

## **Impact of Music Therapy on Mental Patients: Review based on Implementation of Music Therapy in the Islamic Civilization**

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### **Abstract**

*Objectives: Objectives of this study are to analyse impact of music therapy on mental patients; to analyse the diversity of music therapy treatment methods; and to categorize music therapy as a complementary treatment. Methods: This qualitative research is descriptive and more of an elaboration on the meaning of matters researched. It does not prioritize numerical data, is less structured, more open and focused on process. We chose a content analysis and historical study approach. Results: This study shows that music therapy was applied with the aid of an audio system which processed the sounds waves and sent information to the brain to be interpreted as sounds. Conclusions: This study concludes that music therapy cannot fully heal a patient but can alleviate symptoms or give relief to the patient. Therefore, it is more of a complementary therapy rather than the main.*

**Keywords:** Music Therapy, Mental Disorder, Islamic Civilization, Muslim Philosopher, al-Mansuri Hospital

### **Introduction**

Music was used as a therapy in various ancient civilizations including Egyptian, Greek, Roman and Chinese civilizations before it flourished in the Islamic civilization. Its development in the Islamic civilization was based on the science of epistemology brought by al-Kindi, Ikhwan al-Safa, al-Farabi and Ibn Sina. They carried out extensive research in the field of music therapy to form its epistemology based on scope, methods, structure and also sources. The impact from discussing epistemology of music therapy, indirectly reveals the reality of music philosophy behind the melodious and entertaining sounds, that is, enhancement of moral, ethical values and spirituality. A solid and steady basis for epistemology of music therapy enables verification of the status of music therapy in medical treatment of the Islamic civilization era.

Al-Kindi, for example, viewed music as a mechanism to foster good moral values such as peace of mind, generosity, honourable character, love and affection, empathy, courage, patriotism, decency, politeness, strength of identity, tolerance and so on (Yusof Z. 1962; al-Hulwi 1974; al-Kholy 1984; Shiloah 1993; Shiloah 1995; Farmer 1997; Ibn Hindu, 2010). In other words, the philosophy of music from al-Kindi's perspective is for the purpose of ensuring human well-being and life happiness in the physical, mental, emotional and spiritual aspects.

Ikhwan al-Safa (1887) and Shehadi (1995) viewed music therapy as a mechanism to educate the soul, cultivate honourable character and good moral values and as a therapeutic agent. This means that music is believed to give physical strength to fatigued individuals, raise the courageous spirit in the battlefield, help in reconciliation for disputes, and trigger feelings of happiness, sadness and drowsiness.

Music even plays an important role in the routine life of Muslims such as recitation of the holy Quranic verses, the strains of *do'a* (supplication), *zikir* (remembrance) and *munajat* (confidential talk) to Allah s.w.t. All of the beautiful strains of tones and melodies is for the purpose of softening the hard-hearted, arouse feelings of humility while being immersed in submitting and obeying all of Allah's commands and leaving all His prohibitions. Besides that, musical strains also arouse feelings of remorse over past sins leading to the urge to repent and go back to the right path. As a therapeutic agent, music was applied in hospitals as a form of treatment to alleviate the pains of patients and calm their emotions. In addition, music is a medium of educating children and a communication tool among people and also animal species.

In the view of al-Farabi (n.d), music is a natural necessity for all live creatures or even animals. For example, individuals fatigued from daily work certainly needed an element of entertainment that music can provide to give relief and stimulate their spirit to carry on working more diligently. Likewise, animals such as camels needed the strains of *al-huda* songs to expedite their long journeys, indifferent to the loads on their backs. And patients very much needed music as a therapeutic medium to give some relief from pain through the strains of a variety of different musical melody types.

Ibn Sina (1956) believed that harmonious melody composition not only soothed the ears of anyone who heard it, but also influenced human psychophysiology toward a better and more positive direction such as removing sad feelings, calming a person and alleviating pain. In that respect, every tone played has its own philosophy and should be given attention so that each therapeutic treatment session gives optimal effect. For example, a low tone is very relevant to producing feelings of calmness, peace, sympathy and empathy, while a high and fast tone is very suitable in stimulating the spirit of patriotism, bravery and aggressiveness.

Thus, we collectively conclude that the profound and systematic thoughts of Muslim philosophers on the epistemology of music therapy had opened a new chapter in the history of medicine in the medieval centuries of Islam, that is, the application of music therapy as a treatment method in hospital. In addition, study of epistemology reveals that the concept of music therapy is not limited to the strains of the sound of musical instruments but includes the sound of water whirling or flowing, which also produces captivating musical strains of nature. Likewise, the melodious reading of al-Quran, strains of *zikir* and chanting of *adhan* are also included within the meaning of music. All sounds certainly can influence the emotion and soul of the listener to produce a therapeutic element which is very encouraging, that is, to relieve pain, calm the emotions, delight the heart and soothe the spirit (al-Ghazali 2011; Ibn Khaldun 2004; Ibn 'Abd Rabbih 1983; al-Hajwiri n.d). The epistemology of music therapy reveals the reality behind music therapy, that is, to create harmony and well-being in the life of the individual or society based on moral and ethical principles.

Due to its significant influence on humans, music was made a therapeutic tool for mental diseases (Schimmel 1975) in the early stage. Later, it was also used to treat physical ailments, particularly to alleviate symptoms. The hospitals which applied music therapy include Fez Hospital in Morocco (Gorini 2007), al-Mansuri Hospital in Cairo, Egypt (Mamluk era) (Sabry & Vohra 2013; Gilad & Arnon 2010), al-Arguni in Aleppo Syria (Gorini 2002), Nur al-Din in Damascus (Seljuq era) (Erdal & Erbas 2013; Sengul 2015; Gorini 2007), Kayseri Gevher Nesibeh (Anatolia Seljuq era) (Erdal & Erbas 2013), Divrigi Ulu (Benek et al. 2015), Amasya (Erdal & Erbas 2013), Fatih (Erdal & Erbas 2013), Edime Sultan Bayezid II (Erdal & Erbas 2013; Sengul 2015), and Suleymaniye Sifahanesi (Erdal & Erbas 2013).

### **Methods**

This research was approved by the Fundamental Research Grant Scheme (FRGS) under the Ministry of Education of Malaysia FRGS/1/2016/SSI05/UKM/02/1 and registered at <https://apps.mu.ukm.my/smpu/index.php>. This study is designed as a qualitative study, aiming to analyse how music impacted mental patients. This qualitative research is descriptive and more of an elaboration on the meaning of matters researched. It does not prioritize numerical data, is less structured, more open and focused on process. We chose a content analysis and historical study approach.

Content analysis is a widely used qualitative research technique. Current applications of content analysis show three distinct approaches, which are conventional, directed and summative. This research only uses a single method. This method determines the presence of certain words, themes, or concepts contained in some given qualitative data and then inferences are made about the messages within the texts, the writer, the audience, and even the culture and time

surrounding the text and meaning is interpreted from the content of text data. This is the method used to obtain information relating to the application of music therapy at the hospital stated in this research.

The historical study method is chosen to explain past events. Data was systematically collected and objectively assessed toward past events.

So the researcher's task in this approach is to assess and weigh all arguments and evidences on a matter in a certain event before making a strong conclusion. The historical study model submitted by Piaw (2006) outlines four matters which need to be considered in determining information accuracy.

The four matters are knowledge, time interval between the time when the notes were taken and the happening of the event, the writer's motive and consistency of data. Thus, the resulting data has gone through a logical and rational analysis process in order to objectively reach a decision.

## **Results**

### **1. Diversity of music therapy treatment methods**

By taking the al-Mansuri hospital as an example, we find that music therapy was applied through various methods including the use of instruments such as the *oud* and also sounds of nature such as whirling water and human voices such as chanting of *adhan*, recitation of Quranic verses and singing. The results of content analysis conducted on various scientific sources in the 19<sup>th</sup>, 20<sup>th</sup> and 21<sup>st</sup> centuries find that there exists clear proofs in terms of music therapy application at al-Mansuri hospital. It was applied using sounds from playing instruments such as *oud* and sounds of nature. Information from D'Avrens (1877) shows that music therapy application at this hospital used instruments, sounds of nature and human voices. His study revealed that a group of musicians was paid to daily entertain patients (at once distracting their attention from the pain they were suffering from) including those who were undergoing convalescence sessions through singing and listening to musical strains. This information was also mentioned by Isa Bek (1981) and Daher (2015). The sound of nature used was of water flowing through channels provided at every *iwan* (summer patient rooms). The sounds of human voices were the chanting of *adhan* (call to prayer) two hours before *subh* (dawn) prayers to relieve insomniac patients. Lane (1896) revealed that using sound of water from small tanks placed in the space surrounding small rooms was for mental patients. Most probably, it was a fountain pool which produced sounds that calmed the patients. Lane also mentioned that hospital staff comprised of musicians. They were given the responsibility to soothe and entertain patients through singing and strains of instrumental music.

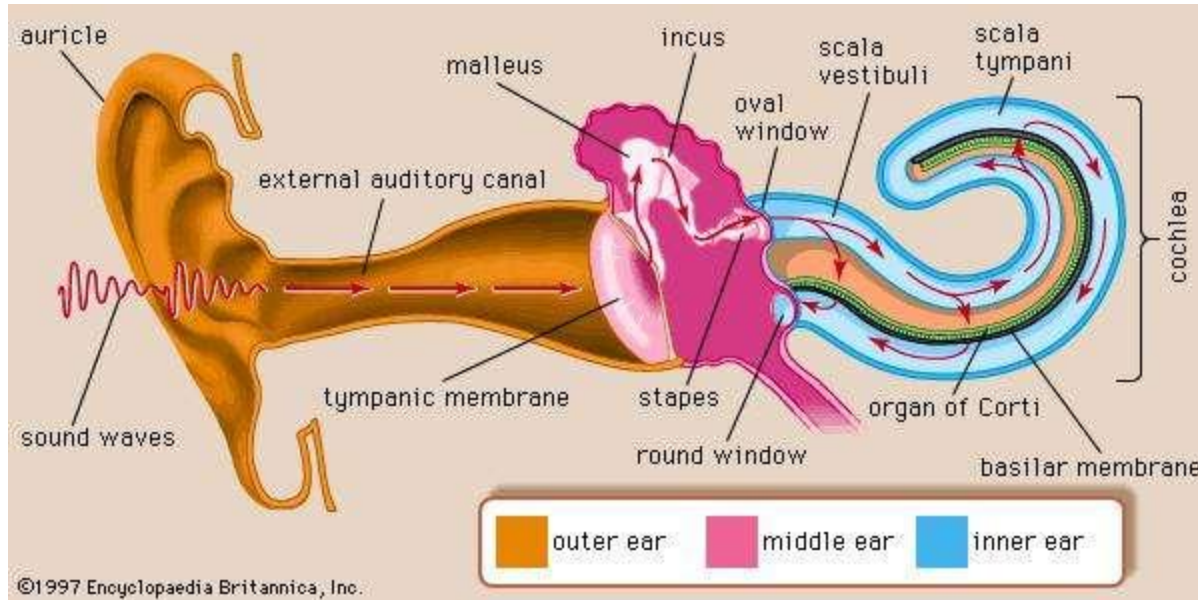
20<sup>th</sup> Century sources such as Poole (1901) revealed that music therapy application used the services of 50 salaried *qari* to recite Quranic verses to achieve spiritual peace in order to calm individuals who had difficulties sleeping. Jomard (1992) highlighted information that this hospital treated insomniac patients with music therapy. However, it was not exclusively used in insomnia. Review of earlier research such as by Sandwith (1889) and Isa Bek (1981) showed that music therapy was used together with the method of story-telling by a professional story-teller. The same information was mentioned by Dols (1992) and Basha (2007). Hunke (1993) proved the application of music therapy at this hospital. Information provided was more focused on the location where music was played, that is, a special hall where patients who had progressed in health but not fully recovered were placed.

The 21<sup>st</sup> century witnessed a research by Chelebi (2006) which led to music therapy based on the sound of nature, that is, flowing water. This was evident in the inner design display of al-Mansuri hospital which contained a spacious square measuring 150 steps in breadth and in width. In the middle of the square was a big fountain pool which ejected water as high as two male adults. A few of the patients, who almost recovered and in the process of convalescence, relaxed by the pool to enjoy the sound of the wall fountain while being served by hospital staff. Some of the chronic mental patients were placed in a spacious room equipped with a pool and wall fountain.

This means that application of music therapy at al-Mansuri hospital was intensively and extensively implemented in view of its effective therapeutic function to calm the patients' emotions, relieve their pains, alleviate their symptoms and expedite the process of recovery. The musical strains usually played were heard and enjoyed by other patients in their respective wards such as orthopaedic ward and others. Therefore, the therapeutic effect obtained was not limited to two types of patients, as other patients shared the same benefits. In addition, the sounds of flowing water, chanting of *adhan* and recitation of al-Quran heard day and night, indirectly gave a therapeutic effect on all patients in the wards, resulting in their emotional stability, peace of mind, spiritual tranquility and relief from pains.

### **2. How did the auditory system work?**

The sounds heard by a patient would be processed by the auditory system before they were sent to the brain to be interpreted as sounds. The auditory system is one of the human body's most complex and delicate sensory systems. The motion of the cells triggers chemical-electrical signals that are transmitted through the cochlea's nerve fibers to the brain along the auditory nerve pathway. In our research, we did not find resources which revealed the scientific explanation of how music heard by the patient at al-Mansuri hospital could calm or give relief to the patients. So we explain the function of the auditory system using the following diagram:



According to *Encyclopaedia Britannica* (1997), hearing earing is the process by which the ear transforms sound vibrations in the external environment into nerve impulses that are conveyed to the brain brain, where they are interpreted as sounds. It begins with the outer ear. Sounds heard by a patient are channelled into the ear canal and the sound waves cause the tympanic membrane or eardrum to vibrate. The eardrum vibrates according to the sounds and transmit the sounds to the cochlea through the ossicles comprising of three small bones (malleus, incus and stapes) that are connected and which transmit the sound waves to the inner ear. Sound vibration causes the fluids in the cochlea to move in a wave-like manner. The movement of the fluids causes the hair cells to respond or bend, generating neural signals which will be sensed by the auditory nerve. Once the sound waves reach the inner ear, they are converted into electrical impulses. The auditory nerve sends these impulses to the brain. The brain then translates these electrical impulses as sound.

### 3. Therapeutic effect on human psychology

Among the sounds heard by the sense of hearing is the voice. According to al-Maridini (n.d), it may be categorized into two types: voice accompanied by rhythm and not accompanied by rhythm. Voice accompanied by rhythm spark enjoyment, happiness, pleasure and joy. There are 12 types of rhythms: *rast, isfahan, iraq, zidfkand buzurk, husayni, rahawi, zankulah, nawa, ma', busalik, zirafkand* and *ushshaq*.

*Iraq, ma', buslik, nawa* and *ushshaq* give pleasure and tranquillity as the rhythm is quite cool (relaxed and calm). Therefore, they are suitable to be played in the daytime when the weather is quite warm. In contrast, *zidfkand buzurk, isfahan, rahawi, husayni, zankulah* and *zirafkand* give pleasure and produce movement due to their warm quality which can enhance emotional and physical strength. For this reason, musicians composed them for playing in the quiet of the night.

Each type of rhythm gives a different therapeutic effect on the listener's psychology depending on certain timings as follows (Farmer 2001; Benek et al. 2015; Sabry & Vohra 2013):

Rhythm type	Therapeutic effect	Appropriate time
<i>Rast</i>	Stimulates happiness and peace	Sunrise
<i>Rahawi</i>	Clears the human psyche	False dawn ( <i>Fajr Kadhib</i> )
<i>Kucek/kujak</i>	Makes one feel sad	Sleeptime
<i>Buzurk</i>	Causes one to feel fear	After ' <i>Isha</i> '
<i>Isfahan</i>	Makes one feel free and secure	Sunset ( <i>ghurub</i> )
<i>Nawa</i>	Gives feelings of comfort and pleasure	Evening( <i>maghrib</i> )
<i>Ushshaq</i>	Makes one laugh	<i>Zuhr</i>
<i>Zankulah</i>	Causes one to feel sleepy	Mid-day
<i>Busalik</i>	Makes one feel strong	<i>Duha</i>
<i>Husayni</i>	Makes one calm and relaxed	Real dawn ( <i>Fajr Sadiq</i> )
<i>Hijaz</i>	Makes one feel humble	Between <i>Zuhr</i> and <i>Asar</i> prayers

#### 4. Discussion

##### 1. Music therapy only relieves or soothes, not to cure

Generally, we are agreed that application of music therapy in the era of the Islamic civilization is more focused on human psychology rather than physical. Thus, it functioned to soothe and entertain the patient, alleviate his symptoms or pain by distracting attention from pain (al-Balkhi 2005). In addition, it also enables holistic healthcare for humans because of the very close bond between the physique and the psyche. A restful soul is sure to result in a healthy body. Music is even able to influence the mind and emotions to enhance the energy while working and so on. Hence, the pleasure of listening to music is said to exceed all delights enjoyed by the senses and other bodily sensations such as eating, drinking and marriage, whether in humans or animals. Therefore, it is suggested that music therapy become the psychotherapy or treatment to overcome depression.

##### 2. Music therapy is complementary treatment

As music therapy can offer serenity, relief and alleviate pain, it is categorized as complementary to various other treatments. As a treatment it is very apt to be associated with the definition of complementary treatment by Deng et al. (2009), as follows:

A method of non-conventional treatment which adopts neither a surgical nor pharmaceutical approach but is acknowledged for its effectiveness. If integrated with conventional treatment, its effectiveness will surely be enhanced and it can alleviate bad symptoms. It is included in the category of therapeutic approach for the mind and body for the purpose of reducing anxiety, emotional disorders and chronic diseases as well as improving quality of life.

Ibn Sina (1999) in explaining the treatment procedure for insomnia suggested a moist nutrition diet, bath, applying oil on the head, forehead and both sides of the area between the eyes and the jaws, applying milk on the head, dropping oil into the ears, music therapy through gentle and melodious singing, giving opium and also recreation. All of these is to induce sleep in the patient. This procedure clearly shows that music therapy is a treatment jointly administered with other treatment methods. Thus, it is more complementary, and not the main treatment.

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Competing Interest: None declared

Ethical Approval: Not required

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