

# MUSIC THERAPY

*Marina Shakarashvili, Associate Professor*

*Mania Arabuli, Associate Professor*

Grigol Robakidze University, Tbilisi, Georgia

---

## Abstract

Scientific and technological progress gives a human being unprecedented capability, but creates challenges too. Numerous new diseases and syndromes are emerging as a result of technological advancements and stress. Art therapy is becoming one of the popular treatment strategies for those conditions. This includes music therapy, as one of the forms of art therapy.

Music therapy is interdisciplinary field on the nexus of psychology, neurophysiology, music science, pedagogy and other disciplines. Spectrum of conditions where music therapy can be effectively used is practically unlimited. It has no contradictions and can be used at any age. Clinical studies provide evidence that music can be used effectively during the treatment of different conditions. Those include conditions of nervous system, mental health problems, hypertension, disorders of microcirculatory and hemodynamic systems, cardiovascular conditions, dysfunction of vegetative, digestive and respiratory systems, reduced adaptation capabilities and resistance, pain and autism. This therapy can be beneficial for rehabilitation. Music is also beneficial for elderly patients as it improves mood, increases social contacts and length of life. Effectiveness of music therapy called for the need to create academic professional training programs in this field. Georgia does not have professionals in this field. Only few psychotherapy centers practice art therapy. It is important to train specialist in this field, as art therapy has number of advantages compared to other treatment strategies. It does not involve pharmaceuticals, does not cause addiction and can be applied to the large spectrum of issues. Furthermore, therapy is not associated with large financial expenditures.

---

**Keywords:** Music therapy, art therapy, music therapist

## Introduction

Scientific and technological progress gives a human being unprecedented capabilities, as well as challenges and problems. Many

diseases that were incurable become treatable, while new diseases and syndromes emerged. These include conditions that are mostly caused by the technological progress and stress. Therefore, it became very important to study psychological, social and ecological factors that are underlying cause of reduced ability of human organism to adapt [7].

In order to identify causes of reduced adaptation capacity of human organism, core medical concept should be revisited, standard treatment improved and effective methods applied – all this to ensure improvement of adaptive capacity of human organism [4, 5]. Medicalization of treatment process that includes high utilization of medical equipment and pharmaceutical products, alternative treatment strategies become increasingly important. Art therapy and music therapy, as one of the forms of art therapy, is being provided by increasing number of healthcare centers [1, 8]. Music therapy is application of music for treatment. Music has influence not only on humans, but also on any living creature (animals and plants).

Music therapy involves exposition to sounds of specific frequency and strength what has had an impact on human organism. This treatment has two types of action – psychological and physiological. Music is perceived by the part of the brain that is responsible for perception. Music therapy, as a method for psychometric regulation can be applied to practically unlimited spectrum of conditions. It was no contradictions and can be used at any age. Different type of music can cause different type of reaction among patients due to their differential physical and mental status of the patient. Environment, age, religion and social status of the patient also play a significant role.

Music has been used for medical purposes from antique times, including by Hippocrates, Theophrastus, Celsius, Galen and others [18]. French psychiatrist Esquirol started application of European music for treatment in XIX century in a psychiatric hospital. The first manuscripts that observe and study impact of music on human being were published at the end of XIX and beginning of XX centuries. Those works describe positive effect of music on central nervous system, as well as respiratory and cardiovascular systems. Music therapy as a term that we used with contemporary meaning was coined during World War II. Influx of patients in military hospitals became a trigger for the development of new forms of treatment. National Association of Music Therapy (NAMT) was established in 1950, and the treatment was used for rehabilitation of war veterans. In 1998 US association – American Music Therapy Association was created. The aim of this organization was to popularize this treatment strategy and develop special academic and training programs for professionals.

Starting from the mid XX century, music therapy is widely used in many European countries. It developed as an interdisciplinary field that joins

knowledge and achievements of psychology, neurophysiology, music science, pedagogy and others.

It has been also researched that during the exposition to music, part of the brain responsible for positive emotions overrides negative and pathological process and reduces the harm to the organism.

Effect of music depends not only on the qualities of music itself, but also on the instrument on which the melody is performed [6]. Tempo, rhythm and dynamics of the melody also pay an important role. The impact of music can be understood as a dynamic factor of sanogenesis regulations. Variation of physiological responses in the body is determined by the complex mechanisms of reception that influences psycho-emotional condition, intensity of respiratory, cardiovascular and metabolic processes in the human body and cause changes in hormonal and biochemical processes. Pleasant music causes increase in heart rate, blood vassal expansions, normalization of blood pressure. Listening of symphonic music normalizes acidity level in the digestive tract, while unpleasant music causes the opposite reaction. Music affects muscular system and changes hormonal level that impact emotional status [9, 17].

Clinical studies confirm that music can be used during the treatment of different conditions [3, 16]. For example, at the University Clinic of Munich application of music therapy improved patients' general condition, healing process of wounds and cuts became faster, colorectal functioning improved among patient. Music can be used to reveal stress and posttraumatic symptoms among patients. It also helps to develop self-identification and creativity. In the National Institute of France, music is played during the surgery based on the individual qualities of a disease and a patient. Doctors use music therapy during the treatment of somatic conditions, in the fields of psychiatry and neurology. Music is also used in intensive therapy wards as it fosters improvement in communication and rehabilitation process (when there is a physical damage to the nervous system), relaxation, correction of emotional field and pain management [11;12;14;15].

After the music therapy was acknowledged as an effective method for treatment, academic and training programs for professional training for music therapists started to emerge. Music therapy should be used by the professionals– music therapists. The first program was established in London in 1961 and in 1975, the music therapy center was established. In Germany music therapists started working from 1978. In 1985 music therapy institute was created at the medical department of Medical University. Music therapy has been widely used in USA, where it was introduced as a treatment method of emotional stress in World War II veterans. Currently, there are 2500 music therapists registered in USA and their number is growing every year.

There are at least 100 programs that provide postgraduate training in music therapy at baccalaureate, masters and doctoral levels.

Music therapy is also widely used in psychiatric and neurological wards as a treatment strategy in Australia, Japan, New Zealand, South American countries, Italy, France (St. Madlen Hospital) and other countries.

Music therapy can be effectively used for the treatment of conditions of nervous system – neurosis, neurasthenia, insomnia da fatigue; mental health problems – psychopathy, schizophrenia; hypertensions, disorders of microcirculatory and hemodynamic systems, cardiovascular conditions, ischemic heart diseases, dysfunction of vegetative, digestive (including gastritis, colic, and ulcer) and respiratory systems (including bronchial asthma and chronic bronchitis), reduced adaptation capabilities and resistance, pain and autism. This therapy can be beneficial for rehabilitation of patients with mental and somatic problems [2; 10; 13]. Music is also beneficial for elderly patients as it improves mood, increases social contacts and length of life.

Contraindications for music therapy are limited number of severe clinical conditions of unknown etiology, abnormal reactions, aneurism, post-laparotomy conditions and hernia. It should be noted that music therapy could be used in combination with other treatment or prevention strategies.

## **Conclusion**

Georgia does not have professionals in the field of music therapy. Only a few psychotherapy centers use art therapy during the treatment. Training of specialists in this field is very important, as this treatment strategy had number of advantages. This includes that it does not involve pharmaceuticals, neither does it cause addiction. It can be used for treatment of broad spectrum of conditions and the treatment itself is not associated with high financial expenditures.

## **References:**

- Blavo R. (2003) Healing by music. St. Petersburg, 192 p.
- Gorshunova N. K. (2006) Medical and labor rehabilitation of children with disabilities. - Kursk: Kursk State Medical University, 100 p.
- Klyuev A.S. (2010) Music therapy: esthetic-psychological and clinical aspects. St. Petersburg, 35 p.
- Ленів З. (2008) Концептуальні засади музикотерапії як засобу корекції тяжких порушень мовлення у дітей. Наук. часопис НПУ ім. М.П. Драгоманова, 19(9): 167–170.
- Samsonova G. O. (2009) Sound therapy. Music improving technologies. Design Board, Tula - Moscow, 248 p.

- Shushardzan S. V. (2005) Modern methods of music therapy and effects arising at influence by music and various acoustic signals on a human body. *Traditional medicine*, 2(7): 23–29.
- Shushardzan S. V., Shushardzan R. S. (1997) Computer analyzer of sound signals of SSH-1// Ecological and physiological problems of adaptation: Materials of the 8th All-Russian symposium. – Moscow, p. 172.
- Aldridge D. (2000) Music therapy research: a review of references in the medical literature. University Witten-Herdecke, 30 p.
- Butterton M. (2008) Listening to music in psychotherapy. Radcliffe Publishing, Oxford, 194 p.
- Engel J.N. (2009) Using the SCERTS model assessment tool to identify music therapy goals for clients with autism spectrum disorder. *J. Music There.* 46(3): 204–216.
- Fukui H., Toyoshima K. (2008) Music facilitate the neurogenesis, regeneration and repair of neurons. *Med. Hypotheses.*, 71(5): 765–769.
- Humpal M. (2007) Thoughts on neurological music therapy and early intervention. *Early Childhood Newsletter*, 13(6): 10–11.
- Krout R.E., (2007). Music listening to facilitate relaxation and promote wellness: integrated aspects of our neurophysiological responses to music. *The Arts in Psychotherapy*, 34(2): 134–141.
- Kuhn D. (2002). The effects of active and passive participation in musical activity on the immune system as measured by salivary immunoglobulin A (SIgA). *J. Music There.* 39(1): 30–39.
- Kwak E.E. (2007). Effect of rhythmic auditory stimulation on gait performance in children with spastic cerebral palsy. *J. Music There.* 44(3):
- Secic M., Davis B.A. (2007). Effects of music therapy on health-related outcomes in cardiac rehabilitation: a randomized controlled trial. *J. Music Ther.*, 44(3): 176–196.
- Tüpker R. (2008). Reader musiktherapie. Institut für Musikwissenschaft und Musikpädagogik Westfälische Wilhelms-Universität, Münster, 174 s  
<http://health2000.agava.ru/pole/arts/musikter.htm>