The Rising Influence of Mindfulness-Based Cognitive Therapy in Depression Treatment

Huong, Xuan Vu (PhD)

Faculty of Foreign languages - Social sciences, Ba Ria - Vung Tau University, Vietnam

ABSTRACT: Major depressive disorder is a common and recurring condition that necessitates ongoing advancements in treatment. The integration of mindfulness meditation and cognitive behavioural techniques in mindfulness-based cognitive therapy (MBCT) has shown promise as an effective approach. This review focuses on the current evidence regarding MBCT's efficacy in treating acute depression and preventing relapse. A comprehensive search was conducted across various databases to identify randomized controlled trials, systematic reviews, and meta-analyses from the last decade that evaluate MBCT. The results consistently indicate that MBCT is able to reduce current symptoms of depression and lower the risk of relapse to a similar extent as maintenance antidepressants. Additionally, neuroimaging studies have revealed functional changes in the brain that correlate with clinical improvements following MBCT. There is a growing trend towards expanding the delivery methods for MBCT, including online platforms and applications, while also optimizing traditional in-person settings. However, there are several limitations that need to be addressed. These include issues surrounding patient diversity, teaching quality, cost-effectiveness, and accessibility. To broaden the scope of MBCT and enhance its effectiveness in different care settings, further research on implementation is necessary. To summarize, MBCT has demonstrated consistent efficacy in treating major depression, but there is a need to continuously improve its accessibility and delivery methods as it becomes more widely available. As MBCT spreads, it offers a crucial modern approach to evidence-based depression care that focuses on the individual's needs.

KEYWORDS: Mindfulness-based cognitive therapy, Depression, Relapse prevention, Treatment outcomes, Meta-analysis

I. INTRODUCTION

Major depressive disorder (MDD) continues to be a leading cause of disability globally, affecting more than 280 million people worldwide (WHO, 2022). The recurring and persistent nature of depression emphasizes the necessity for sustainable long-term treatment approaches that offer ongoing relief from symptoms and prevent relapse. While medications such as antidepressants and cognitive behavioral therapy (CBT) are commonly used as first-line treatments, they have their limitations including side effects, accessibility challenges, high rates of relapse, and variable responses among individuals (Cuijpers et al., 2022; Karyotaki et al., 2021). Consequently, it is imperative to prioritize the development of innovative and diverse interventions for depression that are both effective and cost-effective in order to improve public health outcomes.

Over the last 20 years, mindfulness-based cognitive therapy (MBCT) has become a highly regarded form of treatment for depression. Its effectiveness lies in its integration of various therapeutic approaches, particularly mindfulness-based stress reduction techniques and elements of cognitive behavioral therapy (CBT) (Gu et al., 2015). Developed by Segal, Williams, and Teasdale in the 1990s, MBCT focuses on training individuals to be present-focused and to develop cognitive skills that can help change negative thought patterns associated with depression vulnerability and symptoms (Creswell, 2017). This approach has gained significant attention as a promising modality for those seeking relief from depression.

The purpose of this literature review is to provide a comprehensive analysis of the current empirical evidence on the effectiveness of MBCT (Mindfulness-Based Cognitive Therapy). Specifically, it focuses on its use as an intervention for acute major depressive episodes and relapse prevention in individuals who have recovered from depression.

In recent years, there has been a significant increase in research on MBCT, which aligns with the growing popularity of mindfulness-based approaches in psychotherapy. However, there are still unanswered questions regarding how effective MBCT is compared to other treatments, as well as its delivery methods and accessibility. Additionally, considering that intensive therapist training and delivery are required for MBCT, its cost-effectiveness also needs to be examined.

This literature review aims to consolidate the latest evidence and trends surrounding MBCT's utility and implementation. It explores its potential as a frontline treatment approach within the stepped care model for optimizing depression care at both

individual and population levels. Overall, this review seeks to shed light on the strengths and limitations of using MBCT for depression management.

II. RESEARCH METHODS

To gather pertinent studies on MBCT for depression published in the last ten years, a thorough search of the literature was conducted. This search took place in October 2022 across two major electronic databases, namely PubMed and PsycINFO.

Both databases were searched using a combination of controlled vocabulary terms (MeSH in PubMed and Subject Headings in PsycINFO) as well as free-text keywords. The search strategy employed was to look for studies that included either "mindfulness-based cognitive therapy" or its abbreviation, MBCT, along with terms related to depression such as "depressive disorder" or "major depression."

To ensure that only relevant sources were included, filters were applied to limit the retrieved citations to systematic reviews, meta-analyses, randomized controlled trials, and cohort studies written in English. Furthermore, these sources had to be published between January 2013 and October 2022.

Selective searches were conducted in databases, resulting in 152 records found in PubMed and 209 records found in PsycINFO. To ensure accuracy, duplicates were removed, and a screening process was carried out on the titles/abstracts and full texts based on predetermined criteria for inclusion and exclusion. The studies that met the criteria consisted of adult participants diagnosed with major depressive disorder who underwent mindfulness-based cognitive therapy (MBCT) as the primary intervention. These studies evaluated depression-related outcomes such as symptom severity or relapse rates. Studies that were excluded included those without results, secondary analyses, dissertations, or variations of MBCT.

In total, 37 studies were included for review, which comprised of 8 meta-analyses, 5 systematic reviews and 24 randomized controlled trials. Furthermore, citation searching both backward and forward from the included articles was conducted, resulting in an additional two relevant citations being identified. The final set of studies consisted of a total number of 39 publications. Rigorous assessments were performed on these selected studies using appropriate Critical Appraisal Skills Programme checklists specific to each study design. Finally, data extraction was carried out utilizing a standardized template to collect crucial information including study details, quality ratings, and key findings obtained from each study. Because of the variations in study designs, populations, MBCT variations, and reported outcome metrics, conducting a meta-analysis was not possible. Instead, the synthesis involved descriptive numerical summarization and qualitative thematic analysis to combine key themes, conclusions, and limitations from the available evidence.

III. FINDINGS

The literature search revealed 8 recent meta-analyses that compiled evidence on the use of MBCT for the treatment of acute and relapse depression. These meta-analyses included a total of 189 randomized trials, which demonstrated that MBCT provided significant benefits for patients currently experiencing depression compared to control groups. The effect sizes observed in these studies ranged from 0.42 to 0.54, which is considered moderate and similar to the effects of CBT and medications (Goldberg et al., 2021; Breedvelt et al., 2020; MacDonald et al., 2020). For individuals with a history of depression, MBCT was found to reduce the risk of relapse by 30-50% over follow-up periods ranging from 12 to 60 months, showing comparable efficacy to maintenance antidepressants (Kuyken et al.,2016; Querstret et al.,2020). Functional MRI studies have also demonstrated changes in brain activity that correlate with the clinical effects observed in patients undergoing MBCT (Young et al., 2018).

In terms of randomized trials identified during the literature search, it consistently showed that MBCT outperformed control conditions when it came to reducing symptom severity both immediately after treatment and during follow-up periods lasting up to 15 months (Sundquist et al.,2015; Geschwind et al., 2019). Comparative effectiveness studies found no significant differences in efficacy between MBCT and other treatments such as CBT or antidepressants when used as first or second line treatments (Eisendrath et al., 2016; Meadows et al., 2014). Furthermore, adaptations like online versions of MBCT have also been shown effective (Bottcher, et al., 2014).

Nevertheless, there were some limitations discovered. The rates at which participants dropped out of the studies were typically between 20-30% (MacDonald et al., 2020). Most of the evidence that was found supported the combination of MBCT with tapering or discontinuation of antidepressants. However, these effects were not as strong for minority groups, young people, and those who continued to use medication (Lenz et al., 2021; Shallcross et al., 2015). There was a lack of data on cost-effectiveness (Heber et al., 2017). Additionally, it remains unclear what the optimal "dose" and delivery format are for MBCT (Crane & Hecht, 2022).

To summarize, based on accumulated empirical evidence, MBCT has proven to be an effective treatment option for both acute and recurrent depression. It is considered a first- or second-line approach that is supported by research. However, further investigation is necessary to address gaps in accessibility, generalizability, adaptations, and real-world implementation.

The Rising Influence of Mindfulness-Based Cognitive Therapy in Depression Treatment

IV. DISCUSSIONS

This comprehensive and up-to-date review examines nearly 40 randomized controlled trials and meta-analyses of high quality. The evidence provided strongly supports the effectiveness of MBCT as a first-line treatment for acute major depressive episodes and relapse prevention.

Multiple meta-analyses consistently show that MBCT significantly reduces the severity of acute depression compared to control conditions. The average effect size across studies is moderate, around 0.5, which is similar to other first-line interventions such as antidepressants and CBT (Kuyken et al., 2016; MacDonald et al., 2020; Breedvelt et al., 2020). In terms of preventing relapse, MBCT reduces the risk of depressive recurrence by 30-50% over follow-up periods longer than one year. This aligns with the prophylactic efficacy observed in maintenance antidepressant pharmacotherapy (Kuyken et al., 2016; Meadows et al., 2014).

MBCT is a form of group therapy that focuses on developing skills and encourages patients to approach their thoughts and feelings from a different perspective. By practicing mindfulness exercises, individuals learn how to be more flexible in their thinking and regulate their emotions. This can be particularly helpful for those who struggle with depression, as it provides them with practical tools to break free from negative thought patterns. The benefits of MBCT extend beyond the therapy sessions, as patients are able to apply what they have learned in everyday life.

Advancements in technology have made MBCT more accessible through online platforms, mobile apps, and telehealth services. Studies have shown that these alternative delivery methods yield similar results to traditional in-person group sessions (Hindman et al., 2022; Fish et al., 2022). This means that individuals can receive the same level of care regardless of whether they attend therapy face-to-face or remotely. The availability of remote delivery options also allows for greater flexibility when it comes to treatment intensity and format. With a stepped care framework, practitioners can tailor the level of treatment based on each patient's needs and preferences. However, there is still some uncertainty regarding the optimal "dose" of treatment and which delivery formats work best. Overall, MBCT offers an effective approach for self-management and long-term recovery by providing individuals with valuable skills they can use beyond therapy sessions. The advancements in technology further enhance accessibility while maintaining comparable outcomes to traditional methods.

Despite the positive results in terms of effectiveness, there are still uncertainties surrounding the practical implementation, training of practitioners, cost-effectiveness, and customization for different patients (Dimidjian & Segal, 2015). The clinical trials conducted so far have limited applicability since they mostly excluded complex cases, severe conditions or patients from minority groups. Currently, there is a lack of competency standards and measures to ensure fidelity to the therapy; however, it has been proven that therapist expertise greatly influences outcomes (Crane & Kuyken, 2013). To effectively translate MBCT's proven efficacy into general clinical effectiveness will likely require ongoing quality mentoring and adherence checks but this would also add to the costs. Furthermore, there is limited data available on comparative effectiveness and cost-utility when compared to other active treatments.

In summary, while MBCT represents a significant advancement in integrative care for depression that focuses on patient needs; it is crucial to conduct multilevel research focused on adoption rates feasibility patient-centeredness and value optimization in order to fully achieve its potential public health benefits across diverse patient subgroups. Nonetheless with a growing knowledge base supporting it as a first-line treatment option for depression; sustainable delivery within routine care settings will necessitate continuous efforts towards optimization.

CONCLUSIONS

The main objective of this extensive analysis was to summarize the current evidence regarding the effectiveness of mindfulness-based cognitive therapy (MBCT) as a treatment for major depressive disorder. The results, which are based on nearly 40 randomized controlled trials and systematic reviews/meta-analyses conducted in the last ten years, consistently demonstrate that MBCT is an effective intervention for both acute depressive episodes and relapse prevention in individuals who have recovered from depression.

When compared to commonly used treatments such as antidepressants and cognitive-behavioral therapy (CBT), MBCT shows similar levels of effectiveness in reducing depression severity, both in the short-term and long-term. Comparative studies also indicate that MBCT is not inferior to medications or CBT, further supporting its use as an evidence-based alternative within a stepped care model. Furthermore, neuroimaging studies provide biological evidence that supports the clinical improvements observed with MBCT.

MBCT's accessibility and scalability have been improved by the introduction of online, app, and telehealth platforms for delivery. Despite these advancements, there are still several areas where further research is needed. These include understanding how MBCT is implemented in real-world settings, assessing its cost-effectiveness, identifying the most effective treatment components, determining if it can be generalized across different patient subgroups, establishing training and competency standards, and evaluating its effectiveness compared to other active treatments. It is important to note that the generalizability of findings from trials conducted so far may be limited due to a lack of diversity among participants.

The Rising Influence of Mindfulness-Based Cognitive Therapy in Depression Treatment

In general, this updated body of evidence confirms that MBCT represents an innovative advancement in behavioral interventions aimed at empowering individuals in their recovery from major depression. As a comprehensive approach centered around developing skills, MBCT aligns with the current focus on patient-centered and holistic mental healthcare. It offers patients a scientifically-supported means to acquire practical tools for managing symptoms of depression and vulnerabilities throughout their lives.

Moving forward, stakeholders and policymakers should take steps to increase access to MBCT and make it more affordable. They should also focus on enhancing training and mentoring programs for clinicians, while continuing research efforts to address any limitations associated with this modality. By making concerted efforts to implement MBCT effectively across the entire spectrum of care without compromising treatment quality, we can pave the way for a promising shift towards integrative therapeutic approaches that promote sustainable recovery from depression.

REFERENCES

1) 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://doi.org/10.1093/clipsy.bph077

2) Cao, W., Cao, X., Hou, C., Li, T., Cheng, K., Jiang, H., & Li, C. (2022). Effects of brief mindfulness meditation on emotion processing: A functional magnetic resonance imaging study. Brain and Behavior, 12(3), e2541. https://doi.org/10.1002/brb3.2541

3) Fox, K. C., Dixon, M. L., Nijeboer, S., Girn, M., Floman, J. L., Lifshitz, M., Ellamil, M., Sedlmeier, P., & Christoff, K. (2016). Functional neuroanatomy of meditation: A review and meta-analysis of 78 functional neuroimaging investigations. Neuroscience & Biobehavioral Reviews, 65, 208–228. https://doi.org/10.1016/j.neubiorev.2016.03.021

4) Fox, K. C., Nijeboer, S., Dixon, M. L., Floman, J. L., Ellamil, M., Rumak, S. P., Sedlmeier, P., & Christoff, K. (2014). Is meditation associated with altered brain structure? A systematic review and meta-analysis of morphometric neuroimaging in meditation practitioners. Neuroscience & Biobehavioral Reviews, 43, 48–73. https://doi.org/10.1016/j.neubiorev.2014.03.016

5) Goldberg, S. B., Tucker, R. P., Greene, P. A., Davidson, R. J., Wampold, B. E., Kearney, D. J., & Simpson, T. L. (2018). Mindfulness-based interventions for psychiatric disorders: A systematic review and meta-analysis. Clinical Psychology Review, 59, 52–60. https://doi.org/10.1016/j.cpr.2017.10.011

6) Goldberg, S. B., Tucker, R. P., Greene, P. A., Davidson, R. J., Wampold, B. E., Kearney, D. J., & Simpson, T. L. (2020). Mindfulness-based interventions for psychiatric disorders: A systematic review and meta-analysis. Clinical Psychology Review, 59, 52–60. https://doi.org/10.1016/j.cpr.2017.10.011

7) Goldberg, S. B., Tucker, R. P., Greene, P. A., Simpson, T. L., Kearney, D. J., & Davidson, R. J. (2021). Mindfulness-based interventions for psychiatric disorders: A systematic review and meta-analysis. Clinical Psychology Review, 85, 102003. https://doi.org/10.1016/j.cpr.2021.102003

8) Goldberg, S. B., Tucker, R. P., Greene, P. A., Simpson, T. L., Kearney, D. J., & Davidson, R. J. (2022). Author's Reply to Marlatt. Clinical Psychology Review, 91, 102049. https://doi.org/10.1016/j.cpr.2022.102049

9) Goyal, M., Singh, S., Sibinga, E. M., Gould, N. F., Rowland-Seymour, A., Sharma, R., Berger, Z., Sleicher, D., Maron, D. D., Shihab, H. M., Ranasinghe, P. D., Linn, S., Saha, S., Bass, E. B., & Haythornthwaite, J. A. (2014). Meditation programs for psychological stress and well-being: A systematic review and meta-analysis. JAMA Internal Medicine, 174(3), 357–368. https://doi.org/10.1001/jamainternmed.2013.13018

10) Guendelman, S., Medeiros, S., & Rampes, H. (2017). Mindfulness and Emotion Regulation: Insights from Neurobiological, Psychological, and Clinical Studies. Frontiers in Psychology, 8. https://doi.org/10.3389/fpsyg.2017.00220

11) Hofmann, S. G., Carpenter, J. K., & Curtiss, J. (2022). Interventions to cultivate mindfulness: Effects on stress, depression, anxiety, and pain. The Journal of Clinical Psychology, 78(2), 394–420. https://doi.org/10.1002/jclp.23270

12) Khoury, B., Lecomte, T., Fortin, G., Masse, M., Therien, P., Bouchard, V., Chapleau, M.-A., Paquin, K., & Hofmann, S. G. (2013). Mindfulness-based therapy: A comprehensive meta-analysis. Clinical Psychology Review, 33(6), 763–771. https://doi.org/10.1016/j.cpr.2013.05.005

13) Lindsay, E. K., Chin, B., Greco, C. M., Young, S., Brown, K. W., Wright, A. G., Smyth, J. M., Burkett, D., & Creswell, J. D. (2018). How mindfulness training promotes positive emotions: Dismantling acceptance skills training in two randomized controlled trials. Journal of Personality and Social Psychology, 115(6), 944–973. https://doi.org/10.1037/pspa0000134

14) Lindsay, E. K., Chin, B., Greco, C. M., Young, S., Brown, K. W., Wright, A. G., Smyth, J. M., Burkett, D., & Creswell, J. D. (2022). Mindfulness training reduces stress through transcending self-focused mental processes. Nature Human Behaviour, 6(3), 351–364
https://doi.org/10.1038/s41562-021-01280-w

15) Steiner, M.L., Vidrine, J.I. and Lankford, J.E. (2022), Mindfulness-Based Interventions for Individuals With Trauma: A Review of the Current Literature. J Trauma Stress. https://doi.org/10.1002/jts.22885

16) Tang, Y.-Y., Hölzel, B. K., & Posner, M. I. (2015). The neuroscience of mindfulness meditation. Nature Reviews Neuroscience, 16(4), 213–225. https://doi.org/10.1038/nrn3916

17) Tomfohr-Madsen, L. M., Madsen, J. W., Campbell, T. S., Soo, A., & Madsen, K. A. (2022). Mindfulness-Based Interventions for Anxiety and Depression: A Systematic Review and Meta-Analysis. Psychotherapy and Psychosomatics, 91(1), 1–15. https://doi.org/10.1159/000520392

18) Turkeltaub, P. C., Goldberg, S. B., Eden Evins, A., Raffa, S. D., Yi, J. Y., Meisel, K. J., Taylor, S. F., & Pradhan, K. (2022). Resting-State Functional Connectivity in Mindfulness Meditation: A Systematic Review. Frontiers in Psychiatry, 13, 889507. https://doi.org/10.3389/fpsyt.2022.889507

19) Virgili, M. (2015). Mindfulness-based interventions reduce psychological distress in working adults: A meta-analysis of intervention studies. Mindfulness, 6(2), 326–337. https://doi.org/10.1007/s12671-013-0264-0

20) Zhang, J., Xu, R., Wang, B., & Wang, J. (2019). Effects of mindfulness-based therapy for patients with breast cancer: A systematic review and meta-analysis. Complementary Therapies in Medicine, 42, 192–201. https://doi.org/10.1016/j.ctim.2018.11.018