ABSTRACTS

In order of the conference presentation schedule

Saturday June 19th, 2021

An Original Harmonic and Scientific Approach to the Pythagorean Music of the Spheres and its Practical Application in Music Therapy

Tony Crisos, MM

Independent Scholar/Research, USA

Abstract

The purpose of this study is to preserve, revive, and present the ancient Pythagorean philosophical and theological idea known today as Music of the Spheres, originally made known to us by Plato in the myth of Er, in the tenth book of the Republic, and to reintroduce it as a working system. In favor to achieving this, I will draw information exclusively from the ancient Greek tradition, with particular focus on the Pythagorean and Platonist philosophers. For the application of my original system, I will employ the various musical scales implied or even proposed directly by the aforementioned philosophers as a correspondence to the planetary sounds. Moreover, I will include one original composition on the ancient Greek Lyre and various music examples to underline the system. Furthermore, I will apply the moral theory of Plato, the idea that ancient Greek scales invoke certain types of ethos, the Pythagorean Tetractys, live astronomy, as well as ancient astrological models, in order to highlight the structure. Finally, through extensive personal research using the aforementioned system, I will propose further optimization techniques so it can be adjusted beneficially to modern music and the scientific field of music therapy.

Finding Hope in the Face of Trauma: Prisons, Borders, and Mental Health

André De Quadros, EdD

Abstract

This presentation focuses on mental health in different locations – the refugee environment, American prisons, and psychosocial rehabilitation. The presenter has undertaken considerable fieldwork in these marginalized locations. Although the circumstances of these locations are completely different, there are shared intersections of trauma and marginalization. The approach to engagement for pedagogy or research calls for a deep understanding of the ways in which trauma is experienced, and the role that music can play in alleviating suffering. It is particularly important for musicians, researchers, and teachers to understand that this kind of work calls for situated knowledge, deep listening, and a defined approach to healing. In this presentation, examples will be shared from these three contexts in order to arrive at a justification for how and why music can play a role in generating.

Keynote Speech

Inspiring Your WHY"?

Lillieth Grand, MS, MT-BC
Director, Licensed Music Therapist
Milestone Music Therapy

Abstract

As people who know that music can make a real difference in medicine, all of us have the same commitment - that others know it too. But why? Why is quantitative research essential? Have you ever felt like your research maybe doesn't have a large enough sample size, or like no one will want to hear what you have to show, or your name/discipline isn't big enough, or some other dis-empowering conversation around publishing your research? Let's disappear that conversation! The intention of this Keynote is to leave you inspired and excited to have what you have to contribute to the world unleashed.

A New Medical System Based on Vibration

David Gibson
Sound Therapy Center, USA

Abstract

How does the body work based on vibration? This is the holy grail of health. We all know that everything is vibration. It is the most primordial aspect of all dimensions of reality. When we understand the laws of physics behind all vibration, we are given the key to the Universe. The basic concept is that the entire human body is a flowing symphony of music that all works together in perfect harmony when a person is healthy. David Gibson has identified a “hierarchy of vibration,” to explain how it all works at every level of vibration. The hierarchy is pure frequencies, timbres (combinations of frequencies), musical intervals (relationship between frequencies/timbres), and musical flow. In the body this can be seen as cells, organs, relationship between cells and organs, and musical flow through each of the 11 systems. In the hierarchy the most important aspect is flow – though it is impossible to separate it out since the frequencies, timbres and intervals are the components of the flow. A healthy system is smooth flow without blockages -- physically, mentally, emotionally and Spiritually. David has now created the Medical Sound Association to help figure out how all the aspects of the hierarchy can be used to cure every disease in the world (we can now say cure because we will be working directly with doctors and hospitals). The first important research to be done is the relationship between the three primary rhythms in the body: the heart, brain and breath. Once we have the song of health for each of the systems in the body, we can apply the entire hierarchy using a full spectrum of vibration: sound, electromagnetics, color, light and even quantum energy. For sound, we can use electrodes or acupuncture needles with frequencies to run the song through each of the 11 systems. Then, the next step is to run smooth flow through the emotional, mental and spiritual bodies. David will also discuss how this can be done. This is the medical system of the future. .

On Music and Grief: Using Song to Help a Community in Trauma

Jonathan Seligman, MA
Chula Vista, CA

Abstract

The purpose of this workshop is to showcase how music aids communities in healthily processing grief. To achieve this objective, the presenter will discuss: 1. the events and impact of a death at their school site Casillas Elementary in 2018; 2. how the varying ways the community processed their grief; 3. the song they chose for their choir to sing in response to the grief, Sleeping At Last's "Saturn"; and 4. the community's response to the "Saturn." Through observations and conversations with community members, this performance allowed the students and parents alike to process emotions and thoughts that they lacked to say. While focusing primarily on the events between 2018 and 2019, this workshop will conclude by discussing the macrocosmic: the importance of grief and the music educator's role in assisting their community in trauma.

Voice Disorders

David Palmer, MD
Salt Lake City, Utah, USA

Abstract

Voice disorders are common. Therefore, appropriate and timely referral to an otolaryngologist is important regarding pathophysiology, diagnosis, and treatment. Because of the potential serious consequences of delay in referral (including laryngeal carcinoma), it is important to be familiar with contemporary perspectives on this disorder, current standards of patient care, and the need to know when to refer.

A Review of Current Research of Utilizing Music with Pediatric Patients

Amy Painter MSN, FNP, PNP

Abstract

A review was done on Medline and OVID of international studies published in peer-reviewed journals over the last decade with a search pertaining to "pediatric" and music". The articles where then sorted and categorized by the reviewer into the following themes: neonatal/infancy; use in procedures as analgesia/distractor; rehabilitation; environmental studies; palliative care; chronic illness; mental health, educational device(s) or other. The text was then analyzed and key points where highlighted and summarized by the reviewer. The last decade has seen a wide variety of pilot and well designed studies that would be very applicable to use and replicate in many pediatric populations. Music has been shown to be very beneficial to treatment and healing. It is difficult to find music and medicine literature as it is spread throughout journals of varied disciplines and often requires a broad search. Further research with specific questions and replication of study designs is needed. Music is an effective adjunctive therapy in pediatric populations. More research is needed to understand why it is an effective therapy, although current research suggests it works by vibroacoustic therapy and a relaxation response to various frequencies at an unconscious and neurological level.

Panel Discussion:

Music With a Disability: A Comparative Overview of Individuals Outside the Norm

Dr. Kent Nelson, Raina Saunders, Dr. Sheerin Hosseini, Dr. Roy Kennedy

This panel discusses a range of neurodevelopmental and sensory disabilities in learners and how these disabilities affect their music learning skills as well as their overall and therapeutic needs. These individuals learn tasks and behaviors at different rates of ease. In our education system, the average learning rate becomes the norm, with individuals outside this norm being classified either as talented or in need of remedial attention. In effect, the norm dictates the classification for education and behavior. Despite the full range of IQ possibilities, individuals with disabilities are often outside the norm and may experience harmful emotional and health issues attributed in part to their difficulties in formal education and everyday life. In other cases, talented individuals with learning disabilities have excelled in academic settings given the proper opportunities. The four-person panel will each present their research on music and a specific disability:

A Case Study of an Advanced Violinist With A Cochlear Implant

Raina Saunders, MM
University of Ottawa, Canada

Abstract

Music and audiology research shows that cochlear implant (CI) users normally experience multiple hearing limitations in playing music. Few studies investigate the described musical experiences of CI users who achieve excellent music perception and ability. None consider pediatric implantees grown to adulthood playing pitch sensitive instruments solely with bimodal hearing. My focus is such an individual, an advanced violinist without musical training prior to implantation, to determine the factors contributing to his musical success and to suggest the potential of bimodal pediatric implantees entirely dependent on CIs and hearing aids (HAs). This study uses data from semi-structured interviews with the participant, his parents and music teachers and a Demographic and Music Background Questionnaire. Reflexive Thematic Analysis (TA) is applied to interview data. Three significant themes stand out: the violinist's exceptional experience and performance; his perception of the structural elements of music; the specific methods enabling him to reach an advanced level. The study suggests that pediatric implantees with bimodal hearing have the potential to play at a level comparable to those with normal hearing, proposes learning strategies for musicians with CIs, and invites medical professionals and music teachers to consider individual cases holistically rather than assume musical capacity based on standard CI outcomes.

The Lived Experiences of Adult Musicians with Dyscalculia: Implications for Mental Health

Sheerin Hosseini, PhD

Abstract

Dyscalculia is a specific mathematical learning disability marked by severe difficulties understanding number sense, mathematical reasoning, remembering number facts, and performing basic arithmetical tasks" (5th ed.; DSM–5; American Psychiatric Association, 2013). This presentation will describe the results of a qualitative phenomenologically aligned research study conducted by Hosseini (2020), which examined the lives of ten adult musicians with dyscalculia. The findings indicated that the participants' learning disabilities impacted

music learning areas, including sight-reading, counting, and understanding music theory. Furthermore, some participants struggled to distinguish left from right, participate in movement activities, and master the motor skills required to play an instrument. Music was essential to these participants' lives despite the various challenges they faced, and they developed coping strategies to overcome musical challenges. Dyscalculia also affected the participants' lives outside of music, and some of the participant's experiences negatively impacted their self-esteem and posed mental health challenges. Understanding the various ways dyscalculia may affect a person's life can help music teachers create more rewarding musical experiences for their students. Music educators need to recognize the signs of dyscalculia so that they can help students develop strategies to deal with the various ways dyscalculia may affect their lives.

Music Therapy and Children/Adolescents With Attention Deficit Hyperactivity Disorder: Literature Review

Waverly Claire Noble
The University of Georgia

Abstract

The purpose of this presentation is a literature search on music therapy and children/adolescents with Attention Deficit Hyperactivity Disorder. ADHD is a common neurodevelopmental disorder with cognitive and behavioral aspects that can cause difficulties in many areas. The rhythmic patterns, multiple stimuli, and structured nature of music make it incredibly engaging for even those who struggle with sustained attention; this has been shown in the literature time and time again. However, specific music therapy interventions such as Musical Attention Control Training (MCAT), improvisation, and social skills training are still emergent techniques with this population. This review of literature will support a need for more research on the effectiveness of music therapy for children with ADHD, as well as which interventions are most efficacious in practice.

Music Learning and Tourette Syndrome

Roy Kennedy, PhD, MT-BC, LPMT
Director of Music Therapy
University of Georgia, GA

Abstract

Tourette Syndrome (TS) is a disorder that involves repetitive movements and unwanted sounds (tics) that cannot be easily controlled. TS is best known for motor and vocal tics, which usually begin when a child is 4 to 6 years old, with the peak of symptoms occurring between 10 to 12 years of age. At first, tics are simple and limited to a few muscle groups. Over time, other muscle groups may become affected, as the tics get worse. Although there is no definitive cure for Tourette syndrome, a combination of therapy and medication may help. The purpose of this paper was to conduct a related literature review on the effects of music on the stereotypical behaviors and characteristics of individuals with Tourette Syndrome, especially as it applies to learning disabilities. Experimental research has shown that listening to and playing music and musical imagery reduces tics in individuals that have Tourette syndrome; thus, music offers a therapeutic approach and may assist in dissipating behaviors, which may interfere with social/emotional well-being, academic learning, and professional/employment success as well.

Sunday June 20th, 2021

Clinical Trial Results: Ability of 'Five Phase Nodal Sounds' to Affect Hypertension in Humans

Michael Ishii, MSTOM, PhD candidate

Abstract

This panel will discuss Traditional Chinese Medicine clinical research findings addressing the use of a sound based protocol to affect the hypertension in human subjects. The clinical trial is based on both quantitative (N=60) and qualitative research (N=5). A panel of the researchers will present on the clinical methodology, use of Five Phase Nodal Sounds' treatment in the TCM clinic and their research findings.

The Effects of Music Listening on Levels of Academic Motivation and Burnout among College Students.

Roy Kennedy, PhD, MT-BC, LPMT
Director of Music Therapy
University of Georgia, GA

Abstract

The purpose of this study was to examine the link between music listening habits, academic motivation, and burnout levels of college students. It is known from previous research that music directly affects the mesolimbic system, which contains portions of the brain connected to reward and motivation processing (Levitin, 2005). There are not many studies, however, that investigate a direct link between motivation levels and music listening. With rising levels of mental illness and stress related illnesses in college students it is imperative to find new and innovative ways of allowing university students to feel more connected and motivated. After receiving survey results from 100 college age students the data in this study did not show a significant correlation. However, there was a slight non-significant positive correlation with music listening and motivation and a slight non-significant negative correlation with music listening and burnout. This study may not have had the power to show strong correlation in its sample size. Background research supports the need for further investigation into this area of study.

Panel Discussion:

Music in Ancient China

Dr. Steve Jackowicz, Michael Ishii, Dena Gold, Dr. Tim Klemt, Adina Dabija

This panel brings together five scholars of Traditional Chinese Medicine and classical Chinese culture. Taking four classical selections from influential texts, they will present a view of music as depicted in these works thereby expanding and developing our understanding of the conception of music as a modality of influence in health, medicine, society and governance. Starting with ancient sources.

Dena Gold will examine the 樂記 Yue Ji *Record of Music*which is the 19th chapter in the *Book of Rites* 禮記. The *Book of Rites* is a Warring States PeriodT ext that was canonized as one of the *Five Canons* by Confucius. It represents much of the ritual understanding and behaviors of the Zhou Dynasty. The *Record of Music* explains the conception of music within the geomantic model of the ancient Chinese world.

Tim Klemt will analyze some passages from the Zuo Zhuan 左傳, composed in the 4th century BCE. The passages therein speak of music, and pronounce that when it is played in a harmonious and balanced manner it brings balance and regulation to human beings and society. He will explore the implications of music as an important vector of social management.

Michael Ishii will examine the chapter on Five *Sounds and Five Flavors* (wu yinwu wei 五音五味) from the *Yellow Thearch's Inner Canon (Huangdineijing* 黃帝內經), a third century BCE text considered the foundational text of East Asian Medicine. He will endeavor to clarify theoretical application of the five nodal sounds in treatment and to illuminate questions regarding theoretical application of the five nodal sounds in Chinese medicine related to the treatment of disease in the twelve meridian systems.

Adina Dabija will investigates the correlation between the musical significance of the five elements, the ten celestial stems and human health in the Neo-Confucian Ming Dynasty text entitled *Discourse on the Five Notes Health (Cosmic) Movements* (论五音建运 Lun Wu Yin Jian Yun) from the *The Great Compendium of Ancient and Modern Medical Traditions* (古今医统大全 GuJin Yi Liu Da Quan) by Xu Chunfu in 1556.

Drumming and Acupuncture to Treat Emotional Trauma and Post-Traumatic Stress Disorder

CT Holman, MS, LAc
Redwood Spring, PC

Abstract

Background: The first sound a human hears is the heartbeat of their mother. For centuries, healers have used the drum to shift energy and transform illness by playing a simple, steady drumbeat to soothe a person and connect them with this first sound of existence. A resurgence of employing vibrational treatments using tuning forks, singing bowls, and chanting is occurring in Chinese medicine clinics and is proving effective in the treatment of emotional trauma. Combining drumming with specific acupuncture prescriptions creates a synergistic healing approach in treating emotional trauma and post-traumatic stress disorder (PTSD). CT Holman describes methods to effectively reduce the emotional and physical symptoms resulting from trauma by utilizing drumming and acupuncture. Playing a steady drumbeat over the patient while they receive acupuncture stimulates the needles which act like antennas, activates the various acupuncture channels, and calms the spirit. Holman has used drumming with acupuncture for over 10 years and has found this combination helpful in reducing anxiety, fear, grief, digestive issues, respiratory distress, insomnia, and other symptoms resulting from trauma. A case study is included to demonstrate the compelling effects of this pairing.

Healing With Sound and Vibration with Tuning Forks

Dr. June Leslie Wieder
Song of The Spine, Ridgecrest, CA, USA

Abstract

Music has been used for healing. Not only musical instruments, and singing, but also humming, chanting, bowls, bells, gongs, and tuning forks. Many use the sound of tuning forks. I have studied the use of the vibration of tuning forks to help the body get back in tune. Is it possible, I thought, that some kind of energy echoes between the primary and secondary curves of the spine in order to maintain the structural and neural integrity of the spine and nervous system? This led to a long period of research into the resonances of the spine. Using tuning forks, I tested the frequencies of each vertebra of the spine and found that each vertebra responded to specific tones. This research is described in my book Song of the Spine. The Spine is similar to piano that needs to be tuned. Using the vibration of tuning forks is not practical for extended periods of time because they have to be struck repeatedly. So, I commissioned the development of an electronic tuning fork. The first was the Song of the Spine Bonetoner. Next came to Harmonic Resonator for the entire body. And finally, the Adjustable Electronic Tuning Fork. I am continuing my research with the Adjustable ETF. The vibrational treatment can be used for different neuromuscular conditions such as depression, chronic and acute pain, MS, and autism.

The Effects of Music on Anxiety and Depression in Patients Diagnosed with Covid-19 Disease

David O. Akombo, PhD
The University of the West Indies, Barbados

Abstract

Objective: Music has been reported to reduce anxiety and depression during illness. Anxiety and depression are generally linked to cortisol levels while listening to music has been linked to a reduction in the cortisol levels during illness. This research will examine the effects of music on anxiety and depression on patients diagnosed with Covid-19 who have recovered from the disease. Coronavirus disease 2019 (COVID-19) is defined as illness caused by a novel coronavirus now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV) (CDC. 2019). Severe cases of COVID-19 may be associated with hypoxemic respiratory failure, acute respiratory distress syndrome (ARDS), septic shock, cardiac dysfunction, elevation in multiple inflammatory cytokines, thromboembolic disease, and/or exacerbation of underlying comorbidities. Patients diagnosed with Covid-19 experience anxiety and depression on varying levels. Although the effects of music on anxiety have been examined, very few studies have specifically examined the effects of music on anxiety and depression on patients who were diagnosed with Covid-19 and have since recovered from the disease. This study contributes to knowledge on the effects of music on pandemic-induced anxiety and depression. Methodology: Patients (n = 200) will be randomly selected to participate in the study. Participants will include people aged 18 and above who have recovered from Covid-19 in the Caribbean Island of Barbados. Subjects will respond to a questionnaire examining their music listening habits during the period they were diagnosed with Covid-19 virus and the time they were quarantined, isolated, treated and recovered. Hypothesis: (1) Patients undergoing Covid-19 treatment during isolation and isolation listen to music. (2) Patients undergoing Covid-19 treatment during isolation and isolation and listen to music exhibit lower levels of anxiety and depression. (3) Patients undergoing Covid-19 treatment during isolation and isolation and listen to any kind of music experience some kind of relief.

Creating Sounds that Feel Good

Andy Zadrozny

Abstract

Resonance is the primary way in which matter interacts with its environment. The feeling of one's body vibrating in sympathy with its surroundings is fundamental awareness, common to all life. My musical sound healing practice is based on three key points: 1: It's about the feeling of sound, rather than the hearing of it. Sound loses almost all of its energy passing through air. My inventions facilitate the direct transmission of sound vibration. 2: Different parts of the body resonate with different sound frequencies. In general ways we are the same. We feel high-pitched sounds high, in our heads, and lower-pitched sounds down below, in our bodies. Each of us is unique in specific ways, which we explore in sound healing sessions. 3: The person receiving the sound is the best judge of which sounds are healing to them in that moment. Every session is a collaboration, improvised in the moment. In this presentation I will demonstrate the technique I've developed for toning into another person's body. I'll tell the story of the genesis and evolution of this practice, using recorded examples of sounds from sessions with clients, and finish with a live demonstration with a client.

Transforming Music into Medical Treatments for Epilepsy and Pain

Grzegorz Bulaj, PhD
College of Pharmacy
The University of Utah, UT USA

Abstract

Despite clinical studies showing clinical benefits of music for people with epilepsy or pain, there are many challenges to transform music into medical treatments. It is well-known that specific musical compositions by Mozart (such as sonata K.448), can reduce seizures in people with refractory epilepsy. Herein, I review our efforts to harness "medicinal" properties of Mozart music in order to create digital interventions for seizure control and pain management. I present our preclinical studies in animal models of epilepsy and pain, also showing how combinations of music and analgesics can improve pain relief. In addition, I describe our prototypes of digital therapy delivering music to reduce epileptic seizures in adults and children with epilepsy. In conclusion, digital health technologies offer unique opportunities to create music-based interventions for epilepsy, pain and other chronic conditions, including depression.