Clinical Effects of Cognitive Behavioral Therapy in Heart Failure Patient a Meta-Analysis of Randomized Controlled Trials

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Background:

About 20% to 40% of people with Heart failure (HF) suffer from some depression, which is 4-5% greater than the overall population. This depression can lead to undesirable outcomes including elevated mortality rate and frequent hospitalization.

Purpose:

The current study aims to evaluate the impact of cognitive behavioral therapy (CBT) on self-care and the symptoms of depression and anxiety in HF patients.

Methods:

We searched PubMed, Web of Science (WOS), Scopus, and Cochrane Library till 15 October 2022. All relevant randomized controlled trials (RCTs) were included. The data were extracted and pooled using Review Manager software (RevMan 5.4). Continuous data were pooled as mean difference and 95% confidence interval (CI).

Results:

Our search retrieved 1146 records, and 7 studies (611 patients) were finally included. We assessed the Beck Depression Inventory-II (BDI-II) as the primary outcome of the study. Hamilton Rating Scale for Depression (HRSD-17), Change in Beck Anxiety Inventory, Kansas City Cardiomyopathy Questionnaire (KCCQ), and Self-Care of Heart Failure Index (SCHFI) were also assessed as secondary outcomes. With CBT, BDI-II showed a significant reduction after 4 to 6 months follow-up (MD = -4.87, 95% CI: [-8.06; -1.69], P = 0.003) as well as 8 to 9 months follow-up (MD = -5.71, 95% CI: [-8.95; -2.46], P= 0.0006). But no significant difference was shown with 3 months follow-up (M.D=- 4.34; 95%CI: [-10.70; 2.03], P = 0.18).

Conclusions:

CBT has long-term (4–9 months) significant favorable outcomes decreasing anxiety and depression compared to non-CBT groups. No significant short-term (less than 3 months) impact on HF patients' self-care, depression, or anxiety were shown.

Keywords:

Anxiety; Cognitive Behavioral Therapy; Depression; Heart Failure Care; and Meta-analysis