

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 & Learning Disabilities Fact Sheet

Definition: Learning disabilities (LD) are neurologically-based processing problems that can interfere with learning basic skills such as reading, writing, or math. They can also interfere with higher level skills such as organization, time planning, and abstract reasoning. The types of LD are identified by the specific processing problem. "Learning Disabilities" is an "umbrella" term describing a number of other, more specific learning disabilities, such as dyslexia and dysgraphia. A common characteristic among people with learning disabilities is uneven areas of ability, "a weakness within a sea of strengths." In general, people with learning disabilities are of average or above average intelligence. There often appears to be a gap between the individual's potential and actual achievement. This is why learning disabilities are referred to as "hidden disabilities:" the person looks perfectly "normal" and seems to be a very bright and intelligent person, yet may be unable to demonstrate the skill level expected from someone of a similar age. A learning disability cannot be cured or fixed; however, with proper support and intervention, people with learning disabilities can achieve success in school, at work, in relationships, and in the community. In federal law, under the Individuals with Disabilities Education Act (IDEA), the term is "specific learning disability."

Incidence: Nearly 4 million school-age children have learning disabilities and they occur in approximately 1 in 59 or 1.69% or 4.6 million people in USA.

Characteristics and Need Areas:

- **COGNITIVE/ACADEMIC:** average or above average intelligence, difficulty listening and remembering, telling time, right from left, short attention span (distractible, restless and impulsive), difficulty with change and sequencing, poor memory, reverses letters, and frequently places letters in incorrect sequence
- SPEECH/COMMUNICATION: diminished receptive language, difficulty sounding out words, difficulty understanding words or concepts, delayed speech, difficulty discriminating between sounds
- MOTOR SKILLS: poor hand-eye (visual motor), gross and fine motor development and coordination
- **SOCIAL:** difficulty with discipline and following directions, wide spectrum of behaviors from withdrawn to hyperactive, and inappropriate responses to social situations, and low self-esteem and confidence

How can music therapy address the need areas for an individual with learning disabilities?

SPEECH/COMMUNICATION: Music can be used to practice and discriminate between sounds, aid in the development of receptive and expressive speech and language skills, improve choice making, communicate information/knowledge and develop an understanding of patterns of language. Co-treatment with speech therapists also enhances the effectiveness and rate of progress for children. This helps to facilitate the generalization of skills from the music therapy session to other settings.

COGNITIVE/ACADEMIC: Music can be used as mnemonic device to teach specific academic information such as a phone number, address, and other factual information. Customized consultation music therapy kits for a specific skill (e.g. learning the letters of the alphabet) can be created for family and therapists with included visuals, song lyrics, and a CD with a motivating, fun musical song to rehearse and check for understanding of the skill. In addition, the inherent structure of music provides predictability, is motivating and captivating, which often results in increased compliance and on-task behavior.

GOAL EXAMPLE for ACADEMIC

By (date), given melodic cueing and picture cards, Amanda will demonstrate the ability to sequence three steps of a story (first, second, and third) by manipulation of three picture cards and retell in her own words for 75% of opportunities with minimal prompting.

Baseline: Amanda is unable to tell the steps of a story. Due to her increased motivation and attention when music is present, music provides an enhanced way for Amanda to learn this task.

MOTOR SKILLS: Music therapy is effective in improving hand-eye coordination and gross and fine motor skills through instrument playing. Specific instruments can be selected to address the difficulties of an individual. For example, if a child has difficulty tracking and catching a ball, a drum (held by the therapist) and a mallet (held by the child) can be moved to different locations around the child and the child has to track and strike the drum as it moves. Music therapy can also address problems with coordination by providing a steady pulse with which to synchronize movements. Music and movement activities may include following simple directions in song (clap hands, stomp feet). Co-treatment with an occupational or physical therapist also may enhance the effectiveness of music therapy strategies.

SOCIAL: Music therapy is a motivating setting in which a child's social skills can be enhanced. The child can practice following directions, role-playing appropriate responses to social situations and participate in a group experience with peers. Social song stories can be created specifically for the child to address areas of need. These social song stories are used in many ways and can be role-played and generalized outside of the music therapy session. Another technique that may be used is songwriting, which can encourage creativity and emotional expression. Each group member may contribute an idea or word to a song the group is writing. In this way, music can be used to create a successful experience where the child can enhance his or her self-esteem with other peers.

RELATED RESEARCH:

Bottari, S.S., & Evans, J.R. (1982). Effects of musical context, type of vocal presentation, and time on the verbal retention abilities of visual-spatially oriented and verbally oriented learning disabled children. *Journal of School Psychology*, 20(4), 329-338.

- 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.
- Buday, E.M. (1995). The effects of signed and spoken words taught with music on sign and speech imitation by children with autism. *Journal of Music Therapy*, 32(3), 189-202.
- Briggs, C. (1983). Music and the child with specific learning disabilities. In L. Kerans (Ed.), *Readings: Developing arts programs for handicapped students* (pp 98-100) Lancaster, PA: Pennsylvania Department of Education.
- Brodeur, J. (1990). Music as a therapeutic tool to increase social skills in the learning disabled child. Proceedings from the sixteenth annual conference of the Canadian Association for Music Therapy (pp. 112-114). Sarina, Ontario: Canadian Association for Music Therapy.
- Castles, A., Datta, H., Gayan, J., & Olson, R.K. (1999). Varieties of developmental reading disorder: Genetic and environmental influences. *Journal of Experimental Child Psychology*, 72, 73-94.
- Chan, A., Ho, Y., & Cheung, M. (1998). Music training improves verbal memory. Nature, 396(6707), 128.
- 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.
- Claussen, D., & Thaut, M. (1997). Music as a mnemonic device for children with learning disabilities. *Canadian Journal of Music Therapy*, *5*, 55-66.
- Colwell, CM. (1994). Therapeutic applications of music in the whole language kindergarten. *Journal of Music Therapy*, 31(4), 238-247.
- DeFries, J.C., Olson, R.K., Pennington, B.F., & Smith, S.D. (1991). Colorado reading project: An update. In D.D. Duane & D.B. Gray (Eds.), *The reading brain: The biological basis of dyslexia* (pp. 53-87). Parkton, MD: York Press.
- Gfeller, K.E. (1984). Prominent theories in learning disabilities and implications for music therapy methodology: *Music Therapy Perspectives*, 2 (1), 9-13.
- Gfeller, K. (1983). Musical mnemonics as an aid to retention with normal and learning disabled students. *Journal of Music Therapy*, 20(4), 179-189.
- 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. (music enhances child to child interaction)
- 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.
- Kathleen Helfrich-Miller (1994). A Clinical Perspective: Melodic Intonation Therapy for Developmental Apraxia. *Clinics in Communication Disorders*, 4(3).
- Ma, Y., Nagler, J., Lee, M., & Cabrera, I. (2001). Impact of music therapy on the communication skills of toddlers with pervasive developmental disorder. *Annals of the New York Academy of Sciences*, 930, 445-7.
- Montello, L. (1998). Effects of active versus passive group music therapy on preadolescents with emotional, learning, and behavioral disorders. *Journal of Music Therapy*, 35(1), 49-67.
- Musical Training During Childhood May Influence Regional Brain Growth (2001). *Science Daily, May 11, 2001*. Retrieved February 25, 2004, from http://www.sciencedaily.com/releases/2001/05/010510072912.htm

- Olson, R. K., Wise, B., Conners, F., Rack, J., and Fulker, D. (1989). Specific deficits in component reading and language skills: Genetic and environmental influences. *Journal of Learning Disabilities*, 22(6), 339-348.
- Overy, K. (2000). Dyslexia, temporal processing and music: the potential of music as an early learning aid for dyslexic children. *Psychology of Music*, *28*, 218-229.
- Steele, A.L. (1984). Music therapy for the learning disabled: Intervention and instruction. *Music Therapy Perspectives*, 1(3), 2-7.
- Toolan, P., & Coleman, S. (1994). Music therapy, a description of process: Engagement in five people with learning disabilities. *Journal of Intellectual Disability Research*, 38(4), 433-44.
- 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(14), 71-85.
- Wolfe, D., & Hom, C. (1993). Use of melodies as structural prompts for learning and retention of sequential verbal information by preschool students. *Journal of Music Therapy*, 30(2), 100-118.

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

Learning Disabilities Association of America (LDA)

4156 Library Road Pittsburgh, PA 15234-1349 Phone: (412) 341-1515 Fax: (412) 344-0224

Email: info@LDAAmerica.org

www.ldanatl.org