

## Editorial

**Chaos and order... Our world at a crossroads****Ralph Spintge<sup>1,2</sup> & Joanne V. Loewy<sup>3,4</sup>**<sup>1</sup>*Department of Algesiology and Interdisciplinary Pain Medicine, Regional Pain Centre DGS, Sportklinik Hellersen, Lüdenscheid, Germany*<sup>2</sup>*Institute for Music Therapy, University for Music and Drama HfMT Hamburg, Germany*<sup>3</sup>*The Louis Armstrong Center for Music & Medicine, Mount Sinai Beth Israel, New York, NY, USA*<sup>4</sup>*Icahn School of Medicine, New York, NY, USA*Multilingual abstract | [mmd.iammonline.com](https://mmd.iammonline.com)

As a scientific publication, we intend that our journal will not convey any political messages. However, at present it seems as if scientific expertise and experience is desperately needed to contribute insight and advice to secure the future of humankind in many aspects elaborated in part heretofore. We are at a crossroads leading to a future in chaos or can move back toward a state of order in peace. Let us try to see, if music may be a way to find possibilities for new directions to move toward.

Human life on earth as part of a developing universe is governed by one basic force: the interplay of Chaos and Order[1,2]. Chaos here is seen as a state of rhythmic disorder with little or no structure, order as a state of rhythmically controlled structure. Rhythmic processes over time do control our life on earth, such as change of day and night, summer and winter, and so forth. Life is governed by rhythms and oscillations providing flexibility and creative variability vital to our survival within threatening environmental changes. That rhythmically organized processes have oscillatory frequencies of a broad range. Even molecules, the smallest components of life functions, oscillate in their chemical and functional states<sup>3</sup>. At the same time, large social groups of human beings can be rhythmically synchronized and controlled in their behavior through music – as seen for instance in concerts or in functional use of military music.

At present quite a number of life processes are obviously moving from a state of order to a state of chaos. Fast growing chaos can be observed in various areas of life on earth:

- global climate change causing decrease in life expectancy also in so called developed countries<sup>4</sup>
- political crisis with a growing number of wars raging in all hemispheres causing migration of millions of people while the Cold War seems to have a comeback not only East - West, but also South - North
- sequence of increasingly threatening fatal pandemics (1999 West Nile Virus, 2003 SARS-CoV-1 Severe Acute Respiratory Syndrome, 2004 H5N1 Bird Flu, 2009/2010 H1N1 Influenza, 2012

MERS Middle East Respiratory Syndrome, 2014 Ebola, 2015 Zika Virus, 2019 SARS-CoV-2 Severe Acute Respiratory Syndrome Coronavirus Type 2 called COVID-19) with no end in sight<sup>5</sup>

- energy crisis increasingly spreading around the world
- food crisis of fast growing global impact culminating for instance but not exclusively in East Africa with hundreds of thousands of children starving to death

These name just a few examples, that threaten humanity's future with new attention as they seem to culminate all at the same time- challenging our capacity to adapt to such chaotic changes.

Music as a therapeutic intervention bringing back order to chaotic states in mind and body is well-established and frequently used in healthcare. This re-structuring capacity is stronger than in any other means of communication<sup>6</sup>. Rhythm in music has evidence-based impacts on rhythmic life processes governing vitality in human psychophysiology [3,7,8,9]. Basically, music brings order into chaos as it is a rhythmically structured sequence of metric, melodic, and harmonic units over time within a piece that interferes with structured sequences of events in other dynamic systems. That phenomenon is called entrainment [8], originally identified and named as "Relative Koordination" by a German scientist, Erich von Holst[7]. His concept describes that coupling of rhythms creates phase-relations, even when complete synchronization is not reached, and superimposed amplitudes of different rhythms are added to or subtracted from each other leaving their phase coupling unchanged. This way even human behavior as a dynamic system can be influenced by external rhythmic stimuli. Social systems like entire societies are also dynamic systems underlying such rules[2,10]. Is it possible that entrainment effects can happen even in political behavior? Why not, as demonstrated in military music, political songs, functional music used to enhance messages in audiovisual media, and so forth. So, how can we use that specific capacity of music to change political erratic behavior, enable peace talks, as well as serious negotiations and actions on climate and

PRODUCTION NOTES: Address correspondence to:

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](mailto: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.

hunger, and so forth? We think that Music Therapy today has a much broader realm of responsibility beyond health care. Consequently, We assume that music may help us cope with those chaotic situations threatening presence and future of mankind mentioned above. A global orchestra of common sense against Chaos. All Music Medics and Music Therapists are called upon to join forces, cross (political) borders and give one another impulse for mutual understanding and peace using their/our expertise in providing structure and order counteracting Chaos in individuals and societies as well. The world is at a crossroads, let us help to move us into the right direction. In that sense, composition of this issue is yet another example for crossing borders, exchanging messages and concepts, theories and data, in order to move from Chaos to Order for a better world.

Our journal opens with the ingenuity of three nurses in *Storytelling Through Music to Facilitate Meaning Reconstruction and Address Psychosocial Stress in Oncology Nurses*. Authors Carolyn Phillips, Deborah Volker, Barbara Jones address the uncomfortable reality that so many of our frontline healthcare workers' are exposed to significant suffering and loss, which often can result in depression. Their study evaluates post-intervention qualitative data from their study participants and uses content analysis to reveal some significant themes.

In the next article Jenna Schlorff, Brandon Ruan, Tiffany Got, and Chelsea Mackinnon show how music engagement and intergenerational programming may improve depressive symptoms and reduce social isolation in seniors through an innovative new program. In *Understanding the impact of the "Fountains of Uke" Intergenerational Music Program on Long-Term Care Residents*, readers will be inspired to learn how musical experiences with intergenerational interactions can foster relationships and engagement.

Moving to the younger generation and focusing on the immediate needs affecting children and families, a timely procedural music therapy article follows. *Care, Compassion, & Controversy: Supporting Children in a Covid-19 Vaccine Pod through Music Therapy & Child Life* outlines authors John Mondanaro and Jessica Sturgeon's Covid-19 vaccine pod support. Their approach synthesizing a music therapy and child life strategies shows practice efficacy supporting children, their personal caregivers, and observable benefits, as well, for the nursing staff administering the vaccine.

It is always a welcomed feature of our journal to have interdisciplinary focus. One such discipline that crosses a myriad of populations, but in particular those with dementia, is speech-language therapy. Linda Carozza, an experienced clinician generously presents assessment considerations by reviewing many of the pertinent tools available to practitioners. Using a world view lens, in *Perspectives on Dementia from a*

*Speech-Language Pathologist: An interdisciplinary focus* she emphasizes the details of assessing and how strong evaluation may lead toward creative expansion and a broadening of treatment options.

In recognizing that neglect is a often seemingly insurmountable problem in healthcare, both in access and in designing treatment strategies, Andrew Danso, Mikaela Leandertz, Esa Ala-Ruona & Rebekah Rousi presents *Neglect, Virtual Reality and Music Therapy: A Clinical Report*. Based on his interesting review of evidence exploring intersections of virtual reality and music therapy, interventions with the purpose of understanding and addressing neglect rehabilitation in stroke recovery is considered. His literature analysis reflects initial promising findings for symptom reduction during neglect rehabilitation through the use of VR and Musical Neglect Training interventions.

Timos Papatzikis provides an overview of the 7<sup>th</sup> International Association for Music and Medicine conference. This conference occurred in Athens in June and was attended in-person by doctors, nurses, music therapists, neuroscientists, researchers and clinicians from around the globe. A month of virtual lectures, workshops and Special Interest Groups followed on virtual platforms.

Finally, Aksana Kavaliova provides a detailed book review of co-Editors Amy Clements-Cortes and Joyce Yip's new 2021 text *Relationship Completion in Palliative Care Music Therapy* published by Barcelona Publishers: Dallas, Texas. Kavaliova is generous with her descriptions of topics and the review highlights the many pertinent themes of this informative work.

As always, we invite you to submit your writing as we prepare for a full rest-of the Summer and Fall. Whether a new and innovative study, a clinical report, case study or theoretic conceptual article, we hope our journal motivates you to share your work. Our readership continues to grow and the topics and themes ignite insights worth sharing with our global community.

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