefs and practices influence perceptions of MBIs in pain management among racially diverse adults. Research suggests that cultural conformity plays a key role in determining whether an individual receives MBI treatment. Factors such as spiritual beliefs and traditional therapies profoundly influence an individual's willingness to participate in mandatory treatments, as well as their acceptance of concepts such as self-awareness and positive thinking. In addition, people's perceptions of the effectiveness of these interventions are closely linked to their cultural expectations of pain management and treatment. The results highlight the importance of community engagement and inclusive approaches when designing and implementing culturally sensitive MBIs, which have important implications for clinical practice, healthcare policy, and future research. However, there are some limitations to this study that need to be addressed in future research. Although qualitative meta-analytic methods provide insights, they may not fully capture the nuances of different cultural contexts. Future research should include preliminary qualitative studies to gain a more specific cultural understanding, and quantitative studies should be conducted to assess the impact of acculturation on MBI outcomes.

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