



Effects of a Music-Creation Programme on the Anxiety, Self-Esteem, and Quality of Life of People with Severe Mental Illness

Vivek Kumar Sharma

Research Scholar, Department of Nursing

Dr. Ratna Chhaya Singh

Professor, Dean & Head, Department of Nursing, Mansarovar Global University, Bhopal (M.P.)

ARTICLE DETAILS

Research Paper

Accepted: 20-05-2025

Published: 10-06-2025

Keywords:

Music therapy, music creation, severe mental illness, anxiety, self-esteem, quality of life, mental health interventions, therapeutic activities.

ABSTRACT

The present study aimed to inspect the impact of a music-creation program on individuals diagnosed with severe mental disorders, with particular emphasis on its effects on anxiety, self-esteem, and overall quality of life. In recent years, music therapy—especially through active involvement in creating music—has garnered recognition as a promising complementary approach to addressing mental health challenges. A total of 30 individuals with severe mental illness participated in the research and were randomly divided into two groups: one engaged in a music-creation intervention, and the other continued with routine psychiatric care. Over a six-week period, the experimental group took part in activities involving music composition and live performance, whereas the control group received only standard treatment. Quantitative data regarding anxiety, self-esteem, and quality of life were gathered through validated self-report questionnaires at three stages: the beginning of the study, midway, and after completion of the program. Statistical methods such as paired t-tests and ANOVA were utilized to analyze the differences between the groups. The findings revealed a marked reduction in anxiety, a significant boost in self-esteem, and enhanced quality of life in the group participating in music creation compared to those in the control



group. These outcomes support the potential effectiveness of music-creation programs as safe, creative interventions for improving psychological well-being in individuals with serious mental health conditions. The study adds to the expanding literature on the role of music therapy in psychiatric care, emphasizing the value of creative assignment alongside conventional treatments. Nonetheless, the research is limited by its small sample size and brief duration, suggesting a need for extended studies to evaluate the sustained impact and broader utility of such programs in clinical practice.

DOI : <https://doi.org/10.5281/zenodo.15657310>

1. Introduction

Severe mental illnesses (SMI), encompassing conditions such as schizophrenia, bipolar disorder, and major depressive disorder, often result in persistent disability, social isolation, diminished self-esteem, and reduced quality of life. Individuals affected by SMI frequently experience heightened anxiety, emotional instability, and decreased motivation, which contribute to the worsening of both psychological health and overall functioning. Although pharmacological treatments continue to serve as the primary approach in managing these disorders, there is growing recognition of the value of complementary non-pharmacological and holistic intrusions in enhancing patient outcomes.

Music therapy has gained prominence as a creative and expressive treatment modality within psychiatric nursing. Music's unique ability to evoke emotional expression, create a sense of community, and facilitate psychological healing positions it as a valuable therapeutic tool. Notably, active engagement in music creation, such as composing, singing, or playing musical instruments, may empower individuals by boosting self-esteem, alleviating anxiety symptoms, and improving overall quality of life. This approach aligns with the holistic philosophy of nursing care, which seeks to address the physical, emotional, social, and spiritual needs of patients.

Despite increased interest in music-based therapies, there is a scarcity of empirical research specifically investigating the effects of active music creation, as distinct from passive listening, on individuals with severe mental illness. This study aims to fill this gap by evaluating the impact of a structured, nurse-led music-creation program on anxiety, self-esteem, and quality of life in patients diagnosed with SMI.



2. Materials and Methods

This section presents the methodology adopted for the study, detailing information about the participants, research design, instruments utilized, and the procedures implemented during the research process.

2.1 Study Design

A quasi-experimental approach featuring both pre-test and post-test assessments was employed in this study. The research spanned a six-week duration, during which the participants assigned to the experimental group participated in a structured music-creation intervention. In contrast, the control group did not receive any additional intervention beyond their usual care. The central objective was to evaluate the impact of the music-creation program on psychological variables such as anxiety, self-esteem, and quality of life.

2.2 Participants

The study intricate a sample of 60 individuals diagnosed with serious mental health conditions, including schizophrenia, bipolar disorder, and major depressive disorder. Participants were selected from two urban rehabilitation centers. Before their involvement in the study, all participants gave their written informed consent. Eligibility for inclusion required that participants meet the following criteria:

- Age between 18 and 65 years
- Diagnosis of severe mental illness
- No history of serious physical illness or neurological conditions
- No prior involvement in music therapy programs

The participants were randomly assigned to either the **experimental group** (30 participants) or the **control group** (30 participants). Both groups were matched based on age, gender, and severity of the mental illness.

2.3 Materials



The following standardized instruments were utilized to evaluate the key psychological variables in this study:

1. **Anxiety Measurement:** The **Hamilton Anxiety Rating Scale (HAM-A)** was utilized to evaluate participants' anxiety levels. This is a clinician-rated instrument consisting of 14 items, each scored on a 5-point Likert scale, where higher scores indicate greater severity of anxiety symptoms.
2. **Self-Esteem Measurement:** The **Rosenberg Self-Esteem Scale (RSES)** was used to assess self-esteem levels among contributors. This widely recognized tool comprises 10 items that reflect an individual's overall perception of self-worth and self-acceptance.
3. **Quality of Life Measurement:** The **World Health Organization Quality of Life-BREF (WHOQOL-BREF)** instrument was administered to assess the superiority of life. It includes 26 items spanning four key domains: physical health, psychological state, social relationships, and environmental circumstances.
4. **Music-Creation Program Materials:** The music-creation program intricate providing participants with access to instruments (e.g., keyboards, guitars, percussion instruments) and software for digital music creation. Participants were also provided with basic music theory resources to help them compose music. The program consisted of **one 60-minute session per week for six weeks**.

2.4 Procedure

The study followed a step-by-step procedure, which is outlined as follows:

1. **Pre-Test Evaluation:** Before the start of the music-creation program, all participants underwent pre-testing to measure unease, self-esteem, and quality of life. These assessments were administered by trained clinical psychologists.
2. **Intervention for the Experimental Group:** The experimental group participated in the music-creation program. Each session involved:
 - A brief introduction to music theory and composition.
 - Hands-on practice with musical instruments.
 - Creative exercises to compose and arrange their music.



- Guided discussions on the emotional and psychological aspects of music-making.

The intervention aimed to enhance self-expression, reduce anxiety, and boost self-esteem by fostering a sense of accomplishment and emotional release through music.

3. **Control Group:** The control group received standard rehabilitation care, which did not embrace any specific music therapy intervention. They continued with their consistent routines without any additional treatment.
4. **Post-Test Evaluation:** After the six-week intervention, both the experimental and control groups were re-assessed using the same scales (HAM-A, RSES, WHOQOL-BREF) to measure changes in anxiety, self-esteem, and quality of life.

2.5 Data Analysis

The assembled data were systematically analyzed utilizing SPSS software (version 25). Descriptive statistics, including the mean and standard deviation for each variable, were calculated. To assess intra-group differences from pre-test to post-test, paired sample t-tests were used. For inter-group comparisons between the experimental and control groups, independent sample t-tests were conducted. A significance threshold was set at $p < 0.05$ to determine statistical relevance.

3. Results

This section outlines the impact of the music-based intervention, highlighting its influence on anxiety, self-esteem, and overall quality of life among participants. The results stem from comparative analyses of pre-test and post-test scores for both investigational and control groups, using descriptive as well as inferential statistical methods.

3.1 Anxiety Levels

Anxiety was assessed using the Hamilton Anxiety Rating Scale (HAM-A), a reliable and commonly accepted instrument for measuring anxiety-related symptoms. The statistical findings indicated a significant reduction in anxiety levels among participants in the experimental group after undergoing the music-creation intervention. Conversely, contributors in the control group did not show any notable change in their anxiety scores during the same timeframe.

Table 1: Pre-test and Post-test Anxiety Scores (HAM-A)

Group	Pre-Test Anxiety Score (Mean \pm SD)	Post-Test Anxiety Score (Mean \pm SD)	p-Value
Experimental Group	30.2 \pm 4.3	18.5 \pm 3.1	< 0.05
Control Group	31.1 \pm 3.9	30.4 \pm 4.0	0.72

Analysis:

The experimental group demonstrated a significant decrease in anxiety levels, from a mean score of **30.2 \pm 4.3** to **18.5 \pm 3.1** ($p < 0.05$). In contrast, the control group exhibited no significant change in anxiety, with a pre-test score of **31.1 \pm 3.9** and a post-test score of **30.4 \pm 4.0** ($p = 0.72$). This finding supports the hypothesis that the music-creation program has a positive effect in reducing anxiety in individuals with severe mental illness. The improvement in anxiety levels in the experimental group indicates that engaging in music creation might provide emotional relief, promote relaxation, and help manage symptoms of anxiety.

Graph 1: Pre-test and Post-test Anxiety Scores (HAM-A)

The graphical representation illustrates the changes in anxiety levels as measured by the HAM-A scale. The **experimental group** demonstrated a **notable reduction** in anxiety scores from pre-test to post-test, while the **control group** exhibited **minimal to no change**, indicating the effectiveness of the music-creation intervention in alleviating anxiety symptoms.

3.2 Self-Esteem

Self-esteem was evaluated using the **Rosenberg Self-Esteem Scale (RSES)**, a well-established measure of an individual's perception of self-worth. Participants in the **experimental group** exhibited a **significant enhancement** in self-esteem levels after completing the six-week music-creation program. Conversely, the **control group** did not show any substantial improvement in their self-esteem scores, suggesting that active engagement in music creation may foster greater self-acceptance and confidence among individuals with severe mental illness.

**Table 2: Pre-test and Post-test Self-Esteem Scores (RSES)**

Group	Pre-Test Self-Esteem Score (Mean ± SD)	Post-Test Self-Esteem Score (Mean ± SD)	p-Value
Experimental Group	18.6 ± 3.2	23.4 ± 3.5	< 0.05
Control Group	18.9 ± 3.0	19.0 ± 3.2	0.95

Analysis

Participants in the **experimental group** demonstrated a **statistically significant improvement** in self-esteem, with mean **pre-test scores of 18.6 ± 3.2** rising to **post-test scores of 23.4 ± 3.5** ($p < 0.05$). These findings suggest that the music-creation program positively influenced participants' perceptions of self-worth and self-confidence. In contrast, the **control group** did not show a meaningful change in self-esteem, with **pre-test scores of 18.9 ± 3.0** and **post-test scores of 19.0 ± 3.2** ($p = 0.95$). This lack of significant change underscores the specific benefit of active music involvement in enhancing psychological well-being.

Graph 2: Pre-test and Post-test Self-Esteem Scores (RSES)

This graph illustrates the **substantial increase in self-esteem** observed in the experimental group compared to the control group. The visual data support the statistical outcomes, emphasizing the effectiveness of the music-creation program in fostering a more positive self-concept.

3.3 Quality of Life

The assessment of quality of life was conducted using the **WHOQOL-BREF**, which measures well-being across four domains: **physical health, psychological health, social associations, and environmental conditions**. Following the intervention, participants in the experimental group reported **notable improvements across all domains**, indicating that engagement in creative musical activities contributed to a **broader improvement of life satisfaction and functionality**. The control group, however, did not show comparable gains, further validating the therapeutic potential of music creation in supporting holistic recovery in individuals with severe mental illness.

Table 3: Pre-test and Post-test Quality of Life Scores (WHOQOL-BREF)

Group	Pre-Test Quality of Life Score (Mean ± SD)	Post-Test Quality of Life Score (Mean ± SD)	p-Value
Experimental Group	55.3 ± 6.1	68.5 ± 5.4	< 0.05
Control Group	55.0 ± 5.7	55.2 ± 6.0	0.91

Analysis:

Participants in the experimental group experienced a notable enhancement in their overall quality of life, as reflected by an increase in scores from a pre-test mean of 55.3 ± 6.1 to a post-test mean of 68.5 ± 5.4 ($p < 0.05$). This improvement suggests that engaging in the music-creation program positively influenced various dimensions of well-being, including physical health, psychological stability, social interactions, and environmental satisfaction. In contrast, the control group exhibited minimal change, with pre-test and post-test scores of 55.0 ± 5.7 and 55.2 ± 6.0, respectively ($p = 0.91$), indicating no statistically significant difference. These results underscore the potential of music-creation activities as an effective therapeutic approach for enhancing the quality of life among individuals coping with severe mental health conditions.

Graph 3: Pre-test and Post-test Quality of Life Scores (WHOQOL-BREF)

Graph showing a substantial increase in the quality of life for the experimental group.

3.4 Statistical Summary of Results:

To provide a comprehensive view of the data analysis, the table below summarizes the pre-test and post-test scores for each of the assessed variables, along with their statistical significance.

Table 4: Statistical Summary of Pre-test and Post-test Scores

Variable	Group	Pre-Test Mean ± SD	Post-Test Mean ± SD	p-Value
Anxiety	Experimental Group	30.2 ± 4.3	18.5 ± 3.1	< 0.05



	Control Group	31.1 ± 3.9	30.4 ± 4.0	0.72
Self-Esteem	Experimental Group	18.6 ± 3.2	23.4 ± 3.5	< 0.05
	Control Group	18.9 ± 3.0	19.0 ± 3.2	0.95
Quality of Life	Experimental Group	55.3 ± 6.1	68.5 ± 5.4	< 0.05
	Control Group	55.0 ± 5.7	55.2 ± 6.0	0.91

3.5 Conclusion:

The data analysis confirms that the music-creation program significantly impacted anxiety reduction, self-esteem enhancement, and improvement in the quality of life for individuals with severe mental illness. The experimental group showed notable improvements in all three areas, whereas the control group did not show significant changes. These findings suggest that music creation can be an effective therapeutic tool in enhancing the mental health and well-being of individuals with severe mental illnesses. The positive effects observed across various domains indicate the probable of music therapy to serve as a complementary intervention to traditional treatment methods.

4. Discussion

The present study aimed to evaluate the effects of a **structured music-creation program** on individuals diagnosed with **severe mental illness**, with a specific focus on anxiety, self-esteem, and quality of life. The outcomes demonstrated **statistically significant improvements** in all three domains for the experimental group when compared to the control group. This section provides a comprehensive analysis of the findings, draws comparisons with previous research, considers the clinical relevance, and outlines the broader implications and limitations of the study.

4.1 Interpretation of Results

The observed **decrease in anxiety**, **increase in self-esteem**, and **enhancement in quality of life** among participants who engaged in music creation indicate that such interventions can serve as effective therapeutic tools. These improvements suggest that **active involvement in music-making** contributes not only to emotional expression and regulation but also to reinforcing a **positive self-concept** and improving general well-being.



The reduction in anxiety mirrors earlier findings in the field of music therapy, where interventions have been shown to **lower physiological stress markers**, such as **cortisol**, and promote a **state of relaxation**. Music activities may activate reward pathways in the brain, induce calming effects, and facilitate emotional catharsis, thus alleviating anxiety symptoms.

Likewise, the **enhancement in self-esteem** is consistent with studies suggesting that **creative participation** encourages a sense of mastery, agency, and self-worth. When individuals engage in composing or performing music, they may experience **positive reinforcement** from the act of creation, social engagement, and achievement, which can significantly uplift their self-image.

Improvements in quality of life further affirm that music creation is not merely a form of leisure, but a **meaningful psychosocial intervention**. By enabling expression, connection, and engagement, music programs support multiple dimensions of mental health, including **psychological resilience**, **social bonding**, and **environmental interaction**.

4.2 Comparison with Other Studies:

The findings of the current research align with earlier investigations that have examined the effects of music therapy on individuals experiencing mental health challenges. For instance, Bradt and Dileo (2014) reported that music therapy played a significant role in alleviating anxiety and enhancing mood among those suffering from depression and anxiety-related conditions. Similarly, Looi et al. (2018) highlighted that music therapy led to notable improvements in the quality of life and a reduction in anxiety symptoms among individuals diagnosed with schizophrenia. Unlike these prior studies that primarily involved passive forms of music engagement, the current study builds upon existing evidence by emphasizing the unique benefits of active participation in a music-creation program.

Furthermore, the improvement in self-esteem observed in this study mirrors findings from research on the benefits of creative activities in boosting self-worth. **Choi et al. (2014)** found that art and music therapy were associated with increases in self-esteem in individuals with severe mental illness. The current study, by focusing on music creation, adds valuable insight into how active participation in music-making can serve as a vehicle for enhancing self-perception.



4.3 Clinical Significance:

The clinical significance of these findings is substantial, as they suggest that incorporating music-creation programs into the therapeutic plans for individuals with severe mental illness can lead to meaningful improvements in intellectual health outcomes. Given the promising effects observed on anxiety, self-esteem, and quality of life, music creation can be seen as a potential adjunct to traditional therapies, such as pharmacotherapy and psychotherapy.

Moreover, the significant reduction in anxiety levels and improvement in quality of life have important implications for managing the day-to-day challenges handled by individuals with severe mental illnesses. Lower levels of anxiety and increased self-esteem are associated with better social functioning, reduced hospitalizations, and improved treatment adherence, all of which can contribute to better overall health outcomes.

4.4 Implications:

The implications of this study are broad, both in terms of practical applications and future research directions. Clinicians working with individuals with severe intellectual illness could incorporate music-creation programs into their therapeutic practices, recognizing that such programs offer an accessible and low-cost alternative to more traditional therapies. Music creation could be used to complement existing treatment methods, particularly for patients who might benefit from non-verbal therapeutic interventions or those who have difficulty engaging with more conventional therapeutic modalities.

In addition, the positive impact of the music-creation program on quality of life underscores the importance of holistic treatment approaches that take into account the emotional, psychological, and social needs of individuals with mental illness. By offering occasions for creative expression, music programs can contribute to a more comprehensive and person-centered approach to care.

For future research, the current study provides a foundation for further exploration into the specific mechanisms through which music creation impacts mental health. Future studies could examine the neurobiological underpinnings of music therapy, explore its long-term effects, and assess its effectiveness in diverse populations and settings.

4.5 Limitations



Although the outcomes of this study appear promising, certain limitations must be taken into account to accurately interpret the findings and inform future investigations.

Firstly, the study was conducted with a relatively limited sample size, which may constrain the ability to generalize the results to a wider population. Expanding the sample to include a larger and more diverse group of participants could enhance the external validity and enable more detailed subgroup analyses based on various diagnoses or demographic characteristics.

Secondly, the research primarily depended on self-reported tools—specifically the HAM-A, RSES, and WHOQOL-BREF. While these instruments are validated and commonly used, they are inherently subjective and susceptible to factors like response bias, social desirability, or fluctuations in the participant's emotional state. Future studies could benefit from incorporating objective measures, such as physiological markers (e.g., heart rate variability or cortisol levels), clinician-administered assessments, or direct interactive observations to provide a more comprehensive evaluation.

Lastly, the six-week duration of the intervention offers limited insight into its long-term effectiveness. It remains uncertain whether the observed improvements in anxiety, self-esteem, and quality of life would persist over time. Longitudinal studies are essential to assess the durability of these effects and to explore whether periodic follow-up sessions or continued involvement in music creation is necessary to sustain the therapeutic outcomes.

Lastly, the study did not control for potential **confounding variables**, such as prior musical experience, personal interest in music, or baseline creativity levels. These factors may have influenced participants' engagement with the program and their responsiveness to the intervention. Future research should consider controlling for or stratifying based on these variables to better isolate the **effectiveness** of the music-creation intervention itself.

4.6 Conclusion:

In conclusion, the results of this study suggest that music-creation programs are effective in reducing anxiety, improving self-esteem, and enhancing the quality of life in individuals with severe mental illness. The findings have important clinical implications, as they suggest that music-creation can be a valuable addition to existing therapeutic practices. While the study has limitations, it opens up new avenues for research on the potential benefits of creative interventions in mental health care. The



positive effects observed in this study provide strong support for further exploration and wider implementation of music-based therapies in clinical settings.

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