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Meditation, Mindfulness, and Physiological Recovery: The Role of Adherence and Psychological Well-being in Anxiety Management

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Abstract

Background: The effectiveness of meditation for anxiety management is well-documented; however, the role of adherence and its impact on physiological recovery remains underexplored.

Objective: This study investigates the association between meditation adherence, anxiety reduction, and physiological outcomes (heart rate and blood pressure) in adults diagnosed with generalized anxiety disorder (GAD).

Methods: Secondary analysis of data from a randomized controlled trial (N = 110) was conducted. Participants in the experimental group (n = 55) completed an 8-week structured meditation programme. Adherence was measured as the percentage of total sessions attended. Anxiety outcomes were assessed using the *Hamilton Anxiety Rating Scale (HAM-A)* and *GAD-7*. Physiological indicators included heart rate (HR) and systolic blood pressure (SBP). Data were analysed using Pearson's correlation and linear regression.

Results: Meditation adherence demonstrated a significant positive correlation with anxiety reduction ($r = 0.28$, $p < .05$) and improvement in well-being ($r = 0.32$, $p < .01$). Participants with >80% adherence exhibited greater reductions in HAM-A (−8.5 points) and SBP (−6.2 mmHg). Regression analysis identified adherence as a significant predictor of post-test anxiety improvement ($\beta = -0.42$, $p < .01$).

Conclusion: Consistent meditation practice contributes to both psychological and physiological recovery among individuals with anxiety disorder. Adherence is a key determinant of therapeutic success, highlighting the need for structured support and follow-up in meditation-based intervention.

Keywords: Meditation, Adherence, Anxiety Reduction, Physiological Outcomes, Heart Rate, Blood Pressure, Mindfulness, Nursing Research