Music therapy – history of development (part 2)

Jarosław Kobylański¹, Maciej Walczak¹, Krzysztof Stępień¹, Wioletta Bereziewicz², Jolanta Pytko-Polończyk³

1. Student, Students’ Research Association, Integrated Dentistry Department, Faculty of Medicine, Jagiellonian University, Medical College, Kraków, Poland
2. PhD, Supervisor of Students’ Research Association, Integrated Dentistry Department, Faculty of Medicine, Jagiellonian University, Medical College, Kraków, Poland
3. Associate Professor, Doctor of Medical Sciences, Head of the Integrated Dentistry Department, Faculty of Medicine, Jagiellonian University, Medical College, Kraków, Poland

#Corresponding author: Wioletta Bereziewicz, PhD, Integrated Dentistry Department, Faculty of Medicine, Jagiellonian University, Medical College, Kraków, Poland Address: Montelupich 4 Street, 31-155 Kraków, Poland, e-mail: wbereziewicz12@gmail.com, phone: +48 601 888 471

RUNNING TITLE Music therapy – (part 2)
KEYWORDS dental treatment, anxiety, music therapy
WORD COUNT 1 154
CONFLICT OF INTERESTS no conflicts of interest

ABSTRACT

The contemporary music therapy is a relatively new scientific and therapeutic field, which has its beginnings in ancient times. Records of music therapy treatment can be found both in the Holy Bible, as well as in old Roman sources, Greek mythology and the Far East writings. Since the introduction of the current term of the music therapy, the very concept of using music for therapeutic purposes has been constantly changing and evolving. Apart from the American and Swedish research, Polish scientist have also contributed to the development of the method. The therapeutic effects of music have already been used in pedagogy, psychology, rehabilitation and many other areas. Music finds numerous applications in various branches of medicine due to its influence on the emotional sphere of human life and, in consequence, also on the physiological parameters of the human body. Music therapy can be divided into two categories: receptive and active one. Although in medicine mainly the former is preferred, it is an interesting alternative to the pharmacological treatment, which in itself encounters many limitations. The possibility of using music therapy in reducing the level of anxiety in patients is particularly important in dental practice. The high percentage of patients suffering from dentophobia and a profound impact of the increased anxiety level on the intensification of pain perception may provide sufficient incentive for introducing music therapy as a standard procedure.
MUSIC THERAPY IS AN AREA WHICH FOUND ITS PLACE AMONG MEDICAL SCIENCES IN THE 1950S. THE FIRST ATTEMPTS TO DEFINE MUSIC THERAPY WERE MADE BY NATANSON, WHO PROPOSED TWO SEPARATE TERMS: MUSIC THERAPY AND SCIENCE OF MUSIC THERAPY AS THEORETICAL STUDIES. ACCORDING TO NATANSON, “MUSIC THERAPY IS A DIVERSE APPROACH, WHICH RELIES ON MULTIFACETED INFLUENCE OF MUSIC ON THE PSYCHOSOMATIC SYSTEM OF A HUMAN BEING” [1]. AT FIRST, MUSIC THERAPY WAS INTENDED TO FACILITATE INTERPERSONAL COMMUNICATION AND TO FACILITATE CHANGES IN THE PATIENT’S BEHAVIOR THROUGH ITS PSYCHOTHERAPEUTIC MEANS. PEOPLE WHO PARTICIPATED IN MUSIC THERAPY PROGRAMS REACTED TO IT IN A SUBJECTIVE WAY, REPORTING PHYSICAL, EMOTIONAL AND INTELLECTUAL EXPERIENCES. OVER THE YEARS, THE CONCEPT OF MUSIC THERAPY HAS BEEN EVOLVING DUE TO THE DIFFERENCES IN HOW IT WAS DEFINED, AS MUSIC THERAPY WAS APPLIED IN MANY DIFFERENT FIELDS OF SCIENCE – PSYCHIATRY, PSYCHOLOGY OR MEDICINE. AT PRESENT, THE CONCEPT OF MUSIC THERAPY HAS BEEN STANDARDIZED AND ACCORDING TO BRUSCIA IT INCLUDES ALL ACTIVITIES WITH REGARD TO MUSIC IN THE COURSE OF TREATMENT, THERAPY AND EDUCATION [1].


IN SELECTING MUSIC FOR THE PURPOSE OF MUSIC THERAPY SPECIAL ATTENTION SHOULD BE PAID TO THE ELEMENTS SUCH
as tempo, rhythm, tone, structure and harmony [6]. It depends on the abovementioned elements whether the music has a calming or activating effect from a therapeutic perspective. According to Natanson, music functions as a "specific medicine", as it is capable of dynamically changing the patient’s emotional states, motivate to action and facilitate concentration [3]. Music therapy can be divided into receptive (based on perception or reception of input) and active (based on performing an action) [1]. In receptive music therapy, also referred to as passive music therapy, a patient listens to specially prepared music pieces and is not required to participated in any activities. Music can serve as a bridge to emotions, stimulate associations and feelings and provide material for self-reflection and a discussion [6]. It is used most often with a view to reducing or eliminating the symptoms of a disease, in which psychogenic disorders are typical. This type of music therapy aims to bring improvements to patients’ everyday life – their development and communication with others. It should be stressed that perceptive music therapy requires emotional and “mental” involvement of the patient and it might be focused or creative [1]. Active music therapy, on the other hand, does not need to be focused or creative. In active music therapy the patient is involved in any music activity, such as playing an instrument, singing or moving to the rhythm of music. This type of music therapy intends to stimulate the various senses of the patient and this is why the therapy works best in group sessions with “lively” music. Active music therapy is used mainly in rehabilitation and special needs education. The different kinds of activities increase the patients’ curiosity and motivate them to continue their participation in the therapy, which allows the therapists to observe the progress of the treatment [1]. At this stage it is worth mentioning the creative music therapy by Nordoff and Robbins, which was originally devised as a therapy for children with disabilities in order to improve their educational abilities, improve their communicative skills and enhance expression of emotions by providing them with pleasure [5]. From a medical perspective, it seems important to refer to Lecourt’s division of techniques in music therapy into the mediation technique, which provides a link between the patient and therapist and the structural technique, grounded in the link between the structure of music and the mind [1, 9].

The research on the applications of music in medicine have proven that music influences the patient’s emotional state and stimulates the activity of the whole human body (among others, changes were observed in the pace of breathing and heart rate, fluctuations in body temperature or blood pressure) [6, 10, 11]. Music therapy may be used in many branches of medicine. In dentistry, it is very common for patients to suffer from anticipatory anxiety before a visit to the dentist because of previous unpleasant experiences, other people’s opinions or one’s own projections. The level of psychosomatic tension may vary from very low up to increased psychosomatic symptoms, such as a change in skin color, excessive sweating, increased pulse and blood pressure, shaking hands [12]. Kim points out to the fact that numerous studies suggest the existence of a significant relation between intraoperative level of fear and intraoperative perception of pain and an increase in intraoperative fear is connected to an increased demand for anesthetics and pain killers after the treatment [11]. There is also a correlation between a preoperative level of fear and postoperative perception of pain [12]. The level of preoperative fear is a predictor of intraoperative level of fear and intraoperative perception of pain. All the above interdependencies indicate a need to reduce the level of fear in dental patients.

In the subject literature there also exists a concept of “music medicine”, that is music that plays an auxiliary role in various medical procedures, used by the medical personnel and not by music therapists. It enjoys a wide range of applications and high effectiveness in relying on the natural features of music in reducing stress, pain or fear. Comparing the concepts of music medicine and music therapy, the latter makes use of the music experience on a broader scale [13].

A conversation with the patient, treated as a type of psychotherapy supplemented by the right pharmacotherapy, is often used in order to reduce the level of fear before dental treatment [14]. Among a class of drugs which alleviate preoperative fear there are some benzodiazepines, barbiturates and hydroxyzine [15]. They have a desired anxiolytic, sedative, mio-relaxing and anticonvulsant effect and may induce memory loss. However, it should be remembered that there are side effects to the abovementioned drugs, such as prolonged effects or potential interaction with a large range of drugs, which may, in turn, strengthen their depressive effect on the central nervous system [15]. The class of drugs listed above are of limited use in elderly patients, in patients with hepatic insufficiency, myasthenia, ataxia and also in the cases of poisoning by alcohol, psychotropic drugs or opiates. A prolonged treatment with the above types of drugs may lead to addiction. [15]. This is why it seems reasonable to search for other methods of reducing the level of fear in patients, especially if the fear is very persistent and the patient requires an intensive and lengthy dental care. One of such methods is the implementation of the elements of music therapy as an integral part of the treatment in dental surgeries [16, 17]. The application of the receptive music therapy affects the patients’ psychological sphere, reducing their fear.

CITE THIS AS
BIBLIOGRAPHY

17. Bereziewicz WU: The application of an individual music program in patients with anticipatory anxiety in dental treatment [in Polish]. Doctoral thesis supervised by Prof. BW Loster, Collegium Medicum, Jagiello- nian University, Krakow, 2011