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# Position of music therapy as a science and therapeutic practice Miejsce muzykoterapii w nauce i praktyce terapeutycznej

Abstract: Music therapy is playing an increasingly important role in the treatment of mental and somatic disorders. The paper discusses the double meaning of the term music therapy, understood as, on the one hand, a therapeutic activity involving music and, on the other, the science concerning the effects of music on the mental and somatic health. The imprecise limits of the notion of music therapy has been brought to the reader's attention. Music therapy as a science draws on psychology, neuroscience, cognitive and art sciences. Music therapy as a therapeutic method has in turn many elements in common with psychotherapy such as setting, the phenomena of transference, countertransference, resistance, or a therapeutic contract. Music therapy is a relatively new field of knowledge and practice that is still building up its identity and its position.

Key words: Music therapy, Music therapy as a therapeutic method

**Abstrakt:** Muzykoterapia odgrywa coraz większą rolę w leczeniu zaburzeń psychicznych i somatycznych. W artykule omówiono podwójne znaczenie terminu muzykoterapia przez który rozumie się aktywność terapeutyczną z udziałem muzyki i naukę o wpływie muzyki na stan zdrowia psychicznego i somatycznego.

Zwrócono uwagę na nieprecyzyjną granicę pojęcia muzykoterapia. Muzykoterapia jako nauka korzysta z zasobów psychologii, neuronauki, kognitywistki i nauk o sztuce. Muzykoterapia jako metoda lecznicza z kolei ma wiele elementów wspólnych z psychoterapią takich, jak setting, zjawisko przeniesienia, przeciwprzeniesienia, oporu czy kontraktu terapeutycznego. Zatem muzykoterapia jest względnie nową dziedziną wiedzy i praktyki budującą dopiero swoją tożsamość i swoje miejsce.

Słowa kluczowe: muzykoterapia, muzykoterapia jako metoda terapeutyczna

### Introduction

Non-pharmacological methods are increasingly taken into account in the treatment of psychiatric disorders and somatic diseases. This is due to certain limitations of pharmacotherapy (Stahl, 2015). The medications applied in the treatment of psychiatric and behavioral disorders do not take into consideration such important variables as culture, tradition, language, religion and belief in God, individual experience of the subjects, their

families of origin and life stories (de Barbaro, 1999; John Paul II, 1995; Stahl, 2015). Psychotherapy and pharmacotherapy conducted in parallel in the treatment of psychiatric disorders and numerous somatic diseases have already become a standard. More and more often psychotherapy is combined with other methods of non-pharmacological therapy such as bibliotherapy, art therapy, or music therapy. Psychotherapy is often insufficient, or sometimes impossible to apply (e.g. in the cases of deep intellectual disability). In the paper, we have attempted to present music therapy as an area of practical activities and a scientific discipline against the background of related fields of science such as psychology, neuroscience, cognitive science and, above all, psychotherapy. Such an attempt was previously undertaken in 2012 by Stachyra (Stachyra, 2012).

# 1. Position of music therapy among the disciplines of science

Music therapy is defined as a method of therapy in somatic medicine and in psychiatry that makes the use of music or its elements to improve health, well-being and functioning (Bunt, Hoskyns, 2002, Stachyra, 2012). It is therefore necessary to ask the question of how to call the science about music therapy. The term used should be different from the subject matter of the study. In the literature, the science about music therapy is also referred to as music therapy, which results in the ambiguity of the concept (Cylkowska-Nowak, Strzelecki, 2017; Stachyra, 2012). Thus, music therapy is both a field of social practice and a science of this form of practice. A similar situation exists in pedagogy, where the term refers to both the pedagogical activity of the human being and the science of this activity. The concept of pedagogy, understood as a set of educational and upbringing activities, was defined as pedagogy, and the science of pedagogy was defined as pedagogics (Kwieciński, Sliwerski, 2019). However, this terminology is not common and the term pedagogy is more often used for educational and educative activities as well as for the scientific discipline associated with these activities (Kwieciński, Śliwerski 2019). Psychology, on the other hand, deals with the human psyche understood as a set of cognitive and emotional processes of the subject (Maruszewski, 2011). The notions of psyche and psychology function separately in the linguistic consciousness in Poland. However, the description of the mental processes often misuses the adjective "psychological", which blurs the difference indicated above. Thus, we understand music therapy as both the therapeutic practice and the science of that practice.

A question should be asked to which group of sciences music therapy should be qualified. The tool of music therapy is music. Music is defined as the art of organization of sounds, which affects the human psyche in an artistic way (Dahlhaus, Eggebrecht, 1992; Jabłońska, 2015; Wesołowski, 2014). In this context, music therapy is close to the art sciences. Music, and thus also the practice of music therapy affects the human central nervous system

arousing the mechanisms of pleasure similar to trance sensations (Sloboda, 2002; Wierszyłowski, 1981). They can be visualized using functional nuclear magnetic resonance imaging (Angulo-Perkins, Concha, 2019). In this sense, music therapy as a science is close to cognitive psychology and neuroscience as well as cognitive science (Bremer, 2016; Maruszewski, 2011; Michałowski, Poczobut, 2012). The target of music therapy is a person with somatic diseases or mental disorders. In this context, music therapy, together with pharmacotherapy, surgical methods, radiotherapy, physiotherapy, balneotherapy, or psychotherapy is a subdiscipline of medical science (Leszto, Witusik, Pietras, 2013; Witusik, Leszto, Podgórska-Jachnik, Pietras, 2015). If we believe that clinical psychology deals also with clinical disciplines, music therapy as a science can be located close to clinical psychology and health psychology (Sęk, 2001; Sęk, 2014). Undoubtedly, music therapy requires the integration of scientific knowledge with the world of art, methodological correctness with the intuitiveness of the artist. It requires the ability to combine what is measurable and quantifiable with what is often elusive, intuitive and personal (Stachyra, 2012).

Music therapy is only building its scientific identity as a relative new field of science that has emerged as a result of the needs of social practice. It is a field of science created at the intersection of the sciences of art, psychology (including clinical psychology), neuroscience and cognitive science, as well as medicine. The subjects of music therapy activities are sick or healthy individuals, and the working tool is music. The range of music therapy interactions is unclear (Mika, 2007). Is the therapy involving dancing to the rhythm of music a component of music therapy? Can participation in the choir, or playing instruments in the band be formally qualified as music therapy interactions if they help the individual? It is known that music along with dancing can induce in humans a trance giving a transcendent experience sometimes similar to hallucinogens-induced psychosis (Boso, Politi, Barale, Enzo, 2006).

The research tools in music therapy are borrowed from the related sciences, but are close to the methods used in psychology and medicine. However, it is necessary to consider in detail what research tools can be used in music therapy as a science.

1. Psychometric tools play an important role in assessment of the effects of music on the somatic and mental condition of the patient. They allow to study the quality of life, well-being, severity of depression, aggression, anxiety, emotional perception of music, etc. These tools must meet the criteria of the psychological test goodness of fit, have a specific reliability and validity, be reduced culturally and sometimes normalized/standardized (Anastasi, Urbina, 1999, Hornowska 2001). Such a methodology in music therapy is basically equivalent with the methodology of psychological research and in this context music therapy as a science is close to psychology. Studies assessing the effectiveness of music therapy in the particular

diseases can be designed by adding music therapy to a standard method in one group versus a control group treated with the standard method only. Such a study resembles a study of the effectiveness of medications except that it cannot involve a double-blind design. The inability to use a double-blind test lowers the scientific value of research into the effectiveness of music therapy as a method. No evidence of efficacy of the so-called Class A therapeutic method leaves always uncertainty as to the feasibility of further exploratory research into the effectiveness of music therapy and reflection on the significance of music therapy as an important therapeutic method.

- 2. The effects of music on the body can be investigated by physiological methods-electroencephalography, electrocardiography, functional magnetic resonance, skin resistance tests, etc. This type of research is physiological or, less frequently, biochemical in nature (Silverthorn, 2018). They are extremely valuable as they illustrate the actual impact of music on physiological processes. The consent of the Bioethics Committee is usually required for their conduct. Such research develops also the theory of music, because during the planning of the experiments it should be considered what the interval, chord, harmony, rhythm, melody are and how they reflected in the function of the central nervous system. There are even fundamental questions arising, as to whether music is an attribute of the human beings similar to language or conceptual thinking (Chlewiński, 1999; Kurcz, 2005; Maruszewski, 2011). What is the evolutionary origin of music, what is its role not only in culture, but also in spiritual experiences, religious experiences, ceremonies and rituals characteristic of a particular group or society. Music, like language and religious beliefs, is present in every society (Wesołowski, 2014).
- 3. Studies of the laws governing the community deal with the nomothetic aspect of music therapy. There is also, however, the individual, idiographic aspect of the ill person's experience of music. The study of the significance of music for the subject in the context of his/her medical history is a qualitative study, taking into account the experiences, intimacy of experiencing both illness and music, research concerning the temperament, personality and curriculum vitae of the individual (Jemielniak, 2012, Silverman, 2019). This individual experience, this history of illness enriched by music sensitivity depends on the so-called transgenerational transmissions (myths) inherited from families of origin, on musical ear and a sense of rhythm, on the cultural significance of music to the subject, and finally on the musical culture of the society. The sensitivity of a sophisticated music lover is different from that of a young hipster listening to rock or techno music.

The search for the identity of a new field of science always depends on the paradigms that have been adopted at the specific moment of history, on the attitude of theoretical

precursors of the discipline and the investigators themselves (Grobler, 2006; Stachyra, 2012). The process of music therapy will be perceived differently by a doctor, an artist-musician and still in a different way by a cognitively oriented psychologist. Music therapy, however, is far from any systematization of knowledge. At present, this science constitutes a collection of observations, facts and methods that will require a systematic and precise theoretical framework in the future, as well as development of its own terminology and its own laws.

# 2. Music therapy and psychotherapy - similarities and differences

Psychotherapy and music therapy belong to non-pharmacological methods used in psychiatry and in somatic medicine. At this point, let us consider what are the similarities and differences and what are the interdependencies between them. Both areas of social practice are treated as adjuvant methods for treating psychiatric and somatic disorders (Witusik et al., 2015). Both are searching for their identity and theoretical empowerment at the intersection of psychology, psychiatry, pedagogy, sociology, theology and theory of art. The theory (actually comprising numerous theories) of psychotherapy is much more extensive than the theory of music therapy. Psychotherapy is derived historically from Freud's psychoanalysis, whereas the therapeutic applicability of music has been known to humans ever since (McWiliams, 2015). Music stems from the properties of the human mind, while psychotherapy is a consequence of the development of scientific knowledge. Thus, it is surprising that there is so great discrepancy in the scope of theories of both disciplines. Possibly, the attractiveness of psychoanalysis and the fame of Freud, as well as the demand for contact with another man in the industrial and post-industrial society, during the period of trauma caused by wars, during the crisis of values, has contributed to the development psychotherapy and its numerous trends (Gabbard, 2015). In psychotherapy, like in music therapy, there is no uniform theory bonding the existing achievements of various trends. The eclectic application of various methods, the use of elements coming from different trends, both in psychotherapy and music therapy, does not imply the integration of various schools, or methodological and axiological uniformity. In psychotherapy, the so-called third wave of cognitive behavioral therapy claims the right to such integration (Alford, Beck, 2005; Beck, Dozois, 2011). However, for the time being, this is probably a theoretical assumption only.

Many elements of psychotherapy have penetrated into the practice of music therapy by analogy and as a result of attempts to formulate the principles. Both treatment methods apply the "settling" rules for rigid time frames and rules of conducting the session. In music therapy, like in psychotherapy, the phenomena of transference, countertransference and resistance are observed (Gabbard, 2011; McWiliams, 2009). In simpler terms,:

- transference means the attitude of the client to the therapist,
- countertransference, in turn, is the reaction of the therapist to the client,

- resistance is defined as reluctance of the client to accept the change affecting the existing dysfunctional personality structure (Gabbard, 2011; Gabbard, 2015).

In music therapy, like in psychotherapy, a therapeutic contract is applicable. The therapeutic contract means the arrangements for the purpose of the therapy, its duration, course, methods of therapeutic work, the place where the therapy is conducted, its frequency, the duration of the session, the conditions of cancelling the meetings, the forms of communication outside the sessions, the terms of payment for the treatment, the possibility of participation of the client's family members in the therapy and of recording the sessions by the therapist (Gabbard, 2011, 2015). Music therapy, like psychotherapy, should be carried out under supervision. Supervision is a form of regular consultations of a less experienced therapist (the supervisee) with an experienced therapist who is a certified supervisor (Gilbert, Evans, 2004; Popiel, Pragłowska, 2013). Supervision has at least three aspects:

- formative meaning the development of own resources of the psychotherapist/music therapist,
- 2. normative meaning the supervisee's compliance with the ethical standards and principles of the therapy
- 3. enhancing associated with regeneration of the supervisee and prevention of professional burnout (Gilbert, Evans, 2004; Popiel, Pragłowska, 2013).

Both in psychotherapy and music therapy, supervision seems to be an indispensable aspect of therapeutic professionalism. In psychotherapy, a self-treatment is also required, which is replaced in the cognitive behavioral therapy by so-called own work (Popiel, Pragłowska, 2013). In music therapy it would be advisable to experience a group process and to have self-psychotherapy in order to better understand by the way of personal experience of the processes taking place in psychotherapy and music therapy (Gilbert, Evans, 2004). We believe that musical education or knowledge in the field of musicology is also important for a music therapist.

Music therapy, like psychotherapy, takes place in an individual or group form. Group therapy gives a unique opportunity to take advantage of the therapeutic process of other people in the group. Individual therapy, however, is deeper but self-focused only (Gabbard, 2015). Music therapy, like psychodynamic or humanistic psychotherapy, affects the emotional functioning of the individual. Listening to music activates the areas of the brain responsible for feeling emotions (Reybrouck, Podlipniak, 2019). Music can induce various emotional states, stimulate or calm down, give pleasure, lead to trance, or vice versa, irritate and activate. The language of music as the art of transmission differs greatly from the language of psychotherapy. The language of psychotherapy is a language with a communicative and representative function (Kurcz, 2005). The illocutionary aspect resulting from the phenomenon of language duality includes the ability to create metaphors, which is used in psychodynamic and humanistic therapy, referring to metaphorical or sometimes

magical thinking (Necki, 2000). The locutionary aspect, in turn, means the precision of utterances, questions and answers characteristic of the assumptions of cognitive behavioral therapy (Necki, 2000). The language of music, in contrast to speech, is not unequivocal. The understanding of music is always an individual experience of the subject that is personal, intimate and ambiguous in character (Sloboda, 2002). This ambiguity is slightly reduced in the case of vocal music, where the client, in addition to music, is also influenced by the text. Similarly, in program music, the possible perception of music is dictated by the title of the piece (Wesołowski, 2014). The components of music, such as rhythm, melody, harmony, counterpoint, dynamics, or agogics are largely conditioned culturally (Chomiński, 1958; Chomiński, 1962; Chomiński, 1990). An example of such a cultural correlate is our majorminor tonal system, which has developed gradually in Western culture from the Middle Ages to the present day (Chomiński, 1958; Chomiński, 1962; Chomiński 1990). Our cognitive apparatus perceives this system as "natural" (Podlipniak, 2013). Meanwhile, other cultures have different rules for forming the consonances. They often sound incomprehensible, just as contemporary classical music, not based on the principles of harmony and counterpoint, to which we are accustomed, sounds for those who do not know music literature well (Chomiński 1990; Zielinski 2009). Entertainment music - jazz, rock, techno, disco consistently uses the resources of the traditional tonal system, perpetuating its cultural universality (Olszewski, 2012; Zieliński 2009).

The phenomenon of mutual penetration of music therapy and psychotherapy poses a considerable classification-related difficulty. Some techniques of music therapy have been permanently included in various currents of psychotherapy and vice versa, it is music therapy with its rules and interventions that often takes the form of psychotherapeutic impact. An example is the use of Orff instrumentarium in cognitive behavioral therapy (Popiel, Pragłowska, 2008). Especially the so-called third wave of cognitive behavioral therapy willingly uses that instrumentarium as well as other techniques of music therapy. The visualization of music is an excellent technique of induction of a therapeutic trance (Stachyra, 2012). Such a technique is an attractive behavioral method for a cognitive and behavioral psychotherapist as well as a trance technique for a therapist using the Ericksonian or Gestalt techniques (Haley, 2018; Perls, 2019). Therefore, the "therapy with music" and "music in therapy" can be discussed as two different practical and scientific issues.

# Conclusion

Music therapy is a field of knowledge and practice that is building up its identity and its position. In scientific terms, music therapy is close to psychology, neuroscience and science of art. The practice of music therapy in turn shows many analogies with psychotherapy. Precise delineation of the borderline between them is impossible.

# Bibliography:

- Alford, B.A., Beck, A.T. (2005). *Terapia poznawcza jako teoria integrująca psychoterapię*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Anastasi, A., Urbina, S. (1999). *Testy psychologiczne*. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego.
- Angulo-Perkins, A., Concha, L. (2019). Discerning the functional networks behind processing of music and speech through human vocalizations. *PLoS One.* 14(10): e0222796. doi: 10.1371/journal.pone.0222796.
- De Barbaro, B. (red.). (1999). Wprowadzenie do systemowego rozumienia rodziny. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Beck A.T., Dozois D.J.A. (2011). Cognitive Therapy: Current Status and Future Directions. *The Annual Review of Medicine*, 62, 397–409
- Boso, M., Politi, P., Barale, F., Enzo E. (2006). Neurophysiology and neurobiology of the musical experience. *Functional Neurology*; 21(4):187-91.
- Bremer, J. (red.) (2016). Przewodnik po kognitywistce. Kraków. Wydawnictwo WAM.
- Bunt, L., Hoskyns, S. (2002). *The Handbook of Music Therapy*. Routledge London: New York, Taylor and Francis Group.
- Chlewiński, Z. (1999). *Umyst, dynamiczna organizacja pojęć*. Warszawa: Wydawnictwo Naukowe PWN.
- Chomiński, J.M. (1958). Historia harmonii i kontrapunktu. T. 1. Wielogłosowość pierwotna, epoka organum, polifonia średniowiecza. Kraków: Polskie Wydawnictwo Muzyczne.
- Chomiński, J.M. (1962). *Historia harmonii i kontrapunktu*. T. 2. *Okres renesansu*. Kraków: Polskie Wydawnictwo Muzyczne.
- Chomiński, J.M. (1990). *Historia harmonii i kontrapunktu. T. 3.Od XVII do XX wieku.* Kraków: Polskie Wydawnictwo Muzyczne.
- Cylkowska Nowak, M., Strzelecki, W. (2017). *Muzykoterapia. Między wglądem a inkluzją*. Toruń: Wydawnictwo Adam Marszałek.
- Dahlhaus, C., Eggebrecht H.H. (1992). *Co to jest muzyka?* Warszawa: Państwowy Instytut Wydawniczy.
- Gabbard, G.O. (2011). *Długoterminowa psychoterapia psychodynamiczna. Wprowadzenie*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Gabbard, G.O. (2015). *Psychiatria psychodynamiczna w praktyce klinicznej*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Gilbert, M.C., Evans, K. (2004). *Superwizja w psychoterapii*. Gdańskie Wydawnictwo Psychologiczne.
- Grobler, A. (2006). Metodologia nauk. Kraków: Wydawnictwo Aureus, Wydawnictwo Znak.

- Haley, J. (2018). *Niezwykła terapia Miltona H. Ericksona*. Gdańskie Wydawnictwo Psychologiczne.
- Hornowska, E. (2001). *Testy psychologiczne*. *Teoria i praktyka*. Warszawa: Wydawnictwo Naukowe Scholar.
- Jabłońska, B. (2015). Socjologia muzyki. Warszawa: Wydawnictwo Naukowe Scholar.
- Jan Paweł II (1995). Evangelium Vitae. Wrocław: Wydawnictwo TUM.
- Jemielniak, D. (2012). Badania jakościowe. Podejścia i teoria. Wydawnictwo Naukowe PWN.
- Kurcz, I. (2005). Psychologia języka i komunikacji. Warszawa: Wydawnictwo Naukowe Scholar.
- Kwieciński, A., Śliwerski, B. (red) (2019). *Pedagogika. Podręcznik akademicki.* Warszaw:. Wydawnictwo Naukowe PWN.
- Leszto, S., Witusik, A., Pietras, T. (2013). *Terapia pedagogiczna dorosłych*. Piotrków Trybunalski: Naukowe Wydawnictwo Piotrkowskie.
- Maruszewski, T. (2011). *Psychologia poznania. Umysł i świat.* Gdański: Gdańskie Wydawnictwo Psychologiczne.
- McWiliams, N. (2009). *Diagnoza psychoanalityczna*. Gdańskie Wydawnictwo Psychologiczne.
- McWiliams, N. (2015). *Psychoterapia psychoanalityczna*. Gdańsk: Wydawnictwo Harmonia Universalis.
- Michałowski, M., Poczobut, R. (red.) (2012) *Przewodnik po filozofii umysłu*. Kraków: Wydawnictwo WAM.
- Mika, B. (2007). Muzyka jako znak w kontekście analizy paradygmatycznej. Lublin: Polihymnia.
- Nęcki, Z. (2000). *Komunikacja międzyludzka*. Kluczbork-Kraków: Oficyna Wydawnicza Drukarnia Antykwa.
- Olszewski, W.K. (2012). *Podstawy harmonii we współczesnej muzyce jazzowej i rozrywkowej.* Kraków: Polskie Wydawnictwo Muzyczne.
- Perls F.S. (2019). Terapia Gestalt. Warszawa: Wydawnictwo Naukowe PWN.
- Podlipniak, P. (2013). *Instynkt tonalny. Koncepcja ewolucyjnego pochodzenia tonalności muzycznej.* Poznań: Wydawnictwo Naukowe UAM.
- Popiel, A, Pragłowska E. (2008). *Psychoterapia poznawczo-behawioralna*. *Teoria i praktyka*. Warszawa: Wydawnictwo Paradygmat.
- Popiel, A, Pragłowska E. (red.). (2013). Superwizja w psychoterapii poznawczo- behawioralnej. Koncepcje, procedury, narzędzia. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
- Reybrouck, M., Podlipniak, P. (2019). Preconceptual Spectral and Temporal Cues as a Source of Meaning in Speech and Music. *Brain Science*; 9(3). pii: E53. doi: 10.3390/brainsci9030053.
- Sęk, H. (2001). Wprowadzenie do psychologii klinicznej. Warszawa: Wydawnictwo Naukowe Scholar.

- Sęk, H. (red.) (2014). *Społeczna psychologia kliniczna*. Warszawa: Wydawnictwo Naukowe PWN.
- Sikorski, K. (1980). Harmonia. Część I i II. Kraków: Polskie Wydawnictwo Muzyczne. Kraków.
- Silverman, D. (2019). *Prowadzenie badań jakościowych.* Warszawa: Wydawnictwo Naukowe PWN.
- Silverthorn, D.U. (2018). Fizjologia człowieka. Zintegrowane podejście. Warszawa: PZWL Wydawnictwo Lekarskie.
- Sloboda, J.A. (2002). *Umysł muzyczny. Poznawcza psychologia muzyki.* Warszawa: Akademia Muzyczna im. Fryderyka Chopina.
- Stachyra, K. (2012). *Modele, metody i podejścia w muzykoterapii*. Lublin: Wydawnictwo Uniwersytetu Marii Curie-Skłodowskiej.
- Stahl, S.M. (2015). Stahl's essential psychopharmacology. Neuroscientific basis of practical applications. Fourth Edition. New York: Cambridge University Press.
- Wesołowski, F. (2014). Zasady muzyki. Kraków: Polskie Wydawnictwo Muzyczne.
- Wierszyłowski, J. (1981). *Psychologia muzyki*. Warszawa: Państwowe Wydawnictwo Naukowe.
- Witusik, A., Leszto, S., Podgórska-Jachnik, D., Pietras, T. (2015). Schizofrenia w kontekście nauk społecznych. Osoba chora na schizofrenię w obszarze zainteresowań pedagogiki specjalnej. Wrocław: Wydawnictwo Continuo.
- Zieliński, T.A. (2009). Podstawy harmoniki nowoczesnej. Kraków: Polskie Wydawnictwo Muzyczne.