



The possibility of using music therapy in reducing the level of anxiety in patients is particularly important in dental practice. The application of the receptive music therapy affects the patients' psychological sphere, reducing their fear.

Music therapy – history of development (part 2)

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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].

The history of music therapy probably goes as far back as the history of humanity. Already in mythology there is mention of god Apollo, who was believed to take care of music and poetry and was a patron of medical art [2]. In his works, Platon paid special attention to the educational aspect of music, believing that it was capable of evoking moral feelings of positive or negative character in a human being [3]. Further, from the accounts preserved in the Old Testament we learn about the therapeutic influence of David’s harp playing which causes King Saul’s nervous disorder to recede [3]. Galen recommended playing music in order to cure the biting of a snake, whereas Pythagoras claimed that listening to music is the best cure for depression [4]. Gallius, on the other hand, used subtle music in treating epilepsy and sciatica [3]. In ancient China and India one can find beliefs deriving from the Greek ethos theory which concerns the ways melodic tunes, scales or rhythms can influence the listener in the sense of generating specific emotional reactions [5, 6]. This is where the educational aspect of music and its ability to foster certain behaviors are already emphasized. Also in India it was believed that music can influence people, animals, and inanimate nature or that certain melodies can evoke rain, others fire and still others an eclipse [3]. In 1304, when a French duchess fell ill, the court physician recommended a therapy of “listening to harp playing for 8 days” [3]. The 19th century, apart from studying the effects of music on human psychology, brought a series of new observations concerning a positive impact of music on the vegetative system, even though the studies did not include a comparison between therapeutic and control groups [3]. In the 19th century, the selection of “healing music” was based solely on the therapist’s intuition and taste, thus it was often charged with various fantastical opinions [3].

In the 20th century music therapy was perceived in two categories: practical and theoretical [3]. Theoretical concepts of music therapy derive from the American and Swedish schools, which are based on entirely different premises [3]. The American school, called empirical-clinical or music-pharmacological, is limited to observation studies by applying music of different styles. Shatin and Masserman are advocates of the orthodox psychoanalysis of impulses and with regard to them they accept the therapeutic influence of music [3]. Still others, including Illing, Bonny, Douglas, Wagner, Butler, Boenheim and Steele embrace socio-psychological factors in their approach to music therapy [3]. This is why in numerous psychotherapeutic methods of treatment and in comparison with individual psychotherapy or group talk, music therapy of the American school is described as an additional psychotherapeutic method [3]. On the other hand, the Swedish school created by Pontvik is based on psychotherapy derived from the psychology of depth and it perceives music therapy as a central element of treatment [3].

The 1970s mark the development of music therapy in Poland, which is connected with the opening of the Department of Music Therapy at the Faculty of Composition and Theory of Music of the Academy of Music in Wrocław. In Poland, the current working definition of music therapy was developed by Janiszewski, who claims that “music therapy is a discipline which utilizes music in a focused, multi-functional, complex and systematic way in order to complement the collective, pharmacological, rehabilitative, psychotherapeutic or special education treatment” [1]. An interesting definition is provided by Galińska, who describes music therapy as a “form of psychotherapy, which employs music and its elements as means of stimulation, structuralization, emotional expression and non-verbal communication in the process of diagnosis, treatment and personality development of a human being” [7]. She identifies four areas of the influence of music on a human body: psychosomatic, psychological, psychomotor and pedagogical [7]. In the field of dentistry, the objectives of music therapy include the relieving of negative emotions of the patients through self-expression, lowering of anticipatory anxiety, reducing increased muscle tone, emotional tension and fear. Music therapy also contributes to improving the mood and facilitates better communication, thus improving the patient-doctor relationship [6]. Music therapy provides for the possibility of non-verbal communication, which strengthens the feeling of security and trust of the patient to the doctor. It is also worth pointing out to the newest definition by the American Music Therapy Association (AMTA), which is based on the clinical and scientifically proven application of music for therapeutic purposes by a well-qualified medical professional in order to achieve individualized effects [8].

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 participate 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.

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