



# A Clinical Study on the Music Therapy within Educational Institutions

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**Abstract.** This study examines music therapy as a clinical treatment within psychology, and its implications within the learning environment to enhance education. It identifies the formation of music therapy and outlines its usage within clinical research and treatments. It highlights the implication of music therapy treatment towards autism learning disabilities, post-stroke aphasia patients, and psychological disorders. It demonstrated the brain's plasticity to adapt under the acoustic treatment of musical notes. Clinical practices demonstrated the treatment of the different mental illness group and assess its outcomes. Consequently, the essay foregrounds a discussion to evaluate the effectiveness of music therapy.

**Keywords:** Music therapy, psychology; clinical research and practice; mental illness; educational institution; Learning environment.

## 1 Introduction

With the ever-changing world situation and the high rate of economic development, the introduction of new theoretical approach in the psychology, the medical profession of clinical treatment also develops rapidly. In addition to the traditional methods of treating illnesses, people are beginning to focus on the effects of music on the body's functions and mental state. Numerous studies have shown that music therapy not only has a positive effect on neurological rehabilitation and psychological well-being, but also promotes physical rehabilitation through the rational and standardized use of music rhythms. As a painless, non-invasive, and non-sequential therapy, music therapy has been used in clinical settings and gradually developed into the community with remarkable success. It is accepted and sought after because it is economical, safe, effective, and easy to implement.

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## 2 Music as a Therapeutic Methodology

Music therapy refers to the use of music as a means of psychological intervention through the experience of various types of music to help restore health to the person being treated. There are also various schools of music therapy, each with a different approach to its function and use, but in general music therapy works on three main areas: physical, psychological, and interpersonal [2]. For example, listening to stimulating and dynamic music can cause the heart rate to rise and emotions to fluctuate, while soothing music can cause the heart rate to fall and also allow the listener to relax their muscles and feel a sense of healing. Music therapy can also stimulate the aesthetic experience of the person being treated, as the beauty of music can mobilise positive attitudes, and there are numerous studies that show that people who have been cured through music therapy are able to face life positively. There are two types of music therapy: individual therapy and group therapy [3]. Individual therapy is well understood as a one-to-one interaction between the client and the therapist on an equal footing, and is more suitable for deeper psychotherapy, while group therapy is an interactive therapy with multiple clients and a therapist, and can promote social and communication skills between people.

Optimistic psychology, a significance movement of psychology that emerged at the end of the 20th century, was pioneered in 1998 by Martin Seligman, then a professor at the University of Pennsylvania, as a new field involving all disciplines of the social sciences, with the same objectives as those of the arts. It focuses on the development of aesthetics, creativity, altruism and professional ethics. When people listen to music at a concert and are moved by the performance of the singer in real time, this is in fact the psychological change that music brings to people, which is why it is referred to as music psychology, or the psychological response that music brings to people. reaction phenomenon [5]. Another phenomenon is that some of the most prestigious music schools in China have set up music therapy laboratories, which use music as an entry point for psychological health education and psychological guidance and intervention, with the aim of treating psychological illnesses through listening to music [1]. It is clear that music education and mental health education have a subtle relationship and that the use of music education as a psycho-educational tool can be more effective than purely didactic mental health education.

Music therapy within educational institutions constructs a greater environment for the wellbeing; rethinks the governing principles; and enhances communication modes.

### (i) Creating a greater environment of wellbeing

A good campus environment is conducive to the implementation of the principle of lifelike teaching in music education in special education schools. During the daily learning process, teachers can provide psychological counselling to students in the music environment, helping them to develop excellent moral qualities and behavioural habits, and subconsciously promoting the development of good psychological qualities. For example, teachers can use outdoor teaching in the course of their daily lessons and develop small games within the campus, such as individual singing, teacher-student duets and choral games [11], so that students can interact better with each other and with their teachers. In this relaxed and pleasant environment, students can be motivated to

step out of the shadow caused by physical barriers and build up trust in themselves, in their parents, in their teachers and in the school [4]. They will be able to perfect themselves and improve themselves and will be well prepared to enter society in the future.

(ii) Change the philosophy and implement a system of home-school integration Music education for life requires the joint efforts of schools and parents. Schools need to take initiatives to address intuitive issues such as parents' lack of concern for their students' mental health and their lack of understanding of the importance of mental health. For example, designing courses to help parents understand mental health, helping parents to improve their understanding of mental health, changing their previous philosophy, placing their eyes on the psychological level of students, caring for them, truly realising the home-school integration and fully implementing the lifelike teaching of music education in special schools.

(iii) Strengthen communication and clarify the concept of healthy living Students in special education schools are a special group of people who are prone to a variety of psychological disorders, so teachers need to establish psychological communication and exchange with students and realise the importance of communicating about mental health to students. In their daily teaching activities, teachers should take the initiative to care for and love their students, actively understand them, and strengthen direct communication with them at the right time in order to better help them resolve their psychological barriers to communication and to cultivate a healthy concept of life for them, so that they can face life in the present with a positive and optimistic mindset.

### 3 Clinical practices

Music therapy is now used clinically in the care of a variety of conditions: children with autism, chronic obstructive pulmonary disease, stroke complications, psychological conditions and the reduction of addictive behaviour. The potential benefits of music therapy as a pleasant form of expression in children with special needs, such as autism and hearing impairment, have been recognised. Autism is a neurodevelopmental disorder in which children are left alone in their own little world, refusing to actively communicate with the outside world, and as they grow older, they become socially and professionally and characteristically challenged. The process of experiencing music itself is stimulating to multiple senses and allows children with autism to engage in musical activities [6]. According to Zhang Li et al, playing musical instruments can effectively stimulate the central nerve of the brain and help develop the imagination of children with autism through free play; using the interactive music therapy model of group performance provides children with autism with opportunities for non-verbal communication and teamwork [10], helping children with social difficulties to gradually establish connections with others and generate pleasant feelings through participation, further improving the communication and expression skills of children with autism [5]. Huang Xuelian's study of music therapy in parent-child groups gives full play to the active role of parents, which not only alleviates the problem of scarce care resources, but also integrates music therapy into daily life to enhance parent-child bonding and achieve therapeutic effects.

Application in post-stroke aphasia patients Stroke aphasia is a condition in which the language area located in the left dominant hemisphere of the brain The loss or impairment of language function is caused by impairment of function in the left dominant hemisphere of the brain. Patients may experience a variety of Patients may experience a variety of functional impairments, mainly in the four areas of "listening, speaking, reading and writing". Language and music are closely linked and share a common neural basis [12]. They share a common neurological basis. Music therapy can help to improve language expression and comprehension in post-stroke aphasia patients [9]. The mechanism of action of music therapy is to improve language expression and comprehension. The mechanism of action is unclear, but brain imaging has shown that music training stimulates the uninjured right hemisphere of the brain by stimulating the speech and language skills. The mechanism of action is unclear, but brain imaging has shown that music training stimulates the undamaged right hemisphere of the brain and compensates for the recovery of the damaged left This is consistent with brain plasticity and function [17]. This is in line with the theory of brain plasticity and compensatory function, as well as the Chinese This is in line with the theory of brain plasticity and compensatory function, as well as the Chinese medical theory of "the left side of the brain is the right side of the brain". Specific musical training is the use of pitch, melody, rhythm and other musical elements. This is in line with the theory of brain plasticity and functional compensation, as well as the Chinese medicine theory of "left-sided illness, right-sidedness"[8]. The patient is guided to mimic the pronunciation and humming of lyrics to regulate the content and speed of speech output, thus promoting the reproduction of speech. The patient is guided to imitate the pronunciation and humming of words, thus regulating the content and speed of speech output and thus promoting the reproduction of speech. Music therapy for aphasia has been shown to improve the frequency and clarity of speech. The main features of music therapy for aphasia are the control of speech rate and the improvement of articulation clarity.

Music therapy can be used as an adjunctive treatment for patients with psychological disorders and can be effective in relieving anxiety in patients. In the report of the 19th National Congress, the State put forward the strategy of "Health China 2030". Nowadays, people's material and spiritual standards have improved to varying degrees, and the importance they attach to health has gradually increased, changing the traditional concept of "no disease means health" [13]. The World Health Organisation (WHO) has given a new definition of health: "Health is not only the absence of disease, but also includes physical health, mental health, good social adjustment and moral health". Adverse psychological states include depression, anxiety and other negative emotions. The factors that trigger a patient's dysphoria are usually environmental, genetic, pharmacological and psychological. For example, they may be uncomfortable in an unfamiliar environment, under pressure at this stage of life, or have poor self-regulatory skills. The university stage is the most important period in life, where the mind and behaviour are still immature and easily disturbed by the outside world. Some studies have shown that music has the effect of regulating negative psychological emotions [7] and disease prevention among university students. Kamioka et al. [15] demonstrated the therapeutic effects of music on depressed patients. According to the theory of neurohumoral regula-

tion, music acts directly on the limbic system and the reticular formation of the brainstem through hearing, regulating the cerebral cortex, inhibiting the secretion of adrenaline and noradrenaline, promoting the release of dopamine and other substances, and regulating negative emotions to make patients feel happy, thus reducing pain and unhappiness. From a musical point of view, music incorporates many elements including melody and rhythm, so it is important to be familiar with the elements of music and to explore the effects of certain characteristics on people's emotions. The effect of a particular characteristic on a person's mood is explored<sup>[18]</sup> to arrive at a comprehensive intervention.

## 4 Discussions

There is a shortage of music therapists, the foundation of music therapy lack solidity, and the effectiveness of music therapy comes from clinical practice. It is well known that music therapy is an interdisciplinary discipline, and the establishment of a music therapy-related programme in a medical university requires the joint efforts of experts from various fields to develop a programme and teaching materials for the training of music therapists and to form a complete disciplinary system<sup>[14]</sup>. Music therapy is different from music education in that the aim of music education is to broaden musical horizons and develop a correct view of art, and to train music teachers for all-round development, whereas the aim of music therapy is to treat the psychological and physiological illnesses of patients. The aim of music therapy is to treat the psychological and physiological illnesses of patients.

In China's education system, aesthetic education has always been included in the educational policy, and the government authorities have formulated corresponding teaching programmes for schools at all levels, which shows that music education is indispensable for students in their formative years. We all know that people who suffer from psychological depression are often heavy-hearted, feel uninspired and unhappy, lose their enthusiasm and enjoyment of life and work, and are disinterested in everything, usually withdrawn, often alone, and always living in their own mental world. Music education, however, can be a very effective way to change students with this disorder<sup>[2]</sup>. It is easy to see that music takes up a large part of the daily cultural activities on campus, and that students are so devoted to their favourite profession that they come to the activity room early for their club activities and are so obsessed that they sometimes forget about class time, acting like professional musicians or singers. If we use music education as a means of leading students with psychological disorders to participate in activities that are beneficial to their physical and mental health, individual students with psychological disorders are bound to change dramatically in the long run. In this way, the unique nature of music as a form of entertainment is exploited, while the traditional mental health education is removed from its dullness, and the students are easily educated<sup>[3]</sup>. Students are not born with mental health problems, but often suffer from sudden changes in their families or from difficulties in their studies, emotions, and lives, and are unable to extricate themselves. The first thing we usually think of is finding a psychologist to solve the problem, but in the early stages of the illness, we

can consciously influence students through music education to free them from their worries <sup>[16]</sup>. The music is also used as an example to influence students and enlighten their minds. For example, when appreciating the works of Ludwig van Beethoven, a German composer and musician and a representative figure of the Viennese classical school, we introduce the composer's life and make students feel convinced by his life experiences. As anyone who knows Beethoven well knows, he lived a very poor life, and in the latter part of his life he suffered from a serious ear disease - deafness - which was a great blow to a composer. Through Beethoven's experiences, students will be able to look forward to a better life, strengthen their self-confidence, overcome temporary difficulties, and develop a spirit of perseverance in the face of adversity.

## 5 Conclusion

To conclude, mental illness remains a difficult subject in the realm of psychology. It is demonstrated that music therapy holds its potential as therapeutic treatment in psychological illness. The anachronistic treatment towards mental issues perhaps are no longer adequate for the educational institution in our modern world today. Music therapy challenges the traditional clinical approach in the treatment of psychological issues, hence foreground a social responsibility of the mental issues.

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