

The Effectiveness of Music Therapy on the Quality of Life and Improvement of Syndrome in Women Suffering from Dysthymia

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ABSTRACT

Background: Music therapy as a scientific approach plays an important role in the treatment of some psychopaths. Therefore, the present study aims at investigating the effectiveness of music therapy on the quality of life and improvement of syndrome in women suffering from dysthymia.

Methods: The research project was quasi-experimental study with pre-test, post-test and control group. All the women suffering from dysthymia who approached to psychological clinics of Yazd in 2018 contained the statistical population of the study. 30 of them were selected by purposive sampling method and were randomly categorized into experimental and control groups (15 persons). Quality of Life Questionnaire (WHOQOL-BREF) and Beck Depression Inventory (BDI-II) were filled before and after intervention by people. Music therapy has been experimented on experimental group for 4 weeks and during 1 month. The findings were analyzed by SPSS-21 and covariance analysis.

Results: Findings showed that the scores of subjects in the variables of life quality were significantly different from those in the variables of syndrome development and music therapy had a significant effect on quality of life and the improvement of syndrome among women in experimental group.

Conclusion: As a result, participating in music therapy sessions could increase the level of life quality and syndrome improvement among women suffering from dysthymia.

Keywords: Quality of Life, Music Therapy, Women, Disorder Dysthymic.

Introduction

Depression is one of the most common mental disorders (especially among women). Depression disorders have several types. In the fifth version of Diagnostic and Statistical Manual of psychiatric disorders (DSM),¹ persistent depressive disorder derived from the combination of dysthymia and chronic major depressive disorder. The main feature of chronic depressive disorder (dysthymia) is the chronic depressive temperament which occurs in most of the days at least for two years. The results out of epidemiology studies in rural and urban areas reveal the expanding increase of depression disorders in the populations under investigation.² Depression influences more on females' lives rather than males' and almost 20% of women are impacted by this disorder throughout their lives. The studies on the incidence of depression in Iran reveal that females suffering more (30.5%) from depression than males (16.7%). Depression is a disorder recognized by reduction in energy and interest level, feeling guilty, concentrating difficulty, anorexia, death thoughts and suicide, it is consistent with the level of activity, cognitive abilities, speech, sleep status, appetite and other biologic rhythms.³ Moreover, another unpleasant consequence of depression is reduction of the level of satisfaction and life quality which can dramatically change the lifestyle. In contrast to the 20th century, the main challenge of the present age is not surviving, but also is living with a higher level of quality, and according to the most of the studies, mental and emotional problems may reduce the level of life quality, thus, special attention must be paid to the mental health of individuals and also the suitable therapeutic measures.⁴ According to the World Health Organization (WHO), the quality of life is defined as the status of perfect physical, mental and social health and not only the absence of illness or disability, and it may be influenced by demographic and social variables, diseases and the clinical status and it is also effected by the experiences and the perception from life of an individual. The quality of life is the indicator of

therapy effectiveness, evaluating the quality of life in the fields of recognition, prediction and assessment is the key to the maintenance and therapeutic methods which are helpful for chronic patients or even healthy individuals.⁵

Today, there are different methods used to treat and balance the depressed temperament, besides various approaches, one of the almost novel and effective methods is music therapy.⁶ The world federation of music therapy (WFMT), has defined such complementary treatment as: the use of music or musical elements (sound, rhythm, melody and harmony) for an individual or a group by a music therapy specialist through a process for facilitating and improving interpersonal communication, relationship, learning, fluidization, self-assertion, consistency and other related medical purposes to meet the physical, emotional, mental, social and cognitive needs of an individual or a group.⁷ Studies have approved the use of music therapy as a medical means and have maintained that music therapy functions as a natural anti-depression drug and it can influence on the temperament and the reduction of depression level in individuals by the accurate choice of music.⁸

Several studies have reported the positive use of music therapy on the treatment of different disease such as Alzheimer,⁹ Parkinson and depression,¹⁰ aggressiveness and offensive modes in individuals suffering from personality disorders.¹¹

The result of studies¹² with the purpose of investigating the effectiveness of music therapy on the improvement of life quality parameters among women showed that there is a significant difference in the scores of life quality among women suffering from depression before and after intervention. According to investigations, educating music therapy has significantly reduced depression and anxiety in intervention group.¹³ A study¹⁴ with the purpose of effectiveness of music therapy on life quality and self-efficacy of elderly people revealed that music therapy had a significant effect of the increase of life quality and self-efficacy of experimental group. Findings out



of a study with the purpose of the effect of music therapy on depression and physiological parameters of elderly people lives in the nursing homes,¹⁵ showed that depression scores after the test in two groups were statistically significant. The findings out of a similar study¹⁶ showed that the group music therapy could significantly influence on the depression, anxiety and social isolation among the Mexican workers live in the U.S. Another study¹⁷ revealed that listening to music during a period will remove the symptoms of depression among the adults. In a study¹⁸ with the purpose of the effect of music therapy on temperament, anxiety and depression among patients with brain damage showed that music therapy greatly influenced on the temperament of such patients.

Since depression is one the main psychological problems which many people suffering from it, if people don't recognize and don't treat it appropriately, it will lead to many serious problems, so, music therapy as a non-medical method could help patients and their families with the heavy expenses of treatment. Therefore, the treatment along with short-term medical approaches should be seriously considered to rapidly improve patients status, and since not many studies have been done on the investigation of the effectiveness of music therapy at least among Iranians especially women, it is necessary to recognize those parameters threatens people's temperament. However, the current study by focusing on music, tries to demonstrate the effect of such cheap and also secure medical approach on the lowering of depression symptoms. Consequently, the purpose of this study is to investigate the effectiveness of music therapy on life quality and syndrome improvement among women suffering from dysthymia.

Methods

The method of study was quasi-experimental and used pre-test and post-test with control group. The statistical population of this study contained of all the women suffering from dysthymia

approached to psychological clinics of Yazd in 2018. The samples of study were 30 women suffering from dysthymia that were selected through purposive sampling and were randomly substituted into experimental and control groups (15 persons). Criteria needed to enter this study comprised of dysthymia disorder recognized by psychologists or the scores of Beck's Inventory Depression, having diploma or higher degrees, age range between 20 to 40, gender being female and being interested in music, declining to participate in the classes regarded as criteria to exit from study. Ethical considerations of this study contain consciously participating in music therapy sessions, receiving letter of consent from participants and confidentiality of study results. At first, with the use of research instruments, pre-test were taken from the participants. Then the music therapy sessions have been performed constantly on experimental group during 4 sessions, each session 25 minutes for 1 month. According to the researches^{19, 20, 21} and also based on the successful results out of these studies, the most useful time for the effectiveness of music on participants was 25 minutes. Daily listening to music contains of practice and homework at home and the patients were supposed to record their thoughts and feelings to submit them to their therapist each session and to talk about their treatment process in the previous weeks. Both groups have received SSRI chemotherapy but only experimental group received music therapy. It is worth to mention that the compositions were recorded on a CD. All the music therapy sessions are as the follows:

In this study, the music therapy educational package of Standly was used, active and passive techniques of Standly with study and analysis of different medical music approaches have reported seven main methods of music therapy. First method listening to passive music, second method taking part in active music programs, third method discussion and consulting about music, fourth method music and subjects related to development and education, fifth method music and motive, sixth method music with biological feedback and

seventh method music and group activities. First, second and third methods of Standly music therapy were used in this study. Passive music means listening to the delight instrumental tracks. Special melody to create joy in patients must contain refreshing musical theme, refreshing theme (delight) are rhythmic compositions with an almost fast melody which induces vitality and joy without excitement and impatience and it is consistent with stability and quietness. Active musical activities in music therapy sessions of this project contains discussion about musical emotions.²² A summary of the sessions program are as follows:

Immediately after intervention, both groups were taken post-test, and the results of pre-test and post-test were compared with each other. Instruments have been used in this study were:

The Quality of Life Questionnaire (WHOQOL-BREF)

In order to evaluate the quality of life the short form of life evaluation scale of World Health Organization (1998) were used that it originally contains 26 questions which focuses on four qualitative aspects of life such as: physical health, psychological health, social relationship and social environment. The method of questionnaire scoring is (1 to 5) never, rarely, medium, high, perfectly, or very unsatisfied, not satisfied, almost unsatisfied, satisfied, totally satisfied, respectively. It is worth to mention that questions number 3, 4 and 26 are being reversely scored. High scores in any of subscales and high score in the whole scale are demonstrative of the desirable quality of life.²³ This scale was translated to 19 languages by the constructors group of life quality scale of the World Health Organization which was conducted in 15 international centers of this organization, the Cronbach's alpha coefficient for the quadruple subscales and the whole scale was reported between 0.73 and 0.89.

In Iran²⁴ also this scale was translated to Persian and its validity and reliability was shown by the Cronbach's alpha coefficient as 0.84 which shows the internal consistency of this scale. On the other

hand, the factor analysis of 26 items revealed that this scale contains four subscales demonstrative of its construct validity. In the current study according to the questionnaire standardization, the validity was trusted and by means of Cronbach's alpha coefficient, the reliability became 0.74 which was demonstrative of cohesion and reliability of the questionnaire.

Beck Depression Inventory (BDI-II)

This scale was introduced by Beck and his colleagues in 1961 and in order to cover a wide range of signs, it had been fundamentally revised in 1966. This questionnaire is a self-assessment means consisting of 21 questions for evaluating depressed temperament. These statements according to the intensity of conditions reported by patient are scored from 0 to 3.²⁵ As 0 score is representative of the absence of depression symptoms and 3 score is representative of depression. Beck inventory was performed on 94 individual Iranian sample which Cronbach's alpha coefficient and test-retest, coefficient was 0.91 and 0.94 respectively during a week. In the present study, the Cronbach's alpha coefficient was 0.78 for depression variable.

Results

According to the descriptive findings of the subjects' demographic features, the age average of experiment and control groups were 34.4 ± 6.09 and 37.87 ± 7.46 respectively. The most frequency for education in both groups was M.A degree (36.7) and the least frequency was diploma (10%). 83.3% of the subjects were married and 16.7% of them were single. Also, 76.7% of the participants were housewives and 23.3% were employed. Such results are demonstrative of the similarity between two groups in terms of above features before intervention.

Descriptive parameters of the research variables in pre-test and post-post levels are categorized in table 2.

In order to investigate the effectiveness of life quality and to improve the syndrome in women suffering from dysthymia, a parametric test of univariate covariance analysis was used. Therefore, it was necessary to investigate the hypotheses of the



study. The results out of Kolmogorov-Smirnov test showed the normality of data for life quality and dysthymia syndrome variables ($p > 0.05$). To investigate the homogeneity of study variables variance Levene's test was employed. Findings out of this study for life quality were ($p > 0.05$ and $F = 1.498$) and for dysthymia syndrome was ($p > 0.05$ and $F = 3.269$). Thus, the variables of life quality and dysthymia syndrome were homoscedastic. The results of covariance analysis for life quality and improvement of syndrome are represented in tables 3 and 4.

The findings out of ANCOVA analysis are represented in table 3, music therapy is effective on life quality among women suffering from

dysthymia and 89.3% of changes in scores of post-test were due to the intervention of music therapy.

The covariance analysis (ANCOVA) of table 4 results reveals that pre-test effect was statistically meaningful ($p < 0.001$ and $F = 51.600$). In other words, the score of dysthymia syndrome post-test was impacted by pre-test score. Then, to measure intervention effectiveness test on dependent variable, the effect of post-test as a variable was omitted. After modification of post-test scores, a meaningful difference between the scores of dysthymia syndrome was achieved by both control and experimental groups ($p < 0.001$ and $F(1, 29) = 15.801$, Eta-squared = 0.369).

Table 1. The content of music therapy sessions

Sessions	The content of music therapy sessions
First	The performance of pre-test with listening to the delight instrumental music of piano such as another birthday and dance of leaves
Second	Relating physical and mental tiredness along with playing peaceful piano compositions
Third	Playing peaceful piano compositions and encouraging patient to talk about her emotions and worries
Fourth	Playing peaceful piano compositions and discussing about emotions, thoughts or memories related to the lyric of the music and performance of post-test

Table 2. Mean and Standard Deviation (SD) of life quality and dysthymia syndrome variables in pre-test and post-test levels

Variable	Group	Pre-test mean	Pre-test SD	Post-test mean	Post-test SD
Life quality	Experimental	70.53	16.73	95.80	11.29
Life quality	Control	69.47	11.56	70.67	10.91
Dysthymia syndrome	Experimental	36.87	9.58	17.40	9.58
Dysthymia syndrome	Control	27.00	11.47	19.60	11.69

Table 3. The results of covariance analysis (ANCOVA) on the effect of music therapy on life quality

Source of changes	The sum of squares	Degree of freedom	The average of squares	F statistic	Meaningfulness	Eta-squared	Statistical power
Pre-test	2917.040	1	2917.040	147.299	0.001	0.845	1
Group membership	4450.029	1	4450.029	224.710	0.001	0.893	1
Error	534.694	27	19.803				

$P \leq 0.001$

Table 4. The results of covariance analysis (ANCOVA) on the effect of music therapy on dysthymia syndrome

Source of changes	The sum of squares	Degree of freedom	The average of squares	F statistic	meaningfulness	Eta-squared	Statistical power
Pre-test	2101.544	1	2101.544	51.600	0.001	0.656	1
Group membership	643.547	1	643.547	15.801	0.001	0.396	0.97
Error	1099.656	27	40.728				

 $P \leq 0.001$

Discussion

The current study aimed at investigating the effectiveness of music therapy on life quality and syndrome improvement among women suffering from dysthymia. Comparing the average scores of life quality among two groups of experiment and control revealed that music therapy increases the level of life quality in experimental group. So the results out of this study are consistent with the results of studies which showed that music could change life styles of individuals and could cause welfare in their lives.^{14, 27- 29}

Dysthymia is a strong predictive parameter considered to be harmful for the life quality of the adults which recent studies also demonstrated that even low levels of dysthymia are consistent with meaningful reduction of life quality level in adults.³⁰ In this way,¹² investigations revealed that music therapy is a proper approach to improve quality of life in women suffering from dysthymia. Music therapy influences on the quality of individuals' lives to achieve their psychological cohesion and also to have positive attitudes, emotions and considerations of themselves and to perceive a more appropriate mental picture of themselves, their life style and life quality.³¹ Such medical treatment is influential on the cognitive, physical and emotional health of individuals and through the regular rhythm of the notes individuals' mental health will be improved and also they will be protected against sadness, guilt feeling and loneliness. As the most common psychological and temperamental disorder among world's population, dysthymia is accompanied with long terms, variety of symptoms, the high level of relapse and several physical and mental disorders.³² Thus, special attention must be paid to the mental health of

individuals and also the suitable therapeutic measures.⁴ So music therapy as a complementary treatment with peacefulness, welfare and facilitation could influence on the life styles of people.

Another result of this study demonstrates that music therapy is effective for the improvement of syndrome among women suffering from dysthymia. The results were confirmed in other studies.^{8, 15-17, 19, 33, 34} Such consistency shows the importance and the position of music therapy in the field of psychology and psychiatry. By means of activating alpha waves of mind, music therapy causes peacefulness and due to the inherent attractiveness and motivation of it, music stimulates enjoyable moments, pleasurable memories and internal positive interests and on the other hand decreases the level of a sociality, isolation, lack of interest and aggression.³⁵ Taking part in music therapy sessions, provides opportunities to create social communications, positive physical and mental changes and consequently increases the feeling of control on life, decreases anxiety and tension and riches the sense of self-confidence. So in this study one of the reasons for the effectiveness of music therapy could be the use of rhythm. Music is composed of poetry which is the result of integration of similar rhythm or tempo per unit of time, melody or ascending/descending movements of musical notes.

Listening to comforting music through the activation of alpha waves in mind can provide a peaceful environment by the release of endorphin and dopamine and consequently depression and anxiety levels will be reduced.



Based on scientists' different theories, it seems that proper music can modify the status of mind and activate functional parts of mind and also improves the hearing center on limbic lobe which leads to the growth and cause impact on the hearing center, consciousness, accuracy and concentration. Accordingly, the use of music therapy enables individuals to communication, association and accommodation.⁷

Therefore, it is concluded that music therapy education is effective on the syndrome improvement among women suffering from dysthymia and 36.9% of dysthymia syndrome changes can be explained through the intervention of music therapy.

Among the limitations of the study, the small size of sample and restriction to the women suffering from dysthymia that approached only to the psychological clinics of Yazd can be mentioned so the findings of the study may not be generalizable. It is recommended in the future studies to conduct a research with a larger sample with following courses and intervals to investigate the consistency of music therapy effectiveness. Thus the officials and the authorities of hospitals are recommended to benefit of non-medical methods which are also influential on vital signs and are devoid of any side effects to relieve pain and stress such as music therapy along with other medical methods to improve the quality of services in the hospitals. Also educating music therapy to the nurses, psychological and the authorities of hospitals is recommended to use it in the best possible way.

Conclusion

Finally, it can be concluded that music therapy employed in this study is effective on the improvement of life quality and syndrome among women suffering from dysthymia. The results of the present study reveal that music in its kind can enhance the mental health of patients suffering from dysthymia. On the other hand, music in the field of treatment is used with the purpose of emotion discharge, achieving calmness, being

exposed to self-conflicts, gaining awareness, increasing insight and compatibility. In fact, the brain structure reacts positively and properly to the musical motives and creates a mainstream to use such a medical method. Considering that the use of music is so easy and simple, even patients themselves can employ this method to soothe their mental and physical pains, so one can apply music therapy along with his/her drug therapy as a complementary method.

Conflicts of Interest

The authors also have no conflicts of interest and have no involvement that might raise the question of bias in the results reported here.

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Authors' Contribution

Conceptualization, Z.R.; Methodology, Z.R. and M.S.; Formal Analysis, Z.R; Investigation, Z.R. and A.R.B.; Data Curation, M.S; Writing – Original Draft, Z.R; Writing – Review & Editing, A.R.B.

All authors read and approved the final manuscript and are responsible about any question related to article.

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