Australian Music Therapy Association

Music Therapy in Disability Information Booklet

(Updated April 2019)

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Music Therapy

The purpose of this document is to enhance the understanding of music therapy for health professionals and members of the community. It clarifies to what music therapy is and is not, and how you access the professional services of a Registered Music Therapist (RMT). In addition, links are provided for further information about specific goal areas in which music therapy may be used. Each of these areas includes one example of research and one example of a case study to illustrate the ways in which music therapy assists people to build their capacity to participate in the broader community.

This document is intended as a guide only and does not include an exhaustive list of music therapy research and case studies in the disability sector.

If you would like more information on music therapy or how to become a Registered Music Therapist, please contact:

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Music Therapy Definition

"Music therapy is a research-based practice and profession in which music is used to actively support people as they strive to improve their health, functioning and wellbeing" (Australian Music Therapy Association, n.d.). Music therapy is a recognised allied health profession and AMTA is a member organisation of Allied Health Professions Australia (AHPA).

Registered Music Therapists (RMTs) are highly skilled musicians trained to facilitate music participation in ways that positively impact brain function, behaviour, physical, social and cognitive processes and emotions. RMTs work collaboratively with individuals, family members, support workers and other health professionals to determine and evaluate goals to achieve better health, wellbeing and participation outcomes for their clients.

Registered Music Therapists (RMTs):

- Have a Bachelor or Master's degree in music therapy from an AMTA accredited university training course (currently at The University of Melbourne and Western Sydney University) or an equivalent international tertiary degree
- Are required to be registered with the AMTA, abide by the AMTA Code of Ethics and complete a regular Continuing Professional Development program to maintain their registration
- Use methods that are informed by research and practice from around the world; and
- Work collaboratively towards specific health and wellbeing goals assessed as appropriate for an individual or group

RMTs use a range of techniques and music-making methods including singing, song writing, musical improvisation, receptive music listening and other speciality techniques within a therapeutic relationship to achieve specific goals. These goals may include psychosocial, communication, physical, cognitive and/or social goals. RMTs are employed in a variety of sectors including health, community, aged care, disability, mental health, early childhood, and private practice.

The University of Melbourne hosts the National Music Therapy Research Unit (NaMTRU) which conducts research into all aspects of music therapy and provides a research milieu in which graduate students can be supported and inspired to conduct research studies in music therapy intended to improve health and wellbeing. More than 50 graduate research projects have been conducted through the Research Unit, as well as large-scale projects funded by the Australian Research Council and the National Health and Medical Research Council.

Music Therapy and the National Disability Insurance Scheme

The National Disability Insurance Scheme is an initiative of the Australian Government administered by the National Disability Insurance Agency. It is an insurance-based approach designed to provide reasonable and necessary supports to Australians (under the age of 65) living with a permanent and significant disability and their families and carers. To reduce long term costs and ensure its sustainability, the National Disability Insurance Scheme invests early in people with a disability by increasing their well being, independence and community and workforce participation.

Music therapy has been recognised by the National Disability Insurance Association for inclusion in funded support plans under the support cluster of Therapeutic Supports. These services under Capacity Building, “are provided to assist participants aged from 7 years to apply their functional skills to improve participation and independence in daily, practical activities in areas such as language and communication, personal care, mobility and movement, interpersonal interactions and community living” (National Disability Insurance Agency, 2018, p.16). Music therapy is also approved for inclusion in Early Intervention Support for Early Childhood (p.14).

Music therapists may work in transdisciplinary teams with the family and other allied health professionals to maximise positive outcomes for participants. This may include co-leading therapy sessions, observing other professionals at work, attending team meetings, coaching others in the lead up to role release, sharing assessment and progress notes, and consultation about resources and equipment.

Frequency of sessions

Music therapy sessions may be weekly, fortnightly or less frequent depending on individual arrangements. The number of sessions required for a music therapy program is assessed on an individual basis, and is dependent on the success or otherwise of progress towards a participant’s goals. Music therapists, along with other allied health professionals are required to write a detailed report for the time of review of a participant’s plan. This report contains recommendations for further sessions if required and will include a plan clearly stating the expected therapy outcomes.

Evaluation

RMTs evaluate non-musical goals using a variety of evaluation methods, including quantitative and qualitative methodologies and standardized reporting procedures commonly used within allied health settings, such as SOAP evaluations (Subjective, Objective Assessment and Plan).

Music Therapy services funded by the National Disability Insurance Scheme under 'therapeutic support' does not include:

Community Music Groups
Many different people use music in a recreational or therapeutic manner. These may include community musicians who facilitate bands or community choirs or drumming workshops. You do not need to be a RMT to do this work, although some RMTs also work in this capacity. This work is not funded under therapeutic supports by the National Disability Insurance Scheme. This is seen as a mainstream support.

Music Lessons
Music teachers teach people how to sing or play instruments. You do not need to be a RMT to do this work, although some RMTs teach music as well. Music lessons are not funded under therapeutic supports by the National Disability Insurance Scheme, but may be funded under Capacity Building, 'Increased Social and Community Participation'.

Continuum of Music for Health and Wellbeing

Figure 1 illustrates some of the ways in which music may be used in everyday life and when music is used as part of a funded music therapy service.

Figure 1. *Illustration of what music therapy is and is not. Adapted from "AMTA Music for Health and Wellbeing Statement," by Thompson, G., Eager, R., McFerran, K., Shoemark, H., Grocke, D., Ceong-Clinch, C., O'Grady, L., Murphy, M., Baker, F., Milford, J., Blyth, L., Robertson-Gillam, K., Miles, L., Tamplin, J., Hogan, B., Arms, B. Australian Music Therapy Association (2015). Adapted with permission.*

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Target Need Area: Behaviour

For goals related to:

- Managing anger and frustration
- Managing challenging behaviour
- Increasing skills in behaviour regulation
- Promoting mood regulation
- Developing a positive behaviour plan
- Increasing community participation
- Increasing social engagement

How Can Music Therapy Help?

Challenging behaviours, or behaviours of concern, are seen as a major hurdle to community participation for some individuals with a neurological disability. For these individuals, everyday environmental stimulation can trigger distress, frustration, fear or other unsettling responses that may lead to behaviours of concern (Magee et al., 2011). Music therapy has been shown to provide individuals with positive behaviour support including mood regulation and management of behavioural triggers. Non-pharmacological approaches to mood regulation and behaviour management are increasingly utilised because of the reduced potential for negative side effects.

From the use of music to influence consumer behaviour in supermarkets to music-supported social bonding observed at concerts, evidence supporting the mediating influence of music on human behaviour continues to grow exponentially. Current evidence supports the use of music therapy interventions to reduce agitation, stress, anxiety and distress, and increase positive moods and social engagement in a broad range of populations (Bruscia, 2012; Forsblom, Laitinen, Särkämö, & Tervaniemi, 2009; Magee et al., 2011; Tseng et al., 2016). Music therapists design individually targeted programs to support mood and behaviour regulation to maximise opportunities for social and community participation.

Example of evidence:

A study conducted by Hakvoort and colleagues (2015) investigated the effect of music therapy on managing aggression, anger and dysfunctional behaviour for people with a psychosocial disability. Participants were randomly assigned to either 20 sessions of music therapy, which specifically targeted aggressive behaviour and anger (n=9), or an aggression management program (n=5). Standardised observational tools were used to assess participants in relation to anger, aggression and ability to manage these behaviours pre- and post- each condition. Results suggested that music therapy improves coping and management of anger and aggression under stress for people who have psychosocial challenges. Participants in the music therapy treatment condition showed greater changes in positive coping skills and less avoidance in coping and dealing with their behaviour than the aggression management group. The researchers concluded that participation in music therapy may accelerate the process of behavioural change in people with psychosocial disability, which improves their capacity to participate in their community.

Example of a case study

Professor Wendy Magee and colleagues discussed the successful use of music therapy interventions to de-escalate the aggressive behaviours of Vinny, a 32 year old male. Vinny presented with physically and verbally aggressive behaviours, and significant memory impairments as a result of a chronic acquired neurological condition. Because of his poor memory and impaired impulse control, traditional behavioural strategies had been ineffective in reducing Vinny's aggressive outbursts. During music therapy sessions, a song was written with Vinny to prompt his recall of behaviour management strategies and increase behavioural regulation. The melodic structure of the song was simple, repetitive and predictable and the tempo slow. These musical elements were utilised to provide structure to organise the behavioural management strategies for easy recall. With simple verbal prompts, Vinny was able to successfully utilise this song to self-initiate de-escalation of his aggressive behaviours both within and outside of the music therapy context. For Vinny, the song composed in music therapy provided a cognitively accessible tool to promote an increase in successful behaviour regulation (Magee et al., 2011).

Target Need Area: Behaviour

Australian Music Therapy Association

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Target Need Area: Cognition

For goals related to:

- Increasing memory
- Increasing attention; including sustained, alternating and selective attention
- Increasing executive functioning; including, planning, organisation, inhibition and self monitoring
- Developing emotional regulation
- Increasing sensory processing and integration
- Developing arousal and awareness
- Increasing initiation and motivation
- Increasing independence and community participation

How Can Music Therapy Help?

Making music is one of the most complex and demanding neurological tasks for the human brain (Zatorre, Chen, & Penhune, 2007). While musical expertise is a learned skill, almost every human being has a sophisticated network of neural systems that allows them to meaningfully perceive music, even those with neural disease, damage or delay (Zatorre, 2005). Imaging studies have revealed a complex bilateral network of cortical and sub-cortical structures are involved in the processing of music. This includes the frontal, temporal and parietal lobes, limbic and paralimbic structures, and the mesolimbic pathway that is associated with the dopaminergic reward system (Särkämö, Altenmüller, Rodríguez-Fornells, & Peretz, 2016). Through activation of these structures, music is known to increase arousal and attention, facilitate memory recall and consolidation, increase motivation and organisation, and support emotional and behavioural regulation. Music therapists utilise this knowledge to design music therapy interventions that address cognitive goals within a success-orientated framework.

Example of Evidence

A single group pretest/posttest study explored the use of Musical Attention Control training (a Neurologic Music Therapy technique) on attention in individuals aged 13-20 years with neurodevelopmental delays. Nine individuals participated in eight group music therapy sessions over a period of six weeks. During each session, the music therapist facilitated a number of targeted interventions, including structured drumming, structured and unstructured improvisation, song singing, therapeutic instrumental instruction and music-assisted relaxation. Each session was predictable in structure and interventions were targeted at sustained attention, selective attention and alternating attention (Pasiali, LaGasse, & Penn, 2014). Results of the study indicated positive trends for the use of music therapy interventions to improve attention. Posttest, study participants showed significant improvements in selective attention ($p<0.05$) and alternating attention/attention control ($p<0.05$) (Pasiali et al., 2014). Attention is fundamental in learning. Individuals with neurodevelopmental delays frequently present with attention deficits, resulting in an impaired ability to focus and integrate sensory information present in the environment. Targeted music therapy interventions may provide an engaging medium to increase selective and alternating attention to maximize ongoing learning and community engagement for individuals with neurodevelopmental delays.

Target Need Area: Cognition

Australian Music Therapy Association

Example of case study

Dr Petra Kern, an internationally recognised expert in working with children with autism spectrum disorders (ASD), published the case study of Phillip who was able to successfully utilise individually composed songs to increase his independence. Phillip, a three and a half year old, was assessed to have mild to moderate ASD. He had limited speech, showed limited social interactions with peers, engaged only in adult facilitated play and presented with stereotypic behaviours. Philip attended a community-based childcare program, however exhibited difficulties during the morning arrival transition, frequently screaming, crying or lying on the floor. The morning transition consisted of putting personal belongings away, entering the room, greeting carers and peers, engaging in play-based activities, then saying goodbye to parents. After initial assessment, the music therapist composed a song outlining the five steps of the morning transition routine. A recording of the song was also made and carers were trained in using this song. The intention of the song was to reduce Phillip's distress, provide structure and predicitability and increase independence during the morning transition routine.. An A-B-A-B withdrawal design was used where A was the existing baseline transition and B was the use of the song during the transition routine. Phillip was observed for a total of 28 transitions across two months. During the baseline conditions, Phillip completed an average of two (of five) steps independently. After nine sessions of intervention, Phillip was able to consistently perform four to five of the five morning transition steps independently with decreased distress. After the music therapy intervention period, other caregivers were able to implement the use of the transition song to increase independence and reduce transition-related distress for Phillip. The music therapist-composed transition song was able to increase Phillip's planning, organisation and emotional regulation to ultimately increase his independence (Kern, Wolery, & Aldridge, 2007).

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Target Need Area: Communication

For goals related to:

- Developing receptive language
- Developing expressive language
- Developing speech articulation and pronunciation
- Developing phonological awareness
- Managing stuttering
- Developing social communication skills; including social understanding, non-verbal communication and gestures and the ability to use language for different purposes
- Decreasing social isolation

How Can Music Therapy Help?

Human beings are innately musical and the ability to meaningfully process music is present from birth. The prosodic or musical elements of early parent-child interactions promote emotional and social communication before the capacity for language has developed (Trehub, 2010; Trevarthen, 2011). A music therapist utilises this knowledge to support the development of fundamental social communication skills in individuals who are non-verbal, pre-verbal or who present with communication difficulties as a result of congenital, acquired or degenerative conditions.

The phenomenon of individuals who cannot speak but are able to sing is well documented (Thaut, 2008). Singing and speaking are natural pathways for human expression as they share the common elements of melody, rhythm, articulation and phrasing. However, these elements are exaggerated during the engaging and motivating musical medium of singing (Cohen, 1992; Tamplin & Baker, 2017). Additionally, the global neural processing of music may render it a more robust neural stimulus than language. Music is processed throughout a global network of cortical and subcortical brain structures, with strong connections in the limbic system's emotional core. As a result of this, the ability to meaningfully process music may remain intact despite significant deficits or damage (Gentle, Barker, & Bower, 2015). Music therapy is therefore uniquely placed to support communication goals in individuals who may have difficulty processing and responding to traditional speech therapy methods.

Example of Evidence

A 2014 Cochrane review examined the effects of music therapy interventions on communication and social interaction in children up to 12 years of age with autism spectrum disorders. The review included 10 RCTs (n=165). The music therapy interventions were facilitated by qualified music therapists and included improvisation, song singing and facilitated vocalising, and active listening to live or recorded music. Intervention duration ranged from short term to medium term (5 days to 7 months). Participation in music therapy interventions resulted in improved social interaction and communication within therapy session and outside of music therapy sessions. Participation in music therapy interventions also resulted in improved non-verbal and verbal communication. Specific reported outcomes included increased eye contact, increased communicative gestures or signs, and an increase in words produced and phrases understood (Geretsegger, Elefant, Mössler, & Gold, 2014).

Target Need Area: Communication

Australian Music Therapy Association

Example of case study

A case study published by Dr Blythe LeGasse, an Associate Professor of Music Therapy at Colorado State University, describes the role of music therapy in addressing speech and communication goals for Daniel, a six year old boy with Down Syndrome. Daniel was assessed to have severely delayed speech articulation, vocabulary and sentence use and a significantly impaired ability to effectively utilise speech to communicate his needs. Daniel was described as being non-compliant in traditional speech therapy interventions and his speech deficits were negatively impacting his ability to meaningfully interact with his peers. Following an in-depth assessment, Daniel participated in a music therapy program of weekly 1:1 interventions for a period of 3 months. A home practice program was also provided. Music therapy techniques used during the music therapy sessions included Developmental Speech and Language Training through Music, a Neurologic Music Therapy technique (Thaut & Hoemberg, 2014). Functional communication was paired with developmentally appropriate musical experiences. Rhythmic cues provided by a metronome were used to prime the required oromotor skills for verbalisation, provide external pacing for speech/singing production and increase comprehensibility. Articulation practice was paired with rhythmic body movements to re-enforce sound production, singing was paired with picture cards to increase vocabulary and improvised songs used to reinforce and extend the development of vocabulary.
At the completion of the 3-month music therapy treatment period, Daniel was consistently producing new phonemes at the beginning of words, his spoken vocabulary had increased to include additional intelligible words, and he was able to speak and sign two-word phrases (Bruscia, 2012)

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Target Need Area: Capacity Building for Community Participation

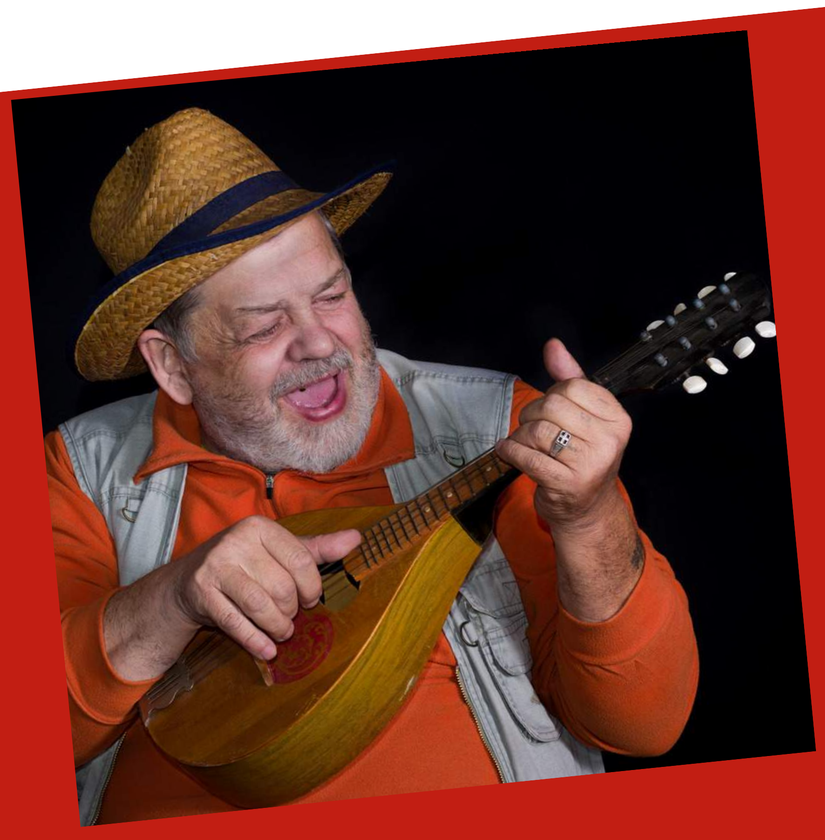
Australian Music Therapy Association

For goals related to:

- Developing a sense of empowerment
- Developing a sense of purpose
- Developing a sense of belonging and social connectedness
- Increasing community participation
- Increasing social inclusion
- Increasing opportunitites for choice and agency
- Developing peer relationships
- Increasing social interaction
- Increasing social responsiveness
- Increasing social skills

How Can Music Therapy Help?

Community engagement and meaningful interactions between people with disabilities and the wider comunity are often difficult to achieve due to the inherent barriers present for people with disabilities (Pavlicevic et al., 2013). Music therapy can help people connect with their community, both with peers within a music therapy group, and with community members outside of the group (Pavlicevic & Ansdell, 2004). Musical experiences facilitated during music therapy sessions can provide clients with clear cues for anticipating and planning social responses, and in turn improve capacity for social interaction. Musical cues promote waiting, and improve impulse control which are essential characteristics of successful social interactions (Hillier, Greher, Poto, & Dougherty, 2011). Positive changes within music therapy sessions contribute to change in the individual which impacts their ability to develop relationships outside of the therapy space (McFerran & Shoemark, 2013). People with psychosocial disability often describe participation in music therapy as an initial step to re-connecting with other hobbies and leisure activities that may have 'dropped off' due to mental ill health or acute episodes of illness (Hense, McFerran & McGorry, 2014). Music can be an ideal motivator for participation in community activities, which then provide the routine and structure needed for participation in daily activities and future employment (Dingle et al., 2012).



Target Need Area: Capacity Building for Community Participation

Australian Music Therapy Association

Example of Evidence

An Australian randomised control trial conducted at the University of Melbourne investigated the impact of family-centred music therapy on social engagement abilities in 23 children aged 3 to 6 years with severe Autism Spectrum Disorder (Thompson, McFerran & Gold, 2014). Participants were randomised to either receive 16 weeks of music therapy along with standard early intervention care, or standard early intervention care only. Change in social engagement was measured using standardized parent-report assessments as well as interviews with parents and clinician observations. There were no significant differences between the children's age or severity of illness across the two groups. According to the Vineland Social Emotional Early Childhood Scale, at baseline, the children were in the bottom 10% of their typical peer group for social and emotional development. Their speech and language skills were considered below a typical 18-month-old child. Results showed a statistically significant effect of music therapy for social engagement ($p = 0.001$) with a very large effect size ($d = 1.96$: 95% confidence interval = 0.92 to 3.00). This suggested that parents of the intervention group observed an improvement in their child's social interactions in the home and community. There was also a significant improvement in the children's level of interpersonal engagement within the music therapy sessions ($p = 0.001$). Parents of children in the intervention group witnessed an improvement in the quality of their child's social interactions with others following music therapy, such as responding to and playing with others, imitation skills, sharing, co-operating and communicating in social contexts outside of music therapy sessions. In addition, reports from parents during qualitative interviews indicated that the relationship between parent and child grew stronger while the child was attending music therapy sessions. This study provides strong support for use of music therapy in the improvement of social engagement for people with Autism Spectrum Disorder.

Target Need Area: Capacity Building for Community Participation

Australian Music Therapy Association

Example of case study

A case study by prominent Australian music therapist Dr Helen Shoemark describes the role of music therapy for Brian, an eight-year old boy in a special education setting (Shoemark, 2012). Brian was blind, developmentally delayed and presented with no speech (apart from clicking of his tongue), head-banging, rubbing of his eyes with his fists, wailing and continual crying at home. The only positive interaction or communication Brian engaged in was cuddling staff at lunch times. This behaviour was discouraged by staff as it was deemed as inappropriate. Brian also had a good sense of rhythm and would bang on items in the classroom. Given Brian's goal for involvement in positive relationships and his sense of rhythm, music therapy sessions aimed to focus on interaction and participation. Brian obviously enjoyed playing musical instruments and continued to display a sense of rhythm during music therapy sessions. Brian also vocalised the melody or lyrics of some lines of his favourite songs. Initially, he would not tolerate singing or playing instruments with peers in a group setting and had difficulty taking turns. When Brian moved to individual sessions with the music therapist he began to take turns, and listen and respond to the music therapist's piano playing through playing his own musical instruments and vocalising song melodies. A therapeutic relationship was developed between Brian and the music therapist which involved interaction and participation through utilising the rhythm and melody in music. Music therapy provided Brian with successful and positive experiences in interaction and participation which helped to increase his self-esteem. Brian's teacher reported that his mood was 'happier' after returning from music therapy and he became much more cooperative in following instructions. He learned to spontaneously interact and participate in making music with the therapist and this learning transferred into his behaviour outside of the music therapy sessions. Participation in music therapy sessions helped Brian to engage more efficiently and comfortably in classroom activities with his peers which had previously been a challenging environment for him.

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Target Need Area: Motor Skills and Mobility

Australian Music Therapy Association

For goals related to:

- Increasing gross motor function and control
- Increasing fine motor function and control
- Developing proprioception and balance
- Increasing oro-motor control
- Increasing function of the respiratory system
- Increasing mobility
- Increasing physical independence

How Can Music Therapy Help?

There is mounting evidence to support the conceptualisation of music as a complex neurological process. Active participation in musical experiences requires specific motor control functions, including timing, sequencing and spatial organisation of movement. The cerebral cortex, basal ganglia and thalamus are key neural areas involved in gauging temporal cues relevant to musical beat perception. Importantly, the basal ganglia are also involved in the coordination of movements. This means that the same brain areas are involved in the processing of rhythm and the coordination of movement patterns (Patel, 2006). Humans also have an innate ability to subconsciously entrain to an external rhythmic beat (Phillips-Silver, Aktipis, & Bryant, 2010). Music therapists design targeted interventions based on this knowledge to support the development, maintenance or rehabilitation of motor skills and physical independence.

Listening to preferred music has been found to stimulate the pleasure and reward circuitry of the meso-limbic pathway (Blood & Zatorre, 2001). This reward response may increase motivation for participation in motor-targeted therapies, ultimately resulting in intensified therapeutic outcomes.

Example of Evidence

A 2007 controlled trial examined the effect of Rhythmic Auditory Stimulation (RAS) on gait performance in 25 individuals aged 6-20 years with cerebral palsy (Kwak & Jim, 2013). RAS is a Neurologic Music Therapy technique that utilises the physiological effects of auditory rhythm on the motor system. Rhythm is used as an entrainment stimulus to develop, rehabilitate or maintain movements that are intrinsically rhythmic in nature. That is, a movement execution occurs in response to a predictable rhythm (Thaut & Hoemberg, 2014). Participants in the study were divided into three groups: 1) a control group who received traditional gait training once a week, 2) a self-guided group who received traditional gait training and daily self-guided RAS training, and 3) a therapist-guided RAS group who received traditional gait training plus daily RAS training 5 days a week facilitated by a music therapist.

The therapist-guided RAS training group had statistically significant improvements in stride length, velocity and symmetry of gait pattern. Improvements in gait increase an individual's mobility and ability to successfully participate in their chosen leisure, educational and vocational activities (Kwak & Jim, 2013). The findings of this study indicate that gait performance in young people with cerebral palsy can be improved through music therapy interventions. Additionally, the study highlights the importance of ensuring interventions are facilitated by a suitably qualified music therapist.

Target Need Area: Motor Skills and Mobility

Australian Music Therapy Association

Example of case study

A case study published in the international journal Developmental Rehabilitation explored the use of Rhythmic Auditory Stimulation (RAS) on goal-directed upper limb movements for a 17 year old female with Cerebral Palsy. RAS is a music therapy technique that is used to facilitate the development or rehabilitation of movements that are intrinsically biologically rhythmical by providing an external beat as a temporal organising cue (Thaut & Honberg, 2014). The participant had paresis primarily affecting the right side of her body. The rhythmic intervention involved participating in 4 weeks of bilateral and unilateral upper limb training with a total of 12 sessions lasting approximately 30 mins each. The training targeted goal-directed movements toward different targets set to a metronome beat. The participant's arm and hand kinematics were analysed following the 4-week intervention and a significant reduction in movement duration of her paretic side during bimanual tasks ($p<0.025$) was recorded. A reduced movement trajectory for the paretic shoulder and elbow was also reported. These improvements were maintained at 6 months post intervention (Johansson, Domellof, & Ronnqvist, 2012). A reduction in motor duration and movement trajectory resulted in more accurate, smooth and efficient arm movements, and ultimately improved physical functioning.

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Target Need Area: Mood and Emotions

For goals related to:

- Improving self-regulation
- Increasing emotional awareness
- Increasing emotional attunement
- Improving mood regulation

How Can Music Therapy Help?

A lack of emotional awareness can cause or may be an outcome of emotion dysregulation (Marik & Stegemann, 2016). Development of emotional awareness and emotional competence are goals that can be addressed in music therapy. Music can act as a stimulus for experiencing a range of emotions (Solli, Rolvsjord, & Borg, 2013; Vink, 2001). Musical experiences produce desired neural activation patterns associated with emotional regulation (Moore, 2013). Therefore, participation in music therapy can facilitate the identification, expression and experience of emotions so that people who are unable to regulate their emotions can begin to identify and regulate their own emotional responses (Thaut & Wheeler, 2010). By developing a greater awareness of emotional responses through interactions in music therapy, an awareness of emotional experiences and interactions in other areas of life are likely to develop (Marik & Stegemann, 2016). Self-regulation and an awareness of emotions in human interactions is essential for accessing their community.

Example of Evidence

In recent study examining the efficacy of individual music therapy treatment for children with autism spectrum disorder (ASD), Venuti and colleagues (2017) found that music therapy significantly increased emotional attunement. The researchers used observational quantitative measures to examine the behaviours and emotive states of children with ASD over 20 sessions of music therapy using improvisational music therapy techniques.

A total of 25 children between 4 and 6 years of age attended 20 sessions of music therapy with a qualified music therapist for 50 minutes each week. Two observational tools were used by two coders who were blinded to any information about the participants or the aim of the sessions. Interrater reliability was established between the coders. The coders observed the music therapy sessions and assessed synchronicity between the child and music therapist. Synchronicity was considered a simultaneous sharing of emotions and behaviours between the dyad in the session and was measured through face expression, vocalisation, direction of the head, body position and specific movements.

A significant improvement in synchronicity was found over the duration of the 20 sessions and the children became significantly more emotionally attuned to the therapist. The results of this study suggest that participation in individual music therapy sessions improves emotional attunement for children with ASD, which is fundamental to engaging socially with others and participating fully in the community.

Target Need Area: Mood and Emotions

Australian Music Therapy Association

Example of case study

This case study is depicted by Fran Herman (2012) a Canadian music therapist who describes weekly music therapy sessions over 14 months with Robbie, a 9 year old boy with severe emotional problems. Before being admitted to the hospital, he had lived in 12 foster homes and 2 treatment centres where he displayed aggressive behaviour and struggled to accept authority. Robbie was easily frustrated and angry and unable to regulate his emotions. He was very withdrawn and often refused to get out of bed or eat.

Robbie was referred to music therapy as he was observed to always tap his toes to the beat of music. Music therapy aimed to address Robbie's depression, impulsivity and hyperactivity. During music therapy sessions Robbie explored expressing his emotions on a nonverbal level by playing instruments and mirroring and echoing cues given by the music therapist. After several sessions of music therapy Robbie spoke about the music room and sessions being his "safe room" where he was able to experience different emotions and experiences. He gained confidence and was able to modify some of his destructive tendencies and begin to articulate why he was upset about something during the sessions.

Over time, other children were introduced into the sessions and Robbie was able to tolerate their presence and developed an awareness of his own emotions in relation to others. He also began to manage his frustrations, and displays of anger were reduced to only a few times weekly rather than multiple times a day. Robbie learnt to cope with his anger and emotions in a more constructive way through engaging with music within a safe therapeutic space. Robbie's symptoms of depression also lessened and he no longer stayed in bed or refused to eat.

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