Music and the Arts in Health: A Perspective from the United States

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ABSTRACT

While music and other art forms have long been associated with health promotion, their place in health practices and the specific constructs that effect healing and wellness have been difficult to define. This guest editorial discusses the arts, and music in particular, in the contexts of traditional cultures and contemporary biomedicine, psychotherapies and community practice. Current research and the trend toward defining two distinct fields of 'arts therapies' and 'arts in healthcare' practices are discussed, as is the need for more in-depth studies of the effects of such practices in everyday life.

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INTRODUCTION

Music and other art forms have long been utilized in the realm of health and healing across cultures and times, with applications ranging from traditional healing rituals, to the social use of music in communities, to the more prescriptive use of the arts in biomedical settings. We can historically document a long-standing 'knowing' of the opportunities through artistic forms and activities to effect healing and wellness. And today, as arts therapies and other healthcare and community-based arts practices meet the standards and demands of evidence-based medicine and scientific assessment, music and other art forms are becoming more widely accepted and practiced through psychotherapies, biomedicine, and community practices alike.

Today, we see the presence of two distinct, yet interrelated and complimentary, fields that connect music and the arts to health: arts therapies and arts in healthcare. Despite the distinctions that can be made between arts therapies and the arts in healthcare, the similarities are many. The primary distinction between the two areas is that arts therapists must be trained and credentialed as such, and have a defined clinical relationship to patients, clients or the healthcare, education or other setting in which services are delivered. Within the context of the arts in healthcare, artists and musicians work as artists, not practitioners or therapists, and are hired based on their skills and credentials as professional artists. Most often, those who work as professionals in the field of arts in healthcare are referred to as musicians or artists in residence. Just as with arts therapists, artists in residence may work in hospitals or other healthcare or community settings. Both the arts therapies and the arts in healthcare as disciplines work to document the effects of music on health, and to promote the arts as health-enhancing.

Numerous sub-sets of these disciplines are also being defined, and this thematic issue of *Music and Arts in Action* highlights some recent innovations and research related to the arts in both fields as well as some long-standing aesthetic practices from traditional cultures. In its exploration of music and art in the contexts of everyday coping, dementia care, a rural post-conflict community in Sierra Leone, Navajo ritual, death education and general health promotion, this issue brings to light and defines an array of artistic practices and their benefits for health promotion and wellness. The final article by Bonde, *Health music(k)ing - Music therapy or music and health?*, directly reflects the increasingly common dialogue that seeks to articulate both the connections and distinctions between arts therapies and arts in healthcare practices. Although the need for the distinction between the fields is indeed debatable, it nonetheless is widely made and will be discussed within this editorial as well as within this special issue. While this conversation holds significant relevance related to the training, credentialing and practice of professionals, it more significantly represents the growth and credibility of music and the arts as related to health in various forms.

In what follows, I will focus specifically on the example of music to examine these distinctions between arts therapies and arts in healthcare practices. I will then

conclude by contemplating the future of work in this area and the importance of *in situ* studies to assess and understand this work. To understand the significance of recent developments in the use of music for health, however, I will first begin with a brief look at how music and healing has been traditionally understood in local and historical contexts.

MUSIC AND TRADITIONAL HEALING RITUALS

Before discussing the more codified medical contexts of musical and artistic applications, it is important to note the ways in which music and the arts have always impacted upon health and wellness in our local, traditional and everyday contexts. A look into the healing practices of indigenous cultures, for example, often reveals rituals that engage music as a means for transcendence, diagnostic discovery, affirmation, treatment and for communication across human and spiritual realms. While such activities are not commonly legitimized as health-promoting practices, they nonetheless represent vital connections of music to healing. Even more fundamental is the broad utilization of music as a means for transcending states of consciousness, notably in spiritual and religious settings, where music is an integral component of shifting an individual's awareness from the realm of the mundane to that of the sacred. In facilitating this connection between individuals, communities and the spirit realm, music creates a space for communication and (often implicitly) for healing.

To take an early example, the use of music for shifting states of being can be seen in the Greek temples of Asclepius (the god of medicine and healing), where a dream therapy or 'divine sleep' was a common treatment for illness. Within this ritual practice, a patient was prepared through fasting and music to enter a spiritual state in which he or she could best absorb divine communication from the dream state. This state, which occurred just before sleep and was facilitated by music, would bring Asclepius, carrying a caduceus and communicating to the patient a diagnosis and a recommendation for treatment (Sonke, 2008). Our human awareness of the innate connection between artistic practices, such as music, and the emotional, physical and other less explicitly cognitive elements of experience lies, perhaps, at the foundation of our establishment of arts-based healing rituals.

Moulton's article in this issue, *Restoring identity and bringing balance through Navajo healing rituals*, similarly illustrates this point by examining the roles of music and chant in Navajo healing ritual. Moulton notes that, as in all traditional cultures, illness in Native American cultures is viewed as a spiritual matter, and singing and chanting is an important way in which the healer (in this case, the medicine man) can gain entry into the supernatural world. This etiological perspective is seen also in the Old Testament book of 1 Samuel (16: 14-16), when David is summoned to play the harp to soothe the evil spirit that makes Saul ill:

> The spirit of the Lord had departed from Saul, and he was tormented by an evil spirit sent by the Lord. So the servants of Saul said to him: "Please! An evil spirit from God is tormenting you. If your lordship will order it, we, your servants here in attendance

> on you, will look for a man skilled in playing the harp. When the evil spirit from God comes over you, he will play and you will feel better."

Indeed, as observed by Ruud (2001), the healing qualities of music are espoused throughout ancient and classical literatures in human history. Plato, Pythagoras, Avicenna, Confucius and other philosophers and scholars are widely quoted on this topic. Literatures throughout medieval times frequently refer to the healing qualities of music, basing ideas on the theories of harmonic vibrations of sound, the four humors and general awareness of the mind-body connection (Gouk, 2000; Horden, 2000; Wigram, *et. al*, 2002). But, it was not until the twentieth century that these often tacit and deeply-felt assumptions regarding the power of music to effect health began to be explored using modern scientific approaches.

MUSIC THERAPY: ARTS THERAPIES

Over the past century, music therapy has evolved as a discipline, first rooted in the social sciences and more recently emerging as a respected therapeutic intervention. In the U.S., the profession of music therapy was organized in the 1930's with attention to practice, accreditation, certification and research (Darrow, Gibbons, and Heller, 1985). According to the American Music Therapy Association, "Music Therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program" (AMTA, 1998, p.10). The World Federation of Music Therapy defines the field somewhat more broadly as "the use of music and/or its musical elements (sound, rhythm, melody and harmony) by a qualified music therapist, with a client or group, in a process designed to facilitate and promote communication, relationships, learning, mobilization, expression, organization and other relevant therapeutic objectives in order to meet physical, emotional, mental, social and cognitive needs" (WFMT, 2008, p.11). Today, music therapy is recognized as an allied or paramedical profession throughout the world, and represents a wide array of clinical and community based practices (Ruud, 2004; Wigram, *et. al*, 2002).

The global field of music therapy extends across psychotherapeutic, psychosocial, educational and biomedical frameworks. Biomedicine refers to the application of principles of the natural sciences to medicine, and includes the contemporary healthcare systems that have emerged in industrialized countries. Music therapists work in many different settings, including psychiatric and medical hospitals, rehabilitative facilities, outpatient clinics, agencies and schools for persons with disabilities, community mental health centers, drug and alcohol programs, senior centers, nursing homes, hospice programs, correctional facilities, schools, homeless shelters and in private practice (AMTA, 1998-2010). At the same time the term music therapist is used in varying ways. In the United States, one must complete a degree program and be certified through a national exam in order to use the title of music therapist. In parts of Europe, although there are many programs of study in the field, highly credentialed professionals, high standards for practice, and a registry of music therapists, one can, use the title without certification and even without

formal training. There are estimated to be over 5,000 certified music therapists in the United Stated and approximately 5,800 in Europe (Grocke, 2003). As there are not consistent certification processes to clearly document the number of music therapists in many other countries, an accurate estimation of the number of music therapists practicing worldwide is difficult to make. However, Grocke (2003) estimates that there are approximately 15,000 music therapists practicing worldwide.

Music therapists in clinical settings work as clinicians and, in some countries, are able to participate in government-funded welfare programs and third-party reimbursement systems. Music therapy services can be directly billable to clients, as is the case with clinical practitioners or those in private practice, or can be integrated into organizational budgets, as is often the case in educational and community settings (such as after-school or community service programs). While those outside the field commonly associate music therapy primarily with the use of music as a psychotherapeutic tool, the literature from the field demonstrates its applications across medical disciplines, including the psychotherapies, neurosciences, biomedicine, public health and social services, as well as in community-based practice.

In keeping with this diversity of practice, music therapy has been demonstrated to impact health in many ways, including positively affecting stress hormones, blood pressure and heart rate (Gregory, 2002; Hanser, 1985; Pelletier, 2004), anxiety (Mok, 2003), pain control and pain perception (Henry, 1995; Whipple and Glynn, 1992), emotional states (Gregory, 2002; Teague and McKinney, 2006) and the need for anesthesia (Newman, *et. al*, 2010). When Aldridge published his comprehensive and widely cited review of music therapy literature in 1993, he noted the lack of valid clinical research and of research using established immunological parameters. Much progress has been made in the field's research since this time. In particular, wider utilizations of music therapy in medical settings and partnerships between music therapists and clinical researchers are yielding unprecedented advances in clinical intervention supported by scientific evidence (Thaut and McIntosh, 2010). These new integrations of the arts in medical settings have resulted in a significant elevation in the status of music and other art forms as effective biomedical therapies. They also create a distinction, made by some, that delineates music in the medical setting as medical music therapy. While medical music therapy would be practiced by trained music therapists, musicians who are not therapists also provide professional music services in healthcare settings. These practices would be defined in the context of arts in healthcare.

MUSIC AND HEALTH: ARTS IN HEALTHCARE

Today, music is the most widely utilized and researched arts discipline in the realm of arts and health, and has been demonstrated to be an effective determinant of health and to positively effect health outcomes (Sonke, *et. al*, 2009). The field of Arts in Healthcare, or Arts and Health, is defined by the U.S.-based Society for the Arts in Healthcare as a diverse, multidisciplinary field dedicated to transforming the healthcare experience by connecting people with the power of the arts at key moments in their lives. This rapidly growing field integrates the arts, including

literary, performing and visual arts and design, into a wide variety of healthcare and community settings for therapeutic, educational and expressive purposes (State of the Field Committee, 2009).

The primary purpose in the practice of arts in healthcare is to use creative activities to reduce suffering and to promote wellness. This primary goal extends over many applications in many healthcare settings, including hospitals, long-term care facilities, hospices, centers for people with disabilities and other community health settings. Over the past half century in the United States, due to established practices and a growing body of scientific evidence, arts in healthcare has emerged as a recognized component of the formal healthcare system. In 2004 and 2007, The Joint Commission, the national accreditation agency for healthcare institutions in the U.S., partnered with the Society for the Arts in Healthcare, Americans for the Arts and the University of Florida Center for the Arts in Healthcare to conduct surveys that examined the presence and characteristics of arts programs in U.S. healthcare facilities. In both surveys, nearly half of responding institutions (approximately 2,000 per study) reported the establishment of arts programs in their facilities (State of the Field Committee, 2009).

As I will explore below, much of our early historical references for the use of the arts in the realm of health come from literature and philosophy rather than from medical or sociological literature. Perhaps the first documentation of musical activity related to health outcomes in a biomedical context was in 1729, when Richard Browne, a British physician, published *Medicina Musica: A Mechanical Essay on the Effects of Singing, Musick, and Dancing on Human Bodies.* The text makes clear arguments for the usefulness of music as a physical therapy based on observable outcomes. Interestingly, in the 1940's, music was incorporated into the U.S. Army's reconditioning programs, with vocal and instrumental exercises being facilitated under direct supervision of medical personnel for retraining and strengthening muscles and as means to exercise the lungs and larynx (Tyson, 1981). In the absence of adequate levels of pharmaceuticals to manage the vast number of wounded warriors, music was also used in anesthesia. It was found that patients could be anesthetized more easily and required less medication after surgery when music was playing in operating and recovery areas (Koch, *et. al*, 1998). Similar results were also observed at this time in dentistry.

As brain imaging technologies have advanced in sophistication over the past twenty years, neurological research has been able to identify some of the structures that may underlie these aforementioned outcomes. Functional magnetic resonance imaging (fMRI), positron-emission tomography (PET) scanning, and other imaging processes allow researchers to view the brains of individuals performing cognitive and motor tasks. Studies have shown that the neural networks that process music also process other functions, such as language, auditory perception, attention, memory, executive control and motor control (Bengtsson, *et. al*, 2009). Thus, as music spurs changes in the brain, such as neural growth and more efficient neural interactions (Schlaug, 2008; Thaut and McIntosh, 2010), overlapping functions can be affected. These findings have supported the implementation of music interventions for people with

brain injuries and neurodegenerative diseases such as Parkinson's disease, and are offering hope for improvements in quality of life and even recovery for those suffering some forms of brain injury.

From a more pragmatic point of view, it is also worth noting that arts interventions are being demonstrated to yield significant cost-savings in healthcare. For example, a music program at Tallahassee Memorial HealthCare (in Florida, U.S.) employed a musician to play live music chosen by individual pediatric patients during the preparation period for CT (or CAT) scans. The program saved $567 per procedure, eliminated or reduced the need for sedation and anesthesia, saved three hours of nursing time per procedure, reduced overnight hospital stays, and yielded a 98% procedure success rate for a very difficult procedure (Walworth, 2005). In the U.S., with at least four million CT scans performed annually on children alone, the potential cost savings gained by instituting this single music intervention at the national level exceeds $2.25 billion. The global savings, then, would be even greater.

SUMMARY: TOWARDS CONTEXT-DRIVEN UNDERSTANDINGS OF THE ARTS AND HEALTH PROMOTION

Although music therapy is deeply rooted in social science and the literature on the health-enhancing effects of music is quite compelling, Kate Bingley rightly notes in her article, *Bambeh's song: Music, women and health in a rural community in post conflict Sierra Leone*, that there have been relatively few social and cultural explorations of the topic. As the arts therapy and healthcare literatures grow, more investigation into the interlinked social and cultural implications of musical and artistic activity are needed. Additionally, more research into the relevance of 'quality' of musical performance is needed as a vital corrective to the fact that the majority of research on the effects of music is related to music listening, rather than participation. To evidence the complexity of such practices, a study by Kreutz *et. al* (2004) found that individuals listening to an amateur choir reported significant negative increases in their moods, while those singing experienced positive mood increases as well as enhanced immune responses. Put simply, there may be no one-size-fits-all approach to music in health.

More generally speaking, this research reminds us that both the fields of arts therapies and arts in healthcare must consider artistic quality and individual experience when measuring 'effects' or 'outcomes'. While there is much data accumulating that helps us to understand the potential for music and other arts disciplines to positively affect health and well-being, it is also quite possible that they can have negative effects. Responses to the arts and creative engagement are highly subjective, and arts interventions must remain highly patient driven. Research methodologies that consider the uniquely personal and contextual nature of artistic experience can complement more discretely 'quantitative' work by providing valuable insights into how, practically, music and arts-based health interventions actually matter in discrete contexts of action. The ethnographic model outlined here by Hara in *Music in dementia care: Increased understanding through mixed research methods* offers one such opportunity.

As both the arts therapies and arts in healthcare grow as established health-promoting practices, we will continue to see a burgeoning of numerous ‘sub-set’ disciplines developing in this area; in music alone, these include musicking, medical music therapy, medical ethnomusicology, ethnomusic therapy, music for recovery, community music therapy, neurologic music therapy and countless individual methods that ‘apply’ or engage music in health practices. Moreover, there are additional social and individualized uses of the arts outside of discretely medical settings, such as the everyday coping practices described by Skånland in *Use of MP3 players as a coping resource* and the community-based arts program described by Tsiris, *et al.* in *Music and arts in health promotion and death education: The St. Christopher’s Schools Project*. It is difficult to predict whether the distinctions between the arts therapies and arts in healthcare as well as the distinctions between subfields will become more or less important in the future. What is important is that music is being explored more regularly to promote health, and that – based on conventional scientific evidence – it is being applied in the place of more invasive, riskier and costlier health interventions.

In biomedical healthcare systems throughout the world, where highly technical, pharmacologically-based treatments are the norm, this is a significant advancement. As a low-risk and cost-effective intervention, music and other art forms have the potential to improve health outcomes while reducing the numbers of injuries and deaths that occur from invasive medical testing and treatment and errors in their delivery. As the intersection between the arts and health becomes better understood, we stand to benefit significantly from more targeted interventions to creatively promote our individual health and collective well-being.

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