

# SOUNDS OF HEALING

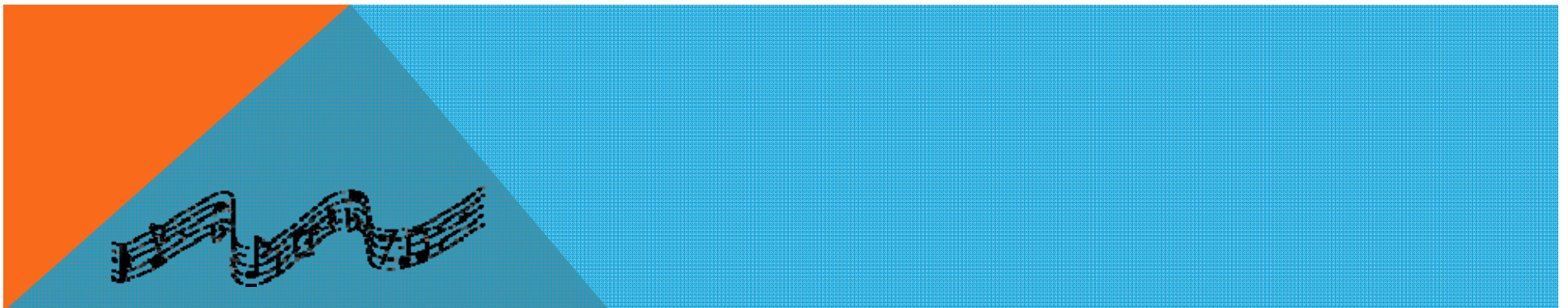
HOW MUSIC THERAPY  
ENHANCES RESPIRATORY CARE



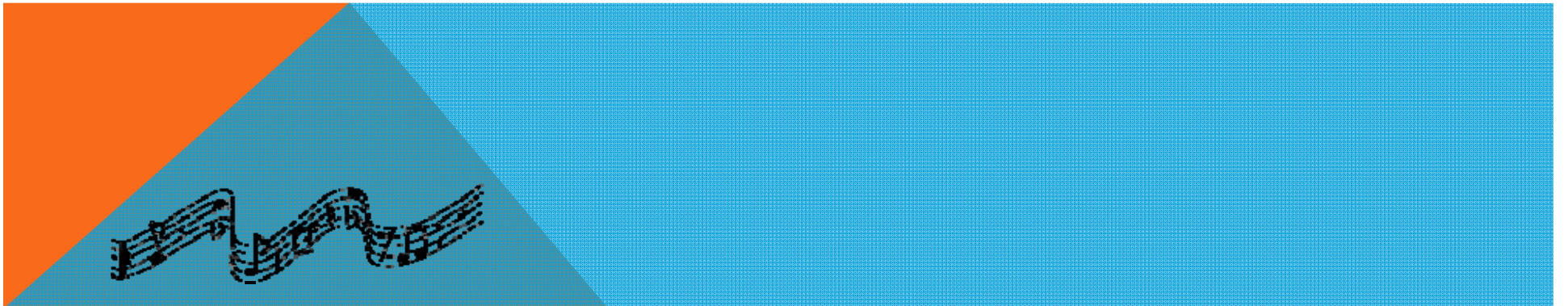
JENNY MEMMOTT, MME  
APRIL 8, 2016

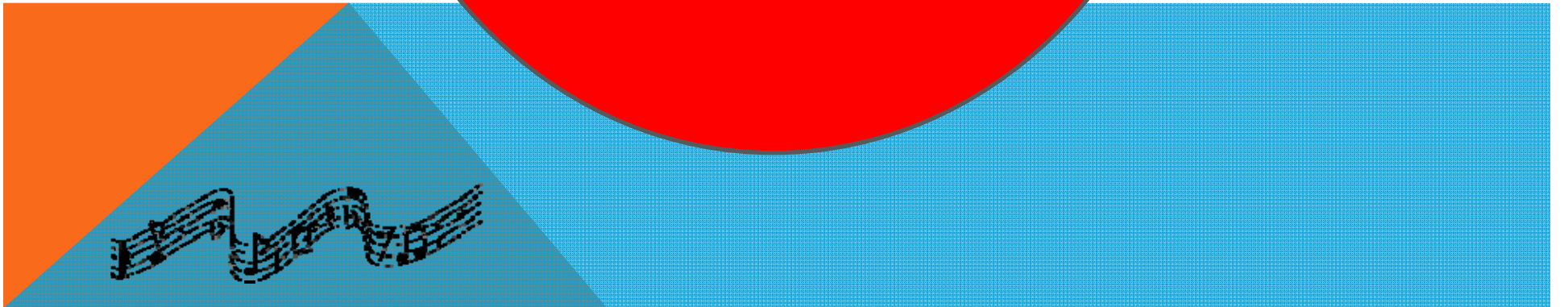
# OVERVIEW

- Music therapy overview
- Why music?
- Music therapy as a complementary therapy to respiratory care



WHAT IS MUSIC THERAPY??????

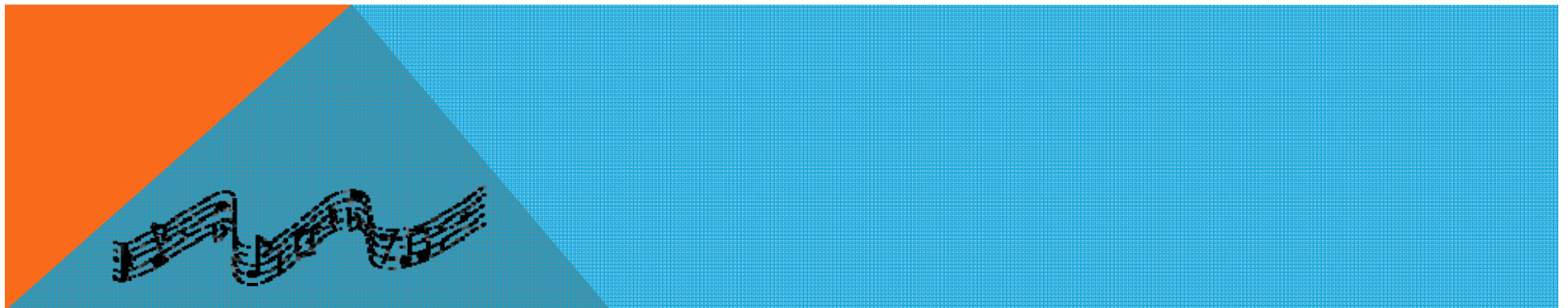




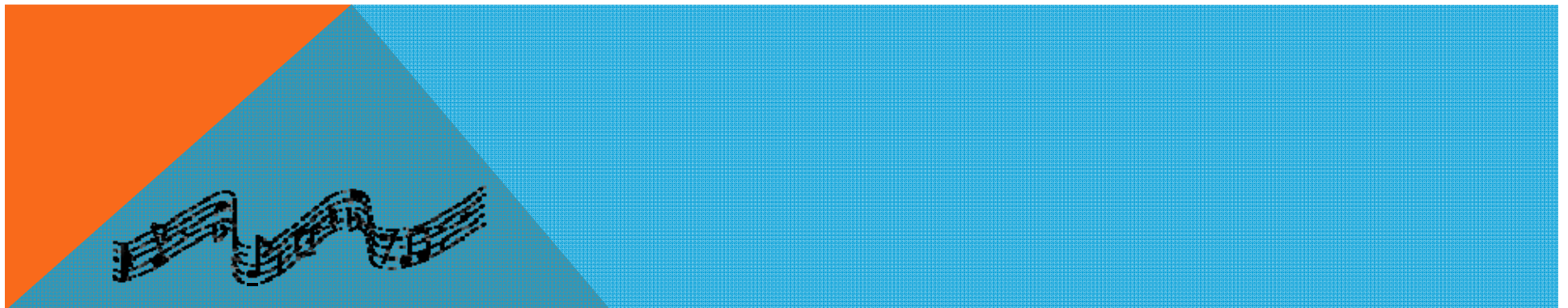




WHAT IS MUSIC THERAPY??????



WHAT IS MUSIC THERAPY?????





# MUSIC THERAPY DEFINITION

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.

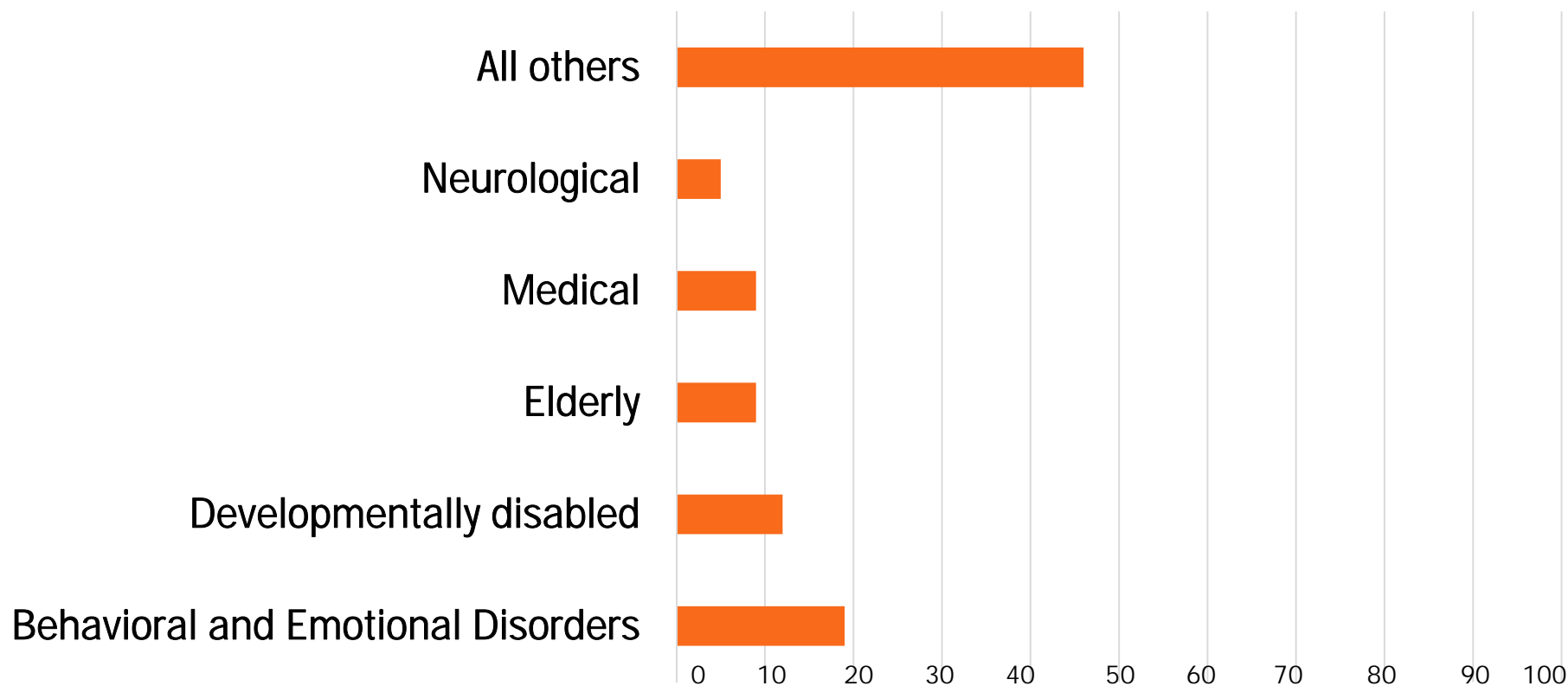
American Music Therapy Association, 2016





# WITH WHOM DO MUSIC THERAPISTS WORK?

American Music Therapy Association Survey (2007)



■ Percentage of Music Therapists



# OTHERS?

Hospice/palliative care



# OTHERS?

## Neonatal Intensive Care Unit





# OTHERS?

Correctional facilities





# OTHERS?

Early intervention



# OTHERS?

Individuals with visual impairments



# OTHERS?

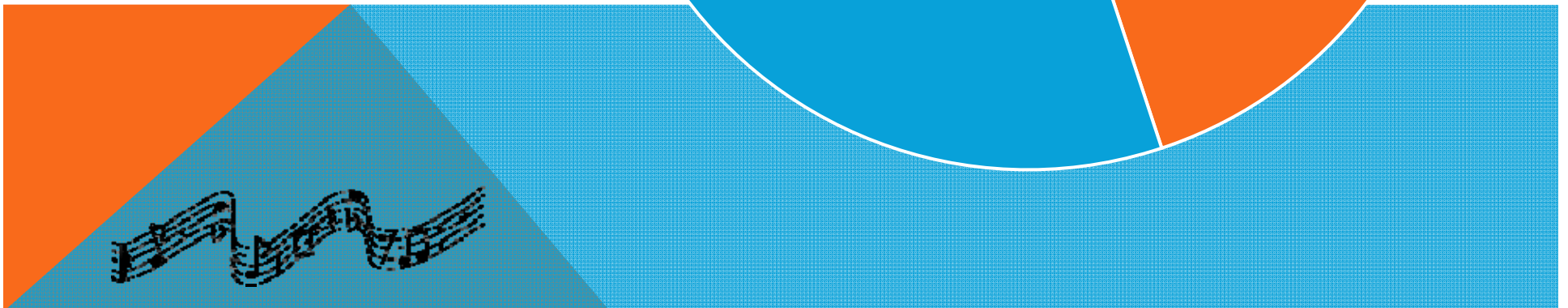
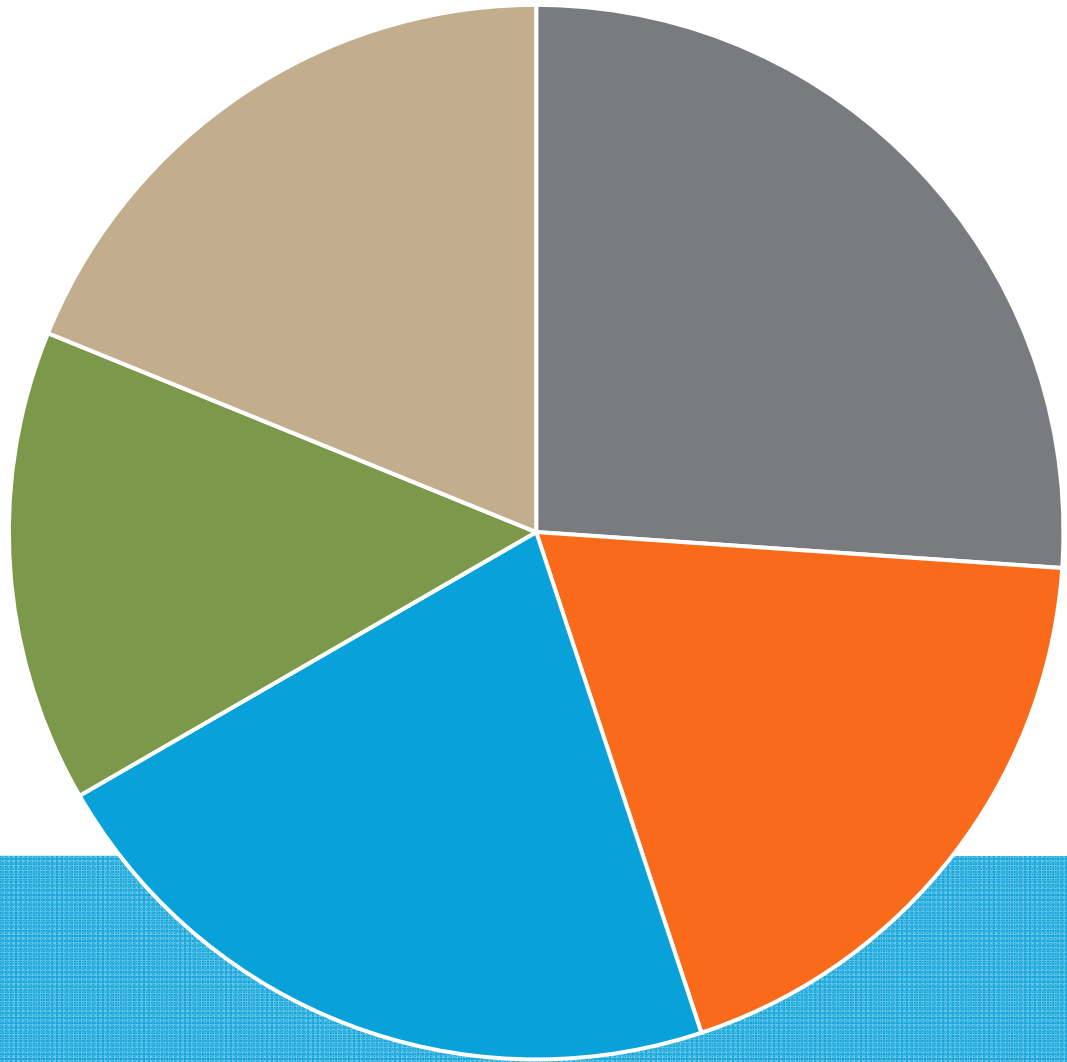
Individuals with hearing loss





# WHERE DO MUSIC THERAPISTS WORK?

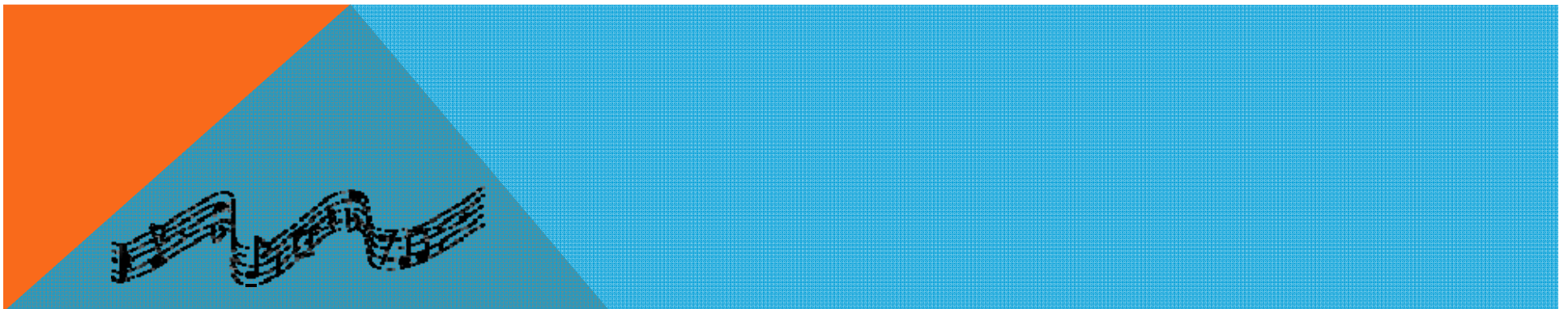
- Schools
- Mental Health Facilities
- Geriatric Facilities
- Medical Facilities
- Private Practice





# BECOMING A MUSIC THERAPIST

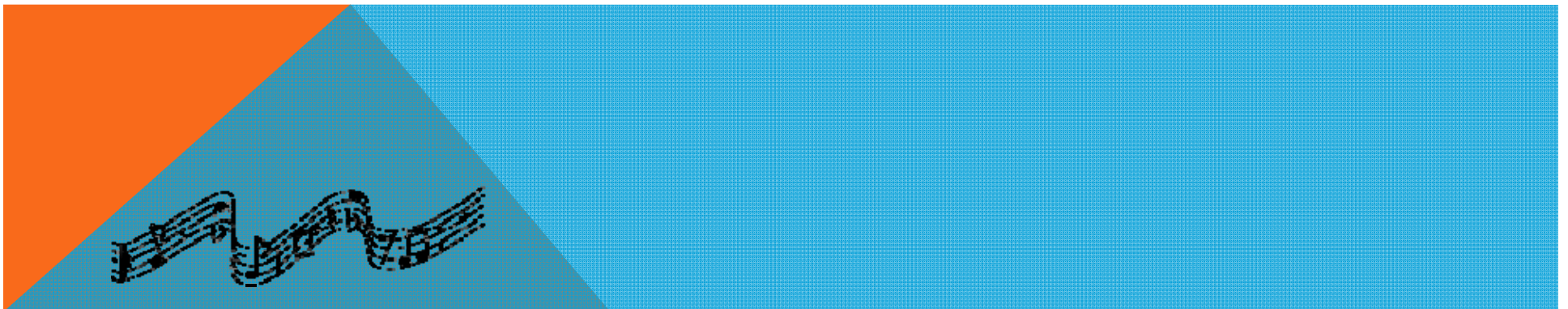
- What qualities are necessary to become a music therapist?
- How does one become a board-certified music therapist?



# WHY MUSIC and WHY MUSIC THERAPY????

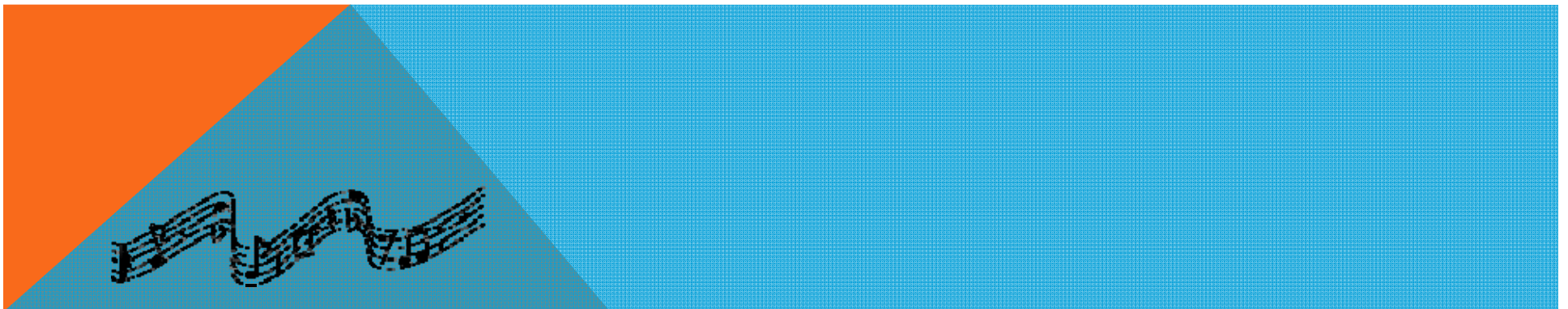


Think about the many ways that music functions in your own life!



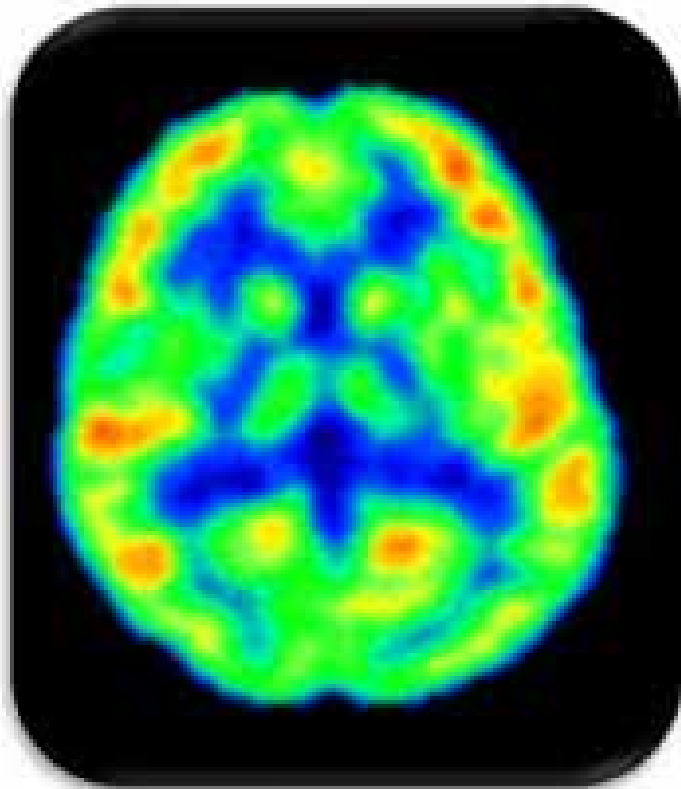
# WHY MUSIC?

- Listening example 1
- Listening example 2
- Listening example 3

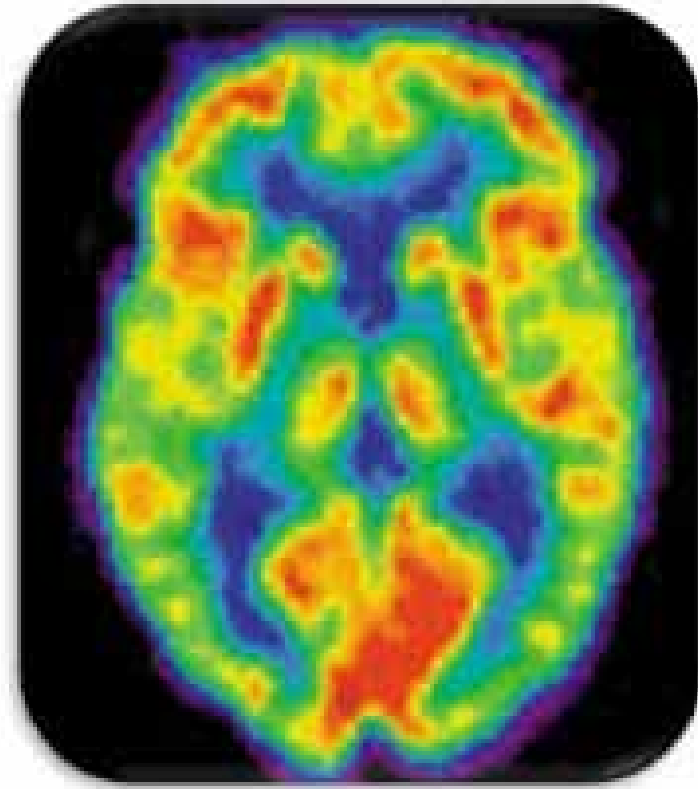




The brain at rest



The brain's reaction to music

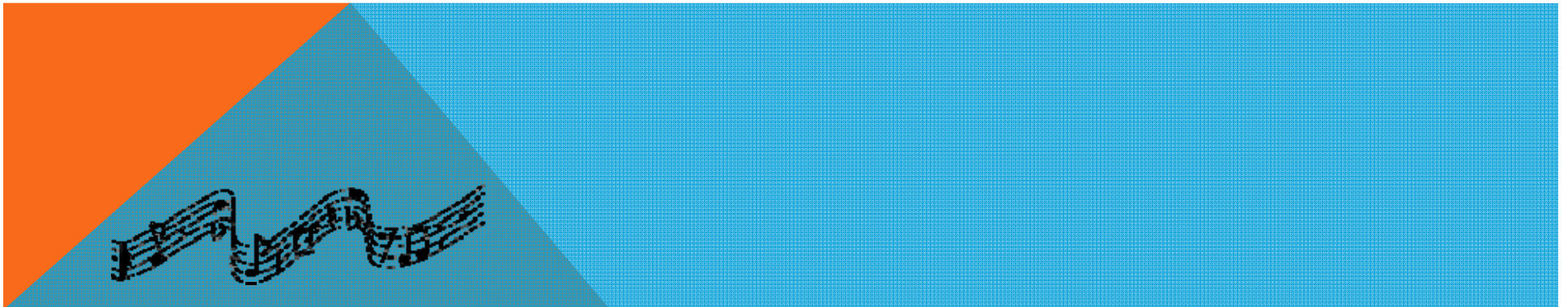


**MUSIC (AND MUSIC THERAPY)  
IMPACTS AND ACTIVATES AND THE  
PHYSICAL, THE COGNITIVE AND THE  
EMOTIONAL**



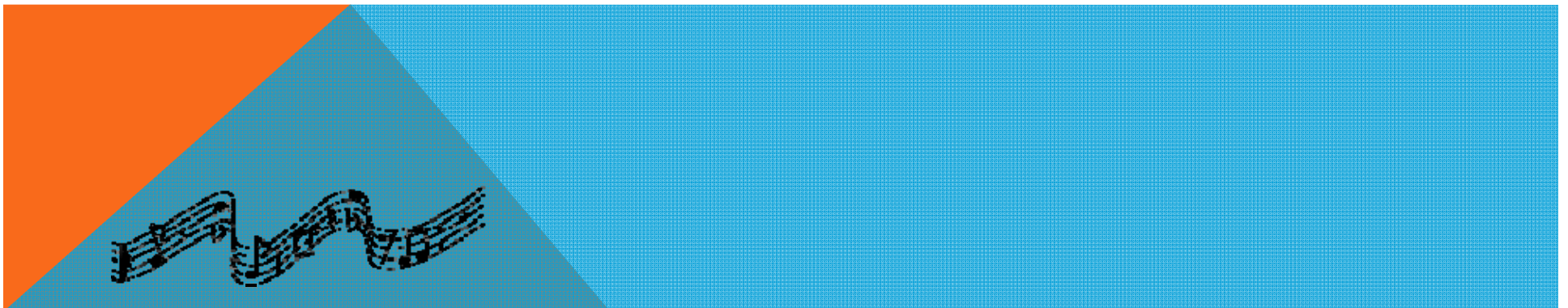
# WHY MUSIC?

- **Physical responses to music**
  - Your body is a natural instrument!
  - Research - music impacts physiological responses
  - Rhythm can influence timing and readiness nervous system
  - Assist automatic movement by providing a cue for timing



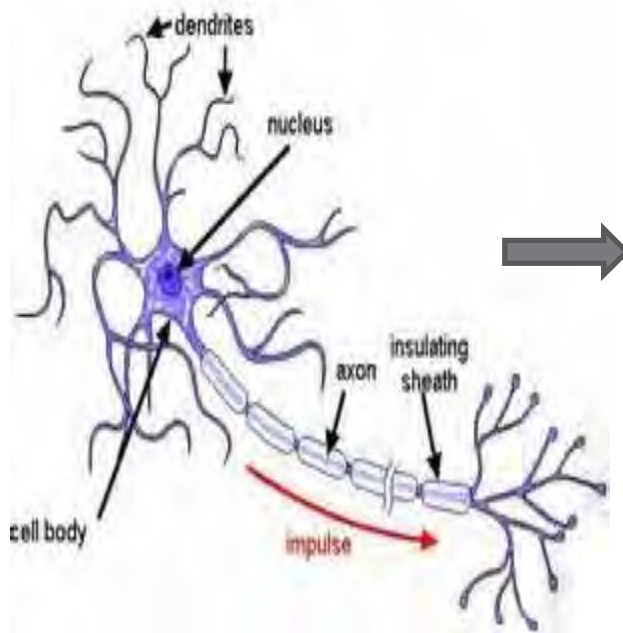
# WHY MUSIC?

- Physical responses to music
  - Iso principle
  - Entrainment
  - Rhythmic Auditory Stimulation





# WHY MUSIC?



# WHY MUSIC?

## Cognition and music

- Memory is enhanced when accompanied by emotional context
  - Music as a stimulus for memory
- Music highly organized in structure
- Easier to process for individuals with memory disorders



# WHY MUSIC?

## Music and Emotion

- Areas of brain activated during emotionally rewarding stimuli (e.g., sex, good food) also activated while listening to personally meaningful music
- Music as an acceptable way to express ideas/feelings



# WHY MUSIC?

Music is --

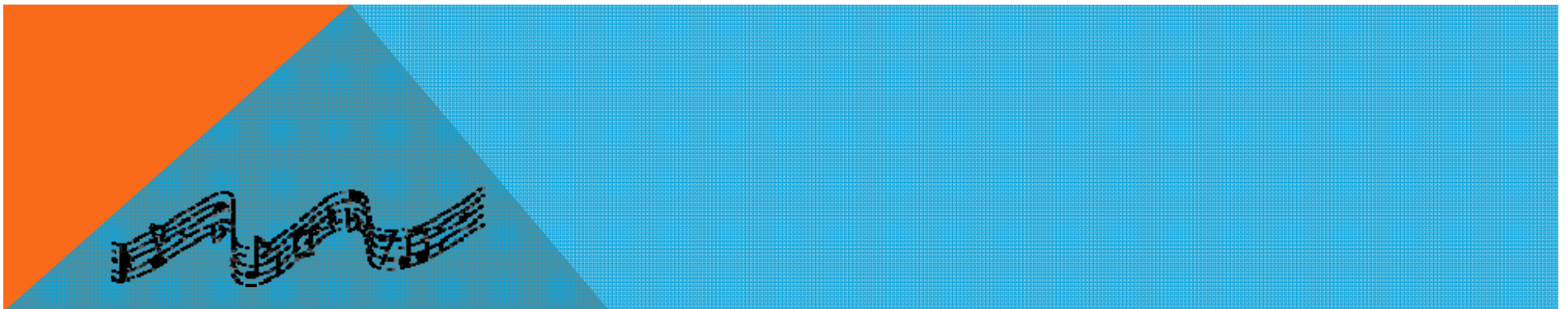
- Flexible
- Motivating
- Diverse
- Engaging
- Personal
- Non-threatening
- Non-pharmacological





# WHY MUSIC?

Musical engagement can take many forms...



# WHY MUSIC?

Listening (active or passive)



# WHY MUSIC?

Instrument playing





# WHY MUSIC?

Singing along





# WHY MUSIC?

Songwriting or Lyric Analysis

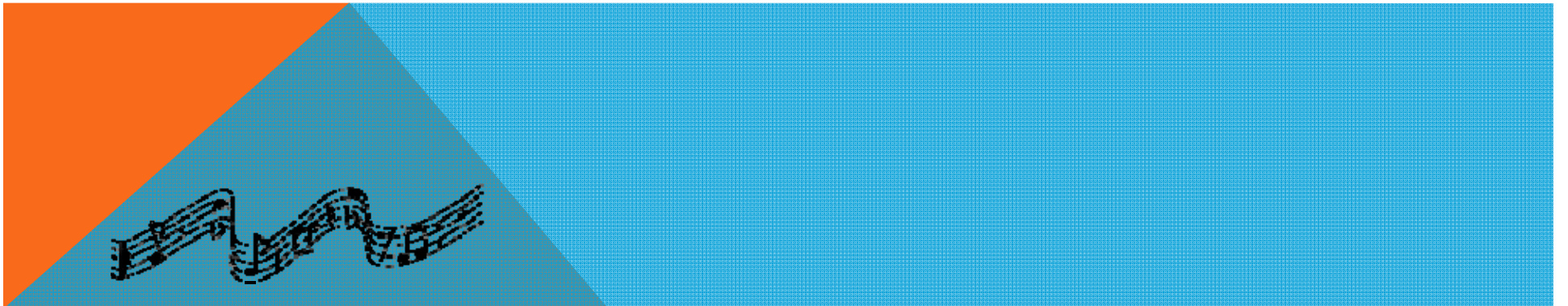


# WHY MUSIC?

As such, the music therapist can choose music and music therapy interventions that are appropriate for anyone.

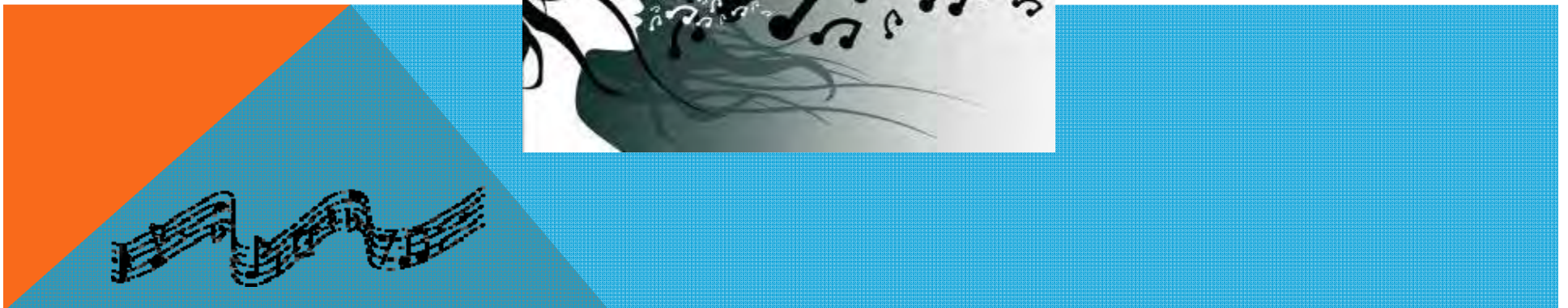


# MUSIC THERAPY AND RESPIRATORY CARE



# MUSIC THERAPY AND RESPIRATORY CARE

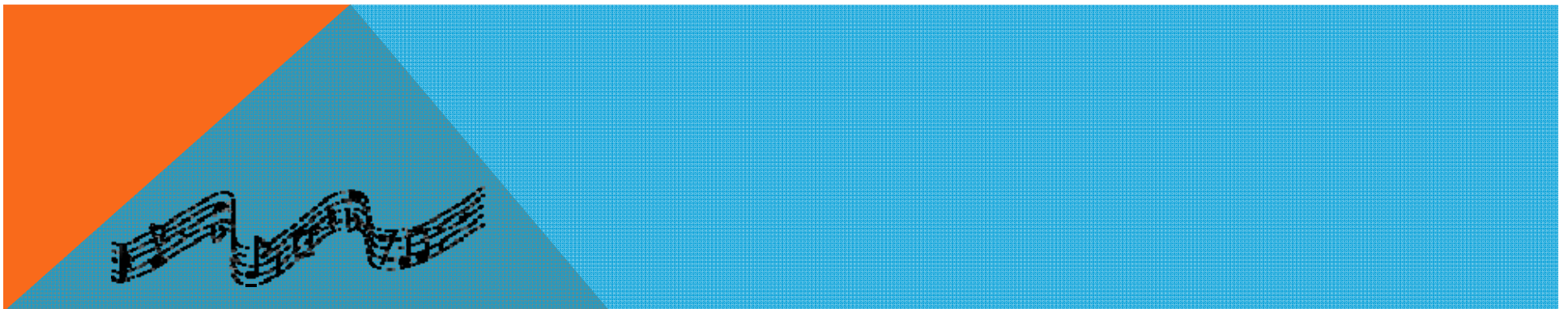
Music-assisted relaxation and  
breathing intervention





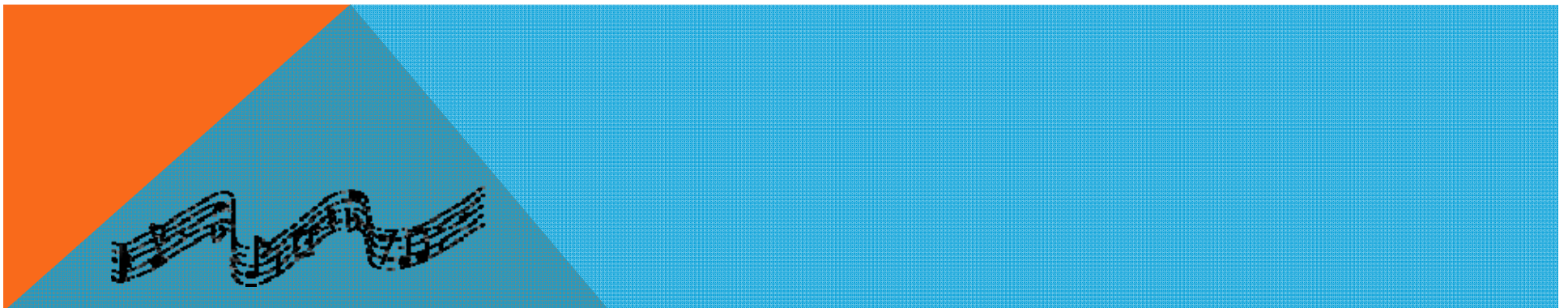
# MUSIC THERAPY AND RESPIRATORY CARE

How do you think music functioned in the intervention?



# MUSIC THERAPY AND RESPIRATORY CARE

- Iso principle
- Entrain breathing to tempo
- Cue relaxation
- Focus of attention







# MUSIC THERAPY AND RESPIRATORY CARE

- Music therapy as a distraction from pain
  - Gate control theory
- Music therapy to reduce anxiety
- Music therapy to help support and regulate breathing rhythms





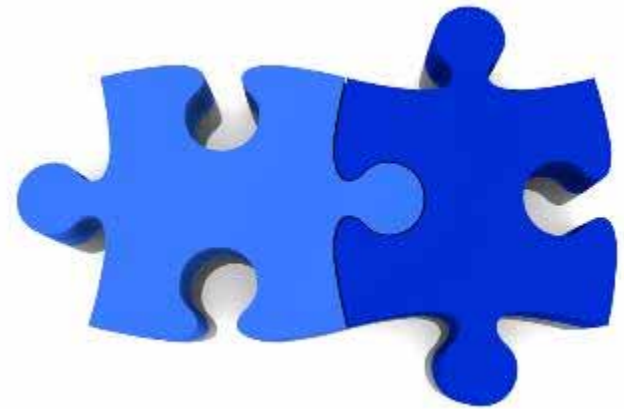
# MUSIC THERAPY AND RESPIRATORY CARE

- Active music making (wind instrument playing, singing) to support optimal respiration and strengthen breathing muscles
- MT for emotional expression
- MT for adherence (e.g., music-listening protocol with CPAP machine)



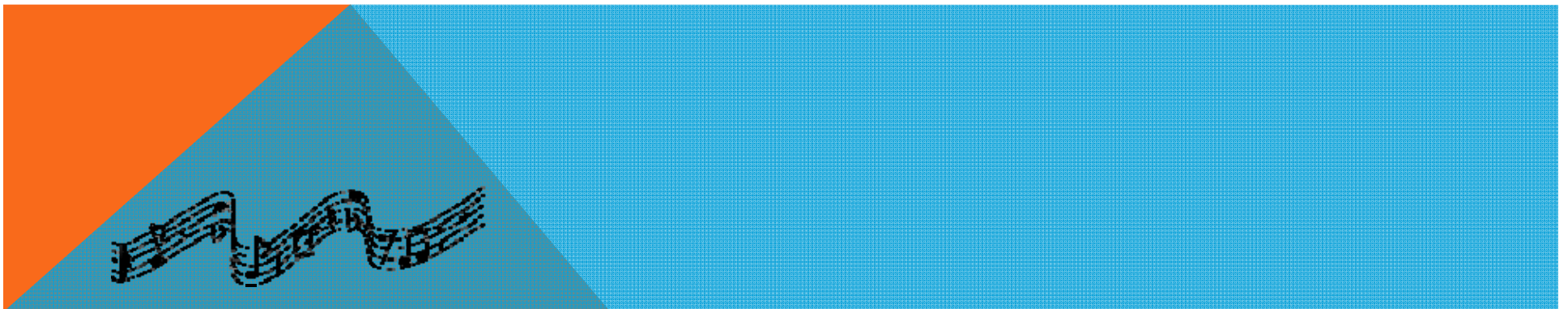
# OPPORTUNITIES FOR CO-TREATMENT

- Pulmonary medicine
- Individuals with mechanical ventilation
- Pain management
- Procedural support
- Childbirth
- NICU
- Oncology
- End-of-life
- Wellness



# SOME COOL RESEARCH

- Musical rhythm can be a zeitgeber (pacemaker) and can help entrain respiration (Haas, Distenfeld & Axen, 1986)
- Music therapy, combined with standard pulmonary rehabilitation, may serve as an effective treatment modality in the management of COPD (Canga et al., 2015)



# SOME COOL RESEARCH

- Music therapy may help increase respiratory muscle strength in patients with advanced multiple sclerosis (Wiens, Reimer & Guyn, 1999)
- Music therapy can encourage relaxation in individuals with asthma, and in turn, decrease tension and improve expiratory flow (Leher et al., 1994)



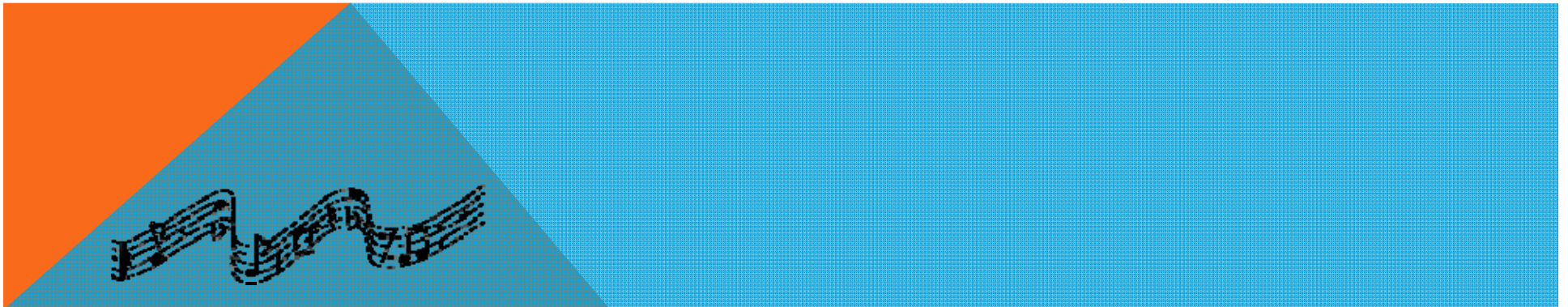


# SOME COOL RESEARCH

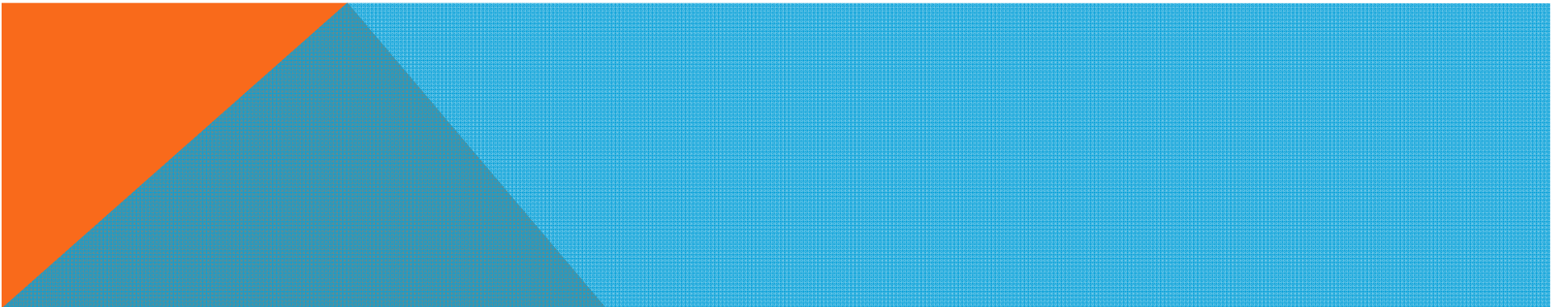
- Music therapy may have beneficial effects on state anxiety in mechanically ventilated patients in critical care units and may reduce heart rate and respiratory rate (Bradt, Dileo & Grocke, 2010)
- Music therapy had positive effects on oxygen saturation levels, heart rate and respiratory rate of 20 low birthweight infants oxygenated in a NICU (Cassidy & Standley, 1995)



WHAT ARE YOUR TAKEAWAYS  
FROM THIS SESSION?



QUESTIONS?



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**THANK YOU!**

