CHAPTER VII

LIMITATIONS, IMPLICATIONS, SUGGESTIONS AND SUMMARY

The aim of the present investigation was to study the result of active and receptive music therapy on anxiety, pain, fatigue, sleep quality and affect on male and female cancer patients and comparing the effectiveness of two types of music therapy. The sample of this study was taken from the different governmental hospitals of Golestan province in Iran. Initial population of approximately 700-800 male and female cancer patients were contacted. The sample was further categorized into males and females in the age group of (20-40 years), who where hospitalized and under chemotherapy and radiotherapy.

This sample was administered the Beck anxiety inventory (Beck, 1993), numeric pain rating scale (McCaffery, Beebe et al., 1989), multidimensional fatigue inventory (Smets et al., 1995), Pittsburgh sleep quality index (Buysse et al., 1989), and positive and negative affect scale (Watson et al., 1988) in pre-test and post-test. These measures were completed by all participants at baseline and end of therapy sessions. Ten sessions of active or receptive music therapy were applied for intervention groups, while the control group received only the routine care. Every session was of 15-30 minutes. Receptive music therapy contains patient’s preferred Persian pop music, and active music therapy involved playing guitar and singing under training and supervision of music-therapist.

The pre-test was conducted to the 240 participants (127 males and 113 females) selected through purposive sampling to contribute in this research. After therapy sessions post-test was conducted for three groups. After the drop out of 56 participants (for the following reasons: leaving the chemotherapy sessions, not being interested to participate anymore, physical inability, death, and incomplete questionnaires), 184 samples were left to continue research progress for data analysis.
Limitations, Implications, Suggestions and Summary

Hypothesis

- Active music therapy as compared to the pre-therapy condition is effective in the reduction of (H₁) anxiety, (H₂) pain, (H₃) fatigue and (H₄) negative affect and increase in (H₅) sleep quality and (H₆) positive affect in cancer inpatients.

- Receptive music therapy as compared to the pre-therapy condition is effective in the reduction of (H₇) anxiety, (H₈) pain, (H₉) fatigue and (H₁₀) negative affect and increase in (H₁₁) sleep quality and (H₁₂) positive affect in cancer inpatients.

- Active music therapy as compared to the no-therapy (control group) is effective in the reduction of (H₁₃) anxiety, (H₁₄) pain, (H₁₅) fatigue and (H₁₆) negative affect and increase in (H₁₇) sleep quality and (H₁₈) positive affect in cancer inpatients.

- Receptive music therapy as compared to the no-therapy (control group) is effective in the reduction of (H₁₉) anxiety, (H₂₀) pain, (H₂₁) fatigue and (H₂₂) negative affect and increase in (H₂₃) sleep quality and (H₂₄) positive affect in cancer inpatients.

- Cancer inpatients, receiving active music therapy will show greater reduction in (H₂₅) anxiety, (H₂₆) pain, (H₂₇) fatigue, (H₂₈) negative affect and greater increase in (H₂₉) sleep quality and (H₃₀) positive affect, than those receiving receptive music therapy and the ones in the control group.

- Gender differences on post-test scores will emerge on (H₃₁) anxiety, (H₃₂) pain, (H₃₃) fatigue, (H₃₄) sleep quality and (H₃₅) positive and (H₃₆) negative affect in cancer inpatients.

- Males and females will show differences in the efficacy of active and receptive music therapy in reduction of (H₃₇) anxiety, (H₃₈) pain, (H₃₉) fatigue and (H₄₀) negative affect and increase in (H₄₁) sleep quality and (H₄₂) positive affect in cancer inpatients.
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Major findings

Anxiety

- Significant reduction of anxiety in comparing pre-test and post-test of active music therapy was found.
- A significant decrease in anxiety between pre-test and post-test of receptive music therapy was found.
- Significant difference among type of groups was found. Active music therapy was the group where maximum reduction of anxiety took place as compared to the control and receptive music therapy group.
- Significant gender differences were found with males and females responding positively to the types of groups with reduction of anxiety noticeable in each group.
- Though, in all the groups females showed a more substantial decrease in anxiety than their male counterparts.

Pain

- Significant reduction of pain in comparing pre-test and post-test of active music therapy was found.
- A significant decrease in pain between pre-test and post-test of receptive music therapy was discovered.
- Significant difference among type of groups was found. Active music therapy significantly reduced pain among cancer patients as compared to the receptive music therapy and control group.
- Among gender as well, active music therapy revealed lowest scores on pain, with females showing substantial decrease than their male counterparts.

Fatigue

- Significant reduction of fatigue in comparing pre-test and post-test of active music therapy was found.
- A significant decrease in fatigue between pre-test and post-test of receptive music therapy was discovered.
- Significant difference of control group with active and receptive music therapy group was found with post-test scores of active music therapy on
fatigue significantly lower than Control group and receptive music therapy group.

- Gender differences were not found to be significant.

**Sleep quality**

- Significant increase of sleep quality in comparing pre-test and post-test of active music therapy was found.
- A significant improvement in sleep quality between pre-test and post-test of receptive music therapy was discovered.
- Significant difference between types of group was found with active music therapy showing significant improvement in sleep quality as compared to the receptive music therapy and control group.
- No gender difference on sleep quality was found.

**Positive and Negative affect**

- Significant increase of positive affect in comparing pre-test and post-test of active music therapy was found.
- A significant improvement in positive affect between pre-test and post-test of receptive music therapy was discovered.
- Significant reduction of negative affect in comparing pre-test and post-test of active music therapy was found.
- A significant decrease in negative affect between pre-test and post-test of receptive music therapy was found.
- Significant difference between types of groups was found with active music therapy significantly showing the increase in positive affect among cancer patients as compared to the receptive music therapy and control group.
- Among the gender, females showed slightly better positive affect on almost all the groups, with active music therapy showing the maximum difference than their male counterparts.
- Significant difference among type of groups was found with scores on active music therapy showing significantly lower negative affect as compared to the receptive music therapy and control group.
- Significant gender differences were also found with females showing slightly more negative affect than their male counterparts.
Limitations

The advantages of the present investigation are large number of participants involved in research, applying and comparing two types of music therapy interventions. Every study has its limitations because of the size of the sample or the scope of research or its geographical or demographical constraints. No research is complete in itself; therefore, the present investigation also had few limitations.

In music therapy, there are some risks that may occur due to the nature of these types of interventions, and although researchers attempt to decrease it, it will still remain as the risk of bias. The music therapist has to be present in the therapeutic sessions, so both the therapist and patients cannot be blinded and it can affect the results of assignments.

As the participants are not in blinded situation in the intervention, it can lead to bias when therapist ask them to report and explain about subjective outcomes such as anxiety, pain, fatigue, etc. (Bradt et al., 2011). Other limitation was the therapy duration that was just ten sessions. However, there is a need to check whether the effect of music therapy is sustainable or will give better results after follow-up or not.

Offering patients a song of his/her choice posed additional demands on the therapist, not typically transferable to real-world setting. In giving the patient such a broad option of hearing “any song that helps you feel calm and supported,” many patients needed time to consider her selection. Therapists had to call several subjects many times, learn a new song for each live music case or download a song for each recorded music case. In an actual work environment, this would not be cost-effective nor reasonable for each surgical patient and it is recommended that future investigations be done with a book of varied song selections and/or playlist filled with pre-downloaded songs that a patient can choose from. This can help better to real-world practices where many patients could be reached on a daily basis with ease.

Implications and Suggestions

The results of this research indicate that the active and receptive music therapy can be beneficial in cancer care. This controlled research can be modified or applied to clinical sessions with cancer patients at chemotherapy and radiotherapy sessions in a variety of ways.
When working with cancer patients, therapist needs to be accessible and flexible. Music therapy clinicians may want to consider facilitating music therapy at places where cancer patients are residing during treatments, such as hospital or medical centers. Although participants may not initially indicate interest in interactive music therapy interventions, these experiences can be enjoyable and therapeutic for non-musicians when structured in an accessible and supportive manner. The live, interactive music experiences and singing in active music therapy allow participants to make connections to others in the group. However, music therapy clinicians need to be aware of initial insecurity, uncertainty, and hesitancy in regards to unfamiliar modalities and adjust their approach accordingly.

In addition, some participants may feel uncomfortable singing or participating in front of others, especially in smaller groups. Hence, a protocol is needed to show the strategy for applying music therapy with particular consideration on various elements such as music-playing duration in each session, type of music and musical instrument.

Further it is essential to understand which kind of ambience is required to make the suitable environment for patients. It could be added to this protocol that the efficiency of this intervention is dependent on patients’ satisfaction (Nilsson, 2011) and the patient-preferred music is useful method to increase the level of enjoyment and effectiveness of music therapy (Lai, 2004).

As the investigators were mainly concerned in applying music therapy in the hospital unit and providing patients with music therapy services, an intentionally brief instrument was utilized to measure treatment effects during this investigation. Future researchers might explore comparison between effects of listening to recorded music and active music therapy interventions, including improvisation or songwriting. Additionally, future researchers might consider including several follow-up measures (i.e., one month, three month, and six month) of patient’s post discharge in an attempt to understand if benefits gained from participation in music therapy are sustained over time.

Music therapy clinicians can examine the effectiveness of specific music therapy interventions or sessions through the use of pre- and post-session data collection. The data may not only come from the patients, but from the caregivers or
other family members as well. Incorporating the family members into music therapy sessions and evaluating the effectiveness can become a part of clinical practice protocol. In addition, being aware of conceptual differences between types of data collection methods is important. For example, the differences between health-related quality of life and general quality of life are not always apparent from the literature, but participants may rate themselves differently depending on the data collection approach. Furthermore, clinicians may share the music therapy protocol or adaptations of it with nurses, physicians, caregivers, and community members so more people may benefit from music therapy interventions in daily life. Music therapy clinicians may share information regarding the benefits of music therapy, especially the physical, psychological, and social benefits inherent in interactive group music therapy experiences.

Experience of cancer generates a number of physical, emotional, social and existential needs. Music can address many of them by offering a wide range of benefits. Music therapy in cancer care focuses on needs of patients, arising from the experience of disease, as well as from side effects of treatment. A wide variety of music therapy activities can take place in cancer care setting. Music therapy as a receptive and active intervention can be used to relieve stress and fear of hospitalization and the unfamiliarity of the hospital environment. Music therapy is an effective method of supporting cancer care for patients at various stages of the disease and is practiced with individual patients as well as patient groups. It can be also included for planning programs of treatment and rehabilitation to promote wellness, improve physical and emotional well-being and the quality of life.

The following recommendations are suggested for future investigation:

- Utilize the music therapy study with not only cancer patient participants but their caregivers too.
- Facilitate the music therapy with patients of a particular cancer type or stage of cancer in order to determine benefit in perceived social support.
- Compare the results of this study with studies involving cancer patients from different races and ethnic groups.
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- Expand the number of sessions or lengthen the time of music therapy sessions and compare changes in anxiety, pain, fatigue, sleep quality and affect in cancer patients over a different period of time.
- Replicate the study with more people in each music therapy group.
- Expand the research by using receptive music intervention in a group therapy by playing music in audio player instead of using mp3 player for each participant to determine effectiveness of music listening in groups.
- Allow participants to choose between participation in a group music therapy or individual music therapy sessions and examine the results.
- Though the type of music that was used in this study was pop Persian music, and the instrument was guitar. For the future investigations, it is suggested a comparison between the effectiveness of the other styles and types of music and instruments with same or different variables.
- To most effectively assess the potential benefits of music therapy, it will be important for future research to explore long-term effects.
- It may be that after multiple doses of music therapy, patients may take part in other types of interventions (i.e. song writing, lyric analysis, therapeutic music videos, instrument lessons) or become more actively engaged in the music after greater rapport has been established with the therapist. So this can also be incorporated.
- It is suggested that study the personality of patients along with music therapy intervention to find the connection between personality types and effectiveness of music therapy.