Prelude to Music and Medicine

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Editorial

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"An education isn't how much you have committed to memory, or even how much you know. It's being able to differentiate between what you do know and what you don't." So wrote Anatole France in the late 1800s (France, 1924). His words are useful in prompting an evaluation of where we are today as we consider health and the activities of healing in using music. The experiences of many practitioners, musicians, researchers, artists, patients, and caregivers have guided our decision to undertake this new journal.

Music and Medicine provides a new forum for sharing investigations and clinical reports that address musical and medical ventures in the field of health care. As editors, we are committed to developing a foundation of knowledge and eliciting a host of topics that we feel have not as of yet been adequately addressed. These include the importance of culture in health care and considerations of safety, efficacy, and ethical treatment in practice. Addressing "evidence-based" findings in the journal and, in particular, a broad spectrum of evidential paradigms will be an important component that the reader will find within these pages. One priority will be the attention given to the patient's experience. We will be requesting articles that address particular aspects of clinical function as described by patients themselves. Both quantitative and qualitative studies, and articles favoring mixed designs, will have a place in *Music and Medicine*.

In the most recent issue of the *Journal of Alternative and Complementary Medicine*, Editor Kim Jobst (2009) reflects on the meaning of integration and examines the role that research offers to the development of a field and to its services. One of his answers is quite simple, but heartfelt: "We must not be afraid to ask, always: Why are we doing this? What does this serve? And then we must have the courage to listen to the answer and tell the truth" (p. v).

Our intention is to provide a venue for the development of theory based on practice, and we will draw on specific research in music and medicine. We invite participation through dialogue about the impact that music has on the brain, for human physiology, and in developing unique clinical areas, such as sleep investigations and pain management. Topics such as these are being addressed today but are published diversely in other journals. This means that we have a scattered body of knowledge, which we hope to unify within these pages. Although the fields of medicine, nursing, music, and music therapy have developed several venues for sharing clinical activity and research trials, there is currently no distinct journal devoted to the fields that integrate medical music therapy, and music and medicine. These individual disciplines are growing internationally but each separate from the other. Our intention is to bring that knowledge together. In the United States, Europe, Australia, and Asia, there are pockets of research on the subject of music and medicine that are part of broader perspectives. As yet, there is no single association devoted to the study of music and medicine. Interest in the field of music and medicine is rapidly growing, as indicated by the increase in conferences, articles, books, and departments of music-related disciplines in hospitals and universities throughout the world.

Our editorial board members have been carefully selected from various countries, ensuring that this journal will be broad and thus will address a myriad of multicultural practices and forums in the arts and in the service of arts medicine. The editorial board will provide a major source of peer reviewers. In addition, with their commitment to the journal, editorial board members will also recruit, initiate, and encourage contributions to the journal, rooted in research and practices from all corners of the planet.

In the past decade, we have witnessed a surge in the number of studies that have integrated the science of medicine with the art of music, and the art of medicine with the science of music. Perhaps this

is ignited by the growth and acceptance of integrative medicine (Aldridge, 2004a), a practice that has evolved from models that were less accepted some 30 years ago. The term *alternative medicine* has existed for centuries. It implies a category of treatment options that are nonconventional. In part, alternative medicine rests on the assumption that a holistic component of healing exists within the human body and psyche and that treatments can be derived from natural influences that exist within. Alternative treatments increased during the late 20th century, and efforts to mainstream remedies into conventional remedy evolved many practitioners' thinking into becoming more accepting and inclusive of nonconventional medicine (Aldridge, 1989a, 1990). The compromise seemed to be that patients would not have to choose between use of either "natural remedies" or "pharmacological agents," for instance, but could complement one practice with the other. In 1993, the *New England Journal of Medicine* published a landmark study that surveyed 1,539 adults (response rate, 67%), based on a national sample of adults 18 years of age or older from 1990. The report suggested that approximately 425 million visits were made to providers of unconventional therapy. This number exceeded primary physician care visits, estimated to be 388 million (Eisenberg et al., 1993). In addition, the study made an analysis of expenditures, which fostered critical evaluation of focus and service capacity in industry and insurance reimbursement. The expenditures related to the use of unconventional therapy in 1990, according to this report, was $13.7 billion, and included in this amount was a three quarter percentage of $10.3 billion, which was paid out of pocket. This out-of-pocket spending result is rendered comparable to the $12.8 billion spent annually at the time for all hospitalizations in the United States. This report reflected the increasing use of unconventional therapy. Since that time, 16 years ago, clinicians have begun to recognize that the impact of alternative medicine is higher than had been previously understood or reported. At the conclusion of the report was a recommendation for medical doctors to inquire with their patients about their use of alternative therapy when obtaining a medical history. In the past decade, integrative medicine centers have opened across the country. According to the American Hospital Association, the percentage of U.S. hospitals that offer complementary therapies has more than doubled in less than a decade, from 8.6% in 1998 to almost 20% in 2004. This number is increasingly expanding.

In the new millennium, *complementary medicine* has evolved into *integrative medicine*. With each shift in terms has come more succinct inclusion of effective disciplines and a broadening in thinking. Integrative medicine has been described as greater than just the sum of conventional medicine plus complementary and alternative medicine. Maizes, Schneider, Bell, and Weil (2002) define *integrative medicine* as "healing-oriented medicine that reemphasizes the relationship between patient and physician, and integrates the best of complementary and alternative medicine with the best of conventional medicine" (p. 851). Brian Berman, MD, the director of the Center for Integrative Medicine at the University of Maryland School of Medicine teaches practitioners about the expansive view of medical philosophy and practice that is afforded in integrative medical care. Formerly, practitioners did not always take into consideration, for instance, the impact of stress. In integrative practice, he affirms, a particular modality no longer accounts for a specific aspect of healing.

Integrative medicine implies that we are caring for the whole person, and that implies working within the patient–practitioner relationship. Practitioners are listening and offering attention, compassion, and care with expanded communication and intention. There is greater emphasis on the mind-body-spirit connection, and care has become more patient centered and inclusive of moods, attitudes, beliefs, environment, and culture and, furthermore, inclusive of the relevance of caregivers in offering treatment. Integrative medicine blends conventional medicine with adherence to the teaching of self-care. This is not only for the patient but for the practitioner as well. There is a concentration on mindfulness, on the part of the personal and professional caregiver. The unique perspective of the person offering treatment renders an honoring of this lens as it affects how we treat.

Music in medicine has often taken a backseat in the conventional versus alternative medicine debate. Perhaps this is because music has been used as a mind–body practice but at the same time has often fostered an enhancement of conventional medical interventions. Music in medicine can strengthen the impact of a medication and has been used in conjunction with a medical treatment plan, particularly in controlling pain (Edwards, 2005; Henry, 1995; Jacobson,1999; Updike, 1990).

Integration is indeed essential to our understanding the relationship of the human body as a musical sound being. We have understood for many years that music assists in restoring the circadian rhythms of temperature and sleep. Music influences the ultradian rhythmic regulation of the autonomic system and affects metabolic processes, cerebral dominance, and the rhythmic temperance of heart and respiratory function (Aldridge, 1989b).

With the surge of "integrative" acceptance in medical practice, the expansion of medical music interventions has been much more easily understood. Music is an integrative experience by definition. It is unique in its ability to activate several mechanisms of body function at one time. It can link the mind to the breath and can at the same moment provide a release of tension, all within a framework of a structural support of another person's offered harmony or through entrained phrasing.

We welcome you as readers to the first issue of *Music and Medicine*. *Music and Medicine* is recognizably adherent to the growing realization that interdisciplinarity, and particularly the surge of integrative models, is evident in the forefront of modern health care thinking worldwide. Indeed, we will be attempting to integrate two pillars of modern culture, music and medicine, and how these relate dynamically to each other in practice remains to be seen.

The benefit of music is that it is accessible to a variety of professional groups that have shown interest in the arts and, in particular, how the arts relate to modern health care delivery. This journal will also bring clinical activities and research initiatives together, informing practitioners from a variety of backgrounds. The interdisciplinary potential for growth initiative lies in the integrative quest for continuity and development of research, practice, and knowledge. This may be best expressed as the reflective practitioner in the community of inquiry (Aldridge, 2004b).

There is a recognizable increase in the knowledge base and availability of resources throughout the Worldwide Web. We are seeing increasing specialties of particularized knowledge. These areas of interest include but are not limited to arts medicine, music performance, performance arts medicine, music psychology, ethnomusicology, music cognition, music neurology, music therapy, music in hospitals, early childhood and developmental music education, infant stimulation, and music medicine. Our initiative in *Music and Medicine* will be to promote translational research—that is, to promote understanding that will further the field of music and medicine. The benefit of an online presence means that we can also provide audio and video examples that will provide supplementary material for the print published studies. In addition, we will be developing the online presence as a curriculum support service with the publishers, combined with a database of case examples. This means that educators can work alongside the editors to provide an international teaching platform using a broad range of media. Information on a Website is not enough; our intention is to put that information into a context that is commented upon by experts so that it can then be taken up as knowledge by our readers.

This inaugural issue represents the kind of diversity that we are hoping will continue to be apparent in forthcoming issues. There also may be special issues where writers delve into a common topic from different perspectives, fields, and/or applications.

We have been fortunate to acquire an article from Daniel Levitin that discusses the neural correlates of temporal structure in music, referring to all the tools available to modern cognitive neuroscience, including genetic models, neuroimaging, mathematical models, and lesion studies. As a contrast, there is a study of dancing tango and an analysis of its implications for well-being that considers emotional and hormonal responses. The study, by Cynthia Quiroga Murcia, Stephan Bongard, and Gunter Kreutz, is interesting in that it includes the partner of the dancer and the effect that this can contribute to health. While the tango study emphasizes activity with a partner, another study looks at the effect of music listening and its facilitation of healing. Ruth McCaffrey evaluates the impact that music listening has on the cognition of older adults undergoing knee surgery. Acute confusion is common in older adults after hip or knee surgery; the music-listening participants had higher levels of cognitive function and less confusion than those who did not listen to music. This study reflects a platform of studies in the tradition of music and medicine writing that investigates the influence of music in pre- and postsurgery environments.

As we see from these articles, music applied in medical settings is undertaken as a nonpharmacological approach to an integrative medical perspective. We are also interested in settings where applied music approaches work adjuvant to pharmacological approaches. A central problem of music interventions is that we cannot blind for the use of music as an intervention. Rather than a hindrance to studies, we regard this as a robust challenge for developing research methodologies.

In this issue, Kristen Stewart provides an introduction to a new model in NICU music therapy that addresses how music can influence the impact of trauma at the most vulnerable time of life. Backing her development with theory and a review of trauma literature, Stewart's model, titled PATTERNS (an acronym), offers new thinking to our understanding of neonatal music therapy. In a comprehensive survey of how music addresses issues in seriously ill patients, Clare O'Callaghan offers a rich review of music therapy in treating those diagnosed with cancer. Her experience and clinical savvy is apparent, and she takes careful attention to address music's influence on critical aspects of clinical function, as reported through contextualizing subjective and constructive approaches to the literature. O'Callaghan's organization and summary of treatment is comprehensive and interesting. Although there is a good amount published in oncology and palliative care and music therapy, we do not often see such contextual organization and extensive clinical analyses as is presented in O'Callaghan's work. Monika Jungblut, Matthias Suchanek, and Horst Gerhard's in-depth case report of a man's recovery from chronic global aphasia offers a unique glimpse at a music therapy process through long-term music therapy treatment spanning more than 5 years. This is an unusual indulgence, not only because readers are afforded insight through dozens of sessions through time but also in that the reporting is comprehensive, spanning psychosocial aspects of care, included scans, and finally, generous creative descriptions of music therapy process developments. Fred Schwartz was among the first doctors in the United States to implement music systems into intensive care units (ICUs). In his pilot study, we learn about the effects of recorded music for patients admitted to this ICU. Schwartz describes the effects of music and its impact in the recovery of patients in postoperative cardiac surgical care.

In this first issue, we see a range of applied music interventions, from work with newborn babies to older adults, from actively dancing tango with a partner to listening to music after surgery. We have a rich field of practice and a developing field of research studies. It is the plurality of practices and methodologies that we want to encourage. To encourage publication and make a lively journal, we will be taking articles from varying scientific disciplines, hence the subtitle "An Interdisciplinary Journal." Please join us in this endeavor as artists and scientists, as practitioners, patients, and caregivers.

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