



ROADS OF CONNECTION

Music Therapy, LLC

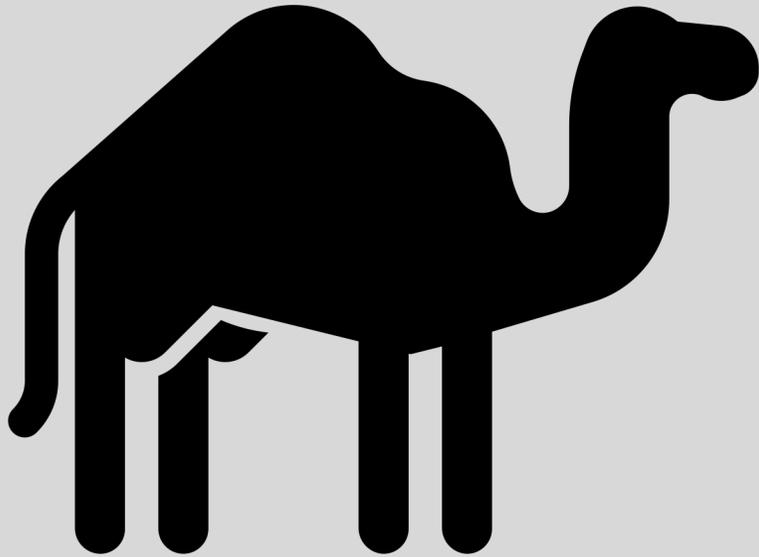
MUSIC THERAPY ON
THE BRAIN:
THREE CASE STUDIES

Danielle Baumgartner, MT-BC

Definitions:

- American Music Therapy Association
 - Music Therapy is an allied health profession that uses the clinical and evidence-based use of music interventions to accomplish individualized goals with a therapeutic relationship by a credentialed professional who has completed an approved music therapy program.
- Kenneth Bruscia
 - Music therapy is a systematic process of intervention wherein the therapist helps the client to promote health using musical experiences and the relationships that develop through them as dynamic forces of change.

The C.A.M.E.L.S.:



1. Communication
2. Academic
3. Motor
4. Emotional
5. Leisure
6. Social

Music Stimulates the Entire Brain



Language

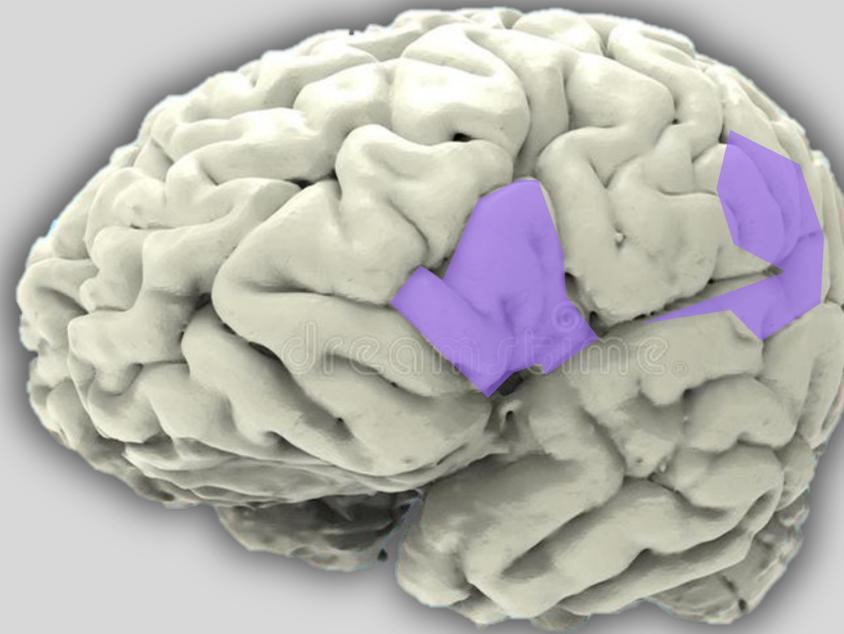
Movement

Emotions

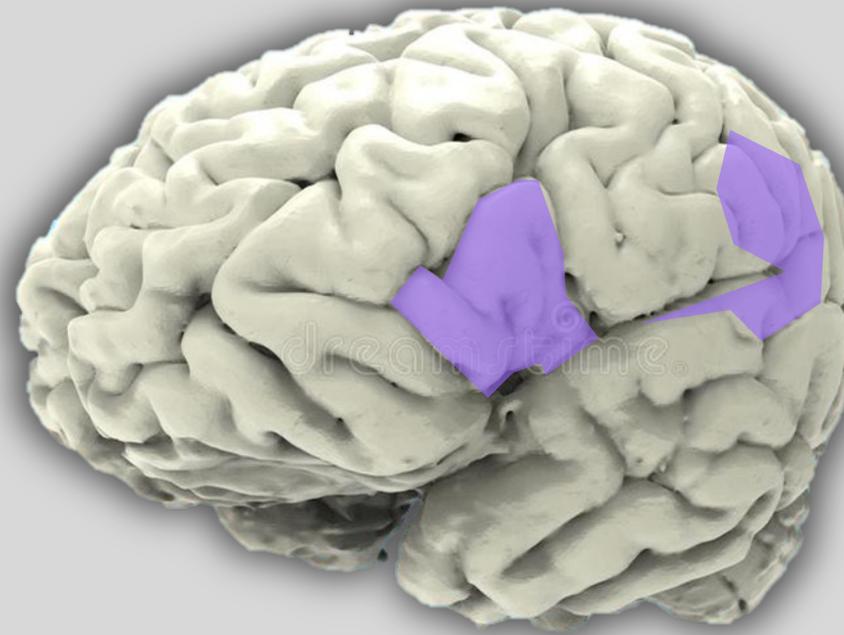
Memory

Reasoning

Language: Left Hemisphere
Broca's and Wernicke's areas



Language: Left Hemisphere
Broca's and Wernicke's areas



Music Stimulates the Entire Brain



Language

Movement

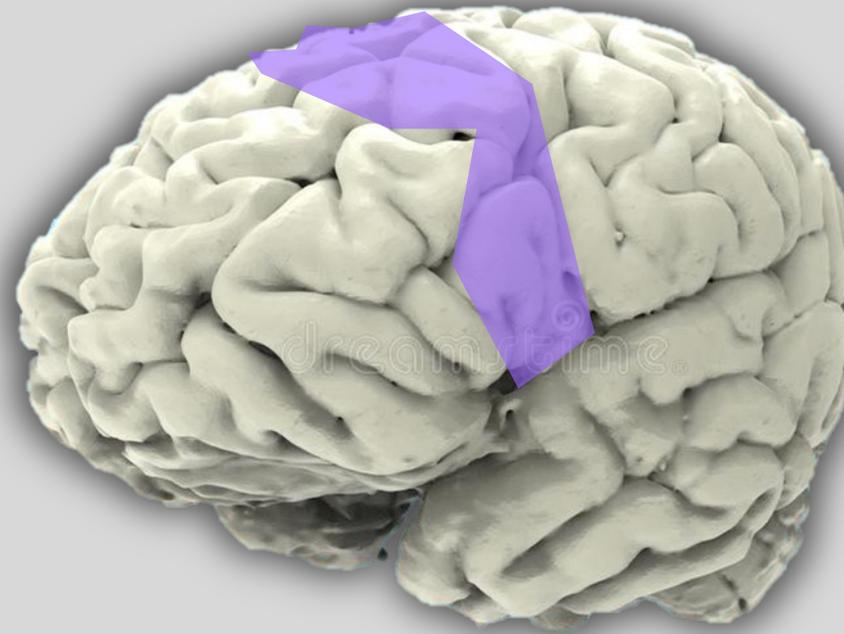
Emotions

Memory

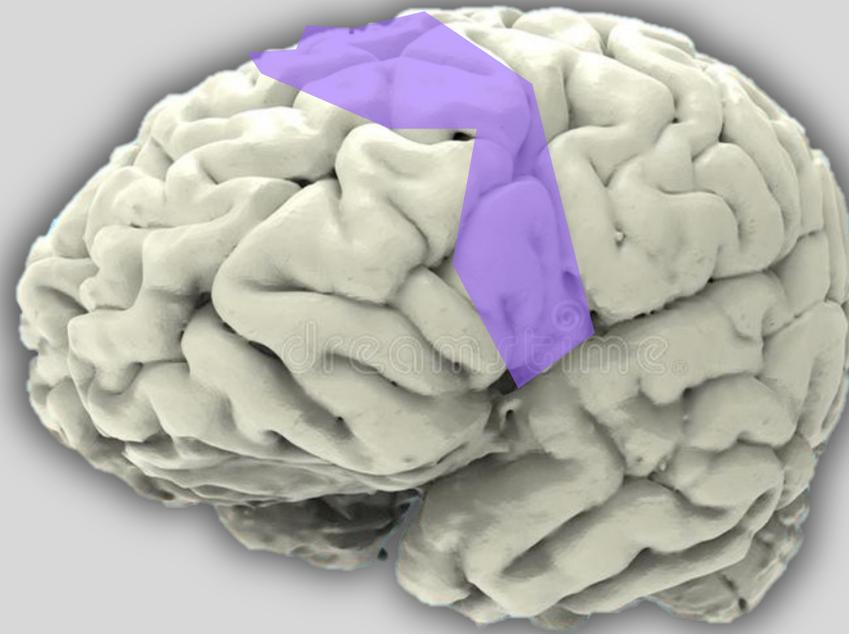
Reasoning

End

Movement: Both Hemispheres
Primary Motor Cortex



Movement: Both Hemispheres
Primary Motor Cortex



Music Stimulates the Entire Brain



Language

Movement

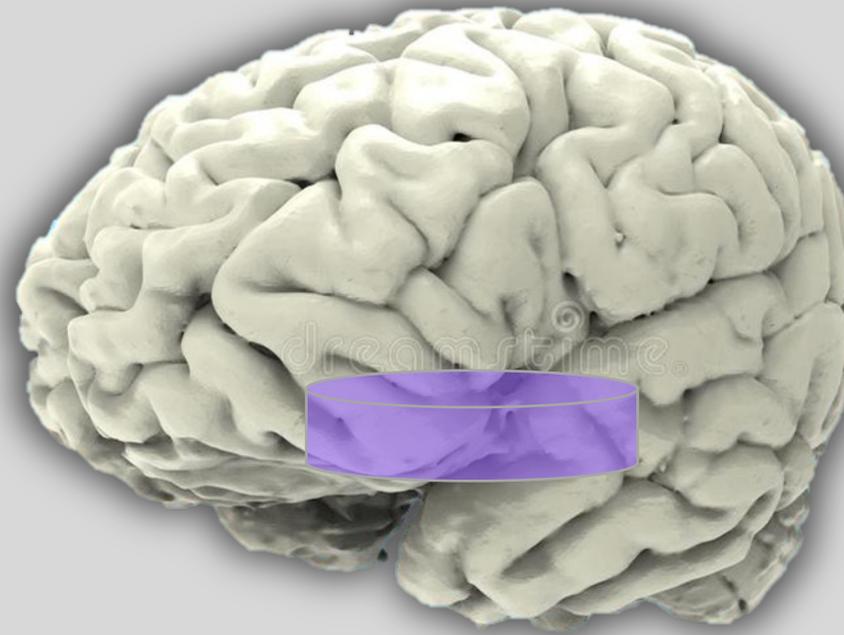
Emotions

Memory

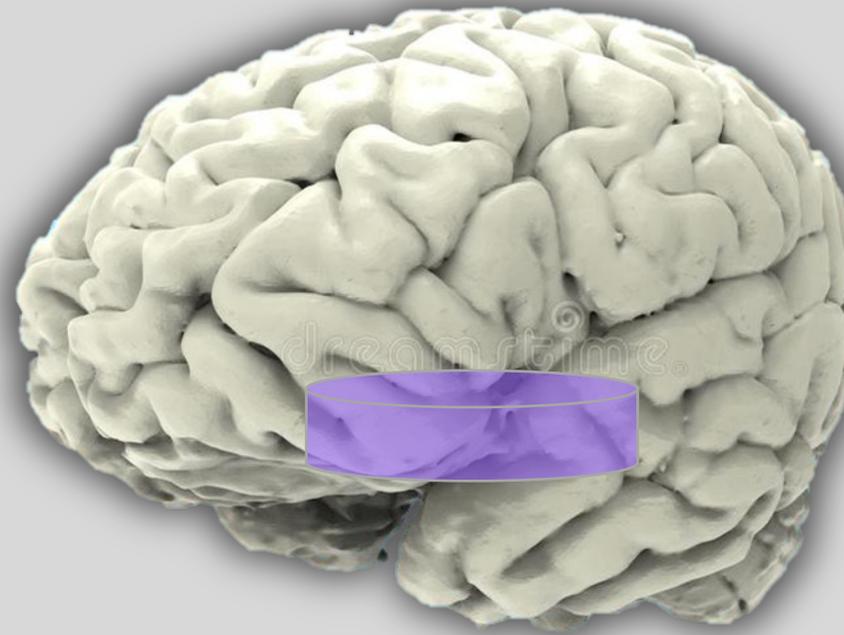
Reasoning

End

Emotions: Both Hemispheres Limbic System



Emotions: Both Hemispheres Limbic System



Music Stimulates the Entire Brain



Language

Movement

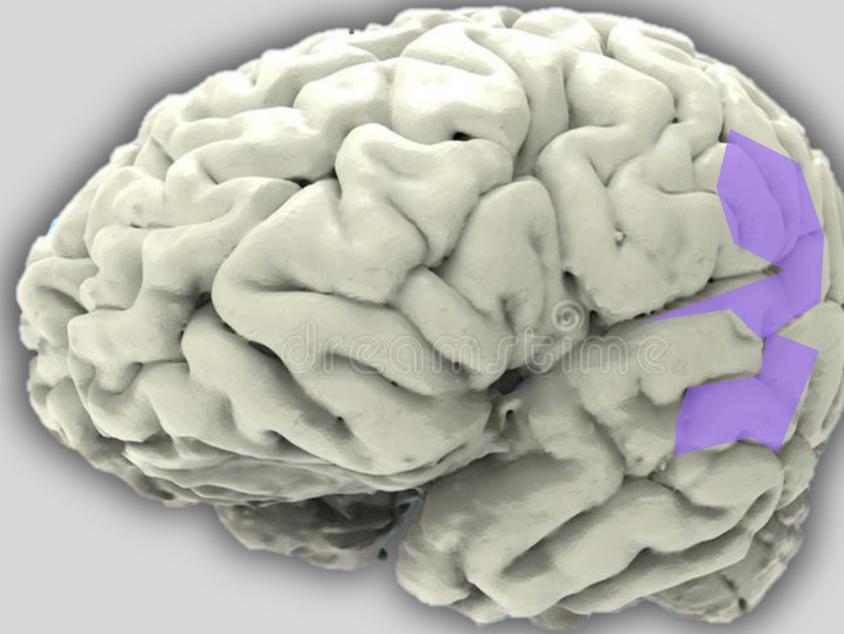
Emotions

Memory

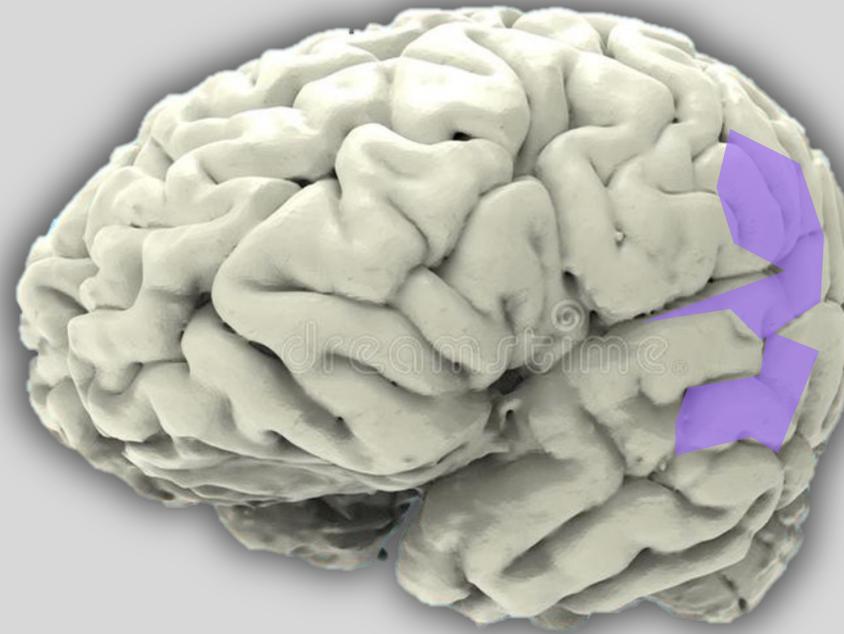
Reasoning

End

Memory: Both Hemispheres Hippocampus and Temporal Lobes



Memory: Both Hemispheres Hippocampus and Temporal Lobes



Music Stimulates the Entire Brain



Language

Movement

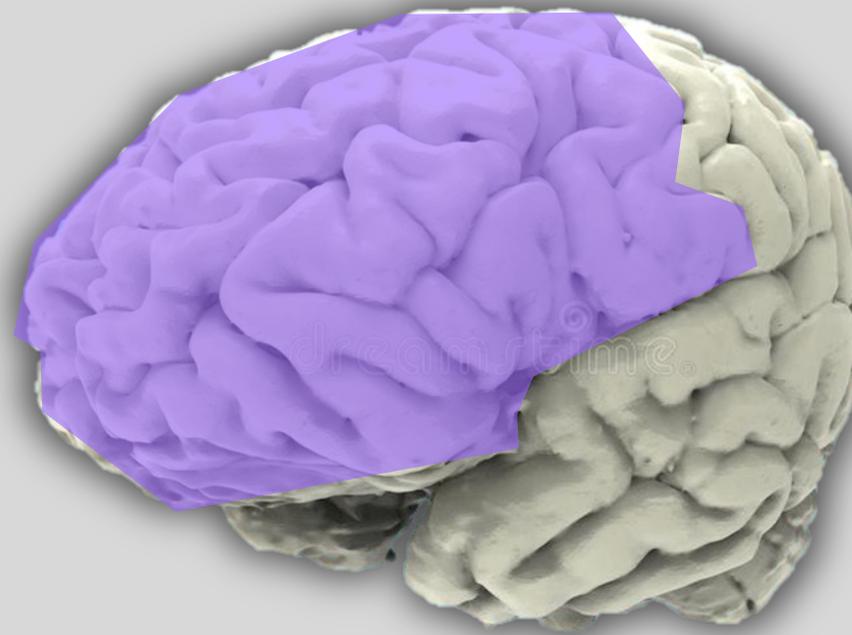
Emotions

Memory

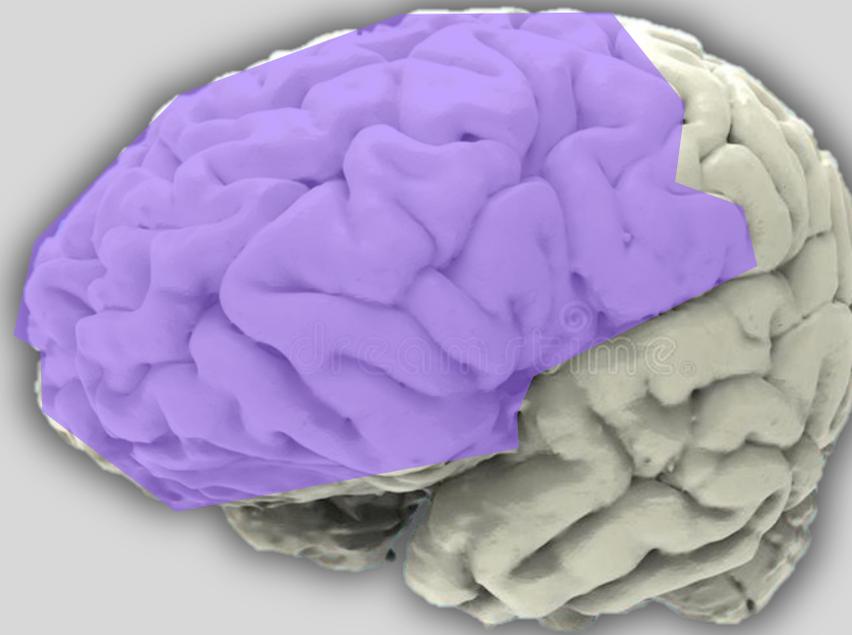
Reasoning

End

Reasoning: Both Hemispheres
Frontal and Parietal Lobes



Reasoning: Both Hemispheres
Frontal and Parietal Lobes



Music Stimulates the Entire Brain



Language

Movement

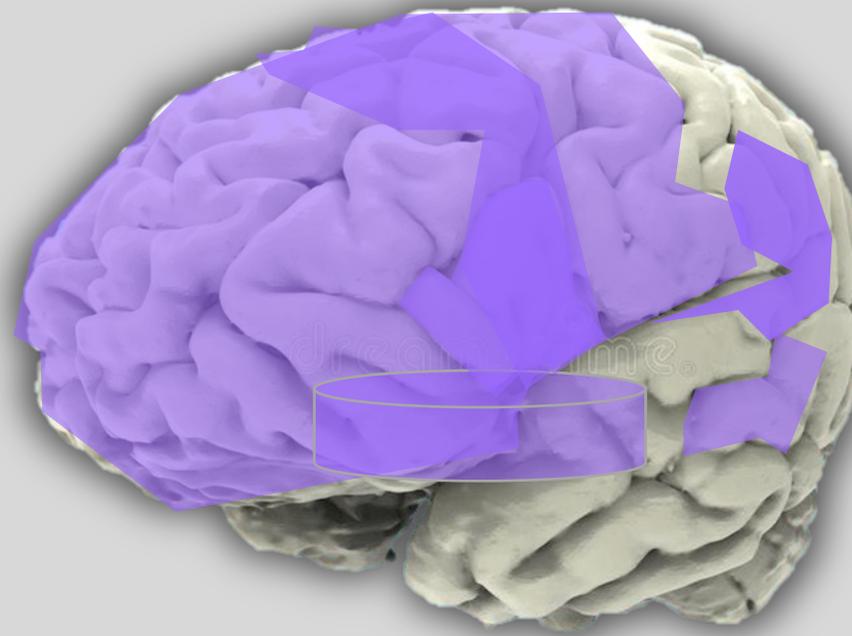
Emotions

Memory

Reasoning

End

All Areas Targeted By Music



Music on the Brain:

- Music can activate almost all brain regions and networks, it can help keep a myriad of brain pathways and networks strong, including those networks that are involved in well-being, learning, cognitive function, quality of life, and happiness.

- Dr. Andrew E. Budson, *Why is music good for the brain?*, Harvard Health Blog (Oct. 7, 2020).

Case Study 1: Emily

- **Diagnosis:** Hypoxia Ischemic Encephalopathy
Cerebral Palsy
A seizure disorder
Vision and hearing loss
Unable to suck or swallow



Case Study 1: Emily

- Goals for Music Therapy:

 - Relaxation

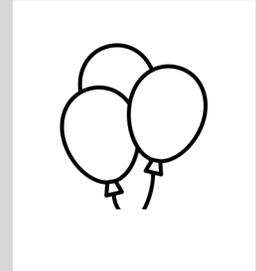
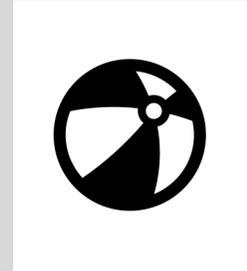
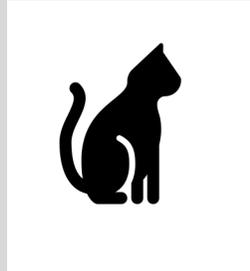
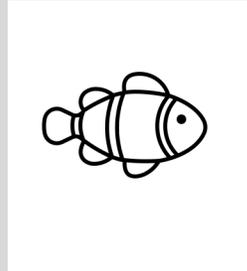
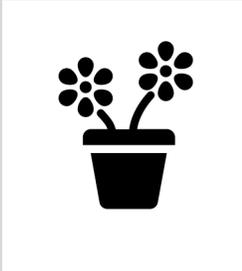
 - Regulating emotions

 - Providing comfort



Case Study 1: Emily

- Wacky Wednesday



RAN

SAT

DANCED

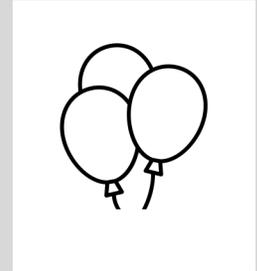
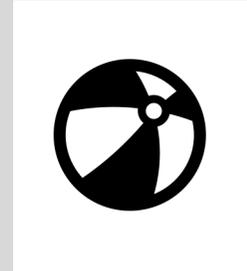
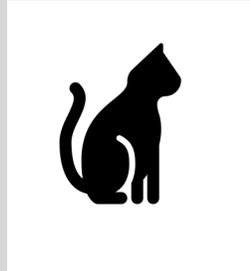
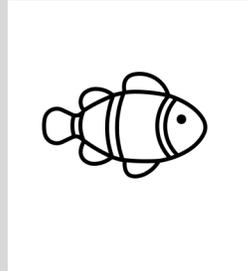
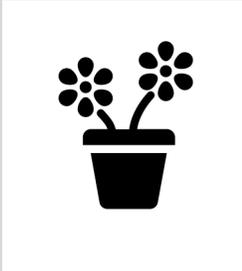
FELL

SLEPT

JUMPED

Case Study 1: Emily

- Wacky Wednesday



RAN

SAT

DANCED

FELL

SLEPT

JUMPED

Case Study 1: Emily

- “Music Therapy was such a big deal for her, it helped her relax, it helped her connect, and it helped her express herself.”
 - Emily’s Mom

Case Study 2: Peter

- **Diagnosis: Traumatic Brain Injury**

Loss of all motor control except for the ability to rotate his forearms and head



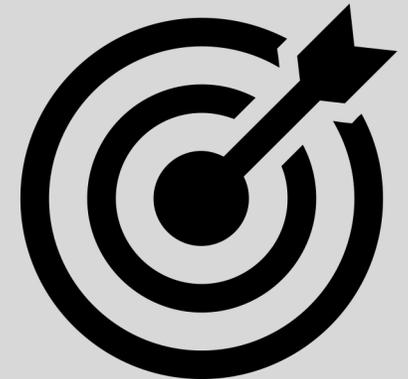
Case Study 2: Peter

Initial Assessment:

- 100% disabled - does not have fine motor skills”
- “Client gets overstimulated with gathering of family or friends i.e. parties, family reunions”,
- “[Peter] is very limited in activities as he cannot participate actively. He likes to listen to music and hear stories on tape, and likes to sit outside to enjoy the outdoors”.

Case Study 2: Peter

- Goals:
 - **Social Interaction with a focus on Attention to Task** - overstimulation resulted in a max of 3 minutes of attention
 - **Fine Motor Dexterity** - his ability to move his forearm and head was something we could build on
 - **Cognitive Reasoning Skills** - a strong focus on communication outlets



Case Study 2: Peter

- Played a total of 4 songs on drums (~15 consecutive minutes of active music playing)
- 5X longer when he was actively playing rather than just passively listening
- Over the course of our sessions, it became evident that Peter didn't want to be relaxed by music. **He** wanted to play music.

Case Study 3: Marvin

- **Diagnosis: Hydrocephalus**
 - Prone to seizures
 - Cerebral palsy
 - Vision loss

Similar to Peter -case study #2:

Marvin has control of his head movements
and can control small hand movements.



Case Study 3: Marvin

- **Goals:**
 - **Communication outlets** - He primarily communicated through gestures, facial expressions, and adaptive communication devices which, at the time, we're being used with his speech therapist
 - **Attention to task** - Marvin was only able to control eye gaze for roughly a minute. His attention span was no longer than 3 minutes
 - **Motor development** - working to increase range of motion, isolate individual finger movement and overall head control



Case Study 3: Marvin

Was already using Speech Switches when we started Music Therapy

Incorporated into songwriting activity



RADIOACTIVE!

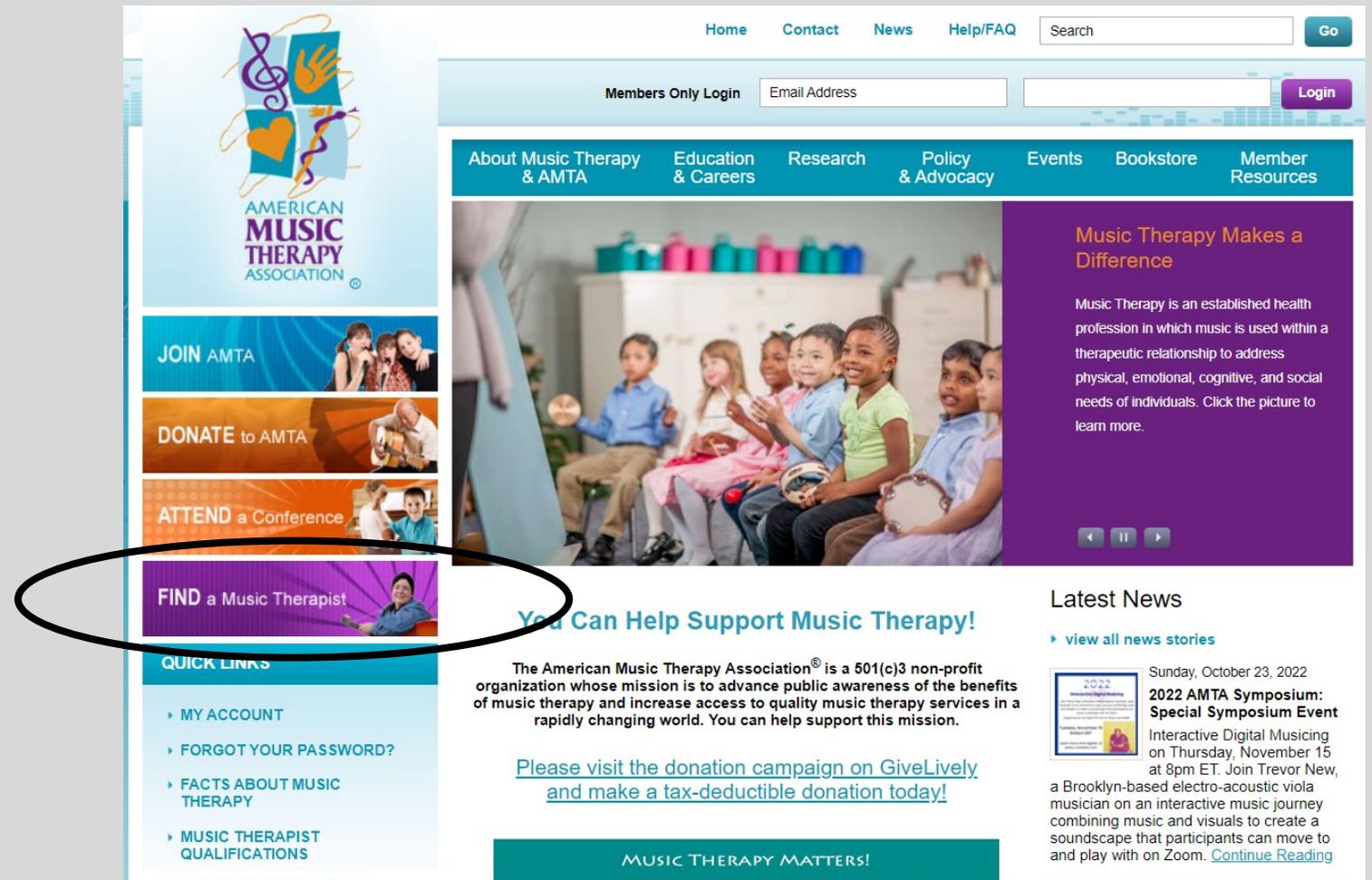
RADIOACTIVE!

Case Study 3: Marvin

- His motor control is strong, he keeps his head lifted for our entire session
- His attention to task went from 1 minute to 45 minutes
- It truly has been incredible to see Marvin develop these skills and his voice. AND he gets to use them every single day!

Finding a Music Therapist of your Own

- <https://www.musictherapy.org/>



The image shows a screenshot of the American Music Therapy Association (AMTA) website. The page layout includes a top navigation bar with links for Home, Contact, News, and Help/FAQ, along with a search box. Below this is a 'Members Only Login' section with an email address input field and a 'Login' button. A teal navigation bar contains links for 'About Music Therapy & AMTA', 'Education & Careers', 'Research', 'Policy & Advocacy', 'Events', 'Bookstore', and 'Member Resources'. The main content area features a large banner image of children in a music therapy session. To the right of the banner is a purple sidebar with the heading 'Music Therapy Makes a Difference' and a paragraph explaining the profession. Below the banner is a section titled 'You Can Help Support Music Therapy!' with a paragraph about the AMTA's mission and a link to a donation campaign on GiveLively. At the bottom right, there is a 'Latest News' section with a link to 'view all news stories' and a news item about the '2022 AMTA Symposium: Special Symposium Event'. On the left side of the page, there is a vertical sidebar with the AMTA logo and several call-to-action buttons: 'JOIN AMTA', 'DONATE to AMTA', 'ATTEND a Conference', and 'FIND a Music Therapist'. The 'FIND a Music Therapist' button is circled in black. Below these buttons is a 'QUICK LINKS' section with links for 'MY ACCOUNT', 'FORGOT YOUR PASSWORD?', 'FACTS ABOUT MUSIC THERAPY', and 'MUSIC THERAPIST QUALIFICATIONS'.

Home Contact News Help/FAQ Search Go

Members Only Login Email Address Login

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AMERICAN MUSIC THERAPY ASSOCIATION

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QUICK LINKS

- ▶ MY ACCOUNT
- ▶ FORGOT YOUR PASSWORD?
- ▶ FACTS ABOUT MUSIC THERAPY
- ▶ MUSIC THERAPIST QUALIFICATIONS

You Can Help Support Music Therapy!

The American Music Therapy Association® is a 501(c)3 non-profit organization whose mission is to advance public awareness of the benefits of music therapy and increase access to quality music therapy services in a rapidly changing world. You can help support this mission.

[Please visit the donation campaign on GiveLively and make a tax-deductible donation today!](#)

MUSIC THERAPY MATTERS!

Music Therapy Makes a Difference

Music Therapy is an established health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals. Click the picture to learn more.

Latest News

[▶ view all news stories](#)

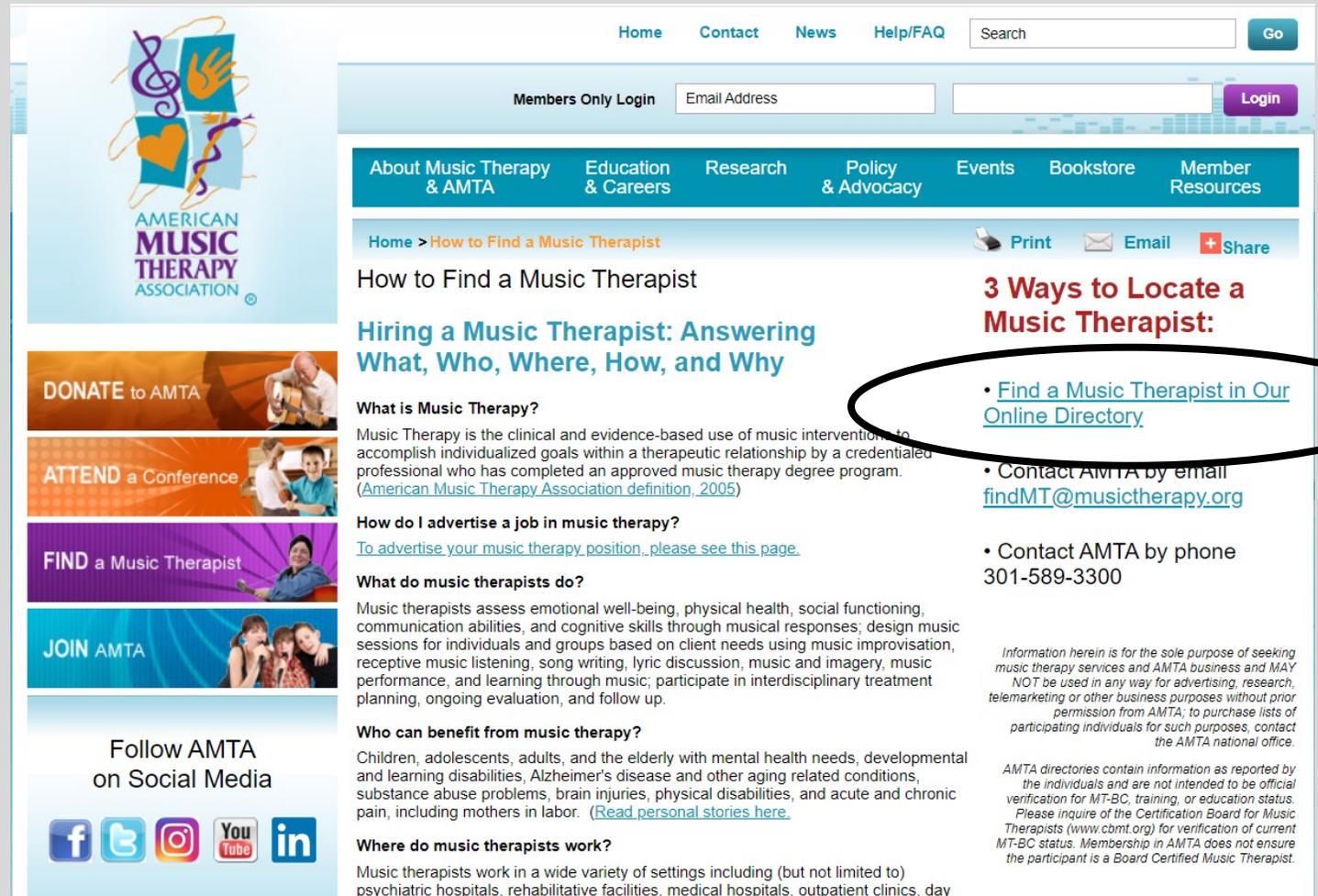
Sunday, October 23, 2022

2022 AMTA Symposium: Special Symposium Event

Interactive Digital Musicing on Thursday, November 15 at 8pm ET. Join Trevor New, a Brooklyn-based electro-acoustic viola musician on an interactive music journey combining music and visuals to create a soundscape that participants can move to and play with on Zoom. [Continue Reading](#)

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Home > How to Find a Music Therapist Print Email Share

How to Find a Music Therapist

Hiring a Music Therapist: Answering What, Who, Where, How, and Why

What is Music Therapy?
Music Therapy is the clinical and evidence-based use of music intervention to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy degree program. ([American Music Therapy Association definition, 2005](#))

How do I advertise a job in music therapy?
[To advertise your music therapy position, please see this page.](#)

What do music therapists do?
Music therapists assess emotional well-being, physical health, social functioning, communication abilities, and cognitive skills through musical responses; design music sessions for individuals and groups based on client needs using music improvisation, receptive music listening, song writing, lyric discussion, music and imagery, music performance, and learning through music; participate in interdisciplinary treatment planning, ongoing evaluation, and follow up.

Who can benefit from music therapy?
Children, adolescents, adults, and the elderly with mental health needs, developmental and learning disabilities, Alzheimer's disease and other aging related conditions, substance abuse problems, brain injuries, physical disabilities, and acute and chronic pain, including mothers in labor. ([Read personal stories here.](#))

Where do music therapists work?
Music therapists work in a wide variety of settings including (but not limited to) psychiatric hospitals, rehabilitative facilities, medical hospitals, outpatient clinics, day

3 Ways to Locate a Music Therapist:

- [Find a Music Therapist in Our Online Directory](#)
- Contact AMTA by email findMT@musictherapy.org
- Contact AMTA by phone 301-589-3300

Information herein is for the sole purpose of seeking music therapy services and AMTA business and MAY NOT be used in any way for advertising, research, telemarketing or other business purposes without prior permission from AMTA; to purchase lists of participating individuals for such purposes, contact the AMTA national office.

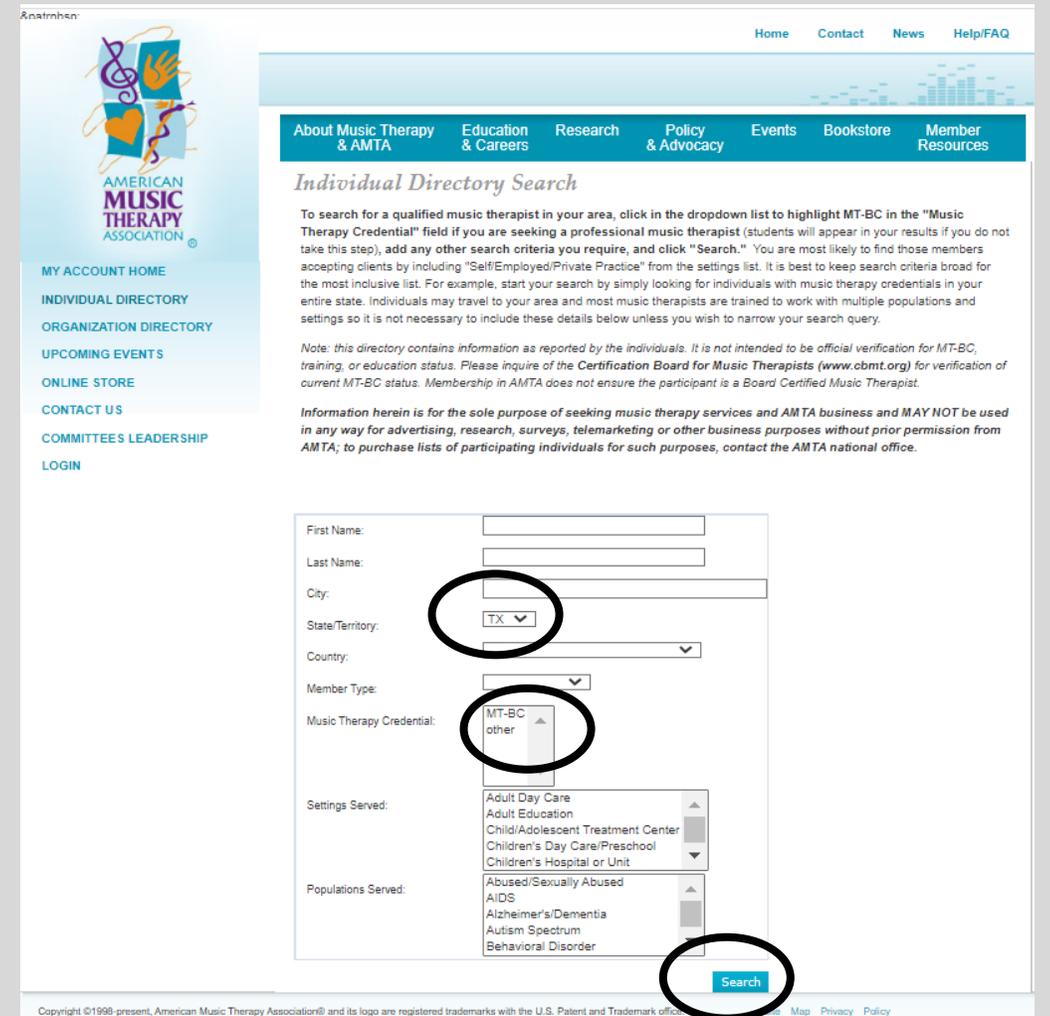
AMTA directories contain information as reported by the individuals and are not intended to be official verification for MT-BC, training, or education status. Please inquire of the Certification Board for Music Therapists (www.cbmt.org) for verification of current MT-BC status. Membership in AMTA does not ensure the participant is a Board Certified Music Therapist.

Follow AMTA on Social Media

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Finding a Music Therapist of your Own

- <https://www.musictherapy.org/>
- Not a complete list of therapists
- Can select “Professional” in the “Member Type” or “MT-BC” in the “Credential” menu to only search for practicing, credentialed therapists.
- Provides a person you could reach out to
- Therapists can then use their resources, like Facebook groups, to try and help locate a therapist



Home Contact News Help/FAQ

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Individual Directory Search

To search for a qualified music therapist in your area, click in the dropdown list to highlight MT-BC in the "Music Therapy Credential" field if you are seeking a professional music therapist (students will appear in your results if you do not take this step), add any other search criteria you require, and click "Search." You are most likely to find those members accepting clients by including "SelfEmployed/Private Practice" from the settings list. It is best to keep search criteria broad for the most inclusive list. For example, start your search by simply looking for individuals with music therapy credentials in your entire state. Individuals may travel to your area and most music therapists are trained to work with multiple populations and settings so it is not necessary to include these details below unless you wish to narrow your search query.

Note: this directory contains information as reported by the individuals. It is not intended to be official verification for MT-BC, training, or education status. Please inquire of the Certification Board for Music Therapists (www.cbmt.org) for verification of current MT-BC status. Membership in AMTA does not ensure the participant is a Board Certified Music Therapist.

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First Name:
Last Name:
City:
State/Territory: TX
Country:
Member Type:
Music Therapy Credential: MT-BC
Settings Served: Adult Day Care, Adult Education, Child/Adolescent Treatment Center, Children's Day Care/Preschool, Children's Hospital or Unit
Populations Served: Abused/Sexually Abused, AIDS, Alzheimer's/Dementia, Autism Spectrum, Behavioral Disorder

Search

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Questions?



ROADS OF CONNECTION

Music Therapy, LLC

Thank you for your attention!

Danielle Baumgartner, MT-BC

Roads of Connection Music Therapy, LLC

rocmusictherapy@gmail.com