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## VIRTUAL EDUCATION IN MUSIC THERAPY

**Chernikova E. Yu.**

*Center for Music Therapy and speech development «Dr. Music Yugra»*

### **Abstract**

The article deals with the possibilities of training highly qualified specialists in the field of modern scientific music therapy in the conditions of virtual education. The article substantiates the relevance of training modern music therapists to use digital and computerized technologies in health care practice. A brief historical overview of the development of this area, available educational programs, and their brief analysis are given.

We analyze the existing modern scientific advanced methods and technologies of working with stress as one of the most pressing problems of society in more detail. The issues of high-level professional training in the specialty "music therapist" are discussed.

**Keywords:** music therapy, virtual technologies, training, education, medicine, psychology, stress.

## ВИРТУАЛЬНОЕ ОБУЧЕНИЕ МУЗЫКАЛЬНОЙ ТЕРАПИИ

**Черникова Е. Ю.**

*Центр музыкотерапии и развития речи «Doctor Music Ugra»*

### **Аннотация**

Статья посвящена рассмотрению особенностей и перспектив подготовки высококвалифицированных специалистов в области современной научной музыкотерапии в условиях виртуального образования. обосновывается актуальность обучения современных музыкальных терапевтов навыкам использования цифровых и компьютеризированных технологий в лечебно-оздоровительной практике. Дан краткий исторический обзор развития музыкальной терапии как направления, имеющиеся образовательные программы в этой области и их краткий анализ. Произведен анализ существующих современных научных передовые методы и технологии работы со стрессом как одной из наиболее актуальных проблем общества. Обсуждаются вопросы подготовки специалистов высокого уровня по

специальности «музыкотерапевт».

**Ключевые слова:** музыкотерапия, виртуальные технологии, обучение, образование, медицина, психология, стресс.

## INTRODUCTION

The intensive development of computer, information and robotic technologies in the modern world has led to the active introduction of virtual education as the main method of training specialists in various fields in the educational process of many institutions around the world. Virtual education is understood as "the process and result of interaction between subjects and objects of education, accompanied by the creation of a virtual educational space, the specifics of which are determined by these objects and subjects" [1]. In the context of this work, virtual education implies the use of digital and computer technologies in the practice of teaching modern music therapists, as well as the formation of their skills to use advanced music therapy technologies in health practice.

The transition to a new level of training related to the digitalization of education is aimed at training specialists who are fluent in mobile technologies, Internet technologies, focused on regular and continuous improvement of their skills through electronic education, which are guaranteed to be in demand in the labor market [2].

The urgency of applying to the use of this type of training is due to several factors: maintaining the proper level of quality of training according to existing standards; constant changes and updates of training materials and manuals; the ability to combine training with career advancement without interrupting work; availability of access to educational resources anywhere via the Internet; providing online consultations with leading lecturers; the financial component, which allows you not to spend money on the road to your place of study, accommodation, food and other expenses associated with obtaining education [3].

The issues of using virtual education as a method of learning using various technologies (electronic, digital, computer, etc.) are considered in many authoritative scientific publications by many authors [4,5,6,7,8], which indicates the feasibility of their implementation at the present stage.

The use of digital technologies in the educational process arouses the greatest interest among people of different ages, increases motivation and success in learning [9].

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In addition, in the current conditions caused by a coronavirus infection, it is necessary to observe the regime of mandatory self-isolation, which prevents education in the traditional (full-time or part-time) mode, and it also leads to the interruption of developmental classes with people who have any severe disorders, for which regular and long-term rehabilitation is important.

In such cases, the latest virtual technologies come to the rescue, allowing you to conduct music therapy sessions in a safe mode, keeping a distance, and the ability to receive the necessary health sessions of recovery and development without interruptions.

The fact that the psychosomatic health of the population is deteriorating due to constant stress, depression [10, 11], and the health-improving capabilities of the musical art necessitate the training of health professionals who are able to perform high-quality work through (computerized) music therapy, which is recognized as an effective and safe way to solve problems related to the stabilization of the psychoemotional state in children and adults [11].

## **DEVELOPMENT OF MUSIC THERAPY AS A SCIENCE, A BRIEF OVERVIEW OF EDUCATIONAL PROGRAMS.**

Scientific music therapy today is "an advanced therapeutic, preventive and research direction that has originated in Russia and differs from the prevailing world practice mainly empirical approaches to music therapy, clear scientific validity, technological innovations, diversity and clinical effectiveness" [12]. This definition helps to specify and understand the specifics of the direction and its difference from those methods of music therapy that had existed before it acquired the status of science.

The use of music for medicinal purposes has been known since ancient times.

Hippocrates and Avicenna used it for their own medicinal purposes.

Even then, the effectiveness of the influence of music on the human body was noticed. Gradually, the positive experience accumulated and led to the need to develop programs to train professional music therapists. Therefore, the very first was the curriculum in the UK in 1961. In 1982, the training of specialists began in London, then at the German Music College, training was carried out using the Nordoff-Robbins method. Later, the experience spread to other European countries.

A review of the educational programs of these countries shows that the training

of specialists is limited to the use of various musical instruments, various methods based on rhythmic actions, singing, etc., but does not involve the development of cadets working with computerized, digital technologies that significantly expand and enrich the capabilities of a modern music therapist.

Now there are programs in more than 100 universities around the world, but it should be noted that the training of specialists in these countries, the so-called established empirical direction of music therapy [6, 7] differs significantly from the training programs and specifics of training professional music therapists in Russia.

Scientific research on the effects of music on the human body and animals in Russia began in the late XIX, early XX century under the leadership of scientists such as Dogel I. M., Bekhterev V. M., Sechenov I. M., Tarkhanov I. R. Based on the fundamental research data of scientists, in 1990 in Russia formed scientific music therapy.

Many interesting studies are still going on, but based on the results of many years of research, the neurohumoral resonance theory was formulated, which became the scientific basis and foundation for the creation and development of modern music and acoustic technologies [13,14].

The results of research have led to the identification of algorithms-regulators that, if used correctly, can regulate the level of hormones in the blood and manage the psychoemotional state of a person. Certain indications and contraindications to the use of certain methods have been identified [14].

In 2003, the Ministry of health of the Russian Federation approved the manual "Methods of music therapy" for doctors and the appearance of the first professional training courses for specialists [15].

Later, in 2014, the Kazan State Institute of culture opened a bachelor's degree in music therapy (Republic of Tatarstan).

Now the 1st virtual center for scientific music therapy of Professor Shushardzhan (Moscow, Russia) is an internationally recognized and authoritative institution that trains highly qualified personnel in the field of scientific music therapy. it is an online educational center where the future specialist:

- 1) gets unique knowledge about innovative technologies and advanced methods of scientific music therapy that have no analogues in the world;
- 2) gets the right and opportunity to carry out music therapy activities at a high professional level in Russia and Western countries;

3) is not limited to the received fundamental knowledge in the field of scientific music therapy, and gets the opportunity to engage in research work on their basis, develop their own innovative methods, implementing their individual creative ideas with a focus on the already existing scientifically proven facts.

Training of specialists in this field is multi-faceted and includes obtaining knowledge from the field of psychology, psychotherapy, elementary music theory, medicine, etc.

In addition to theoretical multidisciplinary knowledge, an advanced music therapist should have an idea of what modern technologies exist in the world, their classification, what goals they are aimed at, for what category of people they are used, for what age and what specific method should be used in each individual case.

Professor Shushardzhan`s 1st virtual center of scientific music therapy enables those who already have a basic higher professional education (doctor, teacher, musician, psychologist, etc.) to undergo the higher courses "Europe+", which aimed at learning the basics of music therapy (Level A), child music therapy (Level B), as well as, music therapy and older adults (Level C).

Higher education programs are presented in several versions:

- program № 1 has 3 stages, is aimed mainly at the formation of the coach's competence in music therapy, takes the form of distance lectures with testing to verify knowledge and writing the final diploma thesis;

- program № 2, also three-staged, includes distance learning, testing, practical block, writing a diploma thesis, while passing the course of this program, 2 documents are issued at once, giving the right to engage in music therapy activities both in Russia and in Europe;

- program № 3 (three-staged) includes distance learning in the program of the 1st stage and full-time training with practice of the 2nd and 3rd stages, at the end of which the graduate prepares a diploma thesis and passes the exam on examination cards. Upon completion of training, 2 documents are issued – a diploma of a psychologist and a European diploma of a music therapist.

Higher courses "Russia+" provide an opportunity to undergo professional retraining in the program "Psychology and music therapy" with the issuance of a diploma of the established sample, and advanced training courses in the direction "Clinical psychology and music therapy" on the basis of existing psychological professional education with the issuance of a certificate of professional

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development.

It is also possible to get unique knowledge, practical skills and skills in thematic courses on "Music therapy in rehabilitation, sanatorium-resort treatment and Wellness practice"; "Music therapy of stress and neurotic disorders"; " Children's music therapy in correctional practice» [16].

The training programs widely use digitized video and audio materials, computer tests for psychodiagnostics in music therapy, which greatly facilitate the perception of educational material, and allow you to get solid scientific theoretical knowledge in the shortest possible time.

In the course of training, cadets have the opportunity to practice at their place of residence with online supervision, gaining the necessary clinical skills and accumulating experience for subsequent work.

Thus, after determining the optimal educational program for themselves in accordance with their own capabilities and interests, after its successful completion, a qualified specialist music therapist acquires the appropriate competencies necessary for high-quality practical activities, masters the necessary theoretical knowledge and can apply innovative technologies at a high level.

Now, the available modern technologies and methods of music therapy of the Russian scientific school are successfully used in many countries of the world (Israel, Germany, Bulgaria, Poland, Estonia, the USA, Russia, etc.), show the highest results in terms of their effectiveness, and of course require highly qualified training from specialists working with them.

## **INNOVATIVE METHODS AND TECHNOLOGIES OF MODERN SCIENTIFIC MUSIC THERAPY**

With the acquisition of the scientific status of music therapy, leading specialists of the Research center for music therapy of restorative technologies (Moscow, Russia) on the basis of the research conducted, a number of advanced technologies were developed, and therefore, the therapeutic opportunities in the activities of specialists significantly expanded. In this regard, it is necessary to implement wellness methods in the therapeutic process actively and use this potential to its full extent.

To the question that digitalization of education (the use of robots, etc.) should be implemented with caution and may negatively affect interpersonal communication [9], it should be noted that computerized technologies do not replace the music

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therapy specialist and live communication with him, but harmoniously complement the health process with the latest tools, increase the productivity of professional activities, work efficiency, interest and motivation [9].

Let`s consider the innovative complex "Dr. Music-Baby", aimed at rehabilitation and correction. It allows you to solve such manifestations of neurosis in children as aggression, anxiety, difficulty concentrating, emotional instability, lack of contact and accompanying manifestations (ADHD, autism, etc.) [10].

With the proper use of this method, the music therapist works comprehensively on many areas of the personality, helping the child to normalize the intellectual, emotional-volitional and social-communicative areas of the personality [17]. In addition, the complex promotes creative development, the formation of music playing skills, attentive listening, and improves empathic and aesthetic abilities [17].

The health-improving functions of the method are to increase the body's resistance and strengthen the overall health of the child [18].

"Dr. Music-Baby" consists of three complete technological units.

The first block required to diagnose existing violations, it includes a set of necessary tools for testing the condition of the child.

The second block is used for receptive music therapy; it includes ready-made programs of the series "Health music", "Eco Music", "Virtual music therapy", built in accordance with the identified algorithms-regulators that have a harmonizing effect on the body.

The third block formed on the basis of active methods, including: elementary music therapy (EMT), directed on formation of communication skills and self-expression [19]; gaming vocal therapy (GVT) based on the method of vocal therapy, musical archetypes and games [17], as well as Music art therapy (MART) based on the positive possibilities of music and colour in the formation of social qualities and overall personality development.

This unique complex is the most powerful tool in the hands of a modern music therapist and allows you to achieve the most significant health-improving results, as well as contributes to the overall creative and aesthetic development. In this regard, it is recommended for wide use in the therapeutic practice of psychology, psychotherapy, medicine, etc. [10].

At the moment another innovative correctional and developmental method "Rhythmic-motor folk training" is under development, aimed at harmonizing the

psychoemotional state, developing hand coordination, improving motor skills, development of rhythmic skills, etc. The therapeutic process can be carried out using a computer program or "live" performing the specified training exercises together with a specialist or with a parent (if the lesson is conducted with a child).

The method is unique because it is based on Russian folk music, selected in accordance with the algorithms-controllers, harmonizing the psycho-emotional state and using him as one of the main symbols of Russian folk culture, Russian nesting dolls.

## **STANDARDIZATION ISSUES AND AREAS OF APPLICATION OF PROFESSIONAL MUSIC THERAPY**

In 2009, Russia approved standards in the field of music therapy and defined the competence of a professional music therapist.

An advanced specialist in this field should have an understanding of the existing innovative computerized technologies and methods of scientific music therapy, be able to work with them, create his own programmes for sessions of recovery, correction and development, possess diagnostic tools, special skills necessary for the implementation of high-quality activities. In addition, he needs to have a natural musicality and hearing [11].

One of the main tasks is the validity of the choice of methods for a particular case, rationality and adequacy in relation to the existing pathology. It is necessary to take into account the period of therapeutic impact, bearing in mind that some children (autistic or retarded in development) require patience and longer rehabilitation, compared to children with preserved health and intelligence [11].

Thus, the specialist should be able to choose the most suitable technology for this particular case from the entire arsenal of available technologies, correctly building the therapeutic process.

These methods and technologies of scientific music therapy simultaneously relate to the field of medicine and psychology, in particular to devices that can harmonize the psychoemotional state of a person. These technologies can be used in medical, psychological, and pedagogical practice.

## **CONCLUSION**

The emergence of scientific music therapy has given a great impetus to the development of innovative therapeutic, preventive and corrective methods, on an



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evidence-based basis, which have no analogues in the world.

The emphasis on the use of hardware and computer technologies has made music therapy methods available for wide application.

In turn, virtual education technologies have allowed to maximize the audience, covering various countries and continents, and in the shortest possible time to train specialists who possess the skills and competencies necessary for professional work in the field of scientific music therapy with the further use of its achievements in medical, psychological, social rehabilitation and pedagogical practice.

The gained positive experience of online training of specialists in the training center of scientific music therapy, allows us to conclude that the further development and widespread introduction of virtual education is relevant.

#### **ADDITIONAL**

##### **Information about the authors:**

Chernikova Ekaterina Yurievna, psychologist, certified music therapist, speech therapist, CEO of the Music therapy and speech development center «Doctor Music Ugra». E-mail: [doctor.music.ugra@mail.ru](mailto:doctor.music.ugra@mail.ru) , ORCID ID: <http://orcid.org/0000-0002-8574-1419>

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##### **Информация об авторах:**

Черникова Екатерина Юрьевна, психолог, сертифицированный музыкальный терапевт, логопед, руководитель Центра музыкотерапии и развития речи

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«Doctor Music Ugra». E-mail: [doctor.music.ugra@mail.ru](mailto:doctor.music.ugra@mail.ru) , ORCID ID: <http://orcid.org/0000-0002-8574-1419>

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