

Julie Guy, MT-BC & Angela Neve, MT-BC PO BOX 710772, San Diego, CA 92171-0772 info@themusictherapycenter.com 1.877.620.7688 fax & VM

# **Music Therapy & Deaf-Blindness Fact Sheet**

### **Definition:**

Deaf-blindness is a condition in which the combination of hearing and visual losses in children causes severe communication and other developmental and educational needs. These needs cannot be accommodated in special education programs solely for children with deafness or children with blindness or multiple disabilities. The major cases of deaf-blindness include various syndromes (Down, Trisomy 13, Usher), multiple congenital anomalities (fetal alcohol syndrome, hydrocephaly, maternal drug abuse), congenital prematurity, prenatal dysfunction (AIDS, Herpes, Rubella, Syphilis), or post-natal causes (asphyxia, head injury/trauma, meningitis, stroke). Some people are born deaf-blind, while others become impaired later in life because of accident or illness.

### **Incidence:**

There are over 11, 000 children (ages birth to 22 years) in the United States who have been classified as deafblind. It has been estimated that the adult deaf-blind population numbers 35-40, 000.

### **Characteristics and Need Areas:**

- **COGNITIVE:** The range of cognitive abilities is vast. Individuals may be extremely bright or have severe cognitive delays.
- SPEECH/COMMUNICATION: The challenge of learning to communicate is perhaps the greatest one that children who are deaf-blind face. Children who are deaf-blind must depend upon others to make language accessible to them. They may display little to no ability to see or hear.
- MOTOR SKILLS: Without vision, or with reduced vision, he or she will not only have difficulty navigating the world around them, but may also lack the motivation to make even the first step. Limited visual and/or auditory information may inhibit their natural curiosity. Some may feel insecure or frightened when moving about in an environment they can neither see nor hear clearly.
- **SOCIAL:** These children may be isolated by other peers and adults due to their disabilities. Socialization is limited because they may be victimized by ignorance about their needs. Social skills become difficult for them as they require others to initiate contact in order to communicate. Many adults, however, lead independent or semi-independent lives and have productive work and enjoyable social lives

# How can music therapy address the need areas for an individual who is deaf-blind?

**SPEECH**: The ability to communicate is the most important for the child who is deaf-blind. Music therapy can be structured to allow the child to learn and develop these communication skills by increasing vocalizations/speech patterns, pairing with sign language, and providing choice-making opportunities. For instance, a child can be presented with three instrument choices and select a preference through reaching, pointing and/or activating a switch for his or her preference. There are also great music Braille resources that aid in literacy through music experiences.

**COGNITIVE:** Music therapy methods which involve the principle of 'learning by doing' with emphasis on extensive sensory experience are crucial to the development of deaf children's neuromuscular feeling for music. Teaching the whole body through body movements in order to perceive musical vibrations, rhythms, musical dynamics or any musical element is a way of helping a deaf individual to construct his/her own concepts of music and consequently understand them. Movement and music used together to motivate and help a child to control his/her own body can be a particularly valuable means of express for a child.

### **GOAL EXAMPLE for COGNITIVE**

By (date), when a song about brushing is played, Joan will correctly follow the steps of brushing her teeth with minimal prompting/assistance and no protesting for 3/4 opportunities.

Baseline: Currently, Joan is very tactilely defensive when she is told to brush her teeth. She kicks, screams and spits out the toothpaste. She is very motivated and compliant when music is present so she may respond well to this task presented musically.

**MOTOR:** Music therapy can address needs in the motor domain by providing opportunities that facilitate purposeful movement. These opportunities allow the child to gather sensory information, communicate, and make choices. For instance, the music therapist may create customized "walking music" that provides a steady beat for the child to walk around the school campus. The music provides structure for the child and can be used as cue to start or stop. If the music stops, walking stops, and vice versa. Co-treatment with a physical therapist, occupational therapist or orientation and mobility specialist (O&M) enhances the effectiveness of music therapy and ensure that skills may be applied to other settings.

**SOCIAL:** In order to be more effective and successful in our society, we need to be social. Music therapy provides an opportunity for social training by giving deaf-blind children a positive experience with other peers and adults. This provides a success-oriented, normalized experience for children, giving them a more positive self-image. By participating in music groups and performances, the children feel more productive and engaged within society.

### **RELATED RESEARCH & READINGS:**

Braithwaite, B., & Sigafoos, J. (1998). Effects of social versus musical antecedents on communication responsiveness in five children with developmental disabilities. Journal of Music Therapy, 35(2), 88-104.

Chen-Hafteck, L. (1997). Music and language development in early childhood: integrating past research in the two domains. Early Child Development & Care. 130, 85-97.

Darrow, Alice-Ann (1990). The effect of frequency adjustment on the vocal reproduction accuracy of hearing impaired children. Journal of Music Therapy, 27(1), 24-33.

Darrow, Alice-Ann (1991). A Study of Public School Music Programs Mainstreaming Hearing Impaired Students. Journal of Music Therapy, 28(1) 23-29.

Fielding, G., & Bullis, M., (ed). (1988). Communication development in young children with deafblindness: literature review. Monmouth, OR, Teaching Research Publications.

Gfeller, Kate & Lansing, Charissa (1992). Musical perception of cochlear implant users as measured by the primary measures audiation: an item analysis. Journal of Music Therapy, 24(1), 18-39.

Godeli, M.R., Santana, P.R., Souza, V.H., & Marquetti, G.P. (1996). **Influence of background music on preschoolers' behavior: a naturalistic approach.** Perceptual and Motor Skills, 82, 1123-1129.

Gunsberg, A. (1988). Improvised musical play: A strategy for fostering social play between developmentally delayed and nondelayed preschool children. Journal of Music Therapy, 25(4), 178-191.

Harding, C., & Ballard, K.D. (1982). The effectiveness of music as a stimulus and as a contingent reward in promoting the spontaneous speech of three physically handicapped preschoolers. Journal of Music Therapy, 19(2), 86-101.

Hoskins, C. (1988). Use of music to increase verbal response and improve expressive language abilities of preschool language delayed children. Journal of Music Therapy, 25(2), 73-84.

Humpal, M. (1991). The effects of an integrated early childhood music program on social interaction among children with handicaps and their typical peers. Journal of Music Therapy, 28(3), 161-177.

Jellison, J. (1984). Structuring small groups and music reinforcement to facilitate positive interactions and acceptance of severely handicapped students in the regular music classroom. Journal of Research in Music Education, 32(4), 243-264.

Madsen, Sitka. (1991). The effect of music paired with and without gestures on the learning and transfer of new vocabulary: experimenter-derived nonsense words. Journal of Music Therapy, 28(4), 222-230.

Musical Training During Childhood May Influence Regional Brain Growth (2001). *Science Daily, May 11, 2001*. Retrieved February 25, 2004, from <a href="http://www.sciencedaily.com/releases/2001/05/010510072912.htm">http://www.sciencedaily.com/releases/2001/05/010510072912.htm</a>

Rogow, S.M. (1982). Rhythms and rhymes: developing communication in very young blind and multihandicapped children. Child: Care, Health, and Development, 8, 249-260.

Rowland, C. & Schweigert, P. (1989). **Tangible symbol systems for individuals with mutlisensory impairments**. Tucson: Communication Skill Builders.

Stremel, K., & Schutz, R. (in press). Functional communication in integrated settings for students who are deaf-blind. In N.G. Haring & L.T. Romer (Eds), Including students with deaf-blindness in typical educational settings. Baltimore: Paul H. Brookes.

Williman, L.M., French, R., and Tynam, D. (1992). **The use of sensory reinforcement to increase compliant behavior of a child who is blind and profoundly mentally retarded.** Clinical Kinesiology: Journal of American Kinesiotherapy Association, 46(3), 3-9,

Ulfarsdottir, L., & Erwin, P. (1999). **The influence of music on social cognitive skills.** The Arts in Psychotherapy, 26(2), 81-84.

Wallace, W.T. 1994. **Memory for music: effect of melody on recall of text.** Journal of Experimental Psychology: Learning, Memory & Cognition, 20, 1471-85.

Wylie, M. (1983). Eliciting vocal responses in severely and profoundly mentally handicapped subjects. Journal of Music Therapy, 20(4), 190-200.

# NATIONAL ORGANIZATIONS

## **American Music Therapy Association (AMTA)**

8455 Colesville Road, Suite 1000 Silver Spring, Maryland 20910, USA Phone: (301) 589-3300

Fax: (301) 589-5175 Email: info@musictherapy www.musictherapy.org

The National Information Clearinghouse On Children Who Are Deaf-Blind

DB-LINK Teaching Research 345 N. Monmouth Ave. Monmouth, OR 97361 Voice: 800.438.9376 TTY: 800.854.7013

TTY: 800.854.7013 Fax 503.838.8150

E-Mail: dblink@tr.wou.edu