

# The Effectiveness of Choral Music as an Intervention for Depression

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**Abstract:** *This study investigates the effectiveness of choral music as an intervention for depression. Using a qualitative research approach, six participants diagnosed with depression from diverse social backgrounds were selected for the study. The findings revealed that choral music significantly improved participants' depression symptoms, social skills, and emotional expression. Choral activities provided not only short-term emotional relief but also helped participants build a more positive psychological state through sustained participation. The primary psychological transformation pathways included emotional release, social connection, and self-identity. These findings suggest that choral music can serve as an effective non-pharmacological intervention to improve the mental health of individuals with depression.*

**Keywords:** *Choral music, depression, non-pharmacological intervention, emotional release, social connection, self-identity*

## 1. Introduction

Depression is a prevalent and severe mental disorder affecting millions globally. It is characterized by persistent sadness, loss of interest, low energy, difficulty concentrating, and reduced self-esteem, which can lead to significant impairment in daily functioning and, in severe cases, suicidal thoughts<sup>[1]</sup>.

While traditional treatments for depression primarily involve pharmacotherapy and psychotherapy, recent interest has grown in non-pharmacological interventions such as music therapy, particularly choral singing, for their potential mental health benefits. This study aims to explore the effectiveness of choral music as an intervention for depression through a qualitative research approach.

## 2. Literature Review

Extensive research underscores the positive impact of music therapy on mental health. Music can facilitate emotional expression, enhance mood, and foster social interaction and teamwork<sup>[2]</sup>. Choral singing, a collective musical activity, allows participants to engage in shared experiences, effectively reducing psychological stress and enhancing emotional well-being. For instance, Yu et al<sup>[3]</sup> demonstrated that group music interventions significantly reduced depression scores among elderly residents in nursing homes after 20 sessions over 10 weeks. Särkämö highlighted that recreational choir singing serves as an effective non-pharmacological practice for reducing depression symptoms in individuals with dementia<sup>[4]</sup>. Zhong et al conducted a systematic review and meta-analysis, revealing that music therapy significantly decreases depression scores and improves symptoms in patients with post-stroke depression<sup>[5]</sup>.

Additionally, music therapy has shown significant efficacy in promoting mental health among university students. Li found that music therapy, by integrating music, medicine, and psychology, helps university students alleviate negative emotions and cultivate healthy personalities<sup>[6]</sup>. Another study suggested that listening to choral music as a form of music therapy positively impacts emotional and physiological aspects, contributing to harmonious personality development and potentially playing a role in the treatment and prevention of various diseases<sup>[7]</sup>.

## 3. Methodology of this study

This study employs a qualitative research design, focusing on case studies and in-depth interviews to gain a comprehensive understanding of the impact of choral music on individuals with depression. The qualitative approach is particularly suited to capturing the complex emotional and social interactions

involved in choral activities, which quantitative methods may not fully address. Given the sensitive nature of working with depressed individuals, this method also provides the flexibility and ethical consideration required to protect participants.

Six participants diagnosed with depression from diverse social backgrounds were selected for this study. To ensure diversity and representativeness, participants were recruited from local mental health clinics and community centers. All participants provided informed consent prior to the study, understanding the study's purpose, procedures, potential risks, and benefits.

The choral activities included warm-up exercises, song selection and practice, and group discussions. Each session began with basic breathing and vocal exercises to help participants relax and prepare for singing. Simple, universally appealing songs were selected to ensure that participants could easily engage and connect emotionally through harmonious singing. At the end of each session, a 10-minute group discussion was held, allowing participants to share their feelings and experiences and discuss recent life events, thereby enhancing emotional bonds and social interaction.

#### **4. Data Collection**

Data collection was conducted through semi-structured interviews and observational records to comprehensively understand participants' experiences, emotional expression, social interaction, and changes in mental health status during the choral activities. Semi-structured interviews were conducted at three stages of the study: before the study began, mid-study, and after the study concluded. These interviews were designed with open-ended questions to encourage participants to freely express their feelings and experiences. Questions included prompts such as "Please describe your overall experience in the choir" and "How has the choral activity affected your emotions?" These interviews provided detailed personal narratives, revealing participants' subjective experiences and psychological changes.

During each choral session, researchers maintained observational records, documenting participants' behavior and interactions. Key observations focused on participants' emotional expressions, interaction styles, and levels of engagement in the choral activities. Researchers employed a non-intrusive observation method to ensure participants' behaviors naturally reflected their true states. This systematic observation allowed researchers to capture details that might be overlooked in interviews, providing rich contextual information for data analysis.

All collected data were transcribed verbatim and analyzed using NVivo software. The initial coding involved identifying and marking significant themes and patterns within the interviews and observational records. Through repeated reading and coding, recurring themes such as emotional release, social connection, and self-identity were identified. Theme analysis enabled the research team to distill core insights from the extensive data and compare commonalities and differences among participants, enhancing the depth and comprehensiveness of the study's findings.

#### **5. Choral Music Selection**

The selection of choral music in this study focused primarily on two-part arrangements of contemporary, uplifting popular music, adapted to suit the therapeutic objectives of the intervention. These selections were chosen for their positive messages, engaging melodies, and potential to resonate emotionally with participants. By incorporating music that is familiar and appealing, the goal was to facilitate a more enjoyable and relatable singing experience, thereby enhancing the overall effectiveness of the choral activities in addressing symptoms of depression.

To ensure that the music chosen was both relevant and meaningful to the participants, the selection process was made collaborative. One week prior to each session, participants were involved in the song selection process. This collaborative approach not only empowered participants by giving them a voice in their therapeutic journey but also fostered a sense of ownership and investment in the choral activities. During these discussions, participants were encouraged to suggest songs that they found uplifting and meaningful, and the final selection was made through group consensus. This method ensured that the chosen music was aligned with the participants' preferences and emotional needs, further enhancing the therapeutic impact of the sessions.

The benefits of using contemporary, positive-themed popular music in two-part arrangements are multifaceted. Firstly, the simplicity of two-part harmonies made the music accessible to participants with varying levels of musical experience. This accessibility reduced potential anxiety and frustration

associated with more complex musical arrangements, allowing participants to focus on the emotional and social benefits of singing rather than the technical challenges. Additionally, the familiar melodies and contemporary themes of the selected songs helped to engage participants more deeply, making the sessions more enjoyable and emotionally resonant.

Moreover, the collaborative selection process contributed significantly to the social dynamics of the group. By involving participants in the decision-making process, the study fostered a sense of community and mutual support. These discussions not only allowed participants to express their musical preferences but also facilitated social interaction and bonding. As participants shared their thoughts and experiences related to the songs, they developed deeper connections with one another, enhancing the overall social support network within the group. This aspect of the intervention was particularly important given the study's emphasis on improving social skills and reducing feelings of isolation among individuals with depression.

In summary, the thoughtful selection of two-part choral arrangements of contemporary, uplifting popular music, combined with a collaborative decision-making process, played a crucial role in the success of the choral intervention. This approach ensured that the music was accessible, engaging, and emotionally relevant to the participants, while also fostering a sense of community and mutual support. The positive impacts observed in the study, including improved emotional expression, social interaction, and self-identity, can be attributed in part to the strategic selection and collaborative nature of the music used in the choral activities. By integrating these elements, the intervention effectively leveraged the therapeutic potential of choral music to address the complex emotional and social needs of individuals with depression.

## **6. Data Analysis**

In this study, NVivo software was employed for data analysis to systematically process and interpret the extensive qualitative data collected through semi-structured interviews and observational records. NVivo, widely used in qualitative research, offers robust data management, coding, and analysis capabilities, facilitating researchers in organizing, retrieving, and interpreting data effectively, thereby uncovering deep-seated emotional and behavioral patterns of the study subjects.

The initial step in data analysis was data preparation. The research team meticulously transcribed all interview and observation records verbatim, ensuring data completeness and accuracy. Each interview and observation record was saved as a separate document file and imported into NVivo. This process ensured systematic data management and laid a solid foundation for subsequent coding and analysis. The detailed textual records of participants' behavior, emotional expression, and interactions during choral activities provided a rich source of material for further analysis.

Next, the researchers undertook open coding as the preliminary phase of data analysis. Open coding involves identifying recurring themes and concepts through detailed reading and constant comparison of the text without any preconceived theoretical framework. In NVivo, each segment of the interview and observation records was analyzed, marking the key ideas expressed in each passage. For instance, when participants described their emotional release during choral activities, terms like "relaxed," "happy," and "stress relief" frequently emerged, which were coded under the node "emotional release." Through this process, several significant themes were initially identified, including emotional release, social connection, and self-identity.

Following open coding, the researchers proceeded to axial coding, which involved categorizing and organizing the initial codes to identify relationships and connections among them. For example, a significant link between "emotional release" and "social connection" was observed, with many participants mentioning the establishment of new social relationships while experiencing emotional release during the choir sessions. This stage of coding helped construct a more systematic and comprehensive thematic network, setting the stage for selective coding.

In the selective coding phase, the researchers further focused on core themes, conducting an in-depth analysis of their internal structure and external associations. By delving into the core themes of "emotional release," "social connection," and "self-identity," the primary psychological transformation trajectory of participants in the choral activities was identified. The query function in NVivo played a pivotal role in this phase. The text search query function was utilized to locate keywords and phrases related to "emotional release," "social connection," and "self-identity," and these results were compared with the coding outcomes, further validating the analytical findings.

Additionally, NVivo's matrix coding query function was employed to analyze the performance and experiences of different participants during the choral activities. By cross-referencing the coding results of different participants, it was found that while individual emotional experiences varied, the overall psychological transformation trends during the choral activities were consistent. Most participants exhibited significant emotional release, established new social connections, and developed a more positive self-identity following the choir sessions.

Throughout the data analysis process, particular attention was paid to both individual differences and commonalities among participants. NVivo's classification feature assisted in categorizing participants by variables such as gender, age, and severity of depression, allowing the analysis of differences in their experiences during the choral activities. For instance, it was discovered that younger participants were more inclined to establish social connections through choral singing, whereas older participants emphasized the importance of emotional release. This finding not only enriched the study conclusions but also provided new perspectives for future research.

Ultimately, through the systematic analysis facilitated by NVivo, a clear picture of the psychological impact of choral activities on individuals with depression was delineated. Emotional release, social connection, and self-identity emerged as the three core themes, outlining the primary pathways through which participants experienced psychological improvement during the choir sessions. The study results indicated that choral music provided not only short-term emotional relief but also helped participants build a more positive psychological state through sustained involvement. This finding offers robust empirical support for the effectiveness of choral music as an intervention for depression.

Overall, the application of NVivo software in this study significantly enhanced the efficiency and accuracy of data analysis. Through systematic coding and analysis, the researchers not only uncovered the positive effects of choral music on individuals with depression but also gained a deeper understanding of the mechanisms underlying this intervention. Future research can build on these analytical methods to further explore the applicability of choral music across different populations, continually contributing to the optimization and innovation of mental health interventions.

## 7. Results

The results indicated significant improvements in participants' depression symptoms, social skills, and emotional expression. Participants commonly reported feeling an emotional uplift and release of suppressed emotions after choir sessions. For example, one participant stated, "Singing in the choir makes me very happy, like I've found a new way to express myself." These feedbacks demonstrate that choral music provided not only short-term emotional relief but also helped participants build a more positive psychological state through sustained participation.

Through NVivo analysis, several key themes were identified, revealing the specific impacts of choral music on individuals with depression.

### 1) Emotional Release

Emotional release emerged as a significant theme. Participants widely perceived the choir as a safe space to freely express suppressed emotions, helping them alleviate inner pain and stress. One participant noted, "In the choir, I can fully express my emotions, which makes me feel much lighter." This experience of emotional release was consistently mentioned in participant feedback, highlighting the importance of choral music as a channel for emotional expression (Figure 1).

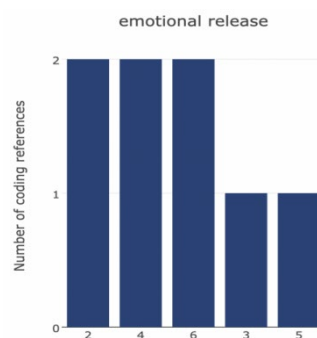
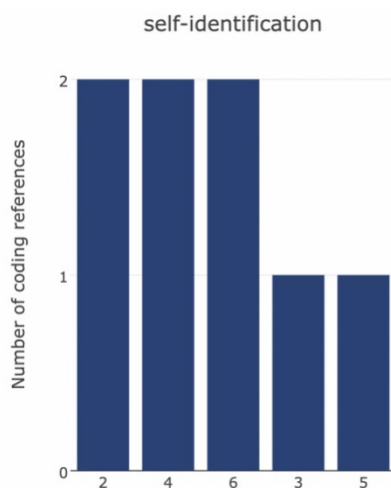


Figure 1 Emotional Release

Figure 1 illustrates the impact of choral activities on participants' emotional release. The data shows that emotional release was a significant theme, with multiple coding references highlighting participants' experiences of alleviating inner pain and stress through choir sessions. Participants described the choir as a safe space where they could freely express suppressed emotions, leading to a noticeable sense of relief and lightness. This consistent feedback underscores the importance of choral music as a medium for emotional expression and stress relief.

## 2) Social Connection

Social connection was a critical theme. Choral activities significantly enhanced interaction and connection among participants, reducing feelings of loneliness. The group discussion sessions were particularly popular, with participants sharing personal stories and feelings, building deeper emotional bonds. For instance, one participant mentioned, "Through these discussions, I feel less alone, knowing that someone understands and supports me." This establishment of social connections not only improved participants' mental health but also strengthened their social support networks (Figure 2).

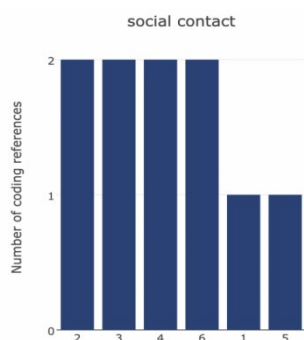


*Figure 2 Self-Identification*

Figure 2 depicts the enhancement of social connections among participants through choral activities. The data indicates that choir sessions significantly improved social interaction and reduced feelings of loneliness. Group discussions and shared singing experiences fostered deeper emotional bonds among participants. Feedback from the participants, such as feeling understood and supported, highlights the role of choral activities in building strong social support networks, which are crucial for improving mental health and mitigating the effects of depression.

## 3) Self-Identity

Lastly, self-identity emerged as a key theme. Through participating in choral activities, participants discovered new aspects of their identities, enhancing their self-esteem and self-worth. Many expressed that the choir experience revealed their potential and value, boosting their confidence. For example, one participant stated, "The choir made me realize I am capable of achieving things, which made me more confident." This enhancement of self-identity played a crucial role in the long-term psychological improvement of participants (Figure 3).



*Figure 3: Social Contact*

Figure 3 shows the effect of choral participation on self-identity. The data reveals that through choir activities, participants discovered new aspects of their identities, boosting their self-esteem and self-worth. Many participants reported increased confidence and a greater sense of achievement. This enhancement of self-identity played a vital role in the long-term psychological improvement of the participants, as it helped them recognize their potential and value, contributing to a more positive self-perception and overall mental well-being.

## 8. Discussion

The findings of this study demonstrate that choral music, as a collective musical experience, significantly improves symptoms of depression among participants. Participants showed substantial positive changes in emotional release, social connection, and self-identity, which align with existing literature and further validate the effectiveness of choral music in psychological interventions.

Specifically, choral music facilitates emotional expression and regulation, helping participants release suppressed emotions and reduce psychological stress. Additionally, through choral activities, participants established new social connections, reducing loneliness and enhancing their social support networks. The group discussion sessions provided a platform for sharing and exchanging experiences, further strengthening these connections and support.

However, this study also has certain limitations. The small sample size may affect the generalizability of the results. Furthermore, the short intervention duration limits the assessment of long-term effects. Future research should consider expanding the sample size and extending the intervention period to comprehensively evaluate the impact of choral music. Additionally, exploring the effects of different types and styles of choral music on depression patients, and tailoring music interventions to individual needs, would be beneficial.

## 9. Ethical Considerations

Prior to conducting this study, informed consent was obtained from all participants, ensuring they understood the study's purpose, procedures, potential risks, and benefits. Participation was voluntary, and participants could withdraw at any time without any negative consequences. To protect participants' privacy, all collected data were anonymized and kept confidential. This study was approved by the institutional ethics committee, ensuring adherence to ethical standards and protecting participants' rights and well-being.

## 10. Conclusion

This study employed a qualitative research design to explore the positive impact of choral music as a non-pharmacological intervention for depression. The results indicated that choral music significantly alleviated depression symptoms, particularly in terms of emotional expression, social skills, and emotional regulation. These findings align with existing literature and provide new empirical support for the application of choral music in mental health care.

Firstly, choral music significantly enhances emotional expression. Participants were able to express suppressed emotions in a safe environment, achieving emotional release. This process is particularly crucial for individuals with depression, who often experience emotional suppression and difficulty in emotional expression. Choral activities provided a new outlet for emotional expression, contributing to improved emotional states.

Secondly, choral music substantially improves social skills and interaction. Participants established new social connections through choral activities, reducing loneliness. These interactions were not limited to singing sessions but extended to group discussions, where participants shared personal experiences and feelings, building deeper emotional connections. Enhanced social support networks significantly contribute to the psychological recovery of participants.

Thirdly, choral music positively impacts self-identity. Many participants reported discovering new potential and value through choir participation, enhancing their self-esteem and self-worth. This improvement in self-identity not only enhances psychological health but also strengthens confidence in facing life's challenges. Choral activities provide a platform for self-expression and confidence-building, which is beneficial for long-term recovery.

In summary, choral music is an effective non-pharmacological intervention with significant potential for improving depression symptoms. By enhancing emotional expression, social interaction, and self-identity, choral music offers a new pathway for recovery for individuals with depression. Based on the findings of this study, it is recommended to integrate choral music into clinical practice as part of the treatment for depression. Further research should continue to explore the long-term effects and mechanisms of choral music to provide a more robust theoretical and empirical foundation for its application in mental health care.

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