

# ***Research on the Effectiveness and Efficacy of the Music Therapy Methods in the Treatment of Depression***

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**Abstract:** Due to the side effects or unsuitability of traditional therapies for some patient groups, there is a need for a new form of depression treatment. Therefore, society has turned its attention to music therapy, which has been shown to have significant effects in the treatment of mental illness and depression. This paper categorizes music therapy methods into active and passive music therapy methods for separate exploration and comparison. Active music therapy methods are further divided into improvisation, creative (composition), and re-creative. The effectiveness of passive music therapy methods in the treatment of depression mainly lies in improving patients' sleep and promoting beneficial emotions. The effectiveness of active music therapy methods mainly includes the relief of physical pain, the increase of positive emotions, the relief of anxiety, and the increase of social interaction ability. The receptive therapy group reaches the peak of treatment effect faster, but the active therapy group has a higher peak effect.

**Keyword:** depression, music therapy methods, active music therapy methods, passive music therapy methods

## **1. Introduction**

In recent years, with the constant increase of life pressure, depression has become a serious social problem. Especially after the COVID-19 pandemic, the rate of depression has increased even faster. According to WHO data, the COVID-19 pandemic has caused a 25% increase in global anxiety and depression rates. Society urgently needs more effective treatment methods for depression. Some traditional treatment methods, such as medication, electroconvulsive therapy, and traditional psychological therapy, have been proven to be effective to some extent, but the side effects are also apparent. Moreover, for some people, language-based traditional psychological therapy may be difficult or insufficient. Since the 20th century, music therapy has been proven to be an effective treatment method, widely used in the treatment of physical and mental illnesses. Furthermore, music therapy has not been found to have any significant side effects as a treatment method. Currently, some studies have evaluated the impact of music therapy on depression, and it has been proven effective in reducing anxiety and depression levels [1]. However, there is still a lack of research evaluating the effectiveness of different music therapy methods for depression and how to choose different methods based on different symptoms of depression. This study will analyze and summarize the existing practice research of music therapy in depression treatment, and summarize

the role and effectiveness of four main music therapy methods in depression treatment. Based on this, the study will provide a guideline for future music therapists to select appropriate music therapy methods for depression treatment.

## **2. Depression**

Depression is a common but serious mental illness that can have negative effects on human emotions, thinking patterns, and behavior. Common symptoms of depression include feeling sad or low mood, loss of interest in previously enjoyed activities, changes in appetite and weight, difficulty sleeping or oversleeping, increased fatigue, increased aimless physical activity, slowed movement or speech, feeling worthless or guilty, difficulty thinking and concentrating, and thoughts of death or suicide. Possible causes of depression include chemical imbalances in the brain, genetic predisposition, personality, and environmental factors. Common treatments for depression include medication, psychotherapy, and electroconvulsive therapy (ECT). Medication and psychotherapy are often used in combination. ECT is commonly used for severely depressed patients who have not responded to other treatments and has serious side effects such as nausea, headache, fatigue, memory loss, and loss of language function [2]. Antidepressant medications can also cause side effects such as abdominal pain, indigestion, nausea, sweating, and reduced sleep [3]. Some patients may not respond well to traditional language-based psychotherapy.

## **3. 4 Main Music Therapy Methods**

Music therapy refers to the planned use of music by therapists to achieve therapeutic effects. Music can reflect aspects of an individual's culture, relationships, and history in the therapeutic process, and can provide ideas and feelings that are not accessible through verbal language. People's ability to respond to music is innate and generally not influenced by their mental or physical health status. Therefore, music as a therapeutic medium has the unique power to attract and maintain the attention of patients. Some literature has demonstrated that music therapy plays a significant role in the treatment of mental illness, especially in the treatment of autism spectrum disorders, as the nonverbal communication provided by music can offer an alternative means of communication for those with communication barriers. Music also has a significant impact on emotions. Furthermore, no adverse effects have been observed with music therapy. The music therapy approach describes the way in which therapists and patients interact with music. Bruscia differentiated music therapy approaches according to the way of interaction into four main categories in his 1998 book: improvisation, creative (composition), receptive (listening), and re-creative [4]. In this context, receptive is the passive method, while improvisation, creative (composition), and re-creative methods are the active methods.

### **3.1. Passive Method: Receptive (Listening)**

The receptive method is a passive way of interacting between the client and music, where the client listens to music and responds to the experience in a nonverbal, verbal, or other ways (such as art or dance). The music used can be live or recorded. This method is suitable for clients who prefer a passive listening approach. The main goals of this method involve promoting stimulation or relaxation and evoking specific physical responses. It can promote memory, develop auditory skills, improve mood, and reduce anxiety.

## **3.2. Active Methods**

### **3.2.1. Improvisation**

Improvisation is a process in which visitors and therapists create music together in the moment to express the visitor's current emotions. Improvisation can involve singing or playing simple instruments to create improvised melodies, rhythms, songs, or instrumental pieces. It can promote the formation of one's identity. Improvisation has strong advantages in developing social skills and interactions. It can help visitors establish communication channels through nonverbal means, bridging the gap in language communication. It can develop creativity, freedom of expression, and playfulness, and cultivate perceptual and cognitive skills.

### **3.2.2. Creative (Composition)**

Creative (composition) is a method in which music therapists support clients in the process of creating their own music or lyrics. This music work is then recorded, preserved as sheet music, handwritten or typed, or recorded onto CDs, tapes, or MP3s. This is a method that can effectively enhance clients' creativity, communication abilities, and ability to document their experiences. It can boost clients' confidence and is suitable for those struggling with self-esteem or coping with grief. It can also develop decision-making skills and the ability to integrate parts into a whole. Additionally, because this method involves the creation of lyrics, it can facilitate exploration of therapeutic themes.

### **3.2.3. Re-creative**

In the method of re-creative, clients learn, sing, play, or perform pre-created music or reproduce any form of music. It is broader than the concept of performing, including rendering, reproducing, realizing, or interpreting any part or all of existing musical works. This method plays a significant role in helping clients with physical problems develop sensorimotor skills and time-ordered behavior, improving attention. At the same time, in the psychological aspect, this method can develop memory skills and empathy. It provides a safe and appropriate medium to experience and release emotions and develop skills in understanding and communicating ideas.

## **4. The Comparison of Passive Method and Active Method**

### **4.1. The Use of Passive Methods in the Treatment of Depression**

Four research papers were conducted using passive methods [5-8]. Although all four papers used passive music therapy methods, the music genres and specific treatment modes used in each experiment differed. The paper by Castillo-Pérez used classical and baroque music, while Deshmukh's used Indian classical music [5,7]. The remaining two selected music based on the individual music preferences and past music experiences of the participants, which varied from person to person [6,8]. From the results, all four papers showed a significant improvement in depression symptoms with passive music therapy methods. Two papers showed that passive music therapy methods were more effective in treating depression than traditional psychotherapy [5,6]. In contrast, Deshmukh's research showed that passive music therapy had no significant advantage over drug treatment [7]. In the analysis of the results, Castillo-Pérez concluded that listening to classical and baroque music stimulated positive emotions and lowered depression levels [5]. Deshmukh's results showed that passive music therapy significantly improved sleep quality and helped alleviate depression symptoms [7].

## 4.2. The Use of Active Methods in Treatment of Depression

Five papers used active music therapy methods. Three papers used improvisational music therapy, and one of them specifically used Emotion-regulating improvisational music therapy (EIMT) [9-11]. The method used in Silverman's 2011 paper was the creation of a blues piece led by the therapist, classified as creative (composition) music therapy [12]. The method used in Fancourt's 2016 paper was drumming in imitation of the therapist's rhythm, classified as re-creative music therapy [13]. From the results, four out of five articles concluded that active music therapy has a significant effect on improving depression. In Silverman's article, although active music therapy did not have a significant effect on reducing depression level, participants in the music therapy group reported more enjoyment, gratitude/appreciation, willingness to continue the music therapy program, and positive cognitive changes compared to the control group in the post-test and follow-up. In the analysis of the results, each article has its own way of interpretation and complexity. Albornoz's research found that compared to traditional psychological treatment, participants using active music therapy showed significant improvement in the Hamilton Rating Scale for Depression (HRSD) but did not show significant improvement in the Beck Depression Inventory (BDI) self-assessment [10]. This reflects different aspects of depression. HRSD focuses on measuring anxiety and physical pain, while BDI measures distress and deterioration in daily life. This means that the effects of active music therapy on different symptoms of depression are different. Aalbers's article showed that in improvisation, slow rhythms lead to lower emotional states, while faster rhythms may evoke higher emotional states [11]. In addition, the use of different instruments also affects expression, perception, relaxation, and bodily sensations [11]. In the use of creative (composition) music therapy, the perception of help, enjoyment, and comfort was significantly higher than that of traditional language therapy conditions [12]. In the use of re-creative music therapy, participants' social resilience improved, and anxiety and mental health also improved [13].

In addition, a research paper by McHugh focusing on the effects of vocal re-creative music therapy on elderly individuals with Alzheimer's disease and related dementias (ADRD) mentioned that active music therapy can calm participants who exhibit excessive anxiety and make those who are hypo-aroused become more alert, physically active, and engage in more social interactions [14]. Improvements in these symptoms can also alleviate depression. However, more related research is needed in this area.

## 4.3. Comparison

Passive music therapy is mainly effective in improving patients' sleep and stimulating beneficial emotions in the treatment of depression. In contrast, active music therapy improves symptoms of depression in various ways. The effects of active music therapy are mainly reflected in alleviating physical pain, increasing positive emotions, relieving anxiety, and improving social interaction skills. Because active music therapy requires participants to actively respond to the content of music, such as using percussion instruments to guide patients to respond to the therapist directly with their bodies, this is actually a social interaction in which they provide feedback to the therapist and express their own thoughts using the instrument. This is very helpful in cultivating the patient's social skills, as it is a random process similar to real-life social situations. Secondly, responding to music in active music therapy requires patients to pay close attention to the music, which actually helps them develop their ability to concentrate. If they are distracted, it is difficult for them to keep up with the rhythm. Creating songs and lyrics also requires patients to exercise more in reflecting on their abilities and expressive skills. Active music therapy requires more language and physical responses from patients than passive music therapy, which makes them pay more attention to music, and thus music has a greater impact on them. Playing an instrument requires purposeful physical

movement, while music production is social, pleasant, and meaningful. In addition, a study on active and passive group music therapy in the treatment of depression shows that the receptive therapy group may reach the peak of therapeutic effect more quickly, but the active therapy group may have a higher peak effect [15].

## 5. Conclusion

Overall, this paper discusses the application, effectiveness, and effects of different music therapy methods in the treatment of depression. Because the three traditional therapies for depression have side effects or are not suitable for some patient groups, there is a need for a new form of depression treatment. So society has turned its attention to music therapy. Music therapy has been shown to have significant effects in the treatment of mental illness and depression. This paper fills a research gap in this field and divides music therapy methods into active and passive types for separate exploration and comparison. Active music therapy methods are further divided into improvisation, creative (composition), and re-creative. Based on analysis and summary of existing experimental research papers, active music therapy methods, compared to passive music therapy methods, improve more symptoms of depression in more aspects. The effectiveness of passive music therapy methods in the treatment of depression mainly lies in improving patients' sleep and promoting beneficial emotions. The effect of active music therapy methods mainly includes relieving physical pain, increasing positive emotions, relieving anxiety, and increasing social interaction ability. The receptive treatment group reached the peak treatment effect faster, but the active treatment group had a higher peak effect.

This paper also has certain limitations. In this article, participants' information was not further summarized and analyzed. The number of a literature included in this article is relatively small. In the future, more research is needed. The research direction of literature review can include summarizing whether different music therapy methods are more suitable for participants of different ages and genders. Music therapy experimental research hopes to pay more attention to the influence of different subdivision methods of music therapy on the treatment of depression.

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