Patients' Perception and Attitudes towards the Use of Music as Therapy in Psychiatric Hospitals

Heba Abd El-Hamid Hammad, Demonstrator
Psychiatric Nursing and Mental Health, Faculty of Nursing, Damanhour University

Mervat Mostafa El-Gueneidy, Professor
Psychiatric Nursing and Mental Health, Faculty of Nursing, Alexandria University

Mayar Ezzeldeen Elnakeeb, Lecturer
Psychiatric Nursing and Mental Health, Faculty of Nursing, Alexandria University

Abstract

Music is a widely utilized form of complementary therapy. The interest in studying the psychiatric patients' attitudes towards the use of music as therapy in psychiatric hospitals will help enlighten anew way for adjunct medical treatment in their hospitals. ***Objective:*** *Explore patients' perception and attitudes towards the use of music as therapy in psychiatric hospitals.* ***Setting:*** *El-Maamoura Hospital for Psychiatric Medicine.* ***Subjects:*** *The study Subjects comprised 130 in-patients with psychiatric disorders.* ***Tools****: "Attitude towards the Use of Music as Therapy Survey", "Patient's Perception of Music As Therapy Structured Interview Schedule", and a Socio-Demographic and Clinical Data Sheet were used as tools for data collection.* ***Results:*** *The main results of this study were 70.8 % of the studied patients perceived that they could use music as therapy and 66.2% of the studied patients had positive attitude toward music as therapy.* ***Conclusion:*** *It can be concluded that patients have positive attitude toward music as therapy, in spite of their low knowledge about it.* ***Recommendations:*** *It is recommended that nurses should encourage their patients to choose the most appropriate time to listen to music, also, integrate music as therapy into the nursing and medical curriculum is necessary and psycho-educational programs to develop patients' awareness about music as therapy are needed.*

Keywords: Dysphagia; Music as therapy; Perception; Attitude; Psychiatric patients.

Introduction

The use of music with psychiatric patients is of two forms; music therapy and music as therapy[(1)]. Both types recognize its role in attaining goals in mental and physical health[(2)]. Music therapy may be defined as a planned, goal-directed process of interaction and intervention, in which music or music-based experiences is used by a certified music therapist to influence specific positive changes in an individual's condition, skills, thoughts, feelings, or behaviors[(3,4)]. Music as therapy is defined as the use of music interventions to accomplish therapeutic aims as the restoration, maintenance and improvement of mental and physical health[(5)]. Accordingly, the difference between music as therapy and music therapy is that the latter involves a systematic process wherein a professional music therapist helps the client to achieve health. Using musical experiences and the relationship, that develops between therapist and client is a dynamic force of change[(6)]. Moreover, while music therapy can only be performed by a credentialed professional who has completed an approved music therapy program, music as therapy can be used by nurses and other health care professionals[(7)].

Music was believed to change moods voluntary and involuntary. Voluntary, music modified moods at the cortical level by stimulating the imagination and intellect. Involuntary, music changed moods by stimulating an involuntary automatic response at the thalamic level which transmits emotions and feelings by nerve pathways to the cerebral hemisphere. If

music carries no symbolic or intellectual meaning for the listener, a person can be involuntary affected by music at this level[8]. Moreover, the nature of the music influences mood change. Music with low pitch generally produces a calming effect. Slow tempo and descending melodies often cause feelings of sadness and depression[9].

Music as therapy was identified as an effective therapeutic tool in treating mental illness in both long and short-term facilities. A case study involving a client with schizophrenia used music intervention to reduce unwanted behavior and suppress and combat the symptoms of psychosis[10]. In another study, the effect of music as a reinforcer for hospitalized patient with undifferentiated schizophrenia was examined. The clients demonstrated inappropriate mannerisms such as pacing back, rocking back and forth when seated, and finger flicking. Results revealed that symptoms occur if the music stopped abruptly and improve when music started, according to the ward staff's reports[11]. Another research investigated the effect of music on cognitive task performance of schizophrenics. The results demonstrated that the music condition improved task performance[12]. In a recent study reports of effectiveness of "Sound Training for Attention and Memory" (STAM) in subjects with schizophrenia, result indicated that music as therapy may have a role in cognitive rehabilitation of schizophrenic patients[13].

The effectiveness of music as therapy may have not yet been recognized, as an established branch of alternative medicine for psychiatric disorders in Egypt. There is little awareness, if any, regarding its systematic applications and its possible role as a modality of treatment in the realm of mental health[14]. Thus, study of the attitudes of the patients with psychiatric disorders will shed the light on their willingness to use music as therapy in health care settings which in turn may have great positive impact on the outcome of mental disorders.

In EL-Maamoura hospital for Psychiatric Medicine, it has been observed that music is used only by nursing students as part of their recreational activities. There is no integration of music as part of patients' care plan. Studying patients' attitude towards music as therapy is an important pre-requisition for introducing music as therapy as an adjunct treatment option in psychiatric hospitals.

Aim of the Study

This study aimed to explore patients' perception of and attitudes towards the use of music as therapy in psychiatric hospitals.

Research Questions

1. How do patients perceive the use of music as therapy in psychiatric hospitals?
2. What are the patients' attitudes towards the use of music as therapy in psychiatric hospitals?

Materials and Method

Materials

Design: This study followed a descriptive research design.

Setting: The study was conducted at EL-Maamoura Hospital for Psychiatric Medicine, in Alexandria. The hospital is affiliated to the Ministry of Health and population. It is composed of twenty wards, with a total number of 948 beds. These wards include five paid service wards (three for males and two for females) and five gratis wards (three for males and two for females), two intensive care units (one for males and one for females), two non-paid forensic units (one for males and one for females), two units for substance dependency patients (one paid for males and one non-paid for females), two paid psycho-geriatric wards, one paid ward for adolescents females with psychosis and one non-paid ward for dual diagnosis(drug induced psychosis). The hospital serves three governorates namely Alexandria, EL-Beheira, and Matrouh.

Subjects: Subjects of the study included psychiatric inpatients.The Epi info program was used to estimate the sample size based on using 10% acceptable error, 95% confidence coefficient, 50% expected frequency and population size of 600. The program revealed the minimum sample size to be 125 patients. Thus, it was decided in the present study to recruit a sample of 130 hospitalized adult inpatients with psychiatric disorders. The following inclusion criteria were used for the study subjects:

- Age 18 years or older.
- Duration of illness not less than 2 years.
- Able to communicate in a coherent and relevant manner.
- No other comorbidity or organic diseases.

As the ratio between the male and female hospitalized patients with psychiatric disorders was 2:1, the same ratio was used to determine number of male patients and female patients to be included in the study. Accordingly, a total number of 87 male patients and 43 female patients composed the subjects of the study.

Moreover, as the ratio between the patients with psychiatric disorders within paid wards and non- paid wards was 1:2, for both males and females. It was decided to include 29 male patients from paid wards and 58 from non-paid wards and 14 female patients from paid wards and 29 from non-paid wards. These patients were recruited using simple random sampling technique.

Tools: The data of this study was collected using the following tools:

Tool I: The Attitude towards the Use of Music as Therapy Survey

This survey was developed by McDaniel et al (2015)[15]. It was used for patients to measure the attitude towards the use of music as therapy in psychiatric hospitals.

It is composed of nineteen statements, which measure the participant's attitudes towards the use of music for improving daily functioning, use of music in emotionally supporting a person and use of music in psychiatric care. The following are examples of such statements: "music can be used to improve a person's daily functioning", "music can cure an illness" and "music assists the effects of medications".

This survey is a five point likert scale from strongly disagree (=1), disagree (=2), neutral (=3), agree (=4), to strongly agree (=5) for all items, except for those needing a reverse score. The scoring system ranges from 19-95. Scores ranging between 19-44 denote negative attitudes toward the use of music, scores ranging between 45-69 denote neutral attitudes toward the use of music and scores ranging between 70-95 denote positive attitudes toward the use of music. McDaniel et al. (2015) reported that the survey was valid and reliable with Cronbach's Alpha=0.71. In the present study, the tool was found highly reliable after test-retest r = 0.997 and had acceptable internal consistency Cronbach's Alpha=0.6.

Tool II: Patient's Perception of Music As Therapy Structured Interview Schedule

It was developed by the researcher based on Travis et al (2003) and Grant et al (2013), in order to help patients express freely their perception about music as therapy[16,17].

The first part consists of nine questions; two questions answered by yes or no and seven open ended questions, to measure the patient's usual coping strategies to deal with stress, perception of the effect of the use of music on patient's life, emotions, behaviors and relationships. For example, "how do you cope with stress?", "Why do these things make you feel better? and what do you feel after listening to music?". These questions were analyzed manually Categories will be withdrawn from the participants' responses then codes will be allocated for statistical analysis.

The second part contains two multiple choice questions and one rank order

question, to assess the patient's perception of the areas in which music as therapy can be helpful, and the reasons for which they would not support music as therapy. For example, "If you would not support music as therapy, please indicate why (indicate all that apply: I think the use of music would be a waste of time, I do not think I would benefit from music)". This part was analyzed using number and percent. The tool was found highly reliable after test-retest (r=0.991) and had strong internal consistency (Cronbach's alpha=0.903).

Tool III: A Socio-Demographic and Clinical Data Sheet

It included patient's socio-demographic characteristics such as age, sex, educational level, residence, and patient's clinical data as, duration of illness, age of onset of illness, length of hospital stay, number of previous psychiatric hospitalization, symptoms on admission and medication presently taken.

Method

- This study was approved by the Faculty of Nursing research and ethical committee-Alexandria University, Egypt, and the General Secretariat of Mental Health - Cairo, Egypt.
- Tools II, III were developed by the researcher after reviewing the literature concerning study of attitudes and perception towards music as therapy.
- The socio-demographic and clinical data sheet was developed by the researcher.
- Arabic translation of the study tools was done by the researcher, then the translation was reviewed by two bilingual experts in the field of psychiatric nursing then back translation was made and was reviewed by two bilingual experts.
- The study tools were presented to a jury composed of 15 experts (9 in psychiatric and mental health nursing, 2 in psychiatric medicine, 2 experts from High Institute of Social Work and 2 in psychology) to examine the face and content validity of the tools. The study tools were examined to evaluate the items as well as the entire tool as being relevant and appropriate to measure what it is supposed to measure.
- The experts were asked to evaluate items on the study tools in relation to its relevance and appropriateness. If content validity index (CVI) for the tool percentage of total items score of 80% or better is generally considered to have good content validity. Face validity for the tool was considered relevant if the percentage of the total items scores were 75% or better. Opinions of the experts on the tools of this study were analyzed and this analysis revealed that the tools were valid (table I).
- The reliability of the study tools was performed on 20% of the study subjects in two ways: re-application questionnaire (Test-Re-Test Method) which is applied to the exploratory sample and then re-applied again within period of two weeks. Cronbach's alpha coefficient for the study tools was calculated using Statistical Package for the Social Sciences (SPSS v20).
- Reliability of the translated tool I& II were done on 26 inpatients with psychiatric disorders (meeting the inclusion criteria). It revealed that the tools were highly reliable, and valid **(table 1)**.
- A pilot study was carried out one month before collection of data on 10% of the study subjects which were 13 inpatients with psychiatric disorders who meet the inclusion criteria to test the applicability, clarity and feasibility of the tools and to identify obstacles that may be faced during data collection. Those participants were excluded from the actual study. The pilot study proved that the study tools were clear and feasible.
- **Actual Study:**
    - Approval to conduct this study was obtained from hospital

manager, director of Training Unit and nurse director at EL-Maamoura Hospital for Psychiatric Medicine, in Alexandria.

- The first ward, from which data was collected, was selected randomly using simple random sampling. The purpose of the study was explained and made clear for manager of each randomly selected ward to gain their cooperation.
- The researcher visited inpatient ward 3 days a week. Approval of the wards staff was obtained and a private room to conduct the study was secured. A list of all patients meeting the predetermined inclusion criteria in this ward was provided by the staff of the ward.
- Each patient was then interviewed individually to explain the study aim and to obtain an informed written consent. Each interview lasted from 45-60 minutes according to patient's attention, concentration and level of understanding. Then, another ward was chosen. This process was repeated until the desired subject number was reached.

- The data were collected over a period of four months, starting from December 2016 until March 2017.

Ethical considerations:

- Informed written or witnessed consent to participate in the study was obtained from the patients after explanation of the aim of the study.
- Data confidentiality was assured and respected at all phases.
- The patients' privacy and anonymity were considered and respected through the interview.

Statistical Analysis

- Qualitative Data were coded and categorized, both quantitative and qualitative data were computerized and then analyzed using the statistical package for social science (SPSS) version 20.0.
- Categorical data were described using number and percent. Quantitative data were described using range (minimum and maximum), mean, and standard deviation. Significance of the obtained results was judged at the 5% level.
- Monte Carlo correction was used as correction for chi-square when more than 20% of the cells have expected count less than 5.

Results

Table (2) shows the socio demographic data of the studied patients. In relation to age, the majority of the studied patients (66.9%) were males, their age ranged between 22 and 63 years with a mean age of 36.95±7.27 years. It can be noticed that 57.7%of them were in the age group ranging between (30-39), while 26.1% of them were in the age group ranging between 40 to less than 50 years. Less than half of the studied patients (47.7%) lived in urban areas and 52.3% lived in rural areas.

As regards patient's level of education, 40.0% of the studied patients had secondary education and only 30.8% of them had a university education. In relation to marital status, 46.2% of the studied patients were single, 27.7% of them were married, while 18.5% were divorced. Concerning work status, 46.9% were currently unemployed and 53.1 % of them were employed; among those 18.8 % were employees, 53.6% were workers and 8.7% were house wives.

Table (3) shows the distribution of the studied patients according to their clinical data. The table illustrates that the age of the studied patients at the beginning of illness ranged between 17 to 56 years with a mean of 27.04±7.58 years. About two thirds of the studied patients (69.2%) were in the age

group ranging between 20 and less than 30 years at the beginning of illness. Those who developed their illness in the age group ranging between 30 to less than 40 years amounted to 17.7% of the studied patients. The table also shows that illness duration ranged between two years to twenty five years with a mean age of 8.91± 5.57 years, 34.6% of the studied patients had a duration of illness ranging between 5 to less than 10 years.

In relation to the length of hospital stay for the studied patients the table shows that it ranged from 23 days to 25 months, with a mean of 3.69± 3.96 months. Majority of the studied patients (83.8%) were hospitalized for one month to less than six months. As for the symptoms that the patients had on admission, 86.9% of the studied patients had positive symptoms while 44.6% had excitement as being recorded in their chart. As regards patients' current symptoms as being recorded in their chart, 85.4% of the studied patients had delusions, and 71.5% of them had hallucination.

Concerning the number of hospital admission, the studied patients were hospitalized for several times range from 1 to12 times and a mean of 4.75±3.48 times of hospitalization, 36.2% of the studied patients had been hospitalized for five times or more, 28.5% of the studied patients for three times and 16.9% of the studied patients for four times. The table shows that 93.1% received a mixture of standard and atypical antipsychotic, 58.5% of them were treated with electric shock therapy at some point of time and 9.2% of them received psychotherapy. While 91.5% of the studied subjects received a combination of these therapies.

Table (4) shows the distribution of the studied patients according to their perception of the effect of music. The table illustrates that more than three quarters of the studied patients (76.2%) resorted to the use of music to confront their life stressors. Concerning the feeling after listening to music, more than half of the studied patients (52.3%) felt relaxed or calm after listening to music, while 17.7% reported a change in their feelings after listening to music, and only 0.8% reported that their concentration after listening to music increased.

As for the effect of music, less than half of the studied patients (47.4%) reported that there is an increase in the ability to function properly. On the other hand, only 7.7% of the studied patients reported inactivity and laziness, negative emotions and unacceptable behavior as the effect of music on themselves. As for the effect of music on the studied patient's relationship; 39.2% of the studied patients viewed that there is no effect on relationship, 36.9% of the studied patients viewed that music helped to initiate new relationship, while only 4.6% of the studied patients reported that music caused isolation or distance from others and loss of relationships.

Table (5) illustrates the distribution of the studied patients according to their reasons for not supporting music as therapy. The table reveals that 70.8% of the studied patients perceived that it is possible for them to use music as therapy. Among the studied patients, only 38 patients reported that they do not support music as therapy. The majority of those patients stated that this lack of support is due to their lack of knowledge about music as therapy, lack of confidence in the effect of music in the psychiatric environment and their thinking that music is a waste of time. It can also be observed that 39.5% of the studied patients reported that they don't support music as therapy as it is against their religious believes or they perceive psychiatric disorder as organic diseases which can be only corrected by medications.

Table (6) displays the distribution of the studied patients according to total percent score of the attitudes towards the use of music as therapy. The table shows that 66.2% of the studied patients had positive attitude toward music as therapy while 13.8% of them had negative attitude, while 20% had a neutral attitude.

Table (7) exhibits the distribution of the studied patients according to their usual

coping strategies. The table illustrates that 28.5% of the studied patients, reported listening to music as coping strategy with stress.

The table also demonstrates that 45.9% of the studied patients who reported music as their usual coping strategy, perceived that listening to music induce relaxation. Furthermore 40.5% of the studied patients who reported using music, reported improvement of mood, sense of happiness and reduce boredom as the effect of music use.

As regard the use of religious activity to cope with stress, the majority of the studied patients (95.4%) reported the use of the Holy Quran / Bible to cope with stress. The same percentage of the studied patients (95.4%) reported listening to the Holy Quran / Bible as their preferred religious /spiritual activity. For the perceived effect after listening to the Holy Quran / Bible, 93.8% of the studied patients perceived mental and psychological comfort after listening to the Holy Quran / Bible.

Table (8) shows the relationship between ranking of music as therapy and the socio-demographic characteristics of the studied patients. The table presents that 66.7% of the university educated patients ranked music as therapy as most helpful, while 28.9% of them reported that they do not know music as therapy and only 17.6% of them ranked music as therapy least helpful therapy. There is a statistically significant relationship between the level of education and the ranking of music as therapy as a helpful therapy (x^2=17.180, p=0.031).

Also, there is a statistically significant relationship between type of ward and the ranking of music as therapy as a helpful therapy (x^2=10.840, p=0.032). It can be noticed that the studied patients who are admitted to nonpaid ward constitute 66.7% of those who reported that they do not know music as therapy and the reset 33.3% are from paid ward. Table also presents that there is no statistically significant relationship between the ranking of music as therapy as a helpful therapy and sex, age, residence, social status, current work and type of job.

Table (9) shows the relationship between the studied patients' level of education and the perception of the domains in which music as therapy can be helpful. The table reveals that there is no statistically significant relationship between the level of education of the studied patients and their perception of the domains in which music as therapy can be helpful. It can be noted 78.9% of the studied patients who are illiterate or just read and write / primary / preparatory educated reported that music increases relaxation and 82.7% of the studied patients who had a secondary education, reported that music decreases in boredom and 85% of those who had a university education reported that music increases relaxation and decreases in boredom and decreases in manic- depressive symptoms.

Discussion

Music has soothed the souls of human beings for ages. It has helped people recover from ailments. Today, there is a widespread interest in the use of music as therapy in treating psychiatric disorders[18]. Scientific literature empirically documented that music as therapy provides for patients with mental health problems with new ways of expressing themselves, stimulating their creativity skills and enhancing their self-esteem[19]. Music proved to be effective in reducing anxiety, promoting relaxation and group cohesiveness[20]. Music also modifies mood and it interfaces with the human energy field which has the potential to promote physical and psychological healing[21].

The present study results related to patients' perception of and attitude toward music as therapy are promising for the positively future use of music to help psychiatric patients. These results show that patients' perception of and attitudes towards music as therapy were mostly in favour of such therapy. These findings are congruent

with the results of Choi (1997), De Keyser, Cohen, & Wagner (2001), Travis (2003) and Perez-Cruz (2012) who revealed a positive perceptions of and attitude towards music as therapy[17,22,23,24].

The patient's positive perception can be illustrated by the presentation of other results in the same current study such as the highly reported positive feelings after listening to music including relaxation/ calmness, happiness and satisfaction. Patient also reported that listening to music resulted in reduction in boredom and presence of general feeling of wellbeing. In this respect, Hanser (2009) indicated that the role of music in medicine ranges from alleviation of stress and unpleasant symptoms to being more relaxed and happier[25]. He also reported that in his study, patients stated that music is beneficial in increasing relaxation and decreasing boredom. In that study, music is a mean of positive stress management, of decreasing psychotic symptoms and decreasing medications' side effects[25]. Along the same line Travis (2003) in his study of the areas in which music as therapy can be helpful; found that relaxation is reported very often, as well as stress reduction, but decreasing medication side effects was ranked low[17].

In spite of the fact that most of the patients in this study reported possibility of use of music as therapy, some did not support it, because of lack of knowledge, lack of confidence in the effect of music as therapy, considering music a waste of time or being too expensive. This may be due to low educational level and economic status of the studied patients considering music as therapy a luxury. In support of this finding Stylinou (2010) found that having knowledge and/or attending sessions about music as therapy increase the awareness and improve attitudes towards music as therapy[26].

Moreover, in the present research, studied patients who didn't support the use of music as therapy mentioned that listening to music may be against religious belief. This may come from strictness in their religious perspective and from their cultural background. Another given reason is that psychiatric disorders are organic diseases which can only be corrected by medications. An interpretation of such findings could be that the effect of stigma related to mental illness and patients with psychiatric disorders, lead patients to try to prove that mental illness is an organic disorder like any other physical disease and should be treated by medications. In addition, the lack of awareness about the multidimensional nature of psychiatric diseases may explain such results.

These findings were in disagreement with Perez-Cruz (2012), who found that most of his studied patients preferred music among the different methods of treatment[27]. Also, Travis (2003) reported that the subjects enjoy music as therapy and rated it most helpful. This variation may be due to cultural differences, the views of society about music as therapy, and previous participation in music as therapy sessions[17].

The patients' obtained positive attitudes in the present research can be explained by the selected responses of the studied patients which highlight that music as therapy improves a person's daily functioning, supports person's emotion, enhances the person abilities to cope with illness, helps patients to live happy, and it can help persons feel better. In this essence Gold (2005), in his review of the effect of music as therapy, found that music as therapy in addition to standard care helps people with schizophrenia to improve their global state and may also improve mental state and functioning if a sufficient number of music as therapy sessions is provided[28].

The obtained positive perception and attitude of the studied patients are supported by results presented in the present study related to patients' usual coping strategies. In fact, music was considered one of the ways of coping with stress by studied subjects. Studied subjects reported listening to music as a strategy for coping with stress.

These findings are in agreement with Silverman (2006) as he studied music as therapy and different coping strategies of psychiatric patients and found that patients enjoyed the different coping strategies as well as music as therapy[29]. Moreover, Perez-Cruz (2012), found that his studied patients use different methods to cope but most of them prefer music[27].

To sum up perceived effect of listening to music in this study found that music improves mood, added a sense of happiness and reduced boredom. It also helped in reducing anxiety/stress, providing comfort, reassuring patients and providing a sense of safety and security. These positive effects may be a consequence of the remarkable relation between brain, mind and music. Obviously, music has got a strong impact on human psychology. In this line Nizamie and Tikka (2014) stressed that amygdala; cingulate gyrus and medial orbitofrontal cortex of the brain are involved in processing of emotional behaviors. Hence, as these structures are found to have auditory projections, these are proposed to be involved in emotional processing of music. There is evidence also to suggest that music activates these regions[30]. This result is similar to Heaney (2013) who studied the evaluation of music as therapy and other treatment modalities by adult psychiatric inpatients who reported that music reduces stress, anxiety, reduces boredom, and induces happiness and reassurance[31].

Moreover, in the present study, combating stress, through use of spiritual activity was preferred as coping method by many patients. They mostly reported that they listen to the recitation of Quran/Bible. The words of Quran/Bible and the lyre and musicality that its composition contains all have a soothing effect on people listening to the Quran. This often keeps the stress low and in the times of stress help reduce it. These findings were in agreement with Mohammadizade (2007), who found that his studied subjects use different religious methods for stress management, particularly listening to the Holy Quran[32]. These results are also consistent with Eyongakpa (2014) who suggested using chanting of the hymns and recitation of Bible in coping with stress and relieving depression among his studied Christians in Finland[33].

In the present study, these effects are confirmed as most of the studied patients reported feeling mental and psychological comfort after listening to the holy Quran/Bible. In agreement with this finding; Mohammadizade (2007) and Thomas (2003), stated that their studied subjects reported that they are listening to the holy Quran/Bible as a way to relieve anxiety, promote relaxation, reduce tension and give sense of comfort and peace of mind[32,34]. On the Contrary, few of studied patients reported feeling anxious and tense after listening to the holy Quran/Bible. These patients specifically reported that they have evil spirit which do not allow them to listen actively to religious content and meaning to the recited holly book. This means that delusional beliefs may interfere with patient's willingness to listen to the holy Quran/Bible as a way of coping with stress.This way of coping is particularly interesting as there is evidence in the literature that supports that the recitation of the holy Quran or Bible and the chanting of the hymns can be a form of mystical music that can stimulate physiological and psychological responses and has an effect on mental processes that is somehow similar to the use of music[35]. The periodicity of the power of the oscillatory brain dynamics of both delta and in theta that occur during Quran listening was investigated. Researchers documented that it has a plausible scientific basis for the emotion induction during Quran / bible listening resemble the data from music listening studies[36]. Accordingly, it can be concluded that the patients' positive experience through use of music or listening to the Holy Quran and the Bible to deal with stress is one of the most important factors resulting in that led to the patients' positive perception and attitude towards the use of music as therapy.

Conclusion

Based on the results of the present study, the following conclusions can be drawn. Patients have a positive attitude toward music as therapy. They appreciate the effect of music on themselves and other, in reducing stress, improving mood and controlling psychiatric symptoms. In spite of their low knowledge about music as therapy patients are in favor of such form of treatment.

Recommendations

In the light of the findings of the current study the following recommendations can be made:

I. Recommendations for the patients with psychiatric disorders:

- Assessment of patient's causes of not supporting the use of music as therapy, trying to clarify any misconception and promoting the way of benefit from the use of music therapeutically, in order to consider appropriate nursing care and intervention.
- Implementation of psycho-educational programs for patients to develop patients' awareness about music as therapy.
- Integrating music as therapy into the plan of patient care to assure that the patient has a chance to try this type of therapy.

II. Recommendations for future research:

- More future researches are needed to clarify the effect of music as therapy educational programs for health care providers and their efficacy to implement music as therapy.
- Further researches are needed to investigate the effect of music as therapy on the outcomes of psychiatric patients.

Table (1): Validity and reliability values of study tools

Tool	Values			
	Type of Validity		Reliability	
	Face	Content	test-retest (r)	internal consistency (Cronbach's alpha [CA]) (α)
Tool I: The Attitude towards the use of Music as Therapy survey.	93.28%	93.41%	0.997	0.634
Tool III: Patient's Perception of Music As Therapy structured interview schedule.	95.0 %	95.0%	0.991	0.903

Table (2): Socio-demographic characteristics of studied patients (n=130)

Socio-demographic characteristics of studied patients	No.	%
Gender		
Male	87	66.9
Female	43	33.1
Age (in years)		
22 –	21	16.2
30 –	75	57.7
40 – ≥50	34	26.1
Min. – Max.	22.0 – 63.0	
Mean ± SD.	36.95 ± 7.27	
Residence		
Rural	68	52.3
Urban	62	47.7
Level of education		
Illiterate /read & write/ Primary / Preparatory	38	29.2
Secondary	52	40.0
University	40	30.8
Social status		
Single	60	46.2
Married	36	27.7
Divorced	24	18.5
Widow	10	7.7
Work status		
Unemployed	61	46.9
Employed	69	53.1
Type of job (n=69)		
Employee	13	18.8
Worker	37	53.6
House wife	6	8.7
Other	13	18.8

Table (3): Clinical characteristics of the studied patients (n=130)

Clinical characteristics of the studied patients	No.	%
Age at the beginning of illness (in years)		
<20	9	6.9
20 –	90	69.2
30 –	23	17.7
40 –	6	4.6
≥50	2	1.5
Min. – Max.	17.0 – 56.0	
Mean ± SD.	27.04 ± 7.58	
Duration of illness (in years)		
2 – 5	33	25.4
5 –	45	34.6
10 –	28	21.5
≥15	24	18.5
Min. – Max.	2.0 – 25.0	
Mean ± SD.	8.91 ± 5.57	
Length of hospital stay		
< 1 month	7	5.4
1 –	109	83.8
≥6 months	14	10.8
Min. – Max.	23 days – 25.0 months	
Mean ± SD.	3.69 ± 3.96	
Symptoms on admission≈		
Positive symptoms	113	86.9
Excitement	58	44.6
Lack of sleep	13	10.0
Impulsiveness	12	9.2
Current symptoms≈		
Delusions	111	85.4
Hallucinations	93	71.5
Excitement	3	2.3
Number of previous hospitalization		
1	2	1.5
2	22	16.9
3	37	28.5
4	22	16.9
≥5	47	36.2
Min. – Max.	1.0 – 12.0	
Mean ± SD.	4.75 ± 3.48	
A. Pharmacotherapy (Medications)≈		
Standard antipsychotics	6	4.6
Atypical antipsychotic	3	2.3
Mixture	121	93.1
B. Electric shock therapy at some point of time	76	58.5
C. Psychotherapy	12	9.2
D. Rehabilitation therapy (activity therapy)	17	13.1
E. Combination therapy	119	91.5

(≈) more than one response

Table (4): Distribution of the studied patients according to their perception of effect of music as therapy (n=130)

Items	No.	%
Resorting to the use of music to confront life stressors	99	76.2
Feeling after listening to music≈		
Relaxation/ Calm	68	52.3
Happiness and satisfaction	46	35.4
Reduce boredom	27	20.8
Change in feeling	23	17.7
Psychological comfort	21	16.2
Negative feeling (tension, anxiety, increase guilt feeling and decrease relaxation)	26	20.0
Nothing	10	7.7
Increase concentration	1	0.8
The changes on the person after listening to music≈		
Increase ability to function properly	62	47.7
Modify behavior	54	41.5
Allow positive expression of feelings	53	40.8
No effect	45	34.6
Able to control himself	37	28.5
Inactivity and laziness / negative emotions / unacceptable behavior	10	7.7
The effect of music on relationship ≈		
No effect	51	39.2
Helps initiating new relationship	48	36.9
Helps Maintaining relationship	38	29.2
Help in starting a conversation	32	24.6
Isolation /distance / loss of relationship	6	4.6

(≈) more than one response

Table (5): Distribution of the studied patients according to their reasons for not supporting music as therapy (n=130)

Perception of possibility to use music as a therapy	Yes	%	No	%
	92	70.8	38	29.2
Reason for not supporting music as therapy≈ (n=38)	No.		%	
Lack of knowledge about music as therapy	34		89.5	
Lack of confidence in the effect of music in the psychiatric environment	31		81.6	
Music is a waste of time	31		81.6	
Music is too expensive	28		73.7	
Music is of no benefit for oneself	26		68.4	
Other: Against religious belief/psychiatric disorder is organic disease which can be only corrected by medications	15		39.5	

(≈) more than one response

Table (6): Distribution of the studied patients according to total, percent score of the attitudes towards the use of music as therapy (n=130)

Patients' attitudes towards the use of music as therapy	No.	%
Negative (19 – 44)	18	13.8
Neutral (45 – 69)	26	20.0
Positive (70 – 95)	86	66.2
Total score Min. – Max. Mean ± SD.	19.0 – 95.0 69.65 ± 17.66	
Percent score Min. – Max. Mean ± SD.	0.0 – 100.0 66.65 ± 23.24	

Table (7): Distribution of the studied patients according to their usual coping strategies (n=130)

Patients' usual coping strategies	No.	%
Strategies of coping with stress ≈		
Outing/ exercise	76	58.5
Reading books / watching a comedy film / writing dairy.	55	42.3
Listening to the Holy Quran / Bible	50	38.5
Listening to music	37	28.5
Praying	29	22.3
A phone call to a dear friend	26	20.0
Warm bath / sleep	25	19.2
Home work (cooking / cleaning / housekeeping / Breeding of a pet	22	16.9
Other	24	18.5
Perceived effect of listening to music as coping strategy≈(n=37)		
Relaxation	17	45.9
Reduce anxiety / stress	14	37.8
Comfort, reassurance and security	10	27.0
Improve mood / sense of happiness / reduce boredom	15	40.5
Reduce preoccupation with the problem	9	24.3
Use of the Holy Quran / Bible to cope with stress	124	95.4
Preferred religious /spiritual activity		
Listening to the Holy Quran / Bible	124	95.4
Reading the Holy Quran / Bible	3	2.3
Not using anything	3	2.3
Perceived effect after listening to the Holy Quran / Bible ≈		
Mental and psychological comfort	122	93.8
Relaxation	14	10.8
Anxiety, Tension	3	2.3
Nothing	2	1.5

(≈) more than one response

Table (8): Relationship between ranking of Music as Therapy and socio-demographic characteristics of the studied patients (n =130)

Socio-demographic characteristics	Ranking of Music as Therapy												Test of significance	^{MC}p
	Don't know (n=90)		Most 1 (n=3)		2 (n=5)		3 (n=9)		4 (n=6)		Least 5 (n=17)			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Gender														
Male	57	63.3	3	100.0	3	60.0	7	77.8	3	50.0	14	82.4	χ^2=5.199	0.423
Female	33	36.7	0	0.0	2	40.0	2	22.2	3	50.0	3	17.6		
Age (in years)														
20 – 29	10	11.1	0	0.0	1	20.0	2	22.2	3	50.0	5	29.4		
30 – 39	57	63.3	2	66.7	1	20.0	5	55.6	2	33.3	8	47.1	χ^2=12.836	0.139
40 – ≥50	23	25.6	1	33.3	3	60.0	2	22.2	1	16.7	4	23.5		
Residence														
Rural	51	56.7	3	100.0	1	20.0	4	44.4	2	33.3	7	41.2	χ^2=6.930	0.207
Urban	39	43.3	0	0.0	4	80.0	5	55.6	4	66.7	10	58.8		
Level of education														
Illiterate /read & write/ Primary / Preparatory	29	32.2	0	0.0	1	20.0	1	11.1	0	0.0	7	41.2	χ^2=17.180*	0.031
Secondary	35	38.9	1	33.3	0	0.0	7	77.8	2	33.3	7	41.2		
University	26	28.9	2	66.7	4	80.0	1	11.1	4	66.7	3	17.6		
Social status														
Single	39	43.3	1	33.3	2	40.0	5	55.6	4	66.7	9	52.9		
Married	28	31.1	1	33.3	3	60.0	1	11.1	0	0.0	3	17.6	χ^2=10.714	0.728
Divorced	17	18.9	1	33.3	0	0.0	2	22.2	1	16.7	3	17.6		
Widow	6	6.7	0	0.0	0	0.0	1	11.1	1	16.7	2	11.8		
Work status														
Unemployed	42	46.7	2	66.7	1	20.0	4	44.4	4	66.7	8	47.1	χ^2=2.889	0.762
Employed	48	53.3	1	33.3	4	80.0	5	55.6	2	33.3	9	52.9		
Type of job (n=69)	**(n=48)**		**(n=1)**		**(n=4)**		**(n=5)**		**(n=2)**		**(n=9)**			
Employee	9	18.8	0	0.0	1	25.0	2	40.0	0	0.0	1	11.1		
Worker	24	50.0	0	0.0	1	25.0	3	60.0	2	100.0	7	77.8	χ^2=13.906	0.446
House wife	4	8.3	0	0.0	1	25.0	0	0.0	0	0.0	1	11.1		
Other	11	22.9	1	100.0	1	25.0	0	0.0	0	0.0	0	0.0		
Type of Ward														
Paid	30	33.3	0	0.0	4	80.0	5	55.6	0	0.0	4	23.5	χ^2=10.840*	0.032
Nonpaid	60	66.7	3	100.0	1	20.0	4	44.4	6	100.0	13	76.5		

*χ^2, p: χ^2 and p values for **Chi square test***
*^{MC}p: p value for **Monte Carlo** for Chi square test*
**: Statistically significant at $p \leq 0.05$*
(≈): more than one response

Table (9): Relationship between the studied patients' level of education and the perception of the domains in which music as therapy can be helpful (n=130)

Perception of the domains in which music as therapy can be helpful≈	Level of education						Test of significance	P
	Illiterate/ read &write/ primary/ preparatory (n=38)		Secondary (n=52)		University (n=40)			
	No.	%	No.	%	No.	%		
Increase relaxation	30	78.9	41	78.8	34	85.0	χ^2=0.666	0.717
Decrease in boredom	27	71.1	43	82.7	34	85.0	χ^2=2.762	0.251
Positive stress management	28	73.7	39	75.0	33	82.5	χ^2=1.034	0.596
Decrease in manic - depressive symptoms	27	71.1	39	75.0	34	85.0	χ^2=2.316	0.314
Improve self- esteem	26	68.4	41	78.8	33	82.5	χ^2=2.357	0.308
Improve social skills	26	68.4	40	76.9	33	82.5	χ^2=2.155	0.340
Distract from auditory and visual hallucinations	28	73.7	38	73.1	28	70.0	χ^2=0.158	0.924
Increase concentration	24	63.2	36	69.2	31	77.5	χ^2=1.933	0.380
Decrease medication side effects	17	44.7	31	59.6	25	62.5	χ^2=2.919	0.232
Improve spirituality /positive energy	2	5.3	4	7.7	1	2.5	χ^2=1.128	^{MC}p=0.565

*χ^2, p: χ^2 and p values for **Chi square test***
***:** Statistically significant at $p \leq 0.05$*
*^{MC}p: p value for **Monte Carlo** for Chi square test*
(≈): more than one response

References

1. Kemper K, Danhauer S. Music as therapy. Southern Medical Journal 2005; 98(3):282-8 ·
2. Kaempf G, Amodie M, The effect of music on anxiety. Association of Operating Room Nurses Journal 2009; 50 (1): 112-8.
3. Rush M. Rock Music and the middle class: dreaming in Middletown. Indiana University 2009; 108–9.
4. Dolan M. Music therapy: an explanation. Journal of Music Therapy 2016; 10(4): 172-6.
5. Bruscia K. "defining music therapy" 1998. in Biley FC. Music as therapy. The Nurse's Handbook of Complementary Therapies.2nd ed.UK: Harcourt Publishers, 2001;223-7.
6. McCraty R, Barrios-Choplin B, Atkinson M. The effects of different types of music on mood, tension, and mental clarity. Alternative Therapies in Health and Medicine 1998; 4 (1):75– 84.
7. Gold Ch, Heldal T, Dahle T, Wigram T. Music Therapy for Schizophrenia or Schizophrenia-Like Illnesses 2005. Available at:http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004025.pub2/full. Retrieved on: 10/07/16.
8. Shatin L. Alterations of Mood via Music: a study of the vectoring effect.The Journal of Psychology 1970; 75(1):81-6.
9. Hendricks C, Robinson B, Bradley L, Davis K. Using music techniques to treat adolescent depression. Journal of Humanistic Counseling, Education and Development 1999; 38: 39-46.
10. BosoSilverman M. Contingency songwriting to reduce combativeness and non-cooperation in a client with schizophrenia: a case study. The Arts in Psychotherapy 2012; 30(1): 25-33.
11. Hauck L, Martin P. Music as a reinforcer in patient-controlled duration of timeout. Journal of Music Therapy 2002; 7 (2): 43-53.
12. Glicksohn J, Cohen Y. Can music alleviate cognitive dysfunction in schizophrenia?. Journal of Psychopathology 2000; 33: 43-7.
13. Ceccato E, Caneva P, Lamonaca D. Music therapy and cognitive rehabilitation in schizophrenic patients: a controlled study. Nordic Journal of Music Therapy 2006; 15 (2):111–20.
14. El-Saeed A. Music Therapy in Egypt. Voices Resources. Voices: A World Forum for Music Therapy 2015. Available at: http://testvoices.uib.no/community/?q=country-of-the-month/2005-music-therapy-egypt. Retrieved on 21/8/2017.
15. McDaniel M. "Attitudes Toward and Willingness to Use Music as Therapy in Southern Mississippi ". Published Honors Theses. The University of Southern Mississippi, 2015; 300. Available at: http://aquila.usm.edu/honors_theses/300/. Retrieved on 06/20/16.
16. Grant E. Medical music therapy: medical and nursing student perception and barriers to program implementation. Published Master Thesis. Florida State University, 2013. Available at: http://gradworks.umi.com/15/52/1552812.html . Retrieved on: 06/20/16.
17. Travis K. Psychiatric inpatient and outpatient evaluation of music therapy and related treatments. Published Master Thesis. Florida State University, 2003. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.456.8870&rep=rep1&type=pdf. Retrieved on 20/6/2016.
18. De Sousa A. The role of music as therapy in psychiatry. Alternative Therapy Journal 2005; 11(5): 1-3.
19. Duncan A, Liechty J, Miller C, Chinoy G, Ricciardi R. Employee use and perceived benefit of a complementary and alternative medicine wellness clinic at a major military hospital: evaluation of a pilot program. The Journal of Alternative and Complementary Medicine 2011; 17(9): 809-15.
20. Gold C. Music therapy improves symptoms in adults hospitalized with schizophrenia. Evidence-Based Mental Health 2007; 10(3): 77.

21. Rogers ME. An introduction to the theoretical basis of nursing. Philadelphia: F.A. Davis, 1970. 2026-7.

22. Perez-Cruz P, Nguyen L, Rhondali W, Hui D, Palmer J. Richardson M. Attitudes and perceptions of patients, caregivers, and health care providers toward background music in patient care areas: an exploratory study. Journal of Palliative Medicine 2012; 15(10): 1130–6.

23. Choi B. Professional and patient attitudes about the relevance of music therapy as a treatment modality in NAMT approved psychiatric hospitals. Journal of Music Therapy 1997; 34(1): 277-92.

24. DeKeyser F, Cohen B, Wagner N. Knowledge levels and attitudes of staff nurses in Israel towards complementary and alternative medicine. Journal of Advanced Nursing 2001; 36(1): 41-8.

25. Hanser S. From ancient to integrative medicine: models for music therapy. Music and Medicine 2009;1(2): 87-96.

26. Stylinou P. Attitudes and perception of health professionals towards music therapy services: particular reference to patients suffering from schizophrenia. Published Master Thesis. Anglia Ruskin University, 2010; 104. Available at: https://www.google.com.eg/Attitudes_and_Perceptiobn_of_Health_Professionals_towards_Music_Therapy_Services_Particular_reference_to_patients_suffering_from_Schizophrenia&usg=AFQjCNGjbB8AMxWMlBr4Ca_JTe35hzDi3w. Retrieved on: 30/5/2016.

27. Perez-Cruz P , Nguyen L, Rhondali W, Hui D, Palmer J. Richardson M, . Attitudes and perceptions of patients, caregivers, and health care providers toward background music in patient care areas: an exploratory study. Journal of Palliative Medicine 2012; 15(10): 1130–6.

28. Gold Ch, Heldal T, Dahle T, Wigram T. Music Therapy for Schizophrenia or Schizophrenia-Like Illnesses 2005. Available at: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004025.pub2/full. Retrieved on: 10/07/16.

29. Silverman M. Psychiatric patients' perception of music as therapy and other psychoeducational programming. American Music Therapy Association. Journal of Music Therapy 2006; 43(2):111-22.

30. Nizamie Sh, Tikka Sai. Psychiatry and music. Indian Journal of Psychiatry 2014; 56(2): 128–40.

31. Heaney Ch. Evaluation of music therapy and other treatment modalities by adult psychiatric inpatients. The National Association of Music Therapy. Journal of Music Therapy 2013; 29(2):70-89.

32. Mohammadizade A. Effect of religious approach to reducing natural disaster psychological problems experienced by reviewing the earthquake. Third International Conference on Comprehensive Disaster Management in Disaster 3rd Congress 2007.

33. Eyongakpa M. Christian's Perception in Coping with Stress Related Depression. A case Study of Vantaa International Christian Fellowship (VICF), Finland 2014. Available at: https://www.theseus.fi/handle/10024/73589. Retrieved on: 22/7/2017.

34. Thomas L. Talking to god what the bible teaches about prayer. A Biblical Theology of Prayer 2003; 15-29.Available at: http://www.soniclight.com/constable/prayer/prayer.pdf. Retrieved on: 07/22/17.

35. Mahjoob M. The effect of holy Quran voice on mental health. Journal of Religion and Health –Springer 2016; 55:38–42.

36. Reza F. Is brain rhythm and Quran rhythm harmonic? Department of Neurosciences, School of Medical Sciences, University Sains Malaysia, KubangKerian, Kota Bharu, Malaysia. Available at: http://docplayer.net/36972791-Is-brain-rhythm-and-quran-rhythm-harmonic.html. Retrieved on: 22/7/2017.