



The Specialist Role of the Music Therapist in Developmental Programs for Hospitalized Children



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ABSTRACT

Music therapy is used to address the needs of hospitalized children in the attainment of their normal growth and development milestones.

Clinical practice literature proposes that the achievement of musical milestones parallels the developmental competence achieved in the areas of gross motor and fine motor skills; speech, language, and communication skills; sensory motor skills; and social and interactive skills. Pediatric health care workers are encouraged to use music appropriately in their work settings and, where possible, consult and liaise with a registered music therapist, that is, a trained and qualified practitioner, to achieve best practice outcomes in this field.

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In this article, the role of the specialist music therapist in offsetting the negative impact of hospitalization on a young child's development is discussed. Music therapy, when adopted as part of the multidisciplinary allied health team, supports, maintains, and extends a variety of physical, cognitive, language, and social skills that are vital for a normal child's growth and development. Case vignettes, which form part of a music therapy program established in an Australian pediatric hospital, are presented to illustrate the techniques used. In addition, future considerations for the ways in which developmental music therapy can be researched in this context are proposed.

HOSPITALIZATION AND PLAY

In the early childhood years, children are busy learning a myriad of skills rapidly, consecutively, and proficiently. When very young children experience a long hospitalization, concerns regarding their overall development inevitably arise. The impact of the illness/injury, the hospital environment, and various operations and procedures can affect the child's growth and development (Haslum, 1988; Ludman, Lansdown & Spitz, 1992; Wong, 1993; Wright, 1995). Alternatively, a child's development may also be delayed because of chronic illness, disease, or disability before any period of hospitalization. Therefore, the term *developmental delay* used in this article describes a child's development that is delayed as a result of hospitalization and also a child's development that was delayed before any period of hospitalization.

Lansdown (1996) described play as the "food and drink of mental growth" (p. 63); an essential requirement for a child's well-being and development. When a child is hospitalized, the quality of their play can be diminished, which in turn can impede the achievement of normal developmental milestones.

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A child's growth and development are complex processes that involve numerous components. At different ages, specific developmental milestones must be successfully achieved before the next developmental stage can be entered (Batschaw, 1997; Gething, Papalia, & Wendkos Olds, 1996; Wong, 1993). In the pediatric setting, a range of clinical allied health therapies such as music therapy, occupational therapy, physiotherapy, and speech pathology work together to address the multidimensional and multilayered components of these skill areas. Such areas include the development of gross and fine motor skills, sensory motor skills, speech, language and communication skills, and social and interactive skills. It has been well documented that this developmental delay in hospitalized children is best addressed through a multi-skilled multidisciplinary approach (Eddey, Robey, & Malik, 1995; Jansen et al., 1989). The music therapist brings specialist skills in therapy, music knowledge, and musical development, which contribute to the perspective of the team regarding the child.

MUSIC THERAPY AND DEVELOPMENTAL DELAY

In the first few years of life, a young child's music making gradually begins to incorporate physical, mental, and socialization processes. Just as children's all-round development mirrors aspects of their musical development, so musical development can contribute to other facets of children's development—their thinking processes, language acquisition, control and co-ordination of body movements, orientation to the space around them, ability to relate to others, and development of self-control and self-esteem (Bridges, 1994; Radocy & Boyle, 1997; Taylor, 1990; Trehub & Trainor, 1993).

Music is a stimulating, fun, and evocative medium to work with, and young children seem particularly responsive to this medium. The music therapist uses these facets to initially engage the child and then stimulate and encourage developmental skills. The various elements of rhythm, melody, timbre, texture, tempo, and dynamics that form the basis of music listening, singing, playing, and improvisation can all have an impact on and create change in the physiologic, psychologic, and emotional components of a child's normal growth patterns (Taylor, 1990). These elements may then be inte-

grated in the process of developmental skill attainment and used to stimulate and encourage age-appropriate responses.

From as early as the 16th week in utero, early musical development for the fetus has begun in the areas of hearing, movement, orientation to the space around the body, and touch (Bridges, 1994; Taylor, 1997). Throughout life, a child experiences music in many forms, from passively listening to lullaby music as a newborn infant or engaging actively in body awareness songs as a toddler. Music can attract, distract, comfort, support, maintain, and extend a child's abilities in achieving normal growth and development.

Music therapy is the planned and creative use of music to meet the physical, emotional, social, psychological, and spiritual needs of people of all ages.

Radocy and Boyle (1997) describe music as "a phenomenon of man...music serves functions beyond the aesthetic" (p. 163). They claim that theories of melodic speech and communication closely parallel and interlink with normal growth and consequently are important to the attainment of milestones in a child's development.

Activities such as listening to, writing, singing, playing, and moving to music have a variety of known stimulative effects. The cerebral processing of auditory stimuli has been shown to activate and assist many developmental skills necessary for normal growth (Rider & Eagle, 1986; Taylor, 1997; Trehub & Trainor, 1993). The music therapist uses this knowledge to assess and extend the child's skills.

Briggs' (1991) proposed a model of musical development that is primary to the knowledge base of music therapy in this area. This 4-phase model of musical development includes the reflex phase (0-9 months); intention phase (9-18 months); control phase (18-36 months); and inte-

gration phase (36-72 months). Each phase is then categorized according to 4 specific areas of musical development, that is, auditory, vocal/tonal, rhythmic, and cognitive. When children reach the age of 18 months, they enter the control phase of musical development. Their musical milestones in the vocal/tonal area would include the ability to shift from vocalizing sound blends to singing recognizable pitches and pitch contours. Briggs' model further extends the idea that music comprehension and skills have a developmental schema. This model integrates musical skills research with accepted models of child development. This schema is a useful guide in assessing developmental progress or delay for the hospitalized child.

The literature discussing the specialized role of the use of music therapy in meeting the needs of developmental delay with hospitalized children is limited. Authors, particularly from the nursing, allied health, and education disciplines, have continued to document their work and perceptions on the use of music to address normal growth and development with children (Davidson-Irwin, 1997; Klein & Winkelstein 1996; MacRae, 1992). The specialized use of music therapy by a qualified practitioner differs from the use of music as entertainment or in music education. Music therapy is the planned and creative use of music to meet the physical, emotional, social, psychological, and spiritual needs of people of all ages. Music therapy is practiced only by a university trained and registered music therapist.

Current music therapy literature pertinent to developmentally delayed children in the hospital provides descriptive information (Barrickman, 1989; Marley, 1996). Barrickman (1989) provided an overview of music therapy approaches and materials used to meet the developmental needs of preschool children in the hospital. This article focused on preschool children between the ages of 2 and 4 years and particularly outlined the musical abilities, responses, and interests that are realistic and age-appropriate for these children. The need for opportunities to activate motor activity, production and discrimination of musical sounds, and social development were considered important. Music therapy techniques, including singing familiar songs and use of parody, improvisation, and listening to music, provided

stimulation to support, maintain, and extend developmental skills in hospitalized children. Marley (1996) described the use of music therapy techniques and activities to address developmental needs of hospitalized children, for example, using voice pitch games with children between 23 and 36 months to encourage vocalizations.

MUSIC THERAPY AT ROYAL CHILDREN'S HOSPITAL

Music therapy was introduced at the Royal Children's Hospital, Brisbane, Australia, in 1993 by the School of Music at the University of Queensland following the introduction of an accredited music therapy course. Any member of the hospital clinical staff refers patients with developmental delay to music therapy. Patients can range from infants in the babies' ward (up to 9 months of age) to children and adolescents referred because of rehabilitation needs.

Upon referral, the patient is assessed and, if appropriate, observations take place during joint allied health sessions where the music therapist decides on methods and techniques to be used. The music therapist prepares, conducts, and evaluates a program prepared and implemented for each child or group of children. Such areas of need include gross motor and fine motor skills, speech, language and communication skills, social and interactive skills, and sensory motor skills.

Other staff such as occupational therapists, speech pathologists, and physiotherapists are consulted regarding assessment information and to identify ways in which the music therapy program can support and enhance the team goals. A multidisciplinary approach is recommended to meet and satisfy the needs of each individual program. Therapists must define the role of each practitioner in the session and outline the goals, objectives, and strategies for the program's implementation. Therapists need to be aware that some developmental sessions may not require a multidisciplinary approach and that at times members of each discipline may need to work with the child independently.

MUSIC THERAPY AND SPEECH, LANGUAGE, AND COMMUNICATION SKILLS

The speech pathology department at the hospital coordinated a 6-week group

program for children between 2 and 3 years of age. Each child had been referred to the speech pathology department because of a mild to moderate delay in his or her language development; both inpatients and outpatients were included.

Music therapy services were accessed to address the issue of language stimulation for these children. At least one caregiver of each child was present and involved in each session. Parents' goals were to extend their knowledge of specific language stimulation strategies through practical application of techniques such as following the child's lead, commenting, and modeling. Goals for each child were to receive language stimulation from their caregiver at an appropriate level corresponding to their developmental language level and to extend these skills.

The music therapy techniques used to address these goals included singing familiar songs, such as "Old MacDonald had a farm" and "Five Little Ducks," to encourage both vocalizations and verbalizations, and using improvised and new song material written by the music therapist (parodies) for oral stimulation, that is, gentle tapping along the outer edges of each child's mouth, along with oromotor stimulation songs incorporating kissing and blowing actions. These activities would often lead to other action songs, which assisted in the identification of other body parts, for example, "Put your finger on your nose...."

Music therapy was used to stimulate these areas of need for each child through the use of fun, familiar, engaging activities, which encouraged the maintenance and extension of these language skills. Feedback from both staff and caregivers involved in these sessions revealed that these children appeared to enjoy their therapy tasks much more, as they initiated appropriate language more often during and immediately after songs and other musical material were used.

MUSIC THERAPY AND GROSS MOTOR SKILLS

Adam, a 7-month-old boy, was admitted to the hospital following a diagnosis of influenza A and remained ventilated in the intensive care unit for 2 weeks. His lungs had been severely damaged, and now, back in the babies' ward, he remained in an isolated room where he received 40% to 45% oxygen. A headbox

made of clear hard plastic covered the upper half of his body. Adam was able to receive oxygen through this headbox, thus preventing the use of nasal prongs. Adam had achieved normal developmental milestones before the onset of this illness, but as his condition deteriorated, so too did his gross motor skills. He was able to be taken out of the headbox for short periods of time for additional physical activities; however, at such times Adam needed to be monitored closely, because he would become distressed and his oxygen saturation levels would drop quickly because of a lack of available oxygen. He was referred to music therapy for assistance and support in improving his gross motor skills during joint physiotherapy sessions. Adam's caregivers reported that Adam had always enjoyed listening to music and, depending on his mood and state of well-being, would respond appropriately to different types of music used.

During joint music therapy and physiotherapy sessions, Adam's mother joined in and interacted with Adam and the music therapist by singing and playing musical instruments. Known song material, such as children's nursery rhymes and traditional songs, for example, "Twinkle Twinkle" and "If you're happy and you know it" and improvised material, which would incorporate actions initiated by Adam, focused his attention. According to the physiotherapist, Adam's participation abilities during joint sessions were age-appropriate, which appeared surprising considering his present condition and the environment to which he was constantly exposed. However, his gross motor skills were the main area identified that required attention and ongoing treatment.

The physiotherapist and Adam's mother reported that Adam seemed to tolerate prone positions more positively and extended skills in areas of his trunk development whenever music therapy was used. These songs and instrumental material appeared to maintain and extend Adam's gross motor skills while also facilitating comfort and support whenever Adam became distressed.

MUSIC THERAPY & SOCIAL SKILLS

A 3-day program coordinated by the social work, speech pathology, and music therapy departments was conducted for a group of children aged 5 to 7 years.

These children had experienced a variety of hospitalizations since birth and were referred because of delays in their social skills. Both allied health staff and their caregivers were concerned because these children were preparing to enter primary school for the first time that year.

General aims for this group included greeting people appropriately; learning and applying "good talking tips," such as listening and maintaining eye contact; taking turns; sitting and attending to activities; following instructions and directions; identifying and expressing feelings; and cooperating with one another in group activities.

One of main music therapy techniques used was parody writing, that is, using a familiar song known to these children and rewriting lyrics to support the goals of the team. A "good talking tips" song was written by the music therapist (using a well known "Wiggles" song) and introduced to the group at the start of the program. By the end of the program, these children, together with staff and their caregivers, were all involved in singing and performing this song. Children who had first appeared shy and nervous about initiating any expression appeared to do so frequently, and particular skills such as cooperation, listening, and taking turns appeared to be extended. Music therapy techniques were used to stimulate, encourage, and support each child individually in achieving these skills in a manner that was normal, nonthreatening, and enjoyable.

CONCLUSION

From time to time it is assumed that music therapy is used to stimulate such responses and assist in a child's development only because it is fun, enjoyable, and a familiar medium to work through. This assumption may also suggest that any staff member in a hospital setting who has an interest in music or has completed some training in instrumental or vocal studies would have the appropriate and professional skills to undertake this type of developmental work with children. Staff should be encouraged to use music in this type of setting but also to recognize when music therapy and not music activities is required to meet the child's needs. Hospitals need to understand and acknowledge the role and music therapy qualifications of a regis-

tered practitioner. Hospitalized children require assessment, program management, and evaluation from a suitably qualified and experienced practitioner who has the professional knowledge and skills to undertake this type of work. Particular skills in knowing the milestones in a child's musical development and understanding how they are attained must also have been acquired by the therapist.

The use of music in a pediatric setting to assist in the achievement of developmental milestones is an attractive, fun, and evocative medium with which to work. Children in the hospital can be faced with a multitude of fears, concerns, apprehensions, and difficulties that can only have a further impact on and even delay their physical and emotional recovery from their illness and injury.

Hospitalized children require assessment, program management, and evaluation from a suitably qualified and experienced practitioner who has the professional knowledge and skills to undertake this type of work.

The development of musical milestones parallel and interlink with normal developmental milestones across such areas as gross motor skills, fine motor skills, speech, language, and communication skills, social and interactive skills, and sensory motor skills. Music can play a significant part in achieving these developmental goals. A more specific form of research is needed in this area to develop these ideas further.

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