

Treating Alzheimer's disease using Music therapy

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Abstract

Music is an art form which has not only been influencing the world but has also taken the role of a universal language that is understood by every human being. Over the years, there have been many technological developments with the invention of gadgets and gizmos and evolution of music. Music has the capability to appeal towards the emotions and beliefs of human beings. Music is a powerful force which taps a person's personal identity, memories and mood.

Introduction: What is Music Therapy?

Music Therapy can be defined as a therapeutic approach which uses music as a medium so as to achieve certain objectives and satisfy emotional and social needs of individuals. Music Therapy can be designed in various ways so that it can manage stress, relieve the patients from pain, improve their quality of life and help them express their feelings.

Music Therapy can be used to benefit people who are suffering from various diseases and disorders such as Alzheimer's Disease, Neurological disorders, Cancer, Drug abuse, Parkinson's disease, Respiratory disorders, Aphasia etc. Music Therapy can be performed by professionals who have undergone an approved music therapy program.

Effect of music on mood disorders:

According to a study, it is known that out of every 100,000 adolescents, approximately two to three thousand will be suffering from mood disorders, out of which 8-10 will commit suicide. The two prevalent mood disorders are clinical disorder and bipolar disorder.

As per many researches, on average a teenager listens to 4.5 hours of music every day. With the latest technological developments such as the invention of many gadgets and gizmos such as Smart phones, Mp3 players and Tablets, it has become easier than ever to listen to music.

Teenagers achieve emotional, social, and daily life benefits due to their exposure to music. Music can act as a medium for the prevention of depression and high stress levels in our everyday lives as it helps in bringing down the stress levels drastically. Music also helps in creating a sense of individuality.

Music therapy in hospitals:

Music can act as a medium for the prevention of depression and high stress levels in our everyday lives as it helps in bringing down the stress levels drastically. Due to the positive results garnered by many researchers and doctors relating to the effect of music, several premier hospitals in India are increasingly playing soothing tunes for patients. It is also done in the waiting area for the patient's relatives in order to provide a serene atmosphere.

Though, it has been proved throughout the world that music has a very positive effect on pregnant women and babies but, doctors agree that it not a feasible and conventional form of treatment for a disease. But, one thing the doctors agree on is that they help in calming down the patient and remove the negativity during their course.

Due to these developments many hospitals have installed audio systems in the lobbies and other areas of the hospital. Prominent singer Lata Mangeshkar also confirmed that many hospitals use her songs for its patients and relatives waiting in the lobby.

Though most of the doctors and hospitals in India are reluctant to consider music therapy as a treatment, but the Apollo group has certainly made an exception in this case and has dedicated a special department in its hospital to Music Therapy.

It has also been proved that the rhythms of the Indian Classical Music benefit hyperactive patients.

Reasons why Music Therapy should be considered as a conventional treatment:

It has been proven that infants are capable of distinguishing between different music rhythms and vibrations. Throughout the world infants respond positively towards lullabies and music, which are used to calm them down and relax. Hence, it is natural for human beings to process music.

Music has a very positive effect on our emotional systems. Due to this reason, we sometimes feel happy and sad. For some people listening to a particular genre of music is simi-

lar to therapy as it generates positive vibes and uplifts one's mood .

It acts as a tool or medium for learning and recalling. Starting from a kindergarten kid to an adult, it is a very effective tool. For instance, the alphabets which children learn are also through a musical technique.

Listening to music can make us nostalgic. It leads us to a certain place or can make us recall various incidents of our life. It can perk up our memory in a very influential way similar to smelling sense. Music therapists who have worked with their patients having Alzheimer's disease have various stories of how music enhances their patients to recall their past.

Music can act as a medium to bond with other individuals and help in better communication. It is evident that people share their music experiences at various places such as a church choir. As a result, it has strengthened the bonds between people.

Musical verses are predictable, organized and are structured. They are designed in such a way that the listener enjoys it and listens to it repeatedly. Due to such kind of a structure, people listening to music are often benefitted naturally. Music is safe and enjoyable. People do enjoy music and so it can easily work as therapy. There are no side effects and helps the patients to remain motivated.

Alzheimer's disease

Alzheimer's disease is the most common cause of dementia. It was named after German neurologist, Alois Alzheimer. It is a neurological disorder in which death of brain cell occurs. It is a progressive disease i.e. it starts mild and gradually worsens and eventually leading to death.

The most common symptom is loss of memory. It is often considered as stress or age related problem. As the disease progresses, the person becomes more confused, experience mood swings, cannot communicate properly, reasoning power deteriorates and there is a sudden change in his behavior. Although the symptoms are same, every individual does not experience it in a same way.

Music therapy for Alzheimer's disease

Music therapy is one of the most effective treatments for patients suffering from Alzheimer's disease. The treatment varies from patient to patient as everyone has different taste

in music. Music therapy can relieve stress, reduce restlessness and help in improving mood and sleep. It also helps in improving social behaviors.

Types of music therapy used for Alzheimer's disease:

Playing instruments

Playing instruments provide patients a soothing effect. Every individual plays an instrument according to their liking. They are easy to play and help the patients to express themselves. Some of the instruments used are flute, paddle drums, etc. A study suggested that a simple instrument like Omni can be used by the Alzheimer's patients without any knowledge of music.

Listening to recorded music

Listening to recorded music is really useful in reducing agitated behaviors. Music taste is very individualistic. This music is familiar to the patient before the onset of AD and so he is able to relate to it. A study shows that music therapy can promote positive memories listening to known music. People suffering from AD for a long interval of time have shown significant improvement by listening to familiar music.

Group music therapy

Group session helps in interaction of various patients with each other. They help the patients in building relationships, improving their interpersonal skills. They help the patients to express and share their feeling with others. Group sessions are similar to individual sessions but include patients with same liking or interest. This may include various groups like songwriting, group singing according to the interests of group members.

Effects and benefits of music therapy on Alzheimer disease:

Agitation management

Agitated behaviors can be referred to the behavior that includes stress, frustration and inability to express them. It includes inability to sit still, rapid speech, etc.

Engaging patients in various activities like singing, dancing, or other music activities can have immediate improvement in this agitated behavior. Music therapy has shown significant reduction in agitated behaviors.

Self confidence

Music therapy helps the person by achieving self confidence and helps to improve self esteem. With the passage of time, patients suffering from this disease lose their memory and are not able to either recall or remember anything. Due to the benefits of this therapy, patients gain self confidence.

Mediate communication

Communication for AD patients increasingly difficult but music therapy can be used to initiate conversation. It helps to enhance memory and reduces stress. A study found that AD patients can easily remember the information when it is presented in a musical context. Music therapy helps patients to make social connection with their peers and hence improvement in communication is possible. Learning songs is far easier than to learn words for the patients.

Result

Various studies were conducted and the hormonal levels of patients were recorded and two cases were considered i.e. with music therapy and without music therapy. These studies involved following various Alzheimer's patients and measuring their hormone levels. The hormones analyzed were that of 17β -estradiol and Testosterone. The main function of the secretion of these hormones is to nullify the negative aspects of Alzheimer's disease. The basic procedure involved the recording of the hormonal levels of the patients before and after the different therapy procedures were conducted. The different procedures conducted involved usage of therapy, exposure to music and finally a musically influenced therapy session.

According to the results obtained, the levels of the hormones increased subsequently after each procedure. Hence, it was inferred that they are not only responsible for the improvements in the behavior of the Alzheimer's patients but also provide various psychological benefits as well.

Conclusion

Although music therapy provides short term measures to reduce the AD symptoms, there's no complete cure to Alzheimer disease yet. MT helps in reducing agitation and helps in decreasing stress. It can provide temporary relief to the patients but as the condition worsens, music therapy is of little use. A study found that therapy did not find significant improvements in severity of agitated behaviors over long terms. Furthermore there are no side effects of music therapy.

One should maintain a healthy lifestyle and should exercise regularly in case one is concerned that he might develop Alzheimer disease.

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