

Title: Enhancing Quality of Life in Symptomatic Paroxysmal Atrial Fibrillation Patients: A Systematic Analysis of Cognitive Behavioral Therapy Interventions

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Abstract: Background Paroxysmal atrial fibrillation (PAF) significantly impacts patients' lives, contributing to morbidity, reduced quality of life (QoL), and psychological distress. Conventional treatment approaches primarily focus on rhythm control through pharmacologic therapy, often overlooking the patient's holistic well-being. **Hypothesis**

Cognitive behavioral therapy (CBT), a well-established intervention for modifying dysfunctional thoughts and behaviors, may provide a beneficial nonpharmacological approach to improving QoL in symptomatic PAF patients.

Methods A systematic review was conducted in accordance with Cochrane methodology and PRISMA guidelines. A comprehensive search was performed using PubMed, Scopus, and Google Scholar to identify relevant studies on the effects of CBT on QoL in PAF patients. Various CBT interventions, including exposure-based, internet-delivered, and mindfulness-based approaches, were analyzed. Study quality was assessed using JBI and Cochrane tools to evaluate the risk of bias.

Results The review found that CBT interventions led to statistically significant improvements in several QoL domains, including physical and emotional well-being. Psychological well-being and self-management skills were notably enhanced, as CBT helped address maladaptive cognitive patterns and improved coping strategies. The studies reviewed consistently demonstrated a low risk of bias, indicating reliability in the findings.

Conclusions CBT shows promise as a holistic, nonpharmacological intervention for managing PAF, improving both psychological and physical QoL. However, future research is needed to establish standardized protocols, increase sample sizes, and conduct long-term follow-ups to further validate its effectiveness in this population. Incorporating CBT into PAF management could substantially enhance patient outcomes and well-being.

Key words: Paroxysmal atrial fibrillation PAF Atrial fibrillation Cardiac arrhythmia

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