MUSIC THERAPY AND THE MILITARY
THE CURRENT MILITARY

Operation Enduring Freedom (Afghanistan) and Operation Iraqi Freedom
Rapid-paced and multiple deployments
Medical technology
Military strategies
Signature injuries:
  • PTSD
  • TBI
  • Major depression
  • Polytrauma
  • Complicating issues: substance abuse, family conflict, suicide risk
RATIONALE FOR MILITARY MUSIC THERAPY

• Build life skills to improve independence
• Promote adjustment to “new normal”
• Opportunities for nonverbal expression of inner thoughts and feelings
• Supports verbal processing of thoughts and reactions
• Motivates self-disclosure
• Motivates participation and personal growth
• Provides means to reveal unconscious fears and anxieties
• Helps to identify and work thought traumatic experiences
• Transforms traumatic memories into healthier associations
• Elicits extra-musical ideas useful in recovery, growth, and development
THEORETICAL BACKGROUND

“Purposeful, organized, methodical, knowledge-based, and regulated”

• Receive and process music in both hemispheres
• Influences physiological responses, behaviors, thoughts, memories, and emotions
• Organizes and energizes human responses

“Here and now” orientation

• Responsibility to self and others
• Provides opportunities for unique human expression and experiences
WHERE IS MUSIC THERAPY PROVIDED?

- Military bases
- Military treatment facilities
- VA healthcare facilities
- In the community
ACTIVE DUTY MODELS

• In the US and overseas
• Programs in place with active duty military, families, and service members in transition
• Some provided through community partnerships
• Military facilities
• Pre-mobilization, deployment, post-deployment, and recovery phases
• Services for service members transitioning to veteran status
CURRENT ACTIVE DUTY MODELS

• Davis-Monthan Air Force Base – Tucson
• Resounding Joy, Inc. – San Diego
• National Intrepid Center of Excellence (NICoE) – Bethesda
• Walter Reed National Military Medical Center – Bethesda
• Institute for Music Therapy through the Arts (ITA), Music Institute of Chicago, Oaktree Program
• Military Children, Special Needs, and Waiting Warriors – various locations
DAVIS-MONTHAN AIR FORCE BASE

Programs not able to be implemented as effectively with other healthcare professionals

• Program for active duty airmen to foster positive coping and stress management skills; used rhythm-based, interactive group tasks
• Waiting Warriors Wellness and Prevention Group – active music making as part of an early intervention and readjustment program for returning military personnel and dependents – international spouses
• Active music making group as part of an early intervention and readjustment program for returning military and their family members – family group
RESOUNDING JOY, INC.

- Balboa Wounded Athlete Program – Naval Medical Center
- The OASIS Program – Naval Base, Pt. Loma
- Camp Pendleton Semper Sound Music Therapy Program
- Intensive Outpatient Program – Naval Medical Center
- Traumatic Brain Injury Group – Naval Medical Center
- Semper Sound Band
- VetJam
- [https://www.youtube.com/watch?v=PNZgxqC5H1s](https://www.youtube.com/watch?v=PNZgxqC5H1s)
NATIONAL INTREPID CENTER OF EXCELLENCE

• “cutting-edge evaluation, treatment planning, research and education for service members and their families dealing with the complex interactions of mild traumatic brain injury and psychological health conditions”

• 4-week interdisciplinary and comprehensive treatment program

• Combination of western medicine, complementary and alternative approaches, and mind-body skills

• Group music therapy session in 3rd week

• Some members receive individual music therapy assessment

• Part of Healing Arts program – includes art therapy and creative writing

• Interventions address multiple goals
WALTER REED NATIONAL MILITARY MEDICAL CENTER

- “Nation’s medical center”
- Serving military beneficiaries in the DC area and across the country
- Largest military medical center in the country; 100 specialties and clinics
- Board-certified music therapist on staff
  - Conducts assessments
  - Provides services to in and out patient members; active duty, retirees, and dependants
    - Diagnoses include: TBI (mild, moderate, severe), stroke, dysarthria, psychological health (anxiety disorders, depressive disorders, PTSD), trauma-related injuries, children with autism-spectrum disorders, and cancer
MT IN ACTION!

ITA/MUSIC INSTITUTE OF CHICAGO OAKTREE PROGRAM

- Not-for-profit educational organization that incorporates music therapy services as part of mission to provide community services for individuals with special needs
- “Operation Oaktree” – program for military children and families throughout the cycle of deployment
- Mission
- Get Ready, Get Set
- Growing Strong, Branching Out
- Deep Roots, New Leaves: Reintegration Programming for Military Children
MILITARY CHILDREN, SPECIAL NEEDS, AND WAITING WARRIORS

Exceptional Family Member Program – AZ; CA; IL

Music Therapy

- Interactive music experiences for family events
- Music-based workshops to educate families
- Music therapy services on/off base
- Consult to base staff as part of family support programs
- Music therapy services in adult groups for spouses of deployed (Waiting Warriors)
- Music therapy services in adult support groups for parents of children with special needs
- Summer music therapy camps for children with special needs
VETERANS MODEL PROGRAMS

- The Role of Music Therapy and Music Programs in the VA Continuum of Care
- Veterans Affairs Facilities – Nationwide
VA CONTINUUM OF CARE

• Begins at point of injury and continues through community re-entry
• Support throughout to initiate and maintain the healing process
• MT’s role – beneficial training and skills to facilitate improved outcomes along the continuum
• Additions to treatment plan
• The National Veterans Creative Arts Festival
VA FACILITIES

• Interactions that enhance physical, communication, cognitive, psychological, and socio-emotional functions
• Design music experiences to facility community transition
• Provide opportunities to acquire, practice, and assimilate new skills into the “new normal”
• 27 states; Puerto Rico; Washington, D.C.
RESEARCH

• Sensorimotor, Physical Rehabilitation
• Cognitive Rehabilitation
• Communication and Speech Rehabilitation
• Pain Management and Social, Emotional, and Behavioral Health
SENSORIMOTOR/PHYSICAL REHABILITATION

- A music-cued movement intervention for persons with Parkinson’s disease facilitated enhanced physical outcome measures and quality of life.
- Rhythmic auditory stimulation is effective in rehabilitation of those with acquired brain injury.
- VA participants who received RAS following strokes improved their one-limb stance, cadence, velocity, stride-length, and posture significantly more than control participants.
- Rhythmic cueing delivered through the auditory system can facilitate improved motor control and motor output following injury.
- RAS resulted in better gait training gains than NDT/Bobath training in persons with hemiparetic strokes.
- RAS facilitated improved gait speed, stride length, and gait speed, which carried over for up to 15 minutes following training.
Persons with emphysema who participated in a music therapy singing intervention experienced improved breathing patterns and better quality of life.

Young adult participants who moved their arms to and from a target adjusted their movements with rhythmic cues that were below the threshold of conscious recognition; further, the changes occurred within two movement cycles with adaptation occurring in the first movement cycle.

Patients with paretic arms from strokes had decreased variability in their arm movements with rhythmic cueing.

Patients with TBI responded to RAS with increased walking cadence, stride length, and velocity.

Synchronization between step frequency and rhythmic cues in persons with mild to moderate Parkinson’s disease indicates rhythmic entrainment occurs even with the presence of basal ganglia dysfunction.

RAS improved cadence, velocity, and stride length in patients with Parkinson’s disease who participated in a home-based training program.
MT IN REHAB

COGNITIVE REHABILITATION

- Participants with PTSD experienced greater reductions in symptoms with music therapy than with cognitive behavioral therapy.
- Music therapy interventions improve consciousness in the acute management of TBI.
- Treatment participants with brain injury demonstrated improvements in executive functions.
- Active engagement in music therapy reduces psychomotor agitation in patients who have severe brain injuries.
- Music during coma evokes physiological reactions to sound stimuli that regulate cardiovascular and cortical rhythms to promote consciousness.
CONTINUED....

- Brain injured patients in a vegetative station can initiate pillow-pressing responses to turn on preferred recorded music

- Persons in comas have changes in heart rate, respiration rate, and intracranial pressure with auditory stimulation

- Clinical descriptions of music therapy outcomes at Rancho Los Amigos Scale Levels I-III for functional assessment include alert responses, oral motor movements, changing facial expressions and vocalizations; outcomes at Rancho Los Amigos Scale Levels IV-VI reveal effectiveness of music therapy to enhance adherence to exercise regimens

- Brain injured patients in vegetative states for 6 to 38 months can respond to verbal requests to make lateral hand movements contingent upon hearing preferred recorded music
COMMUNICATION AND SPEECH REHABILITATION

• A music therapy protocol for patients who had strokes and dysarthria increased their maximum phonation time, fundamental frequency, and average intensity after treatment

• Group music therapy improved singing quality, and voice range while speaking quality was maintained in persons with Parkinson’s disease

• Music therapy for persons with nonfluent aphasia demonstrated singing strengthens breathing and vocal ability, improves articulation and speech prosody, and increases verbal and nonverbal communication. Music and language are linked in the structural patterns and brain processing in those with aphasia

• Persons with TBI who participated in a music therapy singing intervention gained vocal range, experienced improved mood, and had better affective intonation

• Auditory rhythmicity enhances movement and speech motor controls in Parkinson’s disease to restore speech function

• Hypokinetic dysarthric speakers with Parkinson’s disease improved their speech intelligibility with rhythmic speech cueing

• Persons with Parkinson’s improved their speech intelligibility and vocal intensity after participating in a music therapy protocol
PAIN MANAGEMENT

• MT interventions have **positive effects of anxiety, pain, mood, and quality of life** in people who have cancer

• **Anxiety and pain are reduced** during burn dressing changes with self-selected music listening

• **Chronic pain and narcotic ingestion are reduced** through music distraction and relaxation
EMOTIONAL HEALTH

• Adolescents who participated in psychotherapy percussion playing had lower trait anger, decreased aggression, lower depression, and increased self-esteem, all of which maintained for 6 months. At 9 months post-treatment, participants maintained lower trait anger and anger expression.

• MT using Emotional- Approach Coping yielded increases in positive affect for patients who were liver and kidney transplant recipients.

• Songwriting and instrument playing led to improved self-organization and affective expression.

• MT in TBI rehabilitation improved patients’ overall emotional adjustment while it decreased depression, sensation seeking, and anxiety; although control participants had better emotional adjustment and less hostility, they had decreased memory, positive affect, and sensation-seeking behaviors.

• Traumatic memories and evoked emotions were managed through group improvisation.
SOCIAL

- Social interaction is promoted through group music making
- Associations connected to trauma and traumatic memories were accessed in a non-intimidating way through group drumming, and emotional expressions were facilitated while promoting a sense of relief and empowerment
- Though trauma can isolate and disconnect individuals from society, group drumming restored social relationships by fostering feelings of belonging
• Improved vocal range and mood, along with enhanced affective intonation styles, result from song singing
• Music and music-assisted relaxation reduced arousal associated with stress
• Increased socialization, improved mood, and participation in the standard rehabilitation processes occur through group singing, composing, sounding instruments, improvising, performing, and listening
• Bonny Method of Guided Imagery and Music (GIM) was associated with reductions in cortisol levels and improvements in depression, fatigue, and mood in healthy adults
• Stressors were identified through music imagery improvisation, and songwriting
• Daily coping skills were established through progressive muscle relaxation to live music
• Music-assisted progressive muscle relaxation provided tension control
CASE IN POINT!

Parkinson’s and Alzheimer’s
Positive response to music therapy
Statistics:
  • Currently 80,000 veterans with Parkinson’s
  • DOD program supporting PD research - $16 million for FY12
Symptom management
THE FUTURE OF MILITARY MUSIC THERAPY

• Testing/adapting of established music therapy interventions and protocols within military populations
• Replicating studies in military populations with evidence formed from civilian studies
• Adequate power and sample size studies in experimental studies
• Mixed methods and feasibility studies
• Including music therapists as investigators in collaborative interdisciplinary research teams and part of the research planning process
• Including qualified music therapy scholars/researchers in military and VA study sections and human subjects/IRB committees
• Developing mechanisms to efficiently translate important research findings to practice
• Evaluating the impact of using music therapy services to complement and support innovative treatment technologies and methodologies
• Aligning with and supporting service delivery models including patient-centered care teams
• Surveying and planning for research funding support
CHECK IT OUT!

http://www.huffingtonpost.com/ronna-kaplan-ma/veterans-music-therapy_b_2361076.html
REFERENCES


https://www.ndta.org/