Music Therapy

Music Therapy: The use of music either during, or as a clinical therapy intervention to realize a specific goal.[1] Those who practice music therapy are trained therapists that utilize at least one form of music delivery technique including production, reception, and reproduction.[2] The intended outcomes include communication development, cognitive improvement, motor skill enhancement, pain management, or emotional support.[3]

As healthcare practitioners look for strategies to support improved health outcomes, music therapy has increased its visibility.[4] The intended impact varies, based on the type of music used, and the intended level of patient interaction. Recent efforts to incorporate music therapy in treatment include areas to address communication, behavioral therapy, pain management, depression, dementia, Alzheimer's disease, Schizophrenia, Autism Spectrum Disorder, and Parkinson's disease. Additionally, music has been incorporated as a component of medical procedures to minimize the impact of stress and anxiety.[5] In a review of current literature, studies indicate a number of positive effects on health outcomes of patients across various settings and health conditions.[6]

A benefit of music therapy is that unlike pharmacological approaches to treating pain (emotional or physical), the use of music has no known adverse side effects.[7] Rather, some studies have shown that the use of music as a component of therapy decreases levels of anxiety more so than the use of some medications.[8]

Study Outcomes

- Decreased:
  - Pain levels
  - Stress levels
  - Anxiety
  - Depression
- Increased:
  - Coping skills
  - Motor skills
  - Group cohesiveness
- Improvement in:
  - Ability to communicate
  - Mood and motivation

[1] See www.musictherapy.org/about/musictherapy/, (site accessed February, 28, 2014).
[2] Mossler, Assmus, Heldal, Fuchs, and Gold, *Music Therapy Techniques As Predictors Of Change In Mental Health Care*, 39 JOURNAL OF ARTS IN PSYCHOTHERAPY, 333 (2012).
[3] Carr, Odell-Miller, Priebe, *A Systematic Review Of Music Therapy Practice And Outcomes With Acute Adult Psychiatric In-Patients*, 8(8) PLOS ONE, (2013); Polkki and Korhonon, *The Effectiveness Of Music On Pain Among Preterm Infants In The Neonatal Intensive Care Unit*, 10(58) LIBRARY OF SYSTEMATIC REVIEWS, 4600 (2012).
[4] Gray E., Music: A Therapy For All?, 133(1) Perspective in Public Health, 14 (2013).
[5] Standley, *Music Research In Medical/Dental Treatment: Meta-Analysis And Clinical Applications*, 23 JOURNAL OF MUSIC THERAPY, 122 (1986).
[6] Jungup and Thyer, *Does Music Therapy Improve Mental Health In Adults? A Review*, 23(5) JOURNAL OF HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT, 591 (2013); Silverman, *Effects Of Music Therapy On Psychiatric Patients' Proactive Coping Skills: Two Pilot Studies*, 38(2) THE ARTS IN PSYCHOTHERAPY, 125 (2011); Mays, Clark, and Gordon, *Treating Addiction With Tunes: A Systematic Review Of Music Therapy For The Treatment Of Patients With Addictions*, 29(4) SUBSTANCE ABUSE, 51 (2008); Ueda, Suzukamo, Sato, and Izumi, *Effects Of Music Therapy On Behavioral And Psychological Symptoms Of Dementia: A Systematic Review And Meta-Analysis*, 12(2) AGING RESEARCH REVIEWS, 628 (2013); Solli, *Toward Understanding Music Therapy As A Recovery-Oriented Practice Within Mental Health Care: A Meta-Synthesis Of Service Users' Experiences*, 50(4) THE JOURNAL OF MUSIC THERAPY, 244 (2013); Baines, Community Mental Health Music Therapy: A Consumer-Initiated Song-Based Paradigm, 16(1), CANADIAN JOURNAL OF MUSIC THERAPY, 148 (2010); Hye Sook Shin and Ju Hee Kim, *Music Therapy On Anxiety, Stress And Maternal-Fetal Attachment In Pregnant Women During Transvaginal Ultrasound*, 5(1) ASIAN NURSING RESEARCH, 19 (2011); Ovayolu, Ucan, Pehlıvan,S., Pehlıvan,Y., Buyukhatıpoglu, Savas, and Gulsen, *Listening To Turkish Classical Music Decreases Patients Anxiety, Pain, Dissatisfaction And The Dose Of Sedative And Analgesic Drugs During Colonoscopy*, 12 WORLD JOURNAL GASTROENTEROL,7532 (2006); Sen, Yanarates, Sizlan, Kılıc, Ozkan, and Dagli, *The Efficiency And Duration Of The Analgesic Effects Of Musical Therapy On Post Operative Pain*, 22 JOURNAL OF TURKISH SOCIETY OF ALGOLOGY, 145 (2010); Liu, Chang, and Chen, Effects Of Music Therapy On Labor Pain And Anxiety In Taiwanese First-Time Mothers, 19, JOURNAL OF CLIN. NURS. 1065 (2010); Klassen, Liang, Tjosvold, Klassen and Hartling, *Music For Pain And Anxiety In Children Undergoing Medical Procedures: A Systematic Review Of Randomized Controlled Trials*, 8 AMBULATORY PEDIATRICS, 117 (2008); Maratos, Crawford, and Procter, *Music Therapy For Depression: It Seems To Work, But How*?, 199 BJP, 92 (2011).
[7] Chan, Wong, Thayala, *The Effectiveness Of Music Listening In Reducing Depressive Symptoms In Adults: A Systematic Review*, 19(6) COMPLEMENTARY THERAPIES IN MEDICINE, 332 (2011).
[8] Bringman, GieseckeK, and Thorne, *Relaxing MusicAas Pre-Medication Before Surgery: A Randomized Controlled Trial,* 53(6) *ACTA ANAESTHESIOL SCAND, 759 (*2009); Ovayolu et al., *Listening To Turkish Classical Music Decreases Patients Anxiety, Pain, Dissatisfaction And The Dose Of Sedative And Analgesic Drugs During Colonoscopy*, 12 WORLD JOURNAL GASTROENTEROL,7532 (2006).

Research indicates that the use of music provides a "*calming effect*" resulting in reduced anxiety, reduced pulse rate, and lowered blood pressure.[9] Additionally, studies examining the impact of music therapy on preterm infants have found positive effects on physiological outcomes including respiratory rate as well as behavioral impacts observed through reduced crying and increased body movements.[10]

In a review of empirical research that examined the impact of music on trauma, depression, and substance abuse, researchers found that overall, studies reported positive outcomes including:

- decreased depression
- enhanced interpersonal relationships
- improved communication
- increased motivation
- improved coping skills[11]

Another systematic review that examined seventeen studies incorporating music through reception (listening) techniques to address depression found that music did assist in alleviating symptoms, but only when implemented over time.[12]

Considerations

The implementation of music therapy varies across studies including the intended interaction level of the patient, the music type and style, the health outcome focus, the frequency of the intervention, and the setting. To better inform the field on the impact of music therapy, it will be important to examine how these differences impact outcomes.

The frequency and technique type are key considerations to examine. A noted limitation by researchers has been the inconsistency of intervention frequency where exposure can vary from a onetime interval to multiple iterations over time.[13] Some studies examining the effect of music on health outcomes did not control for frequency variations as a result of the setting structure. Additionally, outcomes have varied based on technique type used and patient preference on music style.[14]

Music therapy incorporates a variety of approaches that include listening to music, singing, and even playing instruments. While such flexibility provides practitioners the freedom to adapt practices to their context, a lack of standardized models increases the risk of little to no impact on the intervention used. These considerations should drive continued research to better address the incorporation of music therapy in practice.

Mode of therapy

Inpatient and outpatient

Music approach: production, reception, and reproduction

Setting types:

- neonatal intensive care unit
- physical therapy clinics
- mental health clinics
- substance abuse treatment centers
- nursing homes
- private practice
- hospitals

Focus areas:

- older adults with dementia
- women in labor
- hospitalized patients with pain
- premature infants to reduce distress, increase sleep, and increase weight gain
- patients with Parkinson's disease
- children with autism

Across lifespan: infants, children, adolescents, adults, and the elderly

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[9] See http://psychcentral.com/lib/the-power-of-music-to-reduce-stress/000930?all=1; Pölkki and Korhonen, *The Effectiveness Of Music On Pain Among Preterm Infants In The Neonatal Intensive Care Unit: A Systematic Review*, 10(50) JBI LIBRARY OF SYSTEMATIC REVIEWS, 4600 (2012).

[10] Butt and Kisilevsky, *Music Modulates Behavior of Premature Infants*, 31(4), CANADIAN JOURNAL FOR NURS RES, 17 (2000); Arnon, Shapsa, Forman, Regev, Bauer, Litmanovitz, and Dolfin, *Live Music Is Beneficial To Preterm Infants In The Neonatal Intensive Care Unit Environment,*33(2) JOURNAL OF BIRTH (BERKLEY) 131(2006).

[11] See *Music Therapy Interventions In Trauma, Depression, And Substance Abuse*, http://harmonymusictherapy.com/wp-content/uploads/2013/03/bib_substance-abuse.pdf

[12] Chan, Wong, Thayala, *The Effectiveness Of Music Listening In Reducing Depressive Symptoms In Adults: A Systematic Review*, 19(6) COMPLEMENTARY THERAPIES IN MEDICINE, 332 (2011).

[13] Carr, Odell-Miller, Priebe, *A Systematic Review Of Music Therapy Practice And Outcomes With Acute Adult Psychiatric In-Patients*, 8(8) PLOS ONE, (2013); Polkki and Korhonon, *The Effectiveness Of Music On Pain Among Preterm Infants In The Neonatal Intensive Care Unit*, 10(58) LIBRARY OF SYSTEMATIC REVIEWS, 4600 (2012).

[14] Chan, Wong, Thayala, *The Effectiveness Of Music Listening In Reducing Depressive Symptoms In Adults: A Systematic Review*, 19(6) COMPLEMENTARY THERAPIES IN MEDICINE, 332 (2011); Carr, Odell-Miller, Priebe, *A Systematic Review Of Music Therapy Practice And Outcomes With Acute Adult Psychiatric In-Patients*, 8(8) PLOS ONE, (2013); Polkki and Korhonon, *The Effectiveness Of Music On Pain Among Preterm Infants In The Neonatal Intensive Care Unit*, 10(58) LIBRARY OF SYSTEMATIC REVIEWS, 4600 (2012).