

Editorial

## Thoughts about Music and Consciousness

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Throughout the history of humankind, music has played a role within healing procedures, targeted on altering states of consciousness, both, in the patient experience and as an explicit goal within the application of the therapists' intention, as well.

One goal was to open a patient's mind for any therapeutic concept. Another goal was to complement that therapeutic concept using a holistic, psychosomatic approach that included music and dance. At the same time the 'healer' needed to reach an altered state of consciousness him/her self in order to be capable of 'talking' with a client's soul as well as with the spirits responsible for any ailment that was presented. Music was also used as an instrument to manipulate consciousness in people and within communities from as early as the beginning of human civilization and onward. Today we assume that there even exists a survival value of musical communication in altering states of consciousness which contributed to human evolution in general [1]. In learning about indigenous people in current times, we still can observe such therapeutic concepts and techniques [2a, b].

Integrative Medicine in general follows the same pathways. While it may be of interest and often discussed how far a therapist needs to go, to achieve an altered state of consciousness, in order to be able to treat most efficaciously, it is obvious that, for instance, in evidence-based Stress Medicine, Pain Medicine and Palliative Care, patients do need to alter their level of consciousness. While applications are spreading to entire traditional medical settings and within concepts, changing state of consciousness is one major target of such applications. It is useful to look at specific concepts and models that have been developed and proven to be effective in treatment such as Guided Imagery and Music GIM [3], or Music Entrainment [4], [5], "Musik-Imaginative Schmerzbehandlung" [6], Audioanxiolytic Music AAM [7], Emotional Detonisation Training with Music EAT [8], and others. These methods work specifically through

changing states of consciousness, in addition to alleviating stress and pain directly, in and of itself.

What is consciousness? The term *consciousness* was inaugurated by the German philosopher Christian Wolff in 1719 as translation of the Latin term *Conscientia*, comprising meanings such as "knowing, being aware of one's existence, thinking" Rene' Descartes already in 1644 had contributed his famous "ego cogito, ergo sum". His predecessor was Augustinus (345-430 B.C.), talking similarly about "to think means to be" (authors comprising translation) in his opus "De Civitate Dei": "Si enim fallor, sum".

Today, the term consciousness sometimes is attributed with a variety of meanings, often overlapping or mixed with terms like "soul" and "spirit". "Music and Consciousness" is an area of growing interest in various areas of science, such as philosophy, psychology and of course music [9]. In MusicMedicine and Music Therapy there is evidence-based consensus that music can treat body and soul. And we know very well that we do not only deal with desired effects, but at the same time undesired side-effects may occur. So expertise in psychotherapeutic intervention is indispensable, as altered states of consciousness can be both, capable of healing and destroying.

This issue of Music and Medicine again displays various examples for therapeutic capacities of music. Some of them indeed touching music and consciousness.

This edition of 'Music and Medicine' presents some diverse material. We open with a two part Delphi study. In *Music Therapy and Music Medicine Studies in Oncology: Part I- A Comparison and Music Therapy and Music Medicine Studies in Oncology*, an invited team of researchers and clinicians including Barbara Wheeler, Teresa Lesiuk, Debra Burns, Suzanne Hanser, Andrew Rossetti, Michael Cassity evaluate music therapy and music medicine studies in oncology seeking to explore and delineate the differences between music medicine and music therapy research.

In *Part II: The Use of the Delphi Technique*, the team reflects on their use of the Delphi study, and evaluates its usefulness while considering the implications of its further use in music therapy and music medicine studies in research. These articles serve an interesting and unique quest. As so much of our research falls under the umbrella of either domain (music medicine or music therapy) and as the terms' meaning become tangled and seem so poorly understood by

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Ralph Spintge, MD Address: Department of Algesiology and Interdisciplinary Pain Medicine, Regional Pain Center DGS, Sportklinik Hellersen, 58515 Lüdenscheid, Germany. E-mail: Ralph.Spintge@hellersen.de | COI statement: The authors declared that no financial support was given for the writing of this article. The authors have no conflict of interest to declare.

authors and readers alike, the Delphi technique may help to refine and contextualize how research is not only undertaken, but more importantly perhaps, how it is synthesized by the general readership of professionals seeking to undertake investigations that implement music therapy or music medicine.

Two articles address neurologic function in this edition. *Music-supported Systematic Treatment Strategies for People with Executive Dysfunction Following Traumatic Brain Injury: Similarities and Divergencies in 7 Case Reports* Berret Vik seeks to understand how piano playing might enhance cognitive performance and functional neuroplasticity in orbitofrontal cortex activity for patients with cognitive and behavioral deficits following mTBI. Vik's strategies of analysis offer clear and dynamic thinking about how we might institute methods for modifying thinking and feeling through structured play when treating TBI.

Another interesting brain study entitled *Validity and Inter rater Reliability of the SOAR Tool during Ambulation in Individuals with Parkinson Disease* by Kristen Prejean Barta, Carolyn Da Silva, Shih-Chiao Tseng, and Toni Reddy studied Parkinson disease implementing a new software tool called Synchronized Optimization Auditory Rehabilitation (SOAR). Their created device for those with Parkinson's aims to simulate Patterned Sensory Enhancement techniques for physical therapist interventions as follow up to, or when a music therapist is unavailable.

Diana Christine Hereld takes an interesting lens toward regulation of emotion in *Music In The Reduction Of Negative Emotion: Three Case Studies*. Her quest to understand how music listening as a successful tool for helping to modulate emotions associated with negative behavior is useful. She examines and thematically analyses behaviors in response to musical interaction both during and following traumatic life events in case studies. This is an interesting read for clinicians and researchers as well in their consideration of music listening and its impact on behavior.

In *Characteristics of music to improve the quality of sleep* Ami Yamasato, Mayu Kondo, Shunya, Jun Kikuchi, Shigeki and Kenji Yamamoto try to elucidate the Characteristics of the Types of Music that Improve Sleep Quality. This team analyses conditions of music, explicitly melody, rhythm and harmony and calculate carefully elements such as density and tempo. They explored dozens of music pieces from previous studies on sedative music, through sound sources available from some of the identified pieces of music This is a unique study in its exploration of the music utilized for a specific purpose and one that is rarely explored in terms of music-sleep.

Finally, in *Rounds Corner*, Ruiguang Yu, an International Fellow from Shaanxi University of Chinese Medicine shares her experiences related to her university's course of study and her recent fellowship experience at the Louis Armstrong Center for Music and Medicine. In *Fellowship at The Louis Armstrong Center for Music and Medicine*, Ruiguang reflects on her learning and her poised position and desire to build music and medicine practices upon her return. She has gleaned a unique international perspective which readers may find interesting.

Looking forward to seeing you at the IAMM conference in Boston in May 2020, next year!

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