

## **Feasibility and Acceptability of Mindfulness-Based Cognitive Therapy in People with Depression and Cardiovascular Disorders: A Feasibility Randomised Controlled Trial**

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**Abstract :** Background: Depression co-occurs in 20% of people with cardiovascular disorders, can persist for years and predicts worse physical health outcomes. While psychosocial treatments have been shown to effectively treat acute depression in those with comorbid cardiovascular disorders, to date there has been no evaluation of approaches aiming to prevent relapse and treat residual depression symptoms in this group. Therefore, the current study aimed to examine the feasibility and acceptability of a randomised controlled trial design evaluating an adapted version of mindfulness-based cognitive therapy (MBCT) designed specifically for people with co-morbid depression and cardiovascular disorders. Methods: A 3-arm feasibility randomised controlled trial was conducted, comparing MBCT adapted for people with cardiovascular disorders plus treatment as usual (TAU), mindfulness-based stress reduction (MBSR) plus TAU, and TAU alone. Participants completed a set of self-report measures of depression severity, anxiety, quality of life, illness perceptions, mindfulness, self-compassion and affect and had their blood pressure taken immediately before, immediately after, and three months following the intervention. Those in the adapted-MBCT arm additionally underwent a qualitative interview to gather their views about the adapted intervention. Results: 3400 potentially eligible participants were approached when attending an outpatient appointment at a cardiology clinic or via a GP letter following a case note search. 242 (7.1%) were interested in taking part, 59 (1.7%) were screened as being suitable, and 33 (<1%) were eventually randomised to the three groups. The sample was heterogeneous in terms of whether they reported current depression or had a history of depression and the time since the onset of cardiovascular disease (one to 25 years). Of 11 participants randomised to adapted MBCT seven completed the full course, levels of home mindfulness practice were high, and positive qualitative feedback about the intervention was given. Twenty-nine out of 33 participants randomised completed all the assessment measures at all three-time points. With regards to the primary outcome (depression), five out of the seven people who completed the adapted MBCT and three out of five under MBSR showed significant clinical change, while in TAU no one showed any clinical change at the three-month follow-up. Conclusions: The adapted MBCT intervention was feasible and acceptable to participants. However, aspects of the trial design were not feasible. In particular, low recruitment rates were achieved, and there was a high withdrawal rate between screening and randomisation. Moreover, the heterogeneity in the sample was high meaning the adapted intervention was unlikely to be well tailored to all participants needs. This suggests that if the decision is made to move to a definitive trial, study recruitment procedures will need to be revised to more successfully recruit a target sample that optimally matches the adapted intervention.

**Keywords :** mindfulness-based cognitive therapy (MBCT), depression, cardiovascular disorders, feasibility, acceptability

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