

# the Evidence behind using Music Therapy with Children with Special Needs

Researchers at the Institute for Music Therapy in Germany conducted a pilot study involving 12 children between 4 and 6.5 years of age with developmental ages of between 1 - 3.5 years to monitor the **effects of music therapy on the children's cognitive development**. The children were randomly selected to one of two groups; the children in the first group received individual music therapy for a period of three months, and the children in the second group were used as a control group.

The results, **after the first three months, revealed significant developmental improvements** including better hearing and speech, improved eye-hand co-ordination, and improved communications skills in the children in the music therapy group which were not seen in the control group. Furthermore, when the groups were reversed for the following three months, the second group who were then receiving music therapy were seen to catch in the those areas of development.

*D.Aldridge, G Gustoff and L Neugebauer. A Pilot study of music therapy in the treatment of children with developmental delay. Complementary Therapies in Medicine (1995)3,4,197-205*

## A UNIQUELY DESIGNED MUSIC THERAPY PROGRAM SUPPORTS:

- relationships, learning, self-expression, and communication.
- improved attention. It is highly motivating and engaging and may be used as a natural "reinforcer" for desired responses. Music therapy can stimulate clients to reduce negative and/or self-stimulatory responses and increase participation in more appropriate and socially acceptable ways.
- individuals without language to communicate, giving opportunity for participation and expression non-verbally. Very often music therapy also assists in the development of verbal communication, speech, and language skills through shared play, turn-taking, listening and responding to another person
- individuals with diagnoses on the autism spectrum the opportunity to develop identification and appropriate expression of their emotions.
- brain process development in both hemispheres. Music can stimulate cognitive functioning and may be used for remediation of some speech/language skills.
- concrete, multi-sensory stimulation (auditory, visual, and tactile). The rhythmic component of music is very organizing for the sensory systems of all people. As a result, auditory processing and other sensory-motor, perceptual/motor, gross and fine motor skills can be enhanced through music therapy.
- security and familiarity, encouraging clients to attempt new tasks within a predictable but flexible framework.
- successful experiences. Emphasis is placed on ability strengths.

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A review of the music therapy literature delineates at least **three broad domains of functioning where music therapy has been successfully utilized in the treatment of emotionally disturbed children**: affect regulation, communication and social/behavioral dysfunction. Assessment and intervention in each of these domains requires strong grounding in developmental theory, a key component in the training of music therapists. Early on, music therapy was identified as an intervention to treat impairments in affective functioning, including reducing levels of anxiety (Cooke, 1969), and as a tool to improve emotional responsiveness (Wasserman, 1972). Music therapy has been well-suited to help improve communication deficits and stimulate nonverbal communication. Numerous positive outcomes in improving social functioning, social awareness and cooperation (Werbner, 1966), and decreasing disruptive behaviors (Hong et al., 1998) have been reported. One of the major contemporary applications for music therapy is working with children who have serious emotional disturbances and high degrees of impulsivity and limited ability to self-regulate (Layman et al., 2002).

Cooke RM (1969), The use of music in play therapy. *J Music Ther* 6(fall):66-75.

Hong M, Hussey D, Heng M (1998), Music therapy with severely emotionally disturbed children in a residential treatment setting. *Music Therapy Perspectives* 16(2):61-66.

Layman D, Hussey D, Laing S (2002), Foster care trends in the United States: ramifications for music therapists. *Music Therapy Perspectives* 20(1):38-46.

Wasserman N (1972), Music therapy for the emotionally disturbed in a private hospital. *J Music Ther* 9(2):99-104.

Werbner N (1966), The practice of music therapy with psychotic children. *J Music Ther* 3(1): 25-31. Green-Field Library Call No.: WM 220 B419 1998

The purposes of this pilot study were two-fold: First, to document and compare attentive behavior during music and play-based group instructional sessions and second, to document and compare 4 group participation behaviors during music and play-based sessions. The 4 group participation behaviors included facing a central speaker, following onestep directions, manipulating objects according to their function, and remaining seated. Six of the 12 children enrolled completed the study, with all participants enrolled in an early intervention program due to visual impairments. Study participants were between the ages of 4 and 6 years inclusively. Children participated in 4, 30-minute instructional sessions. Two instructional sessions were music-based and two were play-based with the 4 sessions equally distributed across a 2-week period. An ABBA design was used to control for possible order effects. Each session was videotaped to facilitate collection of behavioral data. Statistical analysis of these data revealed **that attentive behavior was significantly higher during music based-sessions** ( $t(5) = 5.81$ ;  $p = .002$ ). Mean scores for the remaining group participation behaviors were higher in the music condition, but these differences were not statistically significant. Discussion regarding differential outcomes among participants, as well as an exploration of theories related to music, arousal, and attention are discussed in an effort to guide future research.

**Music interventions and group participation skills of preschoolers with visual impairments: raising questions about music, arousal, and attention.**

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