

Hamot Medical Music Therapy

~The Medicine of Music~

Craig A Stevens MA, MT-BC, NMT



- What would you think if you knew someone who could no longer remember the names of their loved ones...
- Yet could recall and sing every word to Amazing Grace

- What would think if you saw a person unable to take a step...
- Suddenly walk independently while listening to a steady rhythmic beat

- What would you think if you met a person who had lost their ability to speak after having a stroke...
- Yet could sing to you with perfect clarity

- Some may say this is amazing, a miracle even...
- But we see this every day in our work as Music Therapists

“Music and rhythm find their way into the secret places of the soul”
~ Plato

What is Music Therapy?

- Clinical and evidence-based healthcare field that uses music and musical interventions to accomplish non-music, therapeutic goals.
- Both live and recorded music is used – whenever possible, patient is involved in the music making and decisions.

What do Music Therapists do?

- Assess physical health, cognitive skills, emotional well-being, social functioning
- Music assessment
- Design unique patient-centered treatment plans and therapeutic goals based on patient needs and abilities (TDM – transformational design model)
- Ongoing assessment, treatment planning, and progress notes

Who can benefit from MT?

- Children
- Adolescents
- Adults
- Elderly
- Neuro (CVA, TBI, PD, Coma, Alz)
- Physical/Cognitive Rehab
- Oncology/Palliative Care
- Acute/Chronic Pain
- Adverse effect of chemo, dialysis, anesthetics
- Mother/Baby/NICU
- Depression, Anxiety, Fear, Loneliness, Self-Esteem, Restlessness
- Peri-operatively, Cardiology

History of Music Therapy 🎵

- 1940's - WWI/WWII – War veterans suffering from physical and emotional trauma
- Led to doctors hiring community musicians in Veteran hospitals
- Evident that prior training was needed in medical setting ~ Michigan State University 1944 established first Music Therapy degree program in the world.

Who is qualified to practice MT?

- Approved and accredited college program (BA, MA, Ph.D) including practicum and internship
- Pass national board exam
- MT-BC (Music Therapist-Board Certified)
- NMT (Neurologic Music Therapist)

Rhythm, Music, And The Brain

- *“Music was the driving force behind that intuition... My discovery was the result of music perception.”*

~ Albert Einstein; when asked about his Theory of Relativity

Rhythm, Music, And The Brain

- *“PET scan research supports that music, especially the playing of music, engages more areas of the brain than any other human activity”*

~ J.C. Mazziotta, M.D, Ph.D. Neurobiologist, UCLA

Rhythm, Music, And The Brain

- *"I regard Music Therapy as a tool of great power in many neurological disorders -- including Parkinson's and Alzheimer's -- because of its unique capacity to organize or reorganize cerebral function when it has been damaged."*

*~ Oliver Sacks, M.D.: Professor of Neurology,
Albert Einstein College of Medicine, New York*

Neurologic Music Therapy

- Therapeutic application of music to address cognitive, sensory, motor dysfunction, due to neurological disease of the human nervous system
- Based on neuroscience model: influence of music on functional changes in non-musical brain areas and behavior

Neuro-MT Models of Recovery

- Neuroplasticity and Functional Retraining – facilitate dendritic growth to form NEW neural connections
- Brain is not static following neuro-trauma, but capable of self-modification and considerable reorganization
- “use it or lose it; never use it, never develop it”
- Interventions should be rich and changing; slowly increasing in difficulty to facilitate multiple connections between neurons

MT and Alz/Dementia/Post Traumatic Amnesia

- Facilitate positive functioning despite confusion and/or changed behavior
- When other things are forgotten, many individuals remain able to sing old favorites, learn to play new instruments, dance/move to music
- Can participate and benefit from MT even during late stages of disease

MT and Alz/Dementia/Post Traumatic Amnesia

- Memory recall
- Self awareness/In the Moment
- Social interaction
- Neuro habilitation/rehab
- Decrease agitation
- Restore dignity
- Familiar songs (live or recorded, sing/dance, reminisce)
- Musical improvisation to facilitate expression when meaningful words are no longer possible
- Rhythm-based activities to increase attention, movement, body awareness
- Personal phrases put to familiar melodies to aid in memory recall
- Lyric fill-in-blank

MT and PD/CVA/TBI

- Neuro MT has shown dramatic improvements in gait patterns, muscle control and tremor, speech/communication, brady/dyskinesia, depression/frustration/anger

Examples of Neuro MT Interventions with PD/CVA/TBI

- 1) **Rhythmic Auditory Stimulation (RAS)** - rhythm/steady pulse used for gait training
- 2) **Patterned Sensory Enhancement (PSE)** – music elements dictate movements in space and time (reaching, flexors, grasping, lifting, sit to stand motions, etc...)
- 3) **Therapeutic Instrumental Music Playing (TIMP)** – physical/cognitive exercise through playing musical instruments that simulates non-musical, functional movement patterns and cognitive development
- 4) **Melodic Intonation Therapy (MIT)** – using short phrases embedded into melodic patterns for regaining functional language skills (Left side CVA, Broca's Area)

- Questions...Comments...