



A Literature Review on Music Therapy for paralysis patients

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Abstract

Background: Physical Therapy is a science of restoring health through doing exercise and using special equipment to keep the patient back to normal movement as much as possible. Nowadays, there are more and more new forms of treatment being invented. One of those treatment modalities is using music to help in the therapy which is also known as The Music Therapy. It is an alternative to improving the efficiency of treatment and healing for patients.

Objective: To study information about Music Therapy for future's medical benefits.

Methods: To analyse academic and related research papers.

Result: Gathered information about Music Therapy which can be used for patients.

Conclusion: Music Therapy is used to increase the efficiency of treatment and thought to have an effect on the brain. This may help reduce the symptoms of dementia for paralysis patients. It can be applied in a variety of ways. However, Music Therapy is not widely used nowadays. There should be more studies on using music along with the Physical treatment

Keywords: Music Therapy, Physical Therapy, Paralysis, Stroke

Introduction

Physical Therapy is a science of restoring health through doing exercise and using special equipment to keep the patient back to normal movement as much as possible. This therapy is widely used to treat patients. It helps reduce pain in the affected organ and moves the body almost normal. This is because The Physical Therapy helps strengthen and move the body as well as helping to know how to prevent injuries that cause the body to deteriorate the moving abilities. However, the current therapy still has some limitations that must be recognized, including age capability and willpower to do the therapy. For example, adults are better at taking medications than children. Therefore, drug-assisted therapy is not an option that works for everyone. From the above reasons, the opportunity to use music for the therapy is therefore an interesting alternative to be researched in order to extend the current therapies to be more effective.

Nowadays, there are more and more new forms of treatment being invented. One of those treatment modalities is using music to help in the therapy which is also known as The Music Therapy. It is said that music is Mind Medicine. It has been used as a healing tool for centuries. Music can be compatible with everyone without gender and age restrictions. Therefore, music is a great aid in treating both physical and mental problems. It helps to stimulate all parts of the brain, whether it be motor cortex, auditory, and limbic system. There is a large amount of research on Music Therapy recently, such as the research of Mahidol University which said that taking piano lessons along with doing The Physical Therapy helps stroke patients with paralysis of the left or right arm only be able to move the body that requires detailed skill better than those who do only The Physical Therapy.

From the surveys and data collection suggest that The Music Therapy is an alternative to improving the efficiency of treatment and healing for patients. In addition, the research of Mahidol University and Chulalongkorn University suggest that the use of music therapy in some patients can show better results. It can lower blood pressure and relieve pain during treatment. It also restores physical, emotional and intellectual health as well. [1]

This study, the author focused on how to apply music therapy in stroke treatment together with physical therapy by reviewing related literature and previous studies.

What is music therapy?

Music Therapy, the science of bringing music and its elements applied in order to modify, improve and maintain the health of the body and mind. It can be used in a variety of ways and target groups, including children, adolescents, adults, and elderly, to respond to different needs, such as developmental, intellectual and learning disabilities, depression, Alzheimer disease, stroke, physical disabilities, pain and other conditions. [2]

People who use music therapy are not necessarily only ill. Because music therapy, in addition to helping to relieve stress, it also helps to develop and drive potential and skills to be better like Physical Therapy goes hand-in-hand with Music Therapy, so people who are stressed but not yet depressed can also use music therapy for relaxation. But the use of music therapy is different from listening to general music because therapy requires that people who listen to the therapy have access and have a therapeutic relationship correlating with music that builds trust and has clear goals for treatment. [3]

Music therapy has many unique characteristics. Making it applicable to all ages and all kinds of problems are able to stimulate and promote development in all aspects. Distinctive features of music therapy include: 1) Stimulates the work of many parts of the brain and helps to concentrate better. 2) Easy to apply to the skill level of the person and it reflects the level of proficiency as well. 3) It is like an exercise that is easy to understand even if you don't know the language. 4) Enhance meaningful awareness. 5) Strengthens the social context, gives a feeling of security, and provides basic structure for communication. 6) It is an effective mnemonic tool. 7) Supports and strengthens motor skills. 8) Able to infiltrate memories and emotions. 9) Reinforces instant feedback and no linguistic barriers. 10) Tends to be easily successful in therapy because it can be applied to all genders, ages, and skill levels. [4]

In the end, how we choose to use music therapy to help relieve stress may not depend on what music therapy we use because maybe we will choose how to use music for therapy more. Music therapy may have to look at the needs or the purpose of the person who is going to treat stress from anything. Listening to classical music or comfortable music may not be what the person wants or helps heal one. We just have to choose appropriately and gradually. And adjust the music to suit the therapy. [3]

Who needs Physical Therapy?

Owing to the fact they Physical Therapy is a branch of medical science that focuses on the rehabilitation of patients in various conditions. Both physically and mentally, including

focusing on health promotion and prevention of complications as well as reducing the risk of recurrence of symptoms.

Those who received Physical Therapy must be a person who has physical problems, is sick, has undergone surgery, or has a genetic problem. Therefore, it must be meticulously taken care of through Physical Therapy in order for the body to recover and return to be able to move normally or at best. And can also use music to help therapy as well.

The survey found that most of the patients who needed Physical Therapy were paraplegic which is also known as Cerebrovascular accident. [5]

Paralysis

Cerebrovascular accident (CVA) is a symptom of a stroke caused by a lack of blood in the brain cells. It is caused by ischemic stroke (thrombosis), which accounts for up to 80% of the disease, and 20% is due to bleeding in the brain (bleeding or haemorrhage). It is a term used to refer to the weakness of the half of the body or the lower half of the body. Moreover, the World Health Organization (WHO) has given the definition that it is a symptom that immediately presents to some or all of the brain's function, where the symptom persists for more than 24 hours or causes death which is caused by vascular disease only. It is a terrible disease in the elderly because this age is the age that is at risk of brain disease more than other ages. If it is, then it will cause limb weakness, be unable to move, risk of being bedridden, and it is also the leading cause of death. [6]

Cerebral ischemia symptoms vary in severity depending on the duration of the condition starting from brain cells are not destroyed. This will cause muscle weakness in specific areas, such as possibly in the arm or the legs only. In addition, getting temporary memory loss and slurred speech. And when it happens longer until some brain cells have been destroyed. It will cause blurred vision and loss of memory, irritability, ability to make decisions, and reduced calculations too. And when it is left for too long until the final phrase, it will cause permanent damage to brain cells. There will be symptoms of limb weakness or being unable to move and speak. Facial muscles do not work equally. Meanwhile, it also causes eyelids to droop and respond slowly.

The most important symptoms that needed to be known and be aware of regularly are as follows: 1) Numbness or weakness in one side of the face, arm, or leg immediately. 2) Difficulty speaking, inability to speak, slurred speech, or incomprehensible speech immediately. 3) Vision problems, blurred vision or double vision in one eye, or both immediately. 4) Dizziness, dizziness, inability to walk, difficulty walking, staggering, or loss of balance in standing and walking immediately. 5) Sudden severe headache for unknown reasons.

Nowadays, paralysis can be treated in a number of ways depending on the cause and the underlying disease of the patient, including 1) Getting Brain Surgery when it is caused by a ruptured blood vessel. Inserting obstruction into the blood vessels when it is caused by an aneurysm. 2) Giving blood clot-dissolving drugs when it is caused by blood clots and administering anticoagulant medication to prevent thromboembolism. 3) Controlling various diseases that causes such as treatment and control of high blood pressure, diabetes and hyperlipidaemia. 4) Doing Physical Therapy to rehabilitate the muscles of the arms,

legs, or speech training. After the treatment, patients need Physical Therapy to restore their physical conditions and abilities. [7]

How Music Therapy works?

From the information which is given above, Music Therapy can be used to increase the efficiency of treatment. Paralysis, which is caused by a brain disorder, is another disease that can use music to enhance its effectiveness in relation to treatment. It is a fact that Music Therapy is thought to have an effect on the brain. This may help reduce the symptoms of dementia. Including reducing aggressive behavior, restlessness, adjusting mood and helping to do activities in daily life better. [8]

In many studies, the effectiveness of music therapy for dementia has been studied both emotionally and behaviorally. From the current scientific evidence discovered that Music Therapy has been shown to improve mood and reduce undesirable behaviors for a short period of time, but no studies have established conclusive evidence of the long-term effects of Music Therapy. [9]

Another study that used music therapy to determine the effectiveness of music therapy on the cognitive parts of the brain in dementia patients. This group of patients has different levels of severity of dementia symptoms. The test results showed that patients had better mood after group Music Therapy but there were no significant differences in the quality of life of patients before and after treatment. and the patient's emotional expression remained low. [10] [11]

We all know the fact that when there is a health problem or have important health factors, many patients need to face inevitable pain even in terms of treatment. Your doctor may prescribe medication to suppress or relieve the pain that occurs but over time, patients may have a chronic illness that causes pain that lasts and affects the mind as well. These may be the source of the search for ways to help the patient break free or alleviate the pain. And one of the methods that therapists have tried is Music Therapy.

Therapists expected that music is a healing tool which influences patients who are restless and suffering from pain to get out of that point by relaxing and thinking about something else while listening to the soothing music.

However, in fact, there is research that uses music therapy in the treatment of cancer patients. It was found that music therapy is effective in treating each patient differently. This depends on the individual characteristics of each patient, such as the patient's perspective on life, the readiness, or acceptance to express the emotions that will arise.

Finally, Music therapy is the application of the science of art in a therapeutic way. This is an interesting research topic on the effectiveness of the treatment and what effects it may have. But at present, it is inconclusive that music and music can actually have a healing effect or restore physical or mental health. Although Music Therapy is a well-known therapeutic science to a certain extent and it has been used for some time in some foreign medical facilities, in Thailand, it is still not being used as a formal treatment. However, with advances in medical science, there may be more research that can clearly confirm the benefits and efficacy of Music Therapy in the near future. [12]

Music Therapy in practice

The result of this research indicates that Music Therapy can respond to increase the Emotional Quotient ($p < 0.05$). To conclude, Music Therapy directly affects the ability to brain development. [13]

Data from this research shows that Music Therapy is used in different ways. There is also a study on the theories about the integration of music into Physical treatment which can demonstrate the importance of using Music Therapy. [14]

Potential benefits of Music Therapy

Owing to the fact that it affects the changes in the body, mind, society and wisdom. It affects the functioning of the brain in many ways. Different elements of music can provide different benefits as well. It can be used to treat patients with many different illnesses. Moreover, it can also be useful to general people by relieving stress and creating rhythm in exercise for health.

The benefits of Music Therapy are as follows: 1) Adjust the mental state to be in balance, peaceful, and more positive. 2) Relieve tension and anxiety. 3) Stimulate, strengthen and develop cognitive skills. 4) Stimulate perception. 5) Increase concentration. 6) Enhance social skills. 7) Improve communication and language skills. 8) Develop motor skills. 9) Reduce muscle tension. 10) Manage pain. 11) Modify behavior. 12) Build a good relationship in a therapeutic alliance. 13) Auxiliary in the psychiatric healing process, all for the assessment of feelings, positive emotions, self control, resolving conflicts, and strengthening the family. [3] [4]

To conclude, Music Therapy has various benefits depending on the application by integrating with other therapies. It can be applied in a variety of ways.

Conclusion

Music Therapy, the science of bringing music and its elements applied in order to modify, improve and maintain the health of the body and mind. It can be used in a variety of ways and target groups, including children, adolescents, adults, and elderlies, can respond to different needs.

It is used to increase the efficiency of treatment and thought to have an effect on the brain. This may help reduce the symptoms of dementia for paralysis patients. Including reducing aggressive behavior, restlessness, adjusting mood and helping to do activities in daily life better. It also helps alleviate other abnormalities, such as developmental and intellectual disabilities, depression, Alzheimer disease, physical disabilities, pain and other conditions. Moreover, it also helps to stimulate various potentials in general people.

Music Therapy has various benefits depending on the application by integrating with other therapies. It can be applied in a variety of ways.

However, Music Therapy is not widely used nowadays. There should be more studies on using music along with the Physical treatment. This can be useful and can be applied in conjunction with an already effective Physical Therapy to be more effective.

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