



# American Music Therapy Association

8455 Colesville Rd., Ste. 1000 • Silver Spring, Maryland 20910  
Tel. (301) 589-3300 • Fax (301) 589-5175 • www.musictherapy.org

## Music Therapy Interventions in Trauma, Depression, & Substance Abuse: Selected References and Key Findings

**STATEMENT OF PURPOSE:** Music therapists commonly serve persons with mental health and functional wellness issues in a variety of settings including public and private psychiatric hospitals or schools, mental health centers, private practice, community-based programs, correctional and forensic facilities, and substance abuse treatment programs. Music therapists use defined music interventions founded in sound theory and supported by ongoing research. Music therapists use music to enhance social or interpersonal, affective, cognitive, and behavioral functioning. Research indicates that music therapy is effective in reducing muscle tension and anxiety, and at promoting relaxation, verbalization, interpersonal relationships, and group cohesiveness. This can set the stage for open communication and provide a starting place for non-threatening support and processing symptoms associated with, or exacerbated by, trauma and disaster, such as the 9/11 event. A therapist can talk with a client, but a qualified music therapist can use music to actively link a client to their psycho-emotional state quickly. In certain settings, the active use of music therapy interventions has resulted in a shorter length of stay (treatment period) and more efficient response to the client's overall intervention plan.

**STANDARDIZATION:** Music therapy goals, objectives and progress are documented in a treatment plan, following client assessment, and delivered in accordance with the AMTA Standards of Clinical Practice. Music selections and certain active music making activities are modified for client preferences and individualized needs (i.e., song selection and music may vary).

**REPLICATION:** Music therapy interventions have been used with different providers and populations. Research on many important questions of effectiveness has been replicated and is part of an ongoing research strategy aimed at supporting evidence-based practice.

**OUTCOMES:** Global state, mental state, anxiety management, social and emotional functioning

### Specific Outcomes:

Reduced muscle tension	Improved self-image/Increased self-esteem
Decreased anxiety/agitation	Increased verbalization
Enhanced interpersonal relationships	Improved group cohesiveness
Enhanced self-expression and self-awareness	Increased motivation
Improved perception and differentiation of feelings	
Improved ability to titrate abreaction, self sooth, recognize and cope with traumatic triggers	

## OVERVIEW OF RESEARCH

### *Systematic Reviews, Meta-Analyses and Literature Reviews*

Gold, C., Solli, H.P., Kruger, V., Lie, S.A. (2009). Dose-response relationship in music therapy for people with serious mental disorders: systematic review and meta-analysis. *Clin Psychol Rev.*, 29(3):193-207.

Serious mental disorders have considerable individual and societal impact, and traditional treatments may show limited effects. Music therapy may be beneficial in psychosis and depression, including treatment-resistant cases. The aim of this review was to examine the benefits of music therapy for people with serious mental disorders. All existing prospective studies were combined using mixed-effects meta-analysis models, allowing to examine the influence of study design (RCT vs. CCT vs. pre-post study), type of disorder (psychotic vs. non-psychotic), and number of sessions. Results showed that music therapy, when added to standard care, has strong and significant effects on global state, general symptoms, negative symptoms, depression, anxiety, functioning, and musical engagement. Significant dose-effect relationships were identified for general, negative, and depressive symptoms, as well as functioning, with explained variance ranging from 73% to 78%. Small effect sizes for these outcomes are achieved after 3 to 10 sessions, large effects after 16 to 51 sessions. The findings suggest that music therapy is an effective treatment which helps people with psychotic and non-psychotic severe mental disorders to improve global state, symptoms, and functioning. Slight improvements can be seen with a few therapy sessions, but longer courses or more frequent sessions are needed to achieve more substantial benefits. [References: 77]

Gold, C., Voracek, M., & Wigram, T. (2004). Effects of music therapy for children and adolescents with psychopathology: A meta-analysis. *Journal of Child Psychology and Psychiatry*, 45, 1054-1063.

The objectives of this review were to examine the overall efficacy of music therapy for children and adolescents with psychopathology, and to examine how the size of the effect of music therapy is influenced by the type of pathology, client's age, music therapy approach, and type of outcome. Eleven studies were included for analysis, which resulted in a total of 188 subjects for this meta-analysis. Effect sizes from these studies were combined, with weighting for sample size, and their distribution was examined. After exclusion of an extreme positive outlying value, the analysis revealed that music therapy has a medium to large positive effect ( $ES = .61$ ) on clinically relevant outcomes that was statistically highly significant ( $p < .001$ ) and statistically homogeneous. No evidence of publication bias was identified. Effects tended to be greater for behavioral and developmental disorders than for emotional disorders; greater for eclectic, psychodynamic, and humanistic approaches than for behavioral models; and greater for behavioral and developmental outcomes than for social skills and self-concept.

Maratos, A. S., Gold, C., Wang, X., Crawford, M. J. (2008). Music therapy for depression. *Cochrane Database of Systematic Reviews*, 1. Art. No.: CD004517. DOI: 10.1002/14651858.CD004517.pub2

The objectives of this review protocol were to 1) identify randomized controlled trials and controlled clinical trials examining the efficacy of music therapy in reducing the symptoms of clinical depression as defined by the authors; 2) compare efficacy of music therapy with standard care (as defined by the authors) or with other therapies; and, 3) compare efficacy of different forms of music therapy. Findings from individual randomized trials suggest that music therapy is accepted by people with depression and is associated with improvements in mood. Work should continue using high quality trials to further evaluate the effects of music therapy on depression.

Pelletier, C. L. (2004). The effect of music on decreasing arousal due to stress: A meta-analysis. *Journal of Music Therapy*, 41(3), 192-214.

A meta-analytic review of research articles using music to decrease arousal due to stress was conducted on 22 quantitative studies. Results demonstrated that music alone and music assisted relaxation techniques significantly decreased arousal ( $d = +.67$ ). Further analysis of each study revealed that the amount of stress reduction was significantly different when considering age, type

of stress, music assisted relaxation technique, musical preference, previous music experience, and type of intervention. Implications and suggestions for future research are discussed.

Silverman, M. J. (2003). Music therapy and clients who are chemically dependent: A review of literature and pilot study. *The Arts in Psychotherapy, 30*, 273-281.

Patients in substance abuse treatment reported music therapy to be highly effective in increasing relaxation and energy level and in decreasing impulsiveness.

### ***Experimental and Quasi-Experimental Studies***

Baker, F. A., Gleadhill, L. M., and Dingle, G. A. (2007). Music therapy and emotional exploration: Exposing substance abuse clients to the experiences of non-drug-induced emotions. *The Arts in Psychotherapy, 34*(4), 321-330.

Recent cognitive behavioral therapy (CBT) approaches to treatment of substance use disorder (SUD) have emphasized the need for clients to explore emotional regulation and experiential avoidance. This study aimed to determine whether music therapy programs situated within a CBT framework facilitated the exploration of emotions in 24 adults with SUD attending an open group CBT program. In a 7-week trial, the impact of a single music therapy session on participants' emotional experience was assessed. Results indicated that music therapy sessions facilitate the experiencing of predominantly positive emotions, and that these were experienced to a moderate or high degree. Participants reported that music therapy was beneficial in allowing them to experience emotions without the need for substance use.

Cevasco, A. M., Kennedy, R., & Generally, N. R. (2005). Comparison of movement-to-music, rhythmic activities, and competitive games on depression, stress, anxiety, and anger of females in substance abuse rehabilitation. *Journal of Music Therapy, 42*(1), 64-80.

Conclusions: Each of the three music therapy interventions were equally effective in decreasing depression, stress, anxiety and anger in females who were in substance abuse treatment.

Dingle, G.A., Gleadhill, L., Baker, F.A. (2008). Can music therapy engage patients in group cognitive behaviour therapy for substance abuse treatment? *Drug & Alcohol Review, 27*(2):190-6, 2.

**INTRODUCTION AND AIMS:** Despite the availability of effective treatments for substance use disorders, engaging people in treatment remains a challenge. This clinical study describes a 7-week trial of music therapy as an adjunct to group cognitive behaviour therapy with the aim of increasing patient engagement in a private hospital open group programme. **DESIGN AND METHODS:** Patient attendance rates and perceptions of the music therapy were collected at the end of each music therapy session by means of an anonymous survey, and only data from each patient's first survey were used in the analysis. Twenty-four surveys were analysed, representing feedback from 10 men and 14 women, aged between 17 and 52 years. **RESULTS:** The average attendance rate over the 7-week trial was 75%. The results indicated that enjoyment and motivation to participate during the sessions was uniformly high (mean ratings of 4.3 and 4.0 out of 5, respectively). The majority (83%) of participants reported that they would attend another music therapy session, and almost half (46%) endorsed that '(music therapy) would help them to feel more a part of the group'. Additional analyses revealed that music therapy was able to engage patients regardless of their age group (25 years and under vs. over-25 years) or substance (alcohol only vs. other drugs). **DISCUSSION AND CONCLUSIONS:** Music therapy is a promising approach to improving engagement in substance abuse treatment groups.

Edwards, J. (2006). Music therapy in the treatment and management of mental disorders. *Irish Journal of Psychological Medicine, 23*(1), 33-35.

An increasing number of research studies support the benefits of providing music therapy in addition to standard treatment for people who have mental disorders. A review of music therapy studies published since 1994 was undertaken. Criteria for including papers were that they a) were published in English in an indexed, peer-reviewed journal, and b) were conducted as a randomized

controlled trial (RCT) or a controlled trial (CT), or c) provided a meta-analysis of existing studies. The findings support a role for music therapy as a structured interaction that patients are able to use to participate successfully, manage some of their symptoms, and express feelings relating to their experiences. Music therapy is demonstrated to be a beneficial intervention for people who exhibit more enduring symptoms. Music therapy invites and encourages participation from people of lower functioning levels and employs a non-verbal medium with which people have prior positive associations. Additionally, the peer reviewed literature supports the proposition that clinical outcomes are available through the use of music therapy intervention in conjunction with standard, well-established treatment methods. Music therapy is beneficial for patients receiving care for mental disorders and establishing this therapy within mental health service provision should be considered.

Gallant, W., Holosko, M., Gorey, K. M., & Lesiuk, T. L. (1997). Music as a form of intervention with out-patient alcoholic couples: A quasi-experimental investigation. *Canadian Journal of Music Therapy*, 5(1), 67-84.

Couples who received both rehabilitation and music therapy significantly lowered scores on the Psychosocial Problem Inventory. Additionally, song discussions significantly improve the outcome measurement of loneliness in women.

Guetin, S., Portet, F., Picot, M.C., et al. (2009). Effect of music therapy on anxiety and depression in patients with Alzheimer's type dementia: randomised, controlled study. *Dement Geriatr Cogn Disord.*, 28(1):36-46.

Numerous studies have indicated the value of music therapy in the management of patients with Alzheimer's disease. A recent pilot study demonstrated the feasibility and usefulness of a new music therapy technique. The aim of this controlled, randomised study was to assess the effects of this new music therapy technique on anxiety and depression in patients with mild to moderate Alzheimer-type dementia. METHODS: This was a single-centre, comparative, controlled, randomised study, with blinded assessment of its results. The duration of follow-up was 24 weeks. The treated group (n = 15) participated in weekly sessions of individual, receptive music therapy. The musical style of the session was chosen by the patient. The validated 'U' technique was employed. The control group (n = 15) participated under the same conditions in reading sessions. The principal endpoint, measured at weeks 1, 4, 8, 16 and 24, was the level of anxiety (Hamilton Scale). Changes in the depression score (Geriatric Depression Scale) were also analyzed as a secondary endpoint. RESULTS: Significant improvements in anxiety (p < 0.01) and depression (p < 0.01) were observed in the music therapy group as from week 4 and until week 16. The effect of music therapy was sustained for up to 8 weeks after the discontinuation of sessions between weeks 16 and 24 (p < 0.01). CONCLUSION: These results confirm the valuable effect of music therapy on anxiety and depression in patients with mild to moderate Alzheimer's disease. This new music therapy technique is simple to implement and can easily be integrated in a multidisciplinary programme for the management of Alzheimer's disease. Copyright 2009 S. Karger AG, Basel.

Hammer, S. E. (1996). The effects of guided imagery through music on state and trait anxiety. *Journal of Music Therapy*, 33, 47-70.

Patients who received 10 group guided imagery through music sessions experienced a significant decrease in state anxiety as compared to the patients in the control group.

Hendricks, C. B. (2001). A study of the use of music therapy techniques in a group for the treatment of adolescent depression. *Dissertation Abstracts International*, 62(2-A). (UMI No. AAT3005267)

During the ages of 12-18, depression affects one in five adolescents. Since music is an integral part of the adolescent's life and since most adolescents listen to music on a daily basis, music is a viable source for alleviation of adolescent depression. The purpose of this study was to determine the effectiveness of adding music therapy techniques to cognitive behavioral group treatment for depressed adolescents. The design was a 2 x 2 quasi-experimental factorial design in which the

dependent variables of depression, self-concept, and grade point average were compared by treatment and grade. The participants were administered the Beck Depression Inventory and the Piers-Harris Self Concept Scale. The results indicated a significant difference ( $p < .0001$ ) between the groups which utilized music therapy techniques and groups which did not use music therapy techniques. Results indicated that the use of music therapy techniques was positively correlated with reduced posttest depression scores and increased posttest self-concept scores for both junior high and senior high participants.

Hernandez-Ruiz, E. (2005). Effect of music therapy on the anxiety levels and sleep patterns of abused women in shelters. *Journal of Music Therapy*, 42(2), 140–158.

The purpose of this study was to explore the effect of a music therapy procedure (music listening paired with progressive muscle relaxation) on the reduction of anxiety and improvement of sleep patterns in abused women in shelters. Results indicated that music therapy constituted an effective method for reducing anxiety levels. Results also indicated a significant effect on sleep quality for the experimental group, but not for the control group. No significant relationships were found between anxiety levels and sleep quality, nor fatigue levels and sleep quality. These results seem promising in the light of domestic violence research, which has found that a greater amount of personal resources is a crucial aspect of abused women's recovery process. Reduction of anxiety and improvement of sleep quality can be considered as increased personal resources, and seem feasible through the use of music therapy.

Montello, L. & Coons, E. E. (1998). Effects of active versus passive group music therapy on preadolescents with emotional, learning, and behavioral disorders. *Journal of Music Therapy*, 35, 49-67.

Music therapy clients significantly improved on the Aggression/Hostility scale of Achenbach's Teacher's Report Form, suggesting that group music therapy can facilitate self-expression and provide a channel for transforming frustration, anger, and aggression into the experience of creativity and self-mastery.

Thaut, M.H., Gardiner, J.C., Holmberg, D., et al. (2009). Neurologic music therapy improves executive function and emotional adjustment in traumatic brain injury rehabilitation. *Ann N Y Acad Sci.*, 1169:406-16.

This study examined the immediate effects of neurologic music therapy (NMT) on cognitive functioning and emotional adjustment with brain-injured persons. Four treatment sessions were held, during which participants were given a pre-test, participated in 30 min of NMT that focused on one aspect of rehabilitation (attention, memory, executive function, or emotional adjustment), which was followed by post-testing. Control participants engaged in a pre-test, 30 min of rest, and then a post-test. Treatment participants showed improvement in executive function and overall emotional adjustment, and lessening of depression, sensation seeking, and anxiety. Control participants improved in emotional adjustment and lessening of hostility, but showed decreases in measures of memory, positive affect, and sensation seeking.

Ziv, N., Rotem, T., Arnon, Z., Haimov, I. (2008). The effect of music relaxation versus progressive muscular relaxation on insomnia in older people and their relationship to personality traits. *Journal of Music Therapy*, 45(3):360-80.

A large percentage of older people suffer from chronic insomnia, affecting many aspects of life quality and well-being. Although insomnia is most often treated with medication, a growing number of studies demonstrate the efficiency of various relaxation techniques. The present study had three aims: first, to compare two relaxation techniques--music relaxation and progressive muscular relaxation--on various objective and subjective measures of sleep quality; second, to examine the effect of these techniques on anxiety and depression; and finally, to explore possible relationships between the efficiency of both techniques and personality variables. Fifteen older adults took part in the study. Following one week of base-line measurements of sleep quality, participants followed one week of music relaxation and one week of progressive muscular

relaxation before going to sleep. Order of relaxation techniques was controlled. Results show music relaxation was more efficient in improving sleep. Sleep efficiency was higher after music relaxation than after progressive muscular relaxation. Moreover, anxiety was lower after music relaxation. Progressive muscular relaxation was related to deterioration of sleep quality on subjective measures. Beyond differences between the relaxation techniques, extraverts seemed to benefit more from both music and progressive muscular relaxation. The advantage of non-pharmacological means to treat insomnia, and the importance of taking individual differences into account are discussed.

### *Qualitative Studies and Descriptive Research*

Behrens, G. A., & Green, S. B. (1993). The ability to identify emotional content of solo improvisations performed vocally and on three different instruments. *Psychology of Music*, 21, 20-33.

The accuracy of identifying the emotional content in music partially depends upon the emotion expressed and the instrument used to perform the music. This is an important part of the music therapist's skill set when working with clients.

Chou, M. H., & Lin, M. F. (2006). Exploring the listening experiences during guided imagery and music therapy of outpatients with depression. *Journal of Nursing Research*, 14(2), 93-102.

Music therapists with advanced training in guided imagery may use music to help patients explore issues associated with depression, and other symptoms as needed. The purpose of this study was to explore the listening experiences of outpatient depression sufferers who underwent guided imagery and music therapy (GIM). Researchers conducted a semi-structured, in-depth telephone interview with each subject within 24 to 48 hours after each therapy session. The results showed a total of 55 important listening episodes, which could be categorized into themes. The triggering effect, when guided in a controlled fashion, represents a combination of multiple factors, including music, the individual, the therapist and environment. The theme of each patient's imagery episode was a result of the effect of the four factors, with music having the greatest impact.

Ciardiello, S. (2003). Meet them in the lab: Using hip-hop music therapy groups with adolescents in residential settings. In N. E. Sullivan, E. S. Mesbur, N. C. Lang, D. Goodman, & L. Mitchell (Eds.), *Social work with groups: Social justice through personal, community and societal change* (pp. 103-117). New York: Haworth Press.

Adolescence is a stage of development plagued by turbulence and rebellion, and it is especially challenging for youth in residential settings. Traumas that led them into care can result in a mistrustful and negative lens through which to view the world. These experiences have conditioned the residents to react to people and situations in ways that cause further rejection and disapproval. A group work approach that includes the residents' interests can serve a therapeutic purpose. Hip-hop music serves as an outlet for adolescents. The theoretical framework for The Lab is what the author refers to as activity-centered therapy (ACT) programming. The ACT program model can be described as a therapeutic melting pot because there are a number of theoretical frameworks that are integrated into its philosophy. These include sociorecreation (the activities); psychotherapy (group discussions of life themes, worker as observer and interpreter); cognitive-behavioral principles (peer models and reward system); and psychoeducation (skill development).

Guetin, S., Portet, F., Picot, M.C., et al. (2009) [Impact of music therapy on anxiety and depression for patients with Alzheimer's disease and on the burden felt by the main caregiver (feasibility study)]. [in French] *Encephale*, 35(1):57-65.

The impact of music therapy on dementia care for patients with Alzheimer's disease (AD) is well-recognized. Music alters the different components of the disease through sensory, cognitive, emotional, behavioral and social impacts. The academic aspect of music therapy in this area was based on the fact that music can alter the various components of the overall evolution of this disease. DISCUSSION/CONCLUSION: This preliminary study demonstrates the feasibility as well as the initial efficacy of music therapy in terms of its impact on the overall care for patients

suffering from Alzheimer's disease. This easily applicable technique can be useful in treating anxiety and depression in a patient with Alzheimer's disease and also in relieving the emotional and physical burden experienced by the main caregiver.

Guetin, S., Soua, B., Voiriot, G., Picot, M.C., Herisson, C. (2009). The effect of music therapy on mood and anxiety-depression: an observational study in institutionalised patients with traumatic brain injury. *Ann Phys Rehabil Medicine*, 52(1):30-40.

A previous study (carried out in 2003-2004) had included 34 patients with traumatic brain injury in order to study the feasibility and usefulness of music therapy in patients with this type of injury. **OBJECTIVE:** To evaluate the effect of music therapy on mood, anxiety and depression in institutionalised patients with traumatic brain injury. **STUDY METHODOLOGY:** A prospective, observational study. **MATERIALS AND METHODS:** Thirteen patients with traumatic brain injury were included in the present study and took part in individual, weekly, 1-hour music therapy sessions over a period of 20 weeks. Each session was divided into two 30-minute periods - one devoted to listening to music (receptive music therapy) and the other to playing an instrument (active music therapy). The assessment criteria (measured at weeks 1, 5, 10, 15 and 20) were mood (on the face scale) and anxiety-depression (on the Hospital Anxiety and Depression [HAD] Scale). Mood was assessed immediately before and after the first music therapy session and every fifth session. **RESULTS:** Music therapy enabled a significant improvement in mood, from the first session onwards. This short-term effect was confirmed by the immediate changes in the scores after music therapy sessions (from 4.6+/-3.2 to 2.6+/-2; p<0.01). Music therapy also led to a significant reduction in anxiety-depression (p<0.05) from week 10 onwards and up until the end of the study (week 20). **CONCLUSION:** These results confirm the usefulness of music therapy in the treatment of anxiety-depression and mood in patients with traumatic brain injury. Music therapy could usefully form an integral part of the management programme for these patients.

James, M. R. (1988). Adolescent values clarification: A positive influence on perceived locus of control. *Journal of Music Therapy*, 25, 206-215.

Lyric analysis focusing on values' clarification was shown to be an effective intervention for influencing an adolescent's perceived locus of control, and helping to develop a positive attitude towards self and recovery.

Jones, J. D. (2005). A comparison of songwriting and lyric analysis techniques to evoke emotional change in a single session with people who are chemically dependent. *Journal of Music Therapy*, 42(2), 94-110.

Song writing and lyric analysis were shown to significantly increase feelings of acceptance and joy/happiness/enjoyment and significantly decrease feelings of guilty/regretful/blame and fear/distrust. Seventy-five percent of participants cited music therapy as a significant tool in their recovery.

Lin, M.F., Hsu, M.C., Chang, H.J., Hsu, Y.Y., Chou, M.H., Crawford, P. (2010). Pivotal moments and changes in the Bonny Method of Guided Imagery and Music for patients with depression. *J Clin Nurs.*, 19(7-8):1139-48.

**AIMS:** To explore pivotal moments and changes during the Bonny Method of Guided Imagery and Music from the perspective of patients with depression. **BACKGROUND:** Depression has been described as an extremely difficult experience for people and is characterised by emotional distress and suffering. As depression progresses, symptoms increase and gradually influence all aspects of the lives of those affected. Few studies have been undertaken into the essence of inner and pivotal experiences during Guided Imagery and Music in patients with depression. **DESIGN:** A qualitative research design and discovery-oriented approach were used as the method of both data gathering and textual analysis. **METHODS:** This study conducted semi-structured interviews with five patients with depression after each of eight sessions of the Bonny Method of Guided Imagery and Music. Each session took place in a music therapy laboratory. Forty transcripts were organised into categories and analysed according to the discovery-oriented approach of Mahrer and Boulet,

considering the dimensions of the Bonny Method of Guided Imagery and Music. RESULTS: Nine patients with depression were recruited from a medical centre in southern Taiwan from 2004-2005. Five successfully completed eight Bonny Method of Guided Imagery and Music sessions. There were 141 statements coded into 10 subthemes and three themes describing pivotal moments: pushing aside the barrier, gaining new insight, moving forward. Each category was supported by three-four themes. The analysis also yielded three meaningful moments: releasing mind-body rigidity, awareness and inspiration, acceptance and inner transformation. Patients described personal emotional, cognitive and behavioural transformation during the Bonny Method of Guided Imagery and Music experiences. CONCLUSIONS: The discovery-oriented approach fulfilled the aim of gaining a valuable understanding of the psychological growth experiences of patients with depression during the Bonny Method of Guided Imagery and Music. RELEVANCE TO CLINICAL PRACTICE: Patients with depression particularly need comfort and caring. It is important that nurses offer interventions as adjuvants to medication. This study supports the feasibility of incorporating the Bonny Method of Guided Imagery and Music into the nursing management of patients with depression. Future studies are suggested to examine the interactive process of music stimulus and the multidimensional nature of imagery.

Ross, S., Cidambi, I., Dermatis, H., Weinstein, J., Ziedonis, D., Roth, S., & Galanter, M. (2008). Music therapy: A novel motivational approach for dually diagnosed patients. *Journal of Addictive Diseases*, 27(1), 41-53.

Patients who attended more than 6 music therapy sessions had a significantly longer duration of treatment than those who attended 3-6 sessions. Music therapy group attendance during in-patient treatment was predictive of successful follow-up to the initial after-care appointment.

Silverman, M. J. (2006). Psychiatric patients' perception of music therapy and other psychoeducational programming. *Journal of Music Therapy*, 43(2), 111-122.

The purpose of this study was to quantitatively evaluate psychiatric patients' perception of their psychoeducational programming. Participants consistently rated music therapy as more effective than other programming in addressing specific psychiatric deficit areas. Additionally, 57% of participants noted that music therapy was their favorite class/therapy.

Winkelman, M. (2003). Complementary therapy for addiction: "Drumming out drugs." *American Journal of Public Health*, 93, 647-651.

Drumming and drum circles can provide a complementary role to addiction treatment. Positive effects of drumming include increased sense of relaxation, restoration of the balance in the opioid and serotonergic neurotransmitter system, positive spiritual experiences, interpersonal support and connection to others.

#### ***Assessment and Evaluation***

Braswell, C., Brooks, D., Decuir, A., Humphrey, T., Jacobs, K. & Sutton, K. (1986). Development and implementation of a music-activity therapy intake assessment for psychiatric patients. Part II: Standardization procedures on data from psychiatric patients. *Journal of Music Therapy*, 23, 126-141.

Assessment and evaluation is an essential part of music therapy practice. Standardized music therapy intake assessment tools are readily available and in use.

Dalton, T. A., & Krout, R. E. (2005). Development of the grief process scale through music therapy songwriting with bereaved adolescents. *Arts in Psychotherapy*, 32, 131-143.

The authors developed a music therapy driven grief processing assessment that was piloted tested with bereaved adolescents who participated in songwriting interventions. Results suggested that the songwriting treatment helped the adolescents (n = 20) improve in their grief processing scores (GPS) across all grief domains as compared to control participants. The GPS proved to be workable and did not appear to be too cumbersome in its implementation.

### ***Books and Other Online References***

Laurier, W. (n.d.). *Music therapy for stress and anxiety*. CAMT. Retrieved from <http://www.mtabc.com/examples/stress.htm>

A brief discussion of the research literature in music therapy and summary on the effects of music therapy interventions on stress and anxiety.

Loewy, J. & Frisch-Hara, A. (2007, 2002). *Caring for the caregiver: The use of music and music therapy in grief and trauma*. Silver Spring, MD: American Music Therapy Association.

This publication resulted from the work of the NYC 9-11 Music Therapy Relief Project. The project was sponsored by the American Music Therapy Association with underwriting support from the National Academy of Recording Arts and Sciences. The nine-month project, (October 2001 through June 2002) was composed of 20 community programs and took place in schools, senior centers, healthcare facilities and other locations throughout the New York City metropolitan area. Thirty-three professional music therapists provided direct client service, facilitating over 7,000 music therapy interventions. Crisis workers, therapists, counselors, social workers, nurses, teachers, school administrators, and guidance counselors were also recipients of music therapy through this project.

Sutton, J. P. (Ed.). (2002). *Music, music therapy and trauma: International perspectives*. London: Jessica Kingsley.

This is a book with contributions from music therapists practicing in the area of trauma from numerous locations, including war zones, post-war and disaster recovery settings.

### **Selected Findings from Music Therapy Research Literature in the Context of Helping Clients Manage Arousal States**

Patient preference and musical elements: Overall, there is good evidence from formal research indicating that responsiveness to music is primarily driven and motivated by personal preference. Therefore, music that one person may find conducive to a special purpose may be less so for another individual. In the case of youth and adolescence, there is a strong affinity to popular music and active/interactive music therapy intervention. In the clinical setting, when the aim is to minimize anxiety and avoid or control (titrate) arousal triggers among traumatized individuals, the selection of music may be a function of the musical elements as well as client preference. The intrinsic musical properties of rhythm, melody, harmony, timbre, lyrics, and form drive the selection of music. The music therapist is a skilled musician as well as a clinician capable of incorporating a wide range of live music to the client.

Properties of music aimed at avoiding high arousal states typical in PTSD and anxiety disorders: Music therapists often use music without spoken words/lyrics, although 'vocables' (non-language use of voice) are acceptable. Depending on the therapeutic goal, lyrics may activate cognitive and neocortex processing, which can in turn risk triggering a listener with PTSD. Music with mid- and lower range instrumentation is preferred over higher pitched instruments (such as small flutes, high percussion, etc.). Higher frequency instruments and key centers tend to increase arousal states while lower range/frequency music encourages grounding and a sense of current awareness. Moderately slow, steady rhythm is preferred over highly variable rhythms, changing meter and long sustained arrhythmic phrases and melodies. Music with steady state rhythm fosters entrainment and more regular breathing. Repetitive melody is preferred over highly varied and changing melody. Repetitive steady state melody also fosters entrainment and a sense of familiarity that supports grounding and current awareness. Tempos about the rate of a relaxed heart beat (60 - 70 beats per minute) tend to foster a relaxation response although they do not need to be excessively slow if the aim is to mitigate waiting room anxiety. Tempos that are very slow tend to aggravate anxiety as do tempos that are very rapid or irregular. Attention is made to all the musical elements individually; and, within the gestalt they create, choose the most supportive pieces of music for music programming. Live music has been shown to have more clinical value over recorded music, whenever possible. The clinic waiting room can become a pre-appointment intervention opportunity to target simple patient objectives

such as patient education or improving mindfulness and awareness of internal resources through structured music listening exercises.

Contraindications: Clients with active hallucinations or psychosis should not be presented with highly evocative music (songs that may stimulate imaginable or sensory-based responses). Some clients in high arousal states or acutely depressed may be sound sensitive – with or without aggravated tinnitus symptoms. Therefore, volume levels should be relatively low. Clients with difficulty in self-regulation and/or experiencing some level of dissociative symptomology may be easily aroused by highly evocative music. While this may be useful in a controlled therapeutic setting, caution is advised in unsupervised settings.