A Spectrum of Healing: Music Therapy Throughout Health Care Systems

Frank Wagner MA, CMT, NRMT and Erica Rondina MA, MT-BC

I am honored to have been asked to speak to you on the CAT conference by Arts with the Disabled Association Hong Kong. The practice of music therapy is active in thirty countries and six continents around the globe. In the United States there are approximately 3,367 members belonging to the American Music Therapy Association. Seventy one colleges and universities offer programs in music therapy approved by the American Music Therapy Association founded in 1998 as a result of a union between the American Association for Music Therapy (founded 1971) and the National Association for Music Therapy (founded in 1950)......P. 202 in amta book...project on enlarger.

Music therapists across the United States are integral members of interdisciplinary teams that offer alternative approaches to Western medicine. Art therapy, Dance /Movement Therapy, Drama Therapy, Psychodrama, and Poetry Therapy are all recognized to enhance people's lives, improving comfort levels and enhancing overall well being. There are more than 15,000 Creative Arts Therapists practicing in the United States and around the world. In America, Western Medicine has dominated the health care industry for most of the twentieth century. The past 30 years there has been a shift from Western Medicine to Alternative Medicine and the pendulum has swung towards a more holistic approach in treating illnesses. Creative Arts Therapists are human service professionals who use arts modalities and creative processes for the purpose of ameliorating disability and illness and optimizing health and wellness.

In China, according to the Ministry of Health's findings in the year of 2001, 1.23 percent of the country's population or about 16million suffer schizophrenia, depression or other mental illnesses. Mental illness amongst the Chinese has risen from 0.54 percent in the 1970's to the current 1.347-percent. What has precipitated this increase? Some psychological experts believe that China is rapidly expanding their economic and social development and that puts more psychological pressure on people because of an increase in competition and the ever-increasing elderly population. An article published in People's Daily in April of 2001 stated that in 1991, China launched a massive countrywide rehabilitation project for people with mental disabilities. It provided comprehensive and efficient treatment for 1.22 million severely ill mental patients. Based on this article, China is committed to provide services for another 2.4 million mentally ill patients and to help them resume their normal lives.

Psychology classes at Beijing University have become a popular choice for Chinese students. According to the China Youth Daily in February of 2003, 600 students competed for 80 places in the psychology department at Beijing Normal University. Another 400 students applied for the psychology department at Peking University. This is indeed good news. The future for the Creative Arts Therapies in China will undoubtedly grow in the coming years. Traditional Chinese music has

been healing people for many centuries. Perhaps a resurgence in the curative qualities of pentatonic music will become popular once again.

Music therapy has been around a long time. Pythagoras (570 BCE), credited today as the founder of music therapy in the West, sang calming melodies to his disciples, based on the principle that melody and rhythm cannot fail to restore harmony to the human soul. In the Republic of Plato Socrates states: "...rhythm and harmony find their way into the innermost soul and take the strongest hold on it". Pythagoras, Plato, Aristotle and others were so involved in the study of the influences of music in human development, societal and individual behaviour that these great men believed that exposure to the performances of the various Greek modes would have very specific psychological and physical effects, either positive or negative. Plato speaks about which kinds of music would or would not be allowed in an ideal society. He considered the Lydian mode to be "voluptuous and sensual, and therefore enervating". Aristotle held that the Phrygian mode was "violently exciting and emotional". Modes are simply scales that make up our melodies and harmonies in the language of music.

Confucius observed that music is born of emotion. Any combination of melody, rhythm, harmony and unified sounds evokes emotions. Many of you have heard this before but music can move you to tears, fill you with happiness, make you want to dance or send you into a deep state of bliss and relaxation. Researchers that study brain pathways are discovering that music seems to strike a strong chord in the brain. By measuring the blood flow in the brain after targeting the emotional response to music in ten adults, scientists discovered how the various regions of the brain could actually decipher different mood stimuli, elicited from music. The ten adults performed various tasks and each task produced very different patterns of brain activity. This is an important finding because it definitely points to emotional responses to music. Melody was found to activate both the left and right hemisphere in the temporal areas of the brain, while harmony and rhythm triggered activity more on the left hemisphere. More importantly these studies imply how a music therapist might use these findings clinically. For example, a stroke patient needs to regain use of speech and by singing words, a part of the musical language area of the brain is called upon. Findings indicate the cerebellum, which is located in the back of the brain, is linked to fine motor control. In a study conducted at the Center for Biomedical Research in Music Therapy at Colorado State University, stroke and Parkinson's patients were offered music therapy as part of their recovery. When listening to music, patients stride length increased by 100% compared with those who didn't listen to music during recovery. What helps the patients develop their movement and physical stability is the rhythmic beat of music. It is believed that music helps people relax, triggering the release of endorphins, the body's natural painkillers. Researchers at Colorado State University believe that consistent rhythm triggers and shapes activity in the motor system of the brain thereby synchronizing movement. Dr. Joseph Arrezo of the Albert Einstein College of Medicine in New York states that "music is known to be a strong stimulus for reinforcing patterns of activity within the brain's cortex".

A relatively new discipline in music therapy called Psychoneuroimmunology (PNI), investigates the connections between moods, the nervous system, and the immune system. Regulatory chemicals produced by the brain elicited from music are carried throughout the body. When a person is in a relaxed state, beta-endorphins are released, and the body is allowed do its own healing work on a physiological level. When this state is brought on by listening to music, the result is called "audio analgesia". Don Campbell, author of The Mozart Effect, states that "The healing chemicals created by the joy and emotional richness of music enable the body to create its own anesthetic and enhance immune function".

I believe that it is the music therapist's responsibility to be familiar with as many kinds of music as possible. The music therapist should have a large repertoire of music to make rational clinical decisions thus ultimately optimizing the healing process for the patient. Different individuals will respond differently to the various genres of music and it is only through trial and error what type of music will work best with the patient. The culture, age, mental and physical evaluation of a person should be taken into consideration when music is used for therapeutic purposes. Please remember that music therapy is not used to replace standard medical care, only to complement it.

In recent years music therapy has become compatible with music healing. Music healing is usually associated with the patient passively listening to music. The patient is not active and usually sits or lies in a comfortable spot, seeping in the pleasant sounds and vibrations, either played live by a musician specializing in healing music or by music that is recorded. The Kaiser-Permanente Medical Center in Los Angeles California, was one of the first hospitals to offer harp music tapes to their patients as an alternative to prescription drugs for pain. Usually the consensus is that live music is much more effective than recorded music but when live music is unavailable it seems appropriate that recorded music be used. There is a growing trend in the field of music to promote healing. Scientifically based, many hospitals use harp music for the patient who is in the last hours or moments of life, to smooth the way into the unknown.

The Greeks knew how healing music was to their society. They made contact with another human being through music. In hospitals through out the world, music therapists observe how clients use the music and how any problems may get in the way of interactive communication. The immediate goal for the music therapist is to engage the client and the mood in music must be carefully be administered. The music therapist needs to posses a kind of "clinical radar", living in the creative now. It is the responsibility of the clinician to ask what is the music doing to our clients and take in impressions of the session that are internalized with the client. Music is a vehicle-a child rides in it-a child gets to know your music person. It is like dissecting tissues, vessels, and organs, within music. I like to think of it as music health in therapy.

Music is the most communicative art on the planet, reaching depths we don't even understand and can take up any aspects of the human soul. Imagine ourselves in a dream-like consciousness.

Music becomes a warming, embracing, soothing and eventually becomes an empowering entity for the client. Therapists can use music to open the bars for autistic children. Paul Nordoff, an innovative and legendary music therapist stated that "Music is an enormous world to live in and to work in. It's the only world we can conceive that can meet the variations of pathology as one sees them in any individual". In other words the world of pathology is immense but music can contain it all. Music therapy is a journey, a venture into a relationship and every encounter is different. Music can impart healing and purpose but music can't do it alone. Dr. Ken Aigen, co-director of the Nordoff Robbins Institute in New York City, believes that it is crucial that the therapist imparts to the client what the therapist believes in him or herself. It is not just to support what the therapist has learned in school or books, i.e., analysis, co-counseling or psychotherapy. The ability for a therapist to live in their feelings, intuitions, insights, humanity and to embody these components clinically is what gives the therapist tools to work. It is important for the therapist to recognize who one is and how it may be addressed through self-discovery and personal growth such as formal psychotherapy, exercise, clinical supervision, eating well, and peer supervision groups. If it is the goal for the music therapist for the client to be alive, feel alive, foster and develop personalities, nurture independence, to become more human, then clinical interventions must possess these qualities. The therapist imparting these interventions on the client, has to have lived and experienced personal growth and without this growth on the therapists' part, there is no way for the client to take this leap. The therapist needs to be fully comfortable with his or her self and then communicate to their clients the potential benefits to human personalities through music.

Music therapists ask the questions, "What am I doing and why? Where am I going"? The fields of musical activity between the therapist and client are many such as, energy of the session, colour, i.e. the timbre and choice of instruments the therapist carefully chooses for his or her client, stability of the clients, and musicianship. What does music mean to the client? How is the client hearing melody, tones, harmonic structure, rhythm projection-the whole of music. It is by trial and error that we do our work and we continuously harness and enhance what the client is doing and try and understand what we are doing, so we do it better. There is a mutuality of musicing between the client and therapist.

In some mental health facilities schizophrenics are being administered daily doses of Chopin. Exposure to music could do nothing but good. When Confucius observed that music is born of emotion, I agree with him. I've seen music fill people with happiness or move someone to tears. It can make one sing, dance or fall deep into a relaxed state of mind. Music is healing and music is wonderful. So wonderful that a music therapist named Walter Stafford wrote a composition entitled "Wonderful". I would like to share these lyrics with you today.

Wonderful, Beautiful, Glorious, Music Time,

So Divine, Super Fine, Music Can Be Wonderful.

Picks You Up, Makes You Fly,

Makes You Laugh, Makes You Cry

Now You Feel, Now You Know

Music Can Be Wonderful

Through out time it became increasingly clear that music therapy could help maintain social skills, non-verbal expression, speech and language skills, choice making and independence. Music helps tense people relax. Music helps sick people feel better. Music helps calm angry people and cheer people who feel sad. A recent article in the Psychology of Music stated: "Sad music can apparently serve as solace and provides a sense of not being alone in one's misery". In hospitals across the world, music is a godsend for people to feel alive again and to stimulate dormant brain functioning in the elderly.

Work settings for Creative Arts Therapists in America include: Adult Day Treatment Centers, Community Mental Health Centers, Community Residences Halfway Houses, Shelters for the Homeless, Correctional and Forensic Facilities, Disaster Relief Centers, Drug and Alcohol Programs, Hospices, Nursing Homes and Senior Centers, Outpatient Clinics, Psychiatric Units and Hospitals, Rehabilitation Facilities, Schools and Wellness Centers.

In nursing and senior centers Alzheimer's disease is unfortunately predominant. It is a terribly debilitating neurological disease. There is no cure for Alzheimer's but the Creative Arts Therapies can make a difference between demoralization and dignity, decrease agitation, enhance reality orientation and with arts experiences from the person's past, it is used to trigger short and long term memory. For example, in music therapy, the music therapist will ask the patient's family what songs the patient might have listened to in their life. The therapist would then learn the song and sing or hum part of the lyrics or melody to the patient and then have the patient fill in the rest of the words or melody. A flood-gate of memories is released for the patient. Working with Alzheimer's patients many years ago, I remember how gratifying it was for the patient to remember lyrics to songs. Their eyes would light up and they would suddenly reminisce about the past. According to Dr. Oliver Sachs, Alzheimer's patients benefit from hearing familiar music. "It helps to reaccess not only the powers of speech and one's perceptual and thinking skills, but his entire emotional and intellectual configuration, his life history, his identity, for a while." I felt I did make an immediate difference in the quality of their lives, by bringing a renewed sense of comfort, dignity and joy.

Not only can music help individuals with difficulties in learning but can be used as a component in part of preventative help. Individuals who are healthy can use music to reduce stress. Stress is the underlying cause for many illnesses and those who wish to improve their quality of life

can take action by either engaging in active music making; such as drumming as well as passive listening for relaxation.

There has been a recent phenomenon in America on group drumming. The word is out that individual T cell counts increase when hitting a hand-drum or doing various vocal and imagery exercises. Much has been written about T-cells and how they can destroy cancer cells. For many people who have lost the ability to communicate, drumming creates a sense of community that fosters communication when everything else is gone. Drumming promotes physical vitality and stamina and creates a sense of cohesiveness within a group. The repetitive beating of a drum is a form of non-verbal communication and releases endorphins-the pleasure hormone associated with runners high. One feels alive when drumming. It is fun and eliminates distractions and societal constraints. When used with adolescents, drumming can release anger and hostile feelings. It displaces their negative energy or releases negative feelings into something creative and constructive.

In the hospital milieu, percussion plays an important role in the treatment of adolescents, adults, geriatrics, mental retardation, psychiatric disorders and the mentally challenged. What is it about drumming that is so beneficial for the patient? Number one is that drumming puts the patient into the "here and now". Not always but many times when a patient is in the present, it is difficult to be stressed. When a patient is tense they are usually thinking fearfully of the past or negatively in anticipation of the future. Number two: Drumming is grounding. When a patient beats or hits a drum, they are immediately placed solidly into their body. The vibrations of the drum penetrate deep into the sub-conscious and the patient experiences a great deal of joy; freeing the stresses that occupy the mind. Number three: Drumming gives the patient a real sense of power. The drum allows a patient to release tactilely their negative emotions and stress. The state that one achieves during repetitive drumming is the letting go of inhibitions that ultimately allow the mind-body to experience its innate creativity. Drumming is primal and is a powerful way of getting in touch with the deep instinctual energies of the body.

I believe that each person is blessed with an innate basic beat and the music therapist can usually work with a patient to establish one's basic beat. Once a basic beat is established in an individual, it decreases fragmentation and increases organization. A sense of balance and order is established or restored within a person's being. Drumming is comforting and tremendously stress relieving.

A large component of music therapy that is practiced in many facilities is Imagery. What exactly is imagery? Essentially, it is the flows of thoughts you can see, hear, feel, smell, or taste. An image is an inner representation of your fantasies—a way your mind codes, stores, and expresses information. Imagery is the currency of dreams and day-dreams; memories and reminiscence; plans, projections, and possibilities. It is the language of the arts, the emotions, and most important, of the deeper self.

I tell patients and private clients that one can use imagery to relax, escape stress, to alleviate pain, to stimulate blood flow, immunity, and other healing mechanisms of the body, to generate creativity, to help make decisions to resolve inner conflicts, and to process and manage emotions.

Regular interruption of chronic stress with relaxation "mini vacations" or visits to one's place of healing can sustain one's energy, positive mood, and abilities to cope with the challenges an illness and its treatment may bring. Imagery in healing is probably best known for its direct effects on physiology.

Managing stress involves three major elements:

- 1. Changing the external situation.(quality support, support groups, family, good doctor)
- 2. Changing the way you respond to the situation/and or(relaxation, meditation, self-hypnosis, and guided imagery)
- 3. Changing the way you perceive or interpret the situation.

Cultivating a regular practice of relaxation gives your body and mind a regular time to go into this rest, renewal, and repair state. In this state the body can use more energy for repair and healing. Relaxation teaches you to focus inside. And using guided imagery to relax not only makes this easier, it prepares you to use the imagery techniques. The therapist works with the patient to choose music that helps to create the feelings and qualities one needs to appropriately fuel their imagery. Imagery is one of the oldest forms of healing and has been used in almost every era and traditions of medicine in history.

Shamanic healers in many ancient cultures enter a trance state during which they claim to journey to the spirit realm to have direct discourse with the spirits or gods that affect health or illness. In shamanic cultures, the spirit world is considered to be a real world, more real than the world we live in, which is considered a dream world. The spirits are considered to be autonomous, external, and separate from us. We do many of the same things the shamans do in guided imagery, but we usually consider the images to be aspects of our own inner self. In truth, we really don't know what's within us and what's outside us in these realms, but as doctors and patients, this isn't really important. Our concern is whether these approaches are helpful in healing.

Carl Jung, the eminent Swiss psychiatrist, believed that imagery was as close to the unconscious as one could get, or that it may even be the unconscious mind directly revealing itself. Jung employed a method he called active imagination as a means of gaining insight into his client's unconscious process. He would invite his patients to relax and focus their attention on their symptoms, and describe the images that came to mind. He reported that "at first, the client tends to watch the images with some fascination, as if at the theater, but sooner or later it dawns on them

that they are being addressed by something intelligent". This idea, that your imagery is produced by an inner intelligence, is the basis for guided imagery dialogue techniques, where you can imagine conversing or communicating with various images, be they of your body, your illness, your immune system, or your inner wisdom and learn things of value in your healing journey.

Two major mechanisms of healing are-stimulate the immune system and alter blood flow to areas of the body. Imagery has been shown in numerous studies to affect almost all major physiologic control systems of the body, including breathing, heart rate, blood pressure, metabolic rates, digestive functioning, sexual function, and immune system response. Traditional Guided Imagery in Music, known as GIM often amplifies the imagery and has a close connection with it. Trained therapists use special selections of music to help people access certain emotions. Different emotions tend to evoke different images. Some music is soothing and relaxing, some is celestial and inspirational, while other pieces are warlike and heroic. Music encourages imagery that is congruent with the moods it evokes.

Through the years of my clinical practice I have found that the Greek Modes do indeed evoke certain moods. One of the groups I do with my patients is an art and music group. I call the group "Drawing Images Through Music". At the beginning of each session before the patients arrive, I lay art supplies out in the middle of the table for the group. The group should be able to choose between pastels, crayons, water colours, coloured pencils, charcoal, oil paints, various width paint brushes, coloured paper and different sizes of drawing paper. When you allow patients to choose, it empowers them. It gives them a sense of control in a very stressful environment. Aside from the art supplies that the patients can freely chose from, I have musical instruments handy if anyone wishes to play music. A mixture of percussion instruments such as claves, maracas, wind chimes, tambourines, a triangle, congo, and bongos.

Before the music begins, I ask the group to relax and let the music guide their imaginations to conjure up images. If anyone does not feel like drawing, or if they finish before the music ends, I encourage them to pick up an instrument and interact within the group. When I'm playing music with the Drawing Through Images Group, I have a continuous reciprocal relationship with each patient in the room. For example, my improvisations might be influenced by what a patient draws. If a patient is drawing a sinuous colourful line, I might change the shape of my improv lines. Improvising music to the various colours and shapes made by the patient's drawings, enabled me to attain a higher degree of creativity, thus interacting with the patients on a more meaningful level. Seeing images unfold greatly benefits a music therapist's immediate understanding of the patient and, coupled with a musical assessment, would be even more valuable. When a patient is drawing, a music therapist could see how their thought process might work and how they perceive reality. Is his or her reality distorted, fragmented, or whole? I believe drawings can give a therapist tangible information immediately, and coupled with music, this information could produce quicker results in the treatment process. I think of the patients' drawings as a visual guided imagery unfolding through their artwork.

At the end of the group I ask the patients to hold up their artwork to discuss their drawings. Through the years of my clinical practice I have found that each of the seven Greek modes do indeed evoke certain moods. When played correctly and slowly, the Locrian mode is sad, dark, heavy, cold, and despondent. Phrygian is often known as the Spanish scale. It can be festive, exciting, climactic, and playful. Open space, expansive, and buoyant, are the inherent qualities that Lydian can evoke when played soft and at a moderate tempo. The seven Greek modes are just a small number of scales waiting to be explored. I strongly encourage future music therapists to spend time on studying the modes. The potential of modes is astounding. It is truly fascinating to me how the modes can evoke so many moods and when used correctly can be a very powerful tool in healing.

Wassily Kandinsky who is known for painting the first abstract piece of art in 1910 Stated, "Colour is the keyboard, the eyes are the hammers, the soul is the piano with many strings. The artist is the hand which plays, touching one key or another, to cause vibrations in the soul...." I believe vibrations are key into clinical interventions and without vibrations penetrating deep into the patients sub-consciousness, music therapy is limiting. Pythagoras knew back in 650 BC that the world and the universe was held together by vibrations and that the planets and stars hummed. He called this "Music of the Spheres" or "Harmony of the Spheres". I don't know how he knew it but the universe does hum. Back in the 1980's a team of Harvard scientists proved that the universe did hum and contributed the humming to magneto-spheric sound waves. Six visible planets, including earth, emit distinct sounds generated by their magneto- spheric waves. Mercury has a chirping sound, Saturn a slow melody, and the Sun emits 80 different overtones comprising the equivalent of a full orchestra!

A Swiss scientist by the name of Hans Jenny conducted experiments animating inert powders, pastes, and liquids into life-like, flowing forms, which mirrored patterns found throughout nature, art and architecture. These patterns were created by using simple sine wave vibrations (pure tones) within the audible range. What is shown in Mr. Jenny's Cymatic video is a physical representation of vibration, or how sound manifests into form through the medium of various materials. Many of these forms created by the sine waves resemble organs and tissues of the human body. Jenny concluded that organic structures in nature are upheld by specific frequencies and that this was the key to musical therapeutics. It illustrates the very principal, which inspired the ancient Geek philosophers Pythagoras and Plato.

Much has been written in the area of music therapy and pain. What is pain? The International Association for the Study of Pain defines pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage". There are two types of pain, Chronic vs. Acute pain. Depending on what type of pain an individual is going through is going to depend on what type of intervention the music therapist uses. Acute pain is usually pain that is caused by inflammation, stretching, and tissue damage from mechanical disruption. Some successful interventions used with acute pain may include: relaxation training and

guided imagery accompanied by either recorded or live music, hypnosis and analgesic drugs including opioids. Chronic pain is pain that lasts for a long time. It may lead to a variety of personality changes, social dysfunction and financial and legal problems. Examples of chronic pain are headaches, fibromyalgia, back and neck pain and diabetic neuropathy.

I have experienced first hand how music can be effective in dealing with pain. Fracturing my finger I needed to have three pins placed in my bone during my procedure. Before the operation started the hand surgeon asked what type of music I wanted to listen to. Being a jazz musician, I asked him if he had any jazz music. He put on the sound track to "'Round Midnight" arranged by Herbie Hancock that featured Dexter Gordon on saxophone. But for some reason it wasn't comforting me and I was feeling some pain. I then asked my surgeon to put on some classical music. The Handle String Quartets comforted me and eased my pain. The consonant harmonies and rich voicings emanating from the strings distracted me from thinking about my surgical procedure.

I'm fortunate to have a dentist play classical music during my visits. For most people, the thought of going to a dentist is anxiety provoking. When used properly, music can alleviate anxiety, pain and provide for a healthy environment. Bruce S. Rabin, M.D., medical director of the Health Enhancement Program at the Pittsburgh School of Medicine states that "music reduces the perception of pain and reduces the way the brain responds to stress.... it helps block out or redirect stress hormones, lowering your blood pressure and easing your anxiety".

There are many individual differences in responses to pain. Unfortunately there is no way of objectively measuring pain and prove its existence. Our emotional reactions will influence our level of pain. When an individual is calm and peaceful, he/she feels less pain then when one is depressed, anxious or angry. Music used as an attention diversion and guided imagery have been found to be helpful in reducing pain perception. At the Sloan-Kettering Memorial hospital's Integrative Medicine Department, Guided Imagery, Music Therapy, Art Therapy and Tai-chi all play significant roles with managing the patients stress and pain levels. Many emotional problems and psychiatric disorders associated with pain are anxiety, chronic anger, substance abuse, history of sexual, physical or emotional abuse, depression and a high level of autonomic arousal all predict the development of chronic pain disability.

Last year myself and a colleague had the opportunity to provide music for our friend's premature triplets. The three male babies were in an incubator and had difficulty breathing and the mother wanted us to make music tapes for the babies to listen to while in the incubators. I decided we would use music that was gentle, calming, and soothing for the babies and that the tempo would be moderately flowing. We made cassette tapes and placed cassette decks in the three incubators and made sure the volume of the music was low. The nurses at the hospital were supportive to the idea of music being put in the incubators and they helped monitor the time that the music was played. Nine months later the babies are healthy and doing well. Did the music help facilitate breathing for the premature babies? I believe it did. Based on a study at UCLA in Los Angeles

California and at Georgia Baptist Medical Center in Atlanta Georgia, premature babies gained weight faster and used oxygen more efficiently when music was used. The babies also had shorter stays in the Intensive Care Unit, than babies in control groups. In these studies music was played for them daily.

I also had the opportunity to play live music for an under-water birth. Throughout my friends pregnancy I played an Australian Aboriginal instrument called the didgeredo into her abdomen while pregnant and during her labor and birth I played my string bass. Needless to say it was an amazing experience for me to witness and be part of a human being coming onto this world. The first sounds the child heard was that of a string bass. I wonder if he'll grow up to be a bass player? Much has been written about prenatal music and how music helps these children in such diverse areas as problem-solving, risk-taking, and creativity and how music can facilitate in pain reduction during one's labor.

Music therapy is a great field to be in. I believe in the power of music and have seen how it can transform people's lives. Pythagoras would have been very pleased with how music has evolved and the incredible impact of his contribution is remarkable. The great classical German composer Robert Shumann stated "it is precisely music's mystery that accounts for the charm of her beauty". And this perhaps, is all we really need to hear.