A music therapy clinical case study of a girl with childhood apraxia of speech: Finding Lily’s voice

Beth Beathard, BM, MT-BC, Robert E. Krout, EdD, RMTh, MT-BC *

Music Therapy Program, Southern Methodist University, Dallas, TX, United States

Abstract

This clinical case study describes a 3-year-old girl diagnosed with childhood apraxia of speech and her progress in weekly music therapy. The child was seen for a total of 24 sessions over a period of 9 months. The music therapy treatment involved a mixture of behavioral, improvisational, and creative approaches in what has been termed a data-based music therapy approach. A variety of musical interventions, visual, and interactive aids were used, as well as an engaging, playful dialogue between child and the clinician. The child’s communicative methods at the beginning of her treatment process were almost exclusively non-verbal. By the final session, she was pronouncing a number of syllables, combination sounds, and words. The treatment program is described as it unfolded in three phases, and significant events from each individual session are described in detail.

© 2008 Elsevier Inc. All rights reserved.

Keywords: Childhood apraxia of speech; Music therapy

Apraxia, or absence of speech, has been defined as the inability to articulate sounds necessary for successful speech or language production (ASHA, 2007; Cohen, 1992; Cohen & Masse, 1993; King, 2007; Velleman, 2002). Production of speech depends on the precise motor coordination of the structures of the respiratory system, larynx, pharynx, and oral cavity (Cohen & Ford, 1995; Coulson, 2004; Darley, Aronson, & Brown, 1975; Strand, 2001; Strode & Chamberlain, 2006; Van Riper & Emerick, 1984). Poor function and/or coordination of these oral neuromuscular movements may result in multiple and inconsistent articulation errors (Cohen, 1994). Children with apraxia of speech have difficulty in planning and producing the specific and coordinated movements of the lips, tongue, jaw, and palate necessary for speech (ASHA, 2007). Impaired speech prosody has also been described as an identified feature of childhood apraxia of speech (Peter & Stoel-Gammon, 2005). Childhood apraxia of speech (CAS) is sometimes termed verbal apraxia, verbal dyspraxia, or developmental apraxia of speech (CASANA, 2007). The term CAS is used in this paper for consistency.

CAS is thought to be present from birth, although testing and an accurate diagnosis may not be able to be made by the speech language pathologist until age 2 (CASANA, 2007). It is thought to be different from what is termed a developmental delay of speech. Children with apraxia of speech often evidence a wide gap between their receptive language abilities, which may be developing normally, and their verbal expressive abilities (CASANA, 2007). While some authors believe that CAS is a disorder related to overall language development, others have suggested that it may be a neurological disorder affecting the brain’s ability to send the necessary signals for the child to move the muscles required for speech (NIDCD, 2007).

* Corresponding author at: Division of Music, Meadows School of the Arts, Southern Methodist University, P.O. Box 750356, Dallas, TX 75275-0356, United States. Tel.: +1 214 768 3175; fax: +1 214 768 4669.

E-mail address: rkrout@smu.edu (R.E. Krout).

0197-4556/$ – see front matter © 2008 Elsevier Inc. All rights reserved.

doi:10.1016/j.ajip.2008.01.004
As the child grows and matures, CAS usually results in reduced verbal expression and poor acquisition of expressive language skills. Social interactions between the child with apraxia and other children may also be adversely affected due to these poor speech and language skills (Cassidy, 1992). The first 3 years of life, when the brain is developing and maturing, is the most intensive period of speech and language development (Coulson, 2004). As such, children with expressive verbal disorders such as apraxia of speech frequently undergo various speech therapy interventions to address the inconsistencies of the oral musculatory structures. As Strand (2001) states, “Sounds usually targeted for speech therapy are those that are earlier-developing or the easiest to elicit and then progress to later developing sounds” (p. 300).

The acquisition of language and/or speech for a child with apraxia of speech may require extensive instruction, practice, repetition, and time. Music interventions can be developed to target and develop specific speech sounds, complementing the work of the speech language therapist. Children with apraxia of speech who lack the motivation to participate in conventional speech therapy drills and exercises may enjoy, and thus be motivated by, music interventions (Adamek & Darrow, 2005; Braithwaite & Sigafos, 1998; Kennelly, Hamilton, & Cross, 2001; Knoll, 1998; Nelson, Anderson, & Gonzales, 1984; Thaut, 1984). For instance, singing may provide an alternative and pleasurable avenue for communication while simultaneously addressing speech therapy goals (Cohen, 1994; Keith & Aronson, 1975; Thaut, 1984).

There have been relatively few research studies or case reports in the literature that specifically describe the use of music or music therapy with children diagnosed with apraxia of speech. Rosenbeck, Hansen, Baughman, and Lemme (1974) described the use of music in a case study of a 9-year-old girl with CAS. At the end of 22 sessions, the child’s speech was observed to be more intelligible than before beginning music therapy treatment. In a study by Gillis (1980), instructed singing was used to help remediate the apraxia of speech in two young children. Significant improvements in the children’s spontaneous speech were observed. In a study by Krauss and Galloway (1982), two young boys with CAS and developmental language delays received 2 months of speech language therapy followed by the same treatment with the addition melodic intonation therapy (MIT) as a warm-up. The authors reported significant gains in the boys’ phrase length, noun retrieval, and verbal imitation tasks. Wheeler (1999) conducted a qualitative study in which she examined her experiences of pleasure in working with children with severe and multiple disabilities. Included in the study were two girls with CAS, aged 7 and 12 years. The author reported that speech gains were made by the children. These included producing vowel and consonant combinations and words during drumming and other instrument playing interventions.

The following clinical case study describes music therapy work over a period of 9 months with a child who will be called Lily, a 3-year-old girl diagnosed with CAS. It should be noted that this was not an example of case study research, as the essential aspects of a defined research method, various forms of data collection and analysis, and data analyses that are checked by peers or members were not included (Smeijsters & Aasgaard, 2005). Rather, this was a descriptive clinical case study, a detailed report following the progression of an individual client through a number of sessions and phases of music therapy treatment as they developed based on the emerging needs of the client (Bruscia, 1991; Hanser, 1999).

The following background information was obtained from Lily’s parents as part of the referral and intake procedures.

Lily-background information

Born December 3, 2002, Lily was a healthy baby weighing 3.63 kg. Lily did not babble or coo as an infant, and was a relatively quiet baby overall. Early developmental milestones were initially within normal limits. However, her parents began to notice problems in the areas of gross motor movement and speech. She rolled over at 6 months, sat up at 11 months, and finally walked independently at the age of 2 years. A diagnosis of hypotonia was given by her developmental pediatrician for the apparent gross motor difficulties. Lily did not attempt the vocalization of any sounds, with the exception of a period of time where she squealed and screamed. When questioned, both her physician and developmental pediatrician stated that Lily’s language and communication abilities might be simply delayed. Desperate to provide her with a method of communication, Lily’s parents taught her American Sign Language (ASL).

Hearing tests and an MRI were both within normal limits, and she seemed to process cognitive information appropriately. By the age of 20 months, Lily had demonstrated (by signing) that she knew all her colors, shapes, and the numbers 1–10. She communicated (also by signing) that she knew at least half of the capital letters and appeared to understand the concepts of counting, sorting, and comparing (e.g. same or different, bigger or smaller). Sensory issues,
دریافت فوری
متن کامل مقاله

امکان دانلود نسخه تمام متن مقالات انگلیسی
امکان دانلود نسخه ترجمه شده مقالات
پذیرش سفارش ترجمه تخصصی
امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
امکان دانلود رایگان ۲ صفحه اول هر مقاله
امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
دانلود فوری مقاله پس از پرداخت آنلاین
پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات