



ORIGINAL RESEARCH PAPER

Psychology

ROLE OF MINDFULNESS BASED COGNITIVE THERAPY IN THE REDUCTION OF DEPRESSION AMONG INDIVIDUALS WITH DIABETES MELLITUS

KEY WORDS: Diabetes Mellitus, Mindfulness Based Cognitive Therapy, Depression

Ms. Bramaramba D Honnugudi*

Assistant Professor, Department of Clinical Psychology, Adichunchanagiri Institute Of Medical Sciences, Adichunchanagiri University, B.G.Nagar - 571448, Mandya *Corresponding Author

Dr. G Venkatesh Kumar

Retd. Professor, Dos in Psychology, Manasagangotri, University of Mysore- 570006

ABSTRACT

Diabetes Mellitus is a chronic metabolic disorder associated with increased psychological problems, particularly depression, which can negatively affect emotional well-being, treatment adherence, and glycemic control. The present study examines the effectiveness of Mindfulness-Based Cognitive Therapy (MBCT) in reducing depression among patients with Diabetes Mellitus. A pre-test and post-test experimental design was used, involving 60 patients, with 30 assigned to the experimental group and 30 to the control group. Depression levels were assessed using the Depression Anxiety Stress Scales (DASS). The experimental group received structured MBCT sessions, while the control group received routine care. The findings indicate a significant reduction in depression levels among participants who underwent MBCT compared to the control group. In conclusion, MBCT is an effective non-pharmacological intervention for reducing depression and improving psychological well-being among patients with DM

INTRODUCTION

Utilization of industrial waste products in concrete has attracted attention all around the world due to the rise of environmental consciousness. Diabetes mellitus is a chronic metabolic disorder characterized by persistent hyperglycaemia resulting from defects in insulin secretion, insulin action, or both (World Health Organization [WHO], 2023). The global prevalence of diabetes has increased significantly, making it a major public health concern. Beyond its physiological complications, diabetes is strongly associated with psychological problems, particularly depression (Lloyd et al., 2005). Individuals with diabetes are at a higher risk of developing depressive symptoms due to the continuous demands of disease management, lifestyle modifications, fear of complications, and the burden of long-term treatment (Peyrot et al., 1999).

Depression in patients with diabetes is a critical concern as it adversely affects self-care behaviors, treatment adherence, and glycaemic control (Gonzalez et al., 2008). Studies have shown that depression is associated with poor dietary regulation, reduced physical activity, and decreased compliance with medication, ultimately leading to increased morbidity and complications. Furthermore, the bidirectional relationship between diabetes and depression suggests that each condition can exacerbate the other, highlighting the need for integrated treatment approaches addressing both physical and psychological aspects (Anderson et al., 2001).

In recent years, psychological interventions have gained attention as effective adjuncts to conventional diabetes care. Among these, Mindfulness-Based Cognitive Therapy (MBCT) has emerged as a promising approach. MBCT integrates principles of cognitive behavioral therapy with mindfulness practices, focusing on enhancing present-moment awareness and fostering a non-judgmental acceptance of thoughts and emotions (Segal et al., 2002). This approach helps individuals disengage from maladaptive cognitive patterns, reduce rumination, and improve emotional regulation (Kabat-Zinn, 1990).

Evidence suggests that mindfulness-based interventions, including MBCT, are effective in reducing depressive symptoms and improving psychological well-being among individuals with chronic illnesses (Grossman et al., 2004; Hofmann et al., 2010). By promoting awareness and acceptance, MBCT enables patients to cope more effectively with the emotional burden of diabetes. It also facilitates better

stress management and enhances adaptive coping strategies, which may contribute to improved overall health outcomes (Rosenzweig et al., 2007).

Despite the growing body of literature supporting mindfulness-based approaches, there remains a need for focused research examining the specific role of MBCT in reducing depression among individuals with diabetes mellitus, particularly within diverse populations (Ni et al., 2020). Understanding the effectiveness of such interventions can contribute to the development of holistic and integrative treatment strategies for diabetes management.

Therefore, the present study aims to examine the role of Mindfulness-Based Cognitive Therapy in reducing depression among individuals with diabetes mellitus.

MATERIALS AND METHOD:

The present study employed a pre-test and post-test experimental design to examine the effectiveness of Mindfulness-Based Cognitive Therapy (MBCT) in reducing depression among patients with Diabetes Mellitus. A total of 60 patients diagnosed with Diabetes Mellitus were included in the study, with 30 participants assigned to the experimental group and 30 to the control group. Baseline stress levels were assessed for all participants using the Depression Anxiety Stress Scales (DASS) prior to the intervention. The experimental group received MBCT intervention consisting of eight sessions conducted once a week, focusing on developing mindfulness skills, enhancing present-moment awareness, and fostering non-judgmental acceptance of thoughts and emotions, while the control group received routine care without any psychological intervention. Following the completion of the intervention, post-test assessment of stress was conducted for both groups using DASS. The collected data were analysed using SPSS, ANOVA to determine the effectiveness of the intervention.

TABLE - 1 Repeated Measures ANOVA for Stress Scores

Effect	Df	F	p
Time(pre-post)	1,58	19.310	.001**
Timex Group	1,58	121.995	.001**
Group	1,58	8.079	.006**

Repeated measures ANOVA revealed a significant reduction in depression scores from pre-test to post-test ($F = 19.310$, $p = .001$). A significant interaction effect between time and group

was also observed ($F = 121.995, p = .001$), indicating that the experimental group showed a greater reduction in depression compared to the control group. Additionally, a significant difference between groups was found ($F = 8.079, p = .006$), suggesting that the experimental group differed significantly from the control group in overall depression scores.

DISCUSSION

The present study examined the role of Mindfulness-Based Cognitive Therapy (MBCT) in reducing depression among patients with diabetes mellitus. The findings revealed a significant reduction in depression scores from pre-test to post-test, indicating that depressive symptoms decreased over time. More importantly, the significant interaction effect between time and group demonstrates that the reduction in depression was greater in the experimental group compared to the control group, highlighting the effectiveness of MBCT as an intervention.

The significant difference observed between groups further supports that participants who received MBCT experienced lower levels of depression than those receiving routine care. These findings are consistent with previous research indicating that mindfulness-based interventions are effective in reducing depressive symptoms and improving psychological well-being among individuals with chronic illnesses, including diabetes.

The effectiveness of MBCT in reducing depression may be attributed to its core components, such as present-moment awareness, non-judgmental acceptance, and cognitive restructuring. These elements help individuals disengage from negative thought patterns, reduce rumination, and enhance emotional regulation, which are key factors in the management of depression. In the context of diabetes, improved psychological functioning may also contribute to better self-care behaviors and overall disease management.

Given the strong association between depression and poor diabetes outcomes, the reduction in depressive symptoms observed in this study has important clinical implications. Incorporating MBCT into routine diabetes care may serve as an effective non-pharmacological approach to enhance mental health and improve quality of life among patients.

However, certain limitations should be considered. The sample size was relatively small, and the study was limited to a short intervention period. Future research may include larger samples, longer follow-up periods, and additional clinical indicators such as glycaemic control to further establish the effectiveness of MBCT.

In conclusion, the findings of the present study suggest that MBCT is an effective intervention for reducing depression among patients with diabetes mellitus and can be integrated into comprehensive diabetes management programs.

REFERENCES:

1. Diabetes. <https://www.who.int/news-room/fact-sheets/detail/diabetes>
2. Lloyd, C. E., Smith, J., & Weinger, K. (2005).
3. Stress and diabetes: A review of the links. *Diabetes Spectrum*, 18(2), 121–127. <https://doi.org/10.2337/diaspect.18.2.121>
3. Peyrot, M., McMurry, J. F., & Kruger, D. F. (1999).
3. A biopsychosocial model of glycemic control in diabetes: Stress, coping, and regimen adherence. *Journal of Health and Social Behavior*, 40(2), 141–158.
4. Gonzalez, J. S., Peyrot, M., McCarl, L. A., Collins, E. M., Serpa, L., Mimiaga, M. J., & Safren, S. A. (2008).
4. Depression and diabetes treatment nonadherence: A meta-analysis. *Diabetes Care*, 31(12), 2398–2403. <https://doi.org/10.2337/dc08-1341>
5. Anderson, R. J., Freedland, K. E., Clouse, R. E., & Lustman, P. J. (2001). 5. The prevalence of comorbid depression in adults with diabetes: A meta-analysis. *Diabetes Care*, 24(6), 1069–1078. <https://doi.org/10.2337/diacare.24.6.1069>
6. Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*, 57(1), 35–43. [https://doi.org/10.1016/S0022-3999\(03\)00573-7](https://doi.org/10.1016/S0022-3999(03)00573-7)

9. Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010).
7. The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78(2), 169–183. <https://doi.org/10.1037/a0018555>
10. Rosenzweig, S., Reibel, D. K., Greeson, J. M., et al. (2007).
8. Mindfulness-based stress reduction lowers psychological distress in medical patients. *Journal of Psychosomatic Research*, 62(1), 23–29. <https://doi.org/10.1016/j.jpsychores.2006.07.008>
7. Kabat-Zinn, J. (1990).
9. Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2010).