

Editorial

Big Data and Priorities in Healthcare

Ralph Spintge^{1,2}, Joanne V. Loewy^{3,4}

¹Department of Algesiology and Interdisciplinary Pain Medicine, Regional Pain Centre DGS, Sportklinik Hellersen, Lüdenscheid, Germany

²Institute for Music Therapy, University for Music and Drama HfMT Hamburg, Germany

³The Louis Armstrong Center for Music & Medicine, Mount Sinai Beth Israel, New York, NY, USA

⁴Icahn School of Medicine, New York, NY, USA

Big Data is changing health care and health professions rapidly and fundamentally. One national company promises to extract from their data statements like: we know which patient will die within 6 weeks or a year, we know how much her/his treatment will cost, and so forth (1). Financed by one of the main global players in social media business, that company has created algorithms able to evaluate diagnosis in relation to common treatment concepts and outcomes. Basic data for such analysis are extracted from files created in hospitals owned by those companies.

It might prove much more effective to focus on evaluating data that might lead to improved health care for patients, rather than merely viewing data in terms of cost prediction and time frame of duration of life. Facebook and Cambridge Analytica – did we learn something?

Collecting data is one thing. Responsible handling of such data is quite another one. Obviously we still have to learn how to do this better.

Can we expect to obtain data safety while we have accumulated more than 3.5 billion files floating around in the internet as estimated by Digital Shadows, Inc. recently?

And what about those digital patient files stored on electronic cards, ready for analysis by health care professionals, already introduced in some countries and on the way to be introduced in a growing number of societies in near future? In some countries, there is still a controversial public discussion underway as to if and how to create “safe” digital patient records. Our personal experiences are often no reason for an optimistic approach, both, from patient’s and therapist’s point of view.

The Net never forgets. For good and bad. Just try to delete your personal profile on a social media platform. It isn’t as easy as we expect it to be, is it?

So let us always remember: patient’s welfare is our

ultimate goal. As therapists and healthcare professionals, we don’t need to know when a patient will die. We need to know how to keep patients healthy as long as possible. There’s a difference here. A growing number of politicians, professionals involved in information industry, insurance companies, and hospital managers seem to have yet to learn that lesson, even still.

Many questions are still open or neglected. For instance, how can we use Big Data to develop personalized medical care balancing data benefits and data safety or privacy? What risks are inherent to social media and networks of health providers, insurance companies and political institutions, and can we minimize these?

Artificial Intelligence is ante portas, ready to make everything easier to users in health care. Is it really easier proven? Is it safe? Safe for whom? What about Telemedicine with remote treatment concepts already in use in some countries, prohibited in others (for instance Germany at present)?

What about human rights and human dignity? Where is thinking on patient compliance and trustful relationships between patient and therapist or doctor?

While today we as healthcare providers and therapists follow our professional priority centered on patient welfare, will cost containment and share holder value govern our future work and will this be based upon Big Data analysis which we will not even be able to understand, not to say question?

For some years already we are observing consequences of economizing health care. Hospitals are often as investment assets. Better service to patients or better profits for share holders – which should be our priority?

What does this have to do with Music in Medicine? Well, we have arrived at acknowledging that part of our practice that has turned toward institutionalized health care. Thus, we have to take responsibility and obey the rules at the same time. This doesn’t seem to be easy while so many basic questions are not yet solved in consent.

There may be too many open questions to substantiate any balanced position. So we ask our readership to think about and discuss these issues. They are vital for our professional identity and for our patients.

In that context, let us independently and thoroughly think about if we want to allow our brains to be the next target of

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 | 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.

technical progress – to say it another way -we would be glad to stimulate our discussion in considering these important factors in such transitional times.

We have an interesting compilation heretofore-*The Effects of Listening to Preferred Music on Symptoms of Depression and Anxiety amongst Elders in Residential Care: A Qualitative, Mixed Methods Study* by Fiona Costa, Adam Ockelford, David J Hargreaves addresses a most significant component of music-based care which is patient selected options for our most frail but growing population, elders.

Next, at the other spectrum of life, *Clinical Observations of Live Improvisational Harp Music in Neonatal Intensive Care* by Roxanne McLeod, Kaye Spence reveals some gentle options for neonates and their parents-through integration of music therapy and nursing.

As we related to fragile environments, *Environmental Music in a Hospital Setting: Considerations of Music Therapists and Performing Musicians* by authors Jing Wen Zhang, Mary Doherty and John Mahoney addresses similarities and important distinctions made between musician artists and music therapists in viewing ‘environmental music’ and environmental music therapy. They conclude how both may have a place in hospitals, but involve varying goals and different kinds of training.

Another particularly fragile population this issue addresses are those nearing end of life. In a two part series, Amy Clements-Cortes provides in-depth thinking, study and analyses related to finishing relationships upon dying in *Relationship Completion in Palliative Care Music Therapy: Clinical Case Example-Part 1* and *Relationship Completion in Palliative Care Music Therapy: Clinical Case Research Overview and Results-Part 2*.

In the next study, data rendered positive clinical outcomes resulting from the utilization of a Modified Melodic Intonation Therapy (MMIT) in Dwyer Conklyn and Taylor Rung’s *Melodic Intonation Therapy for Acquired Non-Fluent Aphasia*.

Finally in *Relaxation Effects of Musically Guided Resonance Breathing: A Randomized Controlled Pilot Study* authors Dominik Fuchs, Thomas K. Hillecke, and Marco Warth, show how using live music to signal inspiration and expiration can provide as a well-tuned mechanistic cue for 60 healthy adult participants.

This issue also includes a commentary by Alan Turry in reaction to a study published last month in the American Medical Association entitled ‘*Actually Music Does Work.: Our Response to the TIME-A Study.*’ He examines an interesting dilemma related to research outcomes and prompts readers to once again consider the topic of process versus product, particularly in considering aspects related to ‘relationship’ and ‘cure’ in research models. Turry beckons us to consider how we each define the most essential, salient aspects of relationship, which in autism might be best contingent upon strengthening inter-relationship building.

We look forward to seeing many of you at the 5th International Association for Music and Medicine conference in Barcelona from June 7-9.

References

1. Maibach-Nagel E (2018) Digitalisierung. DÄB 115/15, 585