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Effectiveness of Guided Imagery in Reducing Anxiety Among Mental Health Outpatients: A Pilot Study

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Abstract

Background: Guided imagery is a promising non-pharmacological intervention for anxiety reduction, yet its use in outpatient mental health care remains limited. This study aimed to evaluate its effectiveness in reducing anxiety among patients with mental disorders. **Methods:** A randomized controlled trial was conducted with 68 participants assigned to intervention or control groups. Anxiety levels were measured using the Hamilton Anxiety Rating Scale (HARS-A). Data were analyzed using the Wilcoxon test for within-group and the Mann-Whitney test for between-group comparisons. **Results**: The intervention group showed a significant reduction in anxiety levels compared to the control group ($p = 0.003$). After the guided imagery intervention, 76.5% (26 of 34) of the intervention group had reduced anxiety, while the control group showed minimal change ($p = 0.129$). Outpatients visit frequency also increased post-intervention in the intervention group. **Conclusion**: Guided imagery is an effective and feasible intervention for reducing anxiety in outpatient mental health settings and can be integrated into standard care.

Keywords: Guided Imagery, Anxiety, Mental Disorders, Relaxation Techniques, Complementary Therapies

Introduction

Anxiety disorders significantly impact daily functioning and quality of life, often leading to severe complications such as depression. The World Health Organization (WHO) reports that over 301 million people worldwide suffer from anxiety in 2019, where only a quarter of them received proper treatment (WHO, 2023). In Indonesia, a quarter of adolescents suffered from anxiety (Marthoenis et al., 2018), my of them do not receive adequate mental heath care. Managing anxiety effectively is essential, particularly in outpatient settings where access to mental health services may be limited.

Pharmacological treatments such as benzodiazepines and selective serotonin reuptake inhibitors (SSRIs) are commonly used, but concerns about side effects and dependency have driven interest in non-pharmacological approaches. Body-mind intervention could be considered as the larger treatmet plan amid their relatively lower risk to the patients (Bandealy et al., 2021). Relaxation techniques, including guided imagery, have shown promise in reducing anxiety symptoms (Kim & Kim, 2018). Guided imagery involves visualizing calming scenes to promote mental and emotional well-being , and also improve the quality of life (Afshar et al., 2018; Beizaee et al., 2018; Kumari & Patil, 2023). Despite its benefits, this technique remains underutilized in outpatient mental health services, particularly in low and middle-income countries.

This study aims to evaluate the effectiveness of guided imagery in reducing anxiety among patients with mental disorders in an outpatient setting. By assessing its impact, this research seeks to support the integration of guided imagery into routine mental health care.

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Methods

This study utilized a randomized controlled trial (RCT) design, with participants randomly assigned to either the intervention or control group. Randomization ensured an equal and independent selection of participants. Data were collected using a structured questionnaire, which included demographic variables such as age, gender, education, marital status, occupation, and number of outpatient visits. Anxiety levels were measured using the Hamilton Anxiety Rating Scale (HARS-A), a validated tool for assessing anxiety severity.

The HARS-A consists of 14 items, covering aspects of psychological and somatic anxiety. Each item is rated on a 5-point Likert scale from 0 to 4, with a total score range of 0 to 56. Scores above 25 indicate moderate to severe anxiety (Hamilton, 1959; Jeong & Lee, 2024). The scale has been widely used in clinical research and is considered a reliable measure of anxiety symptoms(Jeong & Lee, 2024; Porter et al., 2017). Statistical analysis was conducted using the Wilcoxon test for within-group analysis and the Mann-Whitney test for between-group comparisons.

Results

A total of 68 participants were included in the study, with demographic characteristics summarized in Table 1. The majority of respondents were aged 36–45 years, male, and had a high school education. Most participants were married and worked as farmers. These baseline characteristics were comparable between the intervention and control groups, ensuring a balanced comparison for the evaluation of guided imagery on anxiety outcomes.

Table 1. Characteristics of Respondents

Characteristics	Intervention Group (n=34)	Control Group (n=34)
Age (36–45 years)	15 (44.1%)	12 (35.3%)
Gender (Male)	26 (76.5%)	22 (64.7%)
High School Education	22 (64.7%)	19 (55.9%)
Married	18 (52.9%)	17 (50.0%)
Farmer	28 (82.4%)	17 (50.0%)

Wilcoxon test showed a significant reduction in anxiety levels within the intervention group ($p = 0.002$), while the control group showed no significant change ($p = 0.129$). The Mann-Whitney test confirmed a statistically significant difference in anxiety levels between groups post-intervention ($p = 0.003$). These findings indicate that guided imagery effectively reduces anxiety symptoms and encourages greater outpatient care participation (Table 2).

Table 2. Statistical Analysis of the Effect of Guided Imagery on Anxiety and Outpatient Visits

Variable	Intervention Group (Wilcoxon Test)	Control Group (Wilcoxon Test)	Mann-Whitney Test (Between Groups)
Number of Visits	Z = -2.828, p = 0.005	Z = -1.414, p = 0.157	Z = -1.629, p = 0.103
Anxiety Level	Z = -3.162, p = 0.002	Z = -1.518, p = 0.129	Z = -2.989, p = 0.003

Note: The Wilcoxon test compares pre- and post-intervention scores within each group, while the Mann-Whitney test compares post-intervention scores between the intervention and control groups.

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Discussion

The results of this pilot study demonstrate that guided imagery significantly reduced anxiety levels among participants in the intervention group compared to those in the control group. This finding is consistent with recent studies supporting the effectiveness of guided imagery as a mind-body technique to reduce physiological arousal and enhance emotional regulation (Afshar et al., 2018; Kumari & Patil, 2023). The observed improvement may be attributed to the calming effect of guided imagery, which can stimulate parasympathetic activity and lower the stress response.

This intervention's success highlights the potential for broader implementation of guided imagery as a low-cost, easily administered approach for anxiety management in outpatient settings. However, as a pilot study, the findings should be interpreted with caution. Factors such as patients' individual receptiveness to imagery and the potential for placebo effects may influence outcomes. Additional studies with larger, more diverse populations and longer follow-up periods are needed to confirm outcomes across settings and populations. Nevertheless, this study demonstrates that guided imagery is an effective, non-pharmacological intervention for reducing anxiety in outpatient settings. Given its accessibility and ease of implementation, healthcare providers should consider integrating guided imagery into routine mental health care.

Limitations

This study had several limitations. The sample size was relatively small (n = 68), which may limit the statistical power and generalizability of the findings. The short-term follow-up did not allow for evaluation of long-term effects. Participants were aware of the intervention they received, introducing the potential for placebo effects. Moreover, the study was conducted at a single outpatient mental health facility, limiting its applicability to broader populations. Future studies with larger and more diverse samples are recommended.

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