

Reducing Anxiety during Menopause Period Using Active Music Therapy

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Abstract. Anxiety has become increasingly common, and music therapy is considered to be one of the most effective ways to treat stress and anxiety. In this study, 30 women between the ages of 45 and 55 were recruited, and then anxiety level was measured by prior treatment, post-treatment, and follow-up. In music therapy, participants were asked to rewrite lyrics with original tunes. The anxiety level of post-treatment and follow-up periods are expected to be lower than that of prior treatment ($P < 0.05$). Several factors may affect the results of this study. One potential reason is that music lowers cortisol levels, and music might make people feel less anxious when they encounter unknown areas. Therefore, active music therapy is effective for anxiety menopausal women.

Keywords: Menopause; Symptom of Anxiety; Symptom of Depression; Active Music Therapy.

1. Introduction

Menopause is an inevitable part of a woman's aging process, marking the end of her reproductive years. Reproductive aging can cause a variety of symptoms. Emotional distress is especially important because it increases during the menopause transition. Studies have shown that anxiety is more common among women during their menopausal transition. There have been a few studies of anxiety among women in midlife. According to the first prospective study of mood problems in Chinese women in midlife in relation to their menopausal status, Tang and her colleagues found anxiety symptoms were more frequent in the early years after menopause [1]. They conducted a longitudinal analysis among women in a certain community. Muris and his colleagues assessed parenting styles and aggression and anger in a group of adolescents (ages 12-16) using questionnaires [2]. They found that parenting styles, characterized by low levels of warmth, high levels of rejection, and incongruous (highly emotional dependence) control, were associated with higher levels of aggression and anger in adolescents.

In the study by Allen and colleagues, adolescents' relationship with their parents was assessed through standard interviews [3]. Insecurity was associated with high self-reported depressive symptoms and behavioral problems reported by close peers. The analysis revealed that poor health status and sleep problems were independently associated with symptoms of anxiety. Music therapy was found to be one of the most effective treatments for stress and anxiety.

For example, music can relieve post-traumatic stress (PTSD) stress, cesarean section and academic stress. Including PTSD, these patients can also use music therapy, and they can listen to soothing music, and can reduce mental stress. According to a study by Hernandez-Ruiz, post-traumatic stress disorder (such as sleep deprivation and anxiety) were studied in a sample of battered women in a domestic violence shelter [4]. The experimental group received music and non-music therapy, including listening to music recordings and progressive muscle relaxation training. The results showed that anxiety in the music therapy group was improved after remission. The results also showed that the experimental group had a significant effect on sleep quality. There was no significant relationship between anxiety levels and sleep quality. From research on domestic violence, reducing anxiety and improving sleep quality can be considered to increase personal resources, and seems to be possible through the use of music therapy, music therapy is an effective way to reduce anxiety levels.

When therapists listened to classical music, the anxiety in participants about to undergo a cesarean section was reduced. Anxiety is a subjective and emotional aspect of a person because it involves

subjective unpleasantness, caused by stress, fear of failure and insecurity, which patients often experience and feel while going through childbirth. Therefore, according to Sumarni Marwang and his colleagues, classical music therapy can effectively reduce cesarean section women [5].

In its application, music therapy is divided into two types, namely passive music therapy and active music therapy [6]. Passive music therapy is the therapist inviting the participants to listen to instruments or songs to relax. Meanwhile, active music therapy is the therapist inviting the participants to play an instrument, sing, or create a song.

In a study of music therapy and academic anxiety by Dominikus David Biondi Situmorang and colleagues [7], they also found a comparison between pre-test and follow-up sessions. The results showed that CBT group counseling had a better effect on reducing academic anxiety before and after treatment. Compared with follow-up results, active music therapy was more effective than passive music therapy in reducing academic anxiety. Using CBT group therapy, it was found that passive and active music therapy first introduced a reduction in supportive music academic anxiety. It was found that active music therapy is more effective in the follow-up. Because few studies have researched the stress of menopause, how it might be related will be discussed. The effect of active music therapy on menopausal anxiety is also analyzed, following two hypotheses: (1) music therapy had a significant effect on anxiety; (2) the anxiety will be reduced during the follow-up assessment.

2. Method

2.1 Participant

The participants are women living in a community in Beijing. Eligibility criteria are women between the ages of 45 and 55, who must have a complete uterus and at least one ovary. Questionnaires were used to determine whether the participants had a medical examination at the hospital and had no medical conditions during the past year. A total of 80 women will participate in characteristics, menopausal symptoms, and social lifestyle behaviors. Among the initial 80 women, 30 were included in the study after submitting a medical examination report. Women who had undergone a hysterectomy after registration were excluded. The study included data from 30 women interviewed. Their anxiety assessment is considered to be a baseline visit. After the participants finished the survey, we will prepare the songs to do the therapy.

We need to select the song. After being selected, they will first complete the HADS and then perform 8 sessions of music therapy over 2 months. After the treatment, the HADS will be assessed again, and the follow-up assessment of the HADS will be done after 3 months of complete treatment.

2.2 Treatment

We prepare 6 songs. They are all ballad songs, and all belong to k-pop. These songs are written by simple melody. The therapist allowed the patients to choose the song that they feel which one they connect with most emotionally. This particular song will encourage them to connect with their lives and experiences and allows patients to express their feeling. And then, the therapist will teach the participants how to blend melodies and lyrics. Participants will be asked to select one to re-create the lyrics in the first session (only tunes were shown to participants, and original lyrics were not shown) 8 session in total. The song was divided into 6 parts, and participants will complete the rewriting of each part in each session, as long as they can express their feeling. At the last session, the participants will get together and show their production to the therapist.

2.3 Measures

Anxiety or depression was measured with Hospital Anxiety and Depression Scale (HADS). Our study focuses on anxiety skills. We will do the HADS in pre-therapy and post-therapy. Depending on the self-report test, HADS is the most commonly used tool to detect anxiety and depression symptoms. The Chinese version of HADS is highly consistent with the English version of HADS measurement. HADS is a 14-item test of psychological and emotional symptoms of anxiety and depression. The

anxiety subscale is concerned with anxiety and restlessness. The depression subscale asks questions about depression, hopelessness, and lack of happiness. Each of the 14 projects is divided into four levels.

2.4 Data Analysis

The analysis technique used in this study was repeated measurement with one-way analysis of variance (ANOVA) of Microsoft Excel 2010 and IBM SPSS for Windows 23 program. The purpose of this analysis was to test the hypothesis with pre-therapy, posttest, and follow-up data to understand differences in the effectiveness of active music therapy.

3. Results

According to the overall data, anxiety levels at the three-time points are expected to be significantly different ($p < 0.05$). The post-therapy and follow-up anxiety levels will be lower than the anxiety level prior to treatment. There will be no significant difference between the data following treatment and follow-up.

4. Discussion

The results showed that the degree of anxiety in patients treated with music was lower than that prior treatment. Factors that might influence the results of this study to make it effective were discussed in this section. One potential reason is that music can reduce cortisol levels. Soothing music was played during the treatment of patients were encouraged to make soothing music. Because music can enhance positive emotions, reduce fear, self-awareness, and sadness, and improve one's overall emotional state. According to their research findings, music can improve health and well-being by engaging in neurochemical systems: (1) reward, motivation, and happiness; (ii) stress and arousal; (3) immune; (4) Social interaction. [8,9]. Therefore, in this study. There are fewer symptoms of anxiety because of the cortisol level drop.

In addition to the musical tones, there is another reason why they feel anxiety when they met unknown areas. Music therapy can be defined as a therapy that enhances resilience. Music therapy works by reducing stress and fear, boosting self-confidence, and fostering social support. [10]

Anxiety might be caused by fear to do something, because music composition is an unknown area for menopause women. The therapy helped them to gain confidence in the new areas and make sure they can do it well in the new area. It might help participants to improve their regulation of fear during the anxious situation. The therapist encourages and helps the patient during the treatment process, so that the patient will be more confident to face the new therapeutic area. [8, 11-14].

In addition, patients can express their feelings through the process of writing lyrics. This process emphasizes emotional expression and cognitive processes and strives to understand and understand traumatic events [15]. And we did not actually measurement cortisol levels and we did not discuss about different sources of anxiety. In the future, we will actually do it, because it makes the experiment more accurate.

5. Conclusion

According to the results and discussion, it can be concluded that active music therapy is effective for the anxiety of menopausal women. Compared with the pre-therapy, both the anxiety levels of both post-therapy and follow-up are lower than pre-therapy. There is no difference between post-therapy and follow-up, which indicates that the effect is persistent. It might be realized through lower cortisol levels in musical tones and by trying unknown areas to gain confidence and express the feeling. There are many sources of anxiety, and we do not discuss music therapy for anxiety from different sources.

We did not actually measure cortisol level. In the future studies, our study will actually measure cortisol levels and discuss the effects of music therapy from different sources of anxiety.

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