



Music Therapy and the NDIS: Understanding music therapy as a reasonable and necessary support service for people with disability

White Paper Prepared by:

Professor Katrina Skewes McFerran

Dr. Jeanette Tamplin

Dr. Grace Thompson

Dr. Juyoung Lee

Melissa Murphy

Kate Teggelove

This document results from the findings of a small scoping study conducted to develop a better understanding of the needs, perspectives, and goals of all stakeholders in the provision of music-based services within the National Disability Insurance Scheme (NDIS). Interviews were conducted with 10 consenting participants (Registered Music Therapists, NDIS Plan Support Coordinators and a Parent of a Participant of the Scheme) with the content of these interviews forming the data used for analysis.

With the study strongly highlighting a lack of community and sector understanding of music therapy, this document looks to stimulate discussion and solutions to broadening knowledge of the profession, particularly in relation to its existing implementation and future potential for people with disability under the NDIS, and as such is prepared on behalf of the Australian Music Therapy Association Inc. It is intended as a document of reference for the NDIA, Registered Music Therapists, Participants of the National Disability Insurance Scheme, their parents, carers and support workers.

Table of Contents

Introduction & Context	3
NDIS Providers	4
The NDIS and Music Therapy	4
Explaining Music Therapy	5
Study Overview	6
<i>Participants & Data Collection.....</i>	<i>7</i>
<i>Analysis and Outcomes.....</i>	<i>8</i>
Music Therapy with People with Disability: Across the Lifespan	9
<i>Young Families (Early Intervention)</i>	<i>9</i>
<i>Youth disability (School age).....</i>	<i>11</i>
<i>Adult disability (18 plus)</i>	<i>14</i>
<i>Mental Health (Dual Diagnosis).....</i>	<i>17</i>
For Further Information	19
References	20

Introduction & Context

The National Disability Insurance Scheme (NDIS) is an initiative of the Australian Government, administered by the National Disability Insurance Agency (NDIA). It is a national system of disability support designed to enhance quality of life and increase economic and social participation for people with a permanent and significant disability in Australia. Launched in July 2013 across a number of trial sites nationwide, the NDIS works directly with people with disability (Participants of the Scheme – PoS), their families and existing supports, to identify supports needed to live their life and achieve specific goals including independence, involvement in the community, education, employment, health and wellbeing.

The Scheme places a strong emphasis on increased choice for people with disabilities, tailoring support packages to the individual needs identified by participants and allowing them to prioritise the services they wish to access and to select their own providers. It also focuses on early intervention, recognising that the implementation of early supports can reduce the impact of disability on the individuals affected.

NDIS trial sites 2013-2015:

- Barwon region, Victoria
- Nepean Blue Mountains area, New South Wales (for children and young people aged under 18 on 1 July 2015)
- Newcastle and Lake Macquarie areas, New South Wales
- South Australia (age 13 and under on 1 July 2014)
- Tasmania (for people age 15–24)
- Australian Capital Territory
- Barkly region, Northern Territory

The NDIS was established to:

- provide information and referrals, links to services and activities, individualised plans and where necessary, supports over a lifetime for people with disability
- raise community awareness and encourage greater inclusion and access to mainstream services, community activities and other government initiatives for people with disability
- support service providers to build capacity and be part of the scheme

To be eligible to access the NDIS, an individual must:

- have a permanent and significant disability that affects their ability to take part in everyday activities
- be aged less than 65 when they first access the scheme
- be an Australian citizen, a permanent resident or a New Zealand citizen who holds a Protected Special Category Visa
- meet any additional requirements of their site (during the trial period)

The introduction of the NDIS means significant changes to current disability support systems and services. The initial establishment of trial sites across Australia has enabled the piloting of processes to ensure the most effective system possible is delivered when the Scheme is rolled out nationally from 2016.

NDIS Providers

NDIS Providers are individuals or organisations registered with the NDIA to deliver a support or product to a participant of the NDIS. Each Participant of the Scheme has an individualised plan that identifies the outcomes they wish to achieve, the disability supports that will be funded by the NDIS, and other supports the person requires. Participants have choice and control over the providers they engage to deliver supports in their plan however registered providers of supports must meet requirements regarding qualifications, approvals, experience and capacity for delivering the approved supports.

The NDIS and Music Therapy

Music therapy has been recognised by the NDIA for inclusion in funded support plans under the support cluster of Therapeutic Supports - provided to assist the participant 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. To be eligible for registration as a provider, a music therapist must be able to provide evidence of their qualifications and relevant registrations (with the Australian Music Therapy Association) and be able to demonstrate that they have ongoing professional/clinician supervision and development in place. They must also be able to demonstrate capacity requirements including facilities and equipment suitable for service delivery, a National Police Check and a Working with Children/Vulnerable people check.

Despite music therapy's inclusion as a suitable therapeutic support by the NDIA however, and demonstration of the requirements listed above enabling registration for music therapists, the Australian Music Therapy Association has been approached by several members (music therapists) since NDIS trials began, with concerns stemming from the questioning of inclusion of music therapy within individual case plans by those with authority to approve them.

This White Paper aims to enhance understanding, offer clarification and stimulate discussion regarding music therapy and its therapeutic value for people with disabilities, in order to justify and promote its inclusion under the NDIS.

Explaining Music Therapy

Plain Language

Music therapy is a profession where music is used to support people to improve their health, functioning and wellbeing. Music therapists are musicians who have trained at university to understand how music can have an effect on behaviours, on how people feel and how people think. Music therapists work with people to make goals to be worked on in music therapy. These goals might be communication goals, social goals, movement goals, mood and feelings goals, and/or spiritual goals. In a music therapy session people might sing, play instruments, dance, write their own songs and record them, perform, listen and talk about music. Some of the places music therapists work in are schools, day services, community centres, hospitals and in people's homes. Music therapy sessions might be individual or in a group.

Detailed Explanation

Music therapy is defined by the Australian Music Therapy Association Inc (AMTA) as 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. Registered music therapists (RMTs) are skilled musicians who are trained to understand how music participation impacts behaviour, cognitive processes and emotions. They work collaboratively with people to decide on goals to be addressed in music therapy, facilitate music experiences in which people can participate comfortably, and evaluate the benefits of music therapy to people's health.

Registered Music Therapists:

- Have a Bachelor or Master's degree in music therapy from the Australian Music Therapy Association's accredited universities (University of Melbourne, University of Queensland, University of Technology Sydney, University of Western Sydney) or an equivalent international tertiary degree^a
- Have completed a minimum 640 hours of supervised clinical training as part of their degree
- Cover 5 unit areas of competency within their university training that leads to registration with the Australian Music Therapy Association, and must abide by a Code of Ethics and complete regular Professional Development 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

Registered music therapists use a range of music-making methods within and through a therapeutic relationship to achieve specific psychosocial, communication, physical and/or spiritual goals. In community settings, music therapists use their skills in health promotion to support social networks and community participation through music making. They are employed in a variety of sectors including health, community, aged care, disability, early childhood, and private practice.

The University of Melbourne hosts the National Music Therapy Research Unit (NaMTRU) which promotes 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. 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.

^a In 2006, the structure of music therapy university training changed, delivered from that point only as a Post Graduate qualification. It is important to note that those who trained prior to this date through a Bachelor degree are just as suitably skilled and qualified as those who completed their training after 2006 with a Master's qualification.

Study Overview

Whilst music therapy services have been used for decades to support and facilitate goal attainment for people with disabilities, there appears to be limited local understanding of the ways in which music services can address the self-identified needs of people with disability in the Australian community. The University of Melbourne perceived the need to better understand the ways that different music service providers could meet the needs of people in the community and to explore how music therapy was positioned within a potential continuum of care. This investigation was designed to build on international knowledge generated in countries such as Norway, where equitable access to music for all persons is a long-standing value and is reflected in novel music therapy practices. It also sought to integrate knowledge from literature exploring the therapeutic application of music for people with disability that has traditionally been focused on goals that are identified by professionals to address perceived needs. Research in this area clearly supports the effectiveness of music therapy in school and institutional contexts for outcomes in social,^{1,2} physical^{3,4}, communicative^{2,5-7}, psychological⁶, and wellbeing or quality of life domains^{8,9}.

Community music therapy research and theory developed in Norway and the UK have been more aligned with consumer-driven practices, endorsing a focus on empowerment and community participation that is aligned with the NDIS emphases¹⁰. Action research projects in this field have shown how people with the most profound disabilities can make choices within and about music therapy¹¹, perceive value in participating in community music therapy groups such as choirs¹², and receive appropriate support from music therapists to participate in community activities such as music festivals¹⁰. However, it is not clear whether the kinds of outcomes targeted by the NDIS are well matched to the outcomes identified in these studies. To examine the ways in which music therapists might contribute to meeting the needs of people in the Australian community, a small research study was established to develop a better understanding of the needs, perspectives, and goals of all stakeholders in the provision of music-based services within the National Disability Insurance Scheme (NDIS).

Aims of the study

Enabled by funding from a University of Melbourne Engagement Initiative Grant, this scoping study prioritised collaboration between the University of Melbourne, the Australian Music Therapy Association and the National Disability Insurance Agency in order to:

- ***Better understand the needs and capacity for contribution of each party involved***
- ***Generate knowledge for each party regarding requirements and objectives of both the Scheme and music service options, and***
- ***Facilitate greater community participation through access to music-based services for people with disability***

Participants & Data Collection

With ethics approval granted by the University of Melbourne's VCA and MCM Human Research Ethics Committee, study participants were recruited via various networks from October 2015. University researchers collaborated with NDIA research staff to circulate invitations to Region Coordinators at trial sites who in turn extended the invitation to Plan Support Coordinators. In total, 4 interviews were conducted with NDIA Plan Support Coordinators – 1 each from the Barwon and Hunter regions, 2 from the ACT.

An invitation for participation was extended to registered music therapists (RMTs) who were registered as music therapy providers under the NDIS via an electronic mailout to the AMTA membership. In total, 5 RMTs were interviewed for this study – 2 delivering services within the Hunter region, 1 in the ACT, and 2 from the Barwon region.

One final interview was conducted with the mother of a Participant of the Scheme who had accessed music therapy for her son (8yo) within the Barwon trial site. Her participation resulted from an invitation by the researchers, forwarded (electronically) by the music therapist working with her son at the time.

None of the individuals interviewed were able to identify other music service providers working relevantly under the NDIS that we could approach to participate in the study.

All participants received a Plain Language Statement clearly outlining what involvement in the project comprised, and signed a consent form verifying their understanding of project participation and the option to withdraw at any time. In total 10 interviews were conducted, with content from these forming the basis for discussion within this White Paper.

Interviews were conducted via Skype or phone, recorded and transcribed for analysis. Open-ended questions offered by the researcher led to informal discussions around several topics, with each interview organically evolving to best capture the relevant information interviewees had to share regarding their experiences with both music therapy and the NDIS.

Questions used to prompt interview discussions

- 1) *What is your understanding of/your role within the NDIS?*
- 2) *In your experience, how does the development of support plans for Participants of the Scheme take place?*
- 3) *How is eligibility for service provision determined? If individualised plans are developed from the participant's goals, how do participants of the Scheme remain best informed of all support options?*
- 4) *What kinds of music-based services are available through the Scheme to your knowledge?*
- 5) *What is your understanding of the purpose and use of music-based services for people with a disability?*

Analysis and Outcomes

Researchers both individually and collectively considered the data, identifying themes that arose across participant interviews and grounding their analysis discussions in content from transcriptions.

Within analysis, it became quickly apparent that the primary barrier to consistent access to music therapy for people with disability, as perceived by research participants, was indeed a lack of understanding by those with the authority to approve its inclusion within NDIS plans.

“...I’ve heard a lot of people say that there’s not enough research about the (music therapy) outcomes...it would be great to have a broader understanding of why it is so beneficial because people do see it as a bit, I guess, out there.” (NDIS Plan Support Coordinator)

Acknowledging this, researchers decided and recommended that the first priority of the Australian Music Therapy Association be increasing understanding of the services provided by music therapists, particularly the relevance of the discipline in the disability sector and the understanding of music therapy by NDIA staff. This document will assist the NDIA to make informed decisions regarding the inclusion of music therapy to address a range of goals for PoS. It will also provide prompts for planners and family members as they seek to explain how a music therapist might be of service.

The remainder of this document provides an outline of the range of music therapy services suitable for people of all ages funded by the NDIS to be supported in the community. It includes case examples that help to demonstrate its application and effectiveness as well as highlight the approaches taken by music therapists delivering services.

Summary of themes, challenges, successes and ideas for action identified in study data

- A lack of understanding of music therapy, its application, benefits and evidence-base exists within the National Disability Insurance Agency – this can and should be addressed through various informative platforms
- The Australian Music Therapy Association should continue and perhaps prioritise its profile raising to ensure that potential Participants of the NDIS are aware of music therapy services and the benefits of participation for them
- Music therapy appears to be the only recognised music-based profession under the NDIS. One other music service provider (offering instrumental lessons) was identified, however a registered music therapist had been engaged to assess the usefulness and assist the direction of that support service
- Limitations exist on service provision due to the geographical location of music therapists. Consultancy models should be considered in the future where Registered Music Therapists provide assessments and recommendations for music involvement for people with disability living in remote areas. Systems similar to those used in Telehealth could also be considered to monitor involvement and progress
- Whilst collaboration between service providers is philosophically supported by the NDIS, initiative is not being shown by registered music therapy providers to consult with providers of other services to maximize goal attainment through shared agendas
- Registered music therapists would benefit from suggestions and templates regarding reporting and record keeping under the NDIS. This could be provided by the Australian Music Therapy Association. Such systems would likely be of benefit for the NDIA also, enabling predictable format and content for consideration in plan reviews.

Music Therapy with People with Disability: Across the Lifespan

Young Families (Early Intervention)

Information for planning

Early Intervention can be challenging to navigate, particularly as it generally coincides with the emerging reality of a child's diagnosis. There is a lot of information to process and choices to make, and ideally parents would like for their child to experience as many regular childhood opportunities as possible. Music commonly holds great appeal for young children who are motivated by its rhythm, repetition and interactive nature. Music therapy draws from these intrinsic elements of music to align with a child's early intervention goals, enabling practice and mastery of skills within a fun, animated and encouraging musical environment that can be shared and enjoyed by the whole family. Typical goals that are funded by NDIS for young children are:

- To optimise development across domains including communication, fine and gross motor coordination, and cognitive processing
- To increase social skills
- To reduce anxiety and enhance self-regulation
- To reduce challenging behaviors

Context and Research

Early intervention is a challenging time for families, often with the full implication of a child's diagnosis being unknown or slowly revealed. Along with motor skill development, parents are often concerned that their child is not talking or communicating like other children. While parents might understandably focus on verbal language development, they may be less aware that a disruption in social play and engagement at this crucial developmental stage can also have devastating impacts on future social communication capabilities¹³.

While social skills can be trained and taught, social engagement is not as easily addressed by behavioural interventions¹⁴. The early intervention sector has long recognised that strong parent-child relationships are a key factor in promoting social engagement, and therefore family-centred care has become the dominant philosophy in early intervention services for preschool aged children over the past 20 years¹⁵ with important benefits noted for children on the autism spectrum¹⁶.

Music therapy has a long history of working with preschool aged children and their families, particularly those with autism¹⁷ and/or a developmental delay¹⁸. Music therapy approaches in early intervention have been influenced by diverse learning theories from discrete trial training¹⁹ to relationship-based approaches²⁰. Music therapists adopting a relationship-based approach typically use flexible improvisation methods to create opportunities for reciprocal interactions, affect sharing, turn taking, and joint attention within live music making²¹. Music used therapeutically as the tool for engagement provides unique opportunities for children to interact non-verbally within play interactions²².

Providing music therapy within a family-centred framework aims to support both the skill development of the child and the quality of the parent-child relationship²³, crucial to the child's ongoing wellbeing and development. A number of studies have explored the benefits of music therapy with preschool aged children, highlighting improved social responsiveness²⁴⁻²⁷, child initiated interactions²⁷, and increased gestural and verbal skills^{18,22}.

There is also a body of literature describing a variety of group music therapy programs in community settings where parents actively participated with their preschool aged children^{18,28-30}. Parents have

reported improvements in their child's skills such as: non-verbal and verbal communication; interaction; motor skills; and cognitive skills. Parents also reported that the bond with their child had strengthened, with many incorporating more music-based activities at home¹⁸.

A recent Cochrane review titled "Music Therapy for Autistic Spectrum Disorder"³¹ identified 431 articles, of which 10 studies met the criteria for inclusion. Analysis of the outcomes of 165 participants across these 10 studies revealed that music therapy significantly improved the social interaction skills, social-emotional reciprocity, and communication skills of children with ASD aged between 2 and 9 years.

Included in the 2014 Cochrane review was a study of Australian preschool aged children with autism and their families. Significant improvements were measured in the quality of the child's social interactions in the home and community²⁵ and parents also considered that the relationship with their child was stronger³². Parents described that their responses towards their child had changed, as they were more likely to actively seek engagement with their child, persist in social interactions, and have more patience in their development.

Government departments are fast recognising the growing evidence for music therapy with music therapy services currently included in the Helping Children With Autism (FaHCSIA) funding package for children aged 0-6 yrs, and a recent \$4.5 million funding grant by the Department of Social Services to fund Early Intervention program Sing&Grow, for a further 5 years.

Case Example: Addressing communication development for 2yo Stephen*

Stephen is a 2 year old child with developmental delay resulting from premature birth. He presented with language difficulties and limited communication strategies, requiring support to do any controlled vocalising. Stephen's family recognised his keen response to music at a one off community music program and subsequently explored music therapy as an option before meeting with their NDIS Plan Support Coordinator to finalise Stephen's plan.

Music therapy was recognised also by Stephen's Plan Support Coordinator as a valid support service to address his communication goals and weekly music therapy sessions were funded within his 12 month NDIS plan. Whilst a primary goal identified for Stephen was to begin to use words (with the aim of completing sentences by the end of the 12-month block of sessions as per plan), Stephen's music therapy provider focused initially on vocal control and confidence. The music therapy sessions included activities that aimed to improve Stephen's breath control, such as playing whistles and kazoos. Gradually the activities were extended to encourage Stephen to make basic vocal sounds, and eventually songs targeting specific words such as "go", "stop" and "more" were also included. All sessions actively engaged Stephen's family, and they were given musical resources to support him to use his language in everyday life, building his mother and grandmother's capacity to use communication strategies with him effectively and independently.

Evaluation will be undertaken in collaboration with Stephens' family at 6 months to assess progress and determine whether new goals are required to advance his communication development. New program plans will be submitted to the Planner as necessary.

Youth disability (School age)

Considerations for Participants

Would music therapy help you achieve your goals? Discussion and thinking around these questions might be helpful in deciding:

- Is music an important part of your life? (Relevance)
- Would you like to share your music time with other people? (Connectedness)
- Would you like to explore ways to express yourself more? (Identity)
- Do you sometimes feel worse after listening to music? (Healthy & Unhealthy Uses)
- Could playing music with other people help you feel better? (Emotions)

Information for planning

Most young people use music as a way of bonding with others and expressing themselves. Although this is true for those with and without disabilities, some people need more support to access music. Music therapists often support young people to access music by providing group programs, which sometimes means developing music skills to make sure they can participate along with their peers, or practicing the social skills they will need to participate successfully. Music therapists also support individual young people who have emotional issues and would benefit from the opportunity to express and share their feelings in a safe and caring relationship. If the young person you care for is interested in music, there might be a way to foster that interest to address other goals in a way that is positive and fun. Typical goals that are funded by NDIS for young people are:

- To reduce isolation
- To foster identity formation
- To increase social skills and social engagement
- To reduce problematic uses of music
- To facilitate emotional growth and development.
- To maintain or improve mobility, communication and/or cognitive processing

Context and Research

Music therapists provide a range of services to youth outside the school system. These services supplement those provided within the special education sector, where music therapists are primarily employed to focus on educational outcomes, although psychosocial goals are also addressed³³. Services provided in the community focus primarily on building relationships, emotion regulation and identity formation³⁴. Some of these are best addressed through group programs, whilst others require extensive individual work before participants develop the skills to access a group³⁵.

Isolation is a particular issue for young Participants of the Scheme since they are typically focused on building a sense of identity, just as their same-age peers³⁶. The transition from family-focused sources of support to peer support during adolescence can be challenging for all youth and youth with disabilities encounter additional societal and interpersonal hurdles^{37,38}. Music has been shown to be particularly powerful in providing engaging conditions where strengths can be displayed and disabilities minimized^{39,40}. A range of studies show that carefully facilitated opportunities to share music with peers are fun and attractive to the youth who participate^{35,41}. Inclusive group work involving youth with and without disabilities provides the ideal context but requires adequate preparation so that equal participation is feasible⁴². Preparation may take the form of individual or small group work and goals of these groups focus on social and musical skill acquisition that provide the foundations for broader participation⁴³.

Social skills that can be rehearsed in preparation for broader music group participation include turn-taking, waiting, sharing, listening, expressing empathy, and leadership skills^{44,45}. Musical skills that

may be helpful include identifying preferences, adjusting instruments for easier access, and developing instrumental and vocal skills⁴⁶. Studies show that with these foundations for group work in place, more empowered participation is possible, both within music groups and more broadly⁴⁷.

Identity formation and development is another key focus of youth since music is closely associated with the expression of identity⁴⁸. Young people develop and change their preferences for different genres of music as one part of the identity formation process⁴⁹. Music therapists therefore use these preferences as a key focus when working with young people outside the school system⁵⁰. For participants with communication challenges, determining preferences can be an extended process with long assessment periods during which the music therapist provides examples of many types of music and instruments and systematically observes reactions⁵¹. One study of song choices showed that people with the most profound disabilities are able to display consistent preferences over time and that shared understandings of those preferences required commitment on the part of both participants and therapists⁵². For those whose music preferences are more easily communicated, music therapy provides a way of deepening and exploring the expression of identity⁵³. Song writing is a key method for encouraging the integration of external identity markers with internal resources, since the stylistic features of each genre provide a structure for self expression⁵⁴. Playing and singing preferred songs is also a key strategy for facilitating self-expression, as pre-composed lyrics can resonate with aspects of the participant's personal identity⁵⁵.

Not all musical engagement is healthy however, and music therapists are trained to identify when music is being used to reinforce negative emotions and exacerbate mental health conditions. A Healthy-unhealthy Uses of Music Scale has been devised locally that provides 13 questions for assessment of musical engagement⁵⁶. For participants who might have an emerging dual diagnosis, this is particularly important. Music is frequently used to express emotions and many young people describe feelings of relief when engaging with music that connects with their personal emotional experience⁵⁷. However, for youth with emerging mental illness, music can sometimes be used to reinforce negative states and can intensify rumination or venting when healthy boundaries are not in place⁵⁸. Emotional work is extremely useful in these cases and young people with and without disability have described the value of identifying negative patterns and developing healthier ways of using music in their life⁵⁹.

For younger participants, music therapists support emotional work through instrumental play⁶⁰. Instruments provide a way of expressing feelings that do not require verbal communication skills and allows for the music therapist and the young participant to engage in emotional work together⁶¹. Music therapists frequently use techniques such as playing emotions to help young people identify different feelings such as happy, sad and angry, and to develop skills in not only expressing, but regulating emotional expression⁶². For young people whose disabilities overlap with attentional and behavioural problems, the use of music to safely contain and then develop skills in emotional expression has been shown to be effective⁴⁵. Once again, this work may require individual sessions to provide a platform for successful group participation. Local research has shown that this is a particularly effective process for youth who have had repeated negative experiences in classroom situations.

Case Example: Addressing anxiety and emotional resilience for 8yo Ben*

Ben is an ambitious and active 8 yo boy who, as a result of a cancer diagnosis and treatment early in life, lives with one eye, significant hearing loss and acquired leg function/movement issues. As a young child he spent a considerable period of time in health facilities where he became emotionally withdrawn and anxious. Ben is now reaching an age where the challenges he encounters as a result of his functional capacity are becoming evident and frustrating to him.

Goals established for Ben under his NDIS plan included anxiety reduction, confidence building and social communication. Having previously participated in music therapy in the hospital, Ben's mum felt this could be an effective intervention for addressing such goals and requested funding for provision of this under his plan. After an initial assessment period of 4 sessions it was agreed by the registered music therapy service provider and Ben's NDIS Plan Support Coordinator that music therapy be included on his 12-month plan to address his identified needs. Within fortnightly sessions he now works with a registered music therapy provider to:

- Write songs that encourage him to communicate about what's going on in his world
- Play instruments in different musical styles to assist the naming, expression, and subsequent regulation of emotions that he's experiencing, primarily frustration
- Learn songs on the keyboard to build his confidence and belief in his own abilities

The music therapy provider working with Ben records notes after each session and discovers that an additional benefit for Ben has been for his physical development, since playing of instruments and moving in sessions has also assisted both fine and gross motor control.

Adult disability (18 plus)

Considerations for Participants

Would music therapy help you achieve your goals? Discussion and thinking around these questions might be helpful in deciding:

- Is music an important part of your life? (Relevance)
- Would you like to share your music time with other people? (Connectedness)
- Would you like to explore ways to express yourself more? (Identity)
- Does music sometimes affect how you're feeling? (Healthy & Unhealthy Uses)
- Could playing music with other people help you feel better? (Emotions)

Information for planning

Music provides opportunities for people to participate, engage, learn, celebrate and interact. Music therapists can help to ensure that people of all ages and abilities can experience the maximum benefits of music participation. If the person you care for is interested in music, there might be a way to cultivate and expand that interest to address other goals in a way that is positive and fun. Music therapists can work with adults both individually and in group settings. Individual support can be of benefit to people who may have specific emotional or behavioural issues, offering an opportunity to express feelings and learn safe ways of sharing these with others in a secure and caring relationship. Group programs allow individuals to interact musically with their peers and provide opportunities for the development of friendships in an environment of shared acceptance and creativity. Typical goals that are funded by NDIS for adults are:

- To reduce isolation and increase community engagement
- To increase opportunities for social interaction
- To maintain or improve mobility, communication and/or cognitive processing
- To reduce anxiety and assist mood regulation
- To facilitate emotional growth and development.

Context and Research

The deinstitutionalisation movement, originating in Scandinavian countries in the 1960s, had a great impact on western countries including Australia^{63,64}, with advocates embracing the social model and urging societal changes that valued people with disability as active citizens in their communities^{65,66}. As a result, we now tend to see younger people with disability continuing to live with their parents as they reach adulthood, or residing more independently with peers in small group homes. Attendance at day centres following graduation from special schools is also now far more common, encouraging opportunities for work and leisure time amongst peers. Music therapists therefore often provide services in various community-based settings including clients' homes, group homes, adult day centres, and neighbourhood houses^{51,66}.

As in any setting, identifying the most urgent need of each participating individual and designing a music therapy program that is person-centred, accounting for abilities, cultural and social backgrounds, is crucial⁶⁷. The literature highlights the varied music therapy services that may be offered depending on the severity of disability^{68,69}. For people whose disabilities are mild and moderate, music therapists typically focus on behavioural, social, or learning outcomes. This may include addressing the causes of challenging behaviours⁷⁰⁻⁷² and facilitating quality interactions between peers and with staff in group music therapy^{73,74}. Based on the community music therapy approach, promoting community engagement and performance can provide unique opportunities for social inclusion and connectedness, as well as improving self-confidence, self-esteem and a sense of autonomy for the participants.^{35,42}

For people whose disabilities are severe and profound, the literature tends to address goals focused almost exclusively on interaction, communication, socialisation^{51,52,75-80} and physical needs⁸¹⁻⁸⁴. Communication objectives are broad, from pre-intentional skills such as awareness and engagement, through to responding to verbal instructions with actions. Enhancing choice and decision making skills of adults with disability is critical, and research showed that using a person's preferred songs can enable people with profound intellectual and multiple disabilities to improve their choice-making skills using non-verbal facial expressions and eye-gaze⁵². Physical goals are often addressed effectively in conjunction with physiotherapy programs, targeting the maintenance or improvement of motor control^{81,83,84}.

Reviews^{69,85} highlight active music therapy methods using songs or instrumental playing as the most frequently used (67% of the total methods used) in work with adults with disability. Receptive methods, including listening, movement and relaxation, made up the majority of the remaining methods with instrumental learning also featuring as a frequently used method.

Case Example: Addressing Behavioural and Psychosocial needs for 18yo Betty*

Betty is an enthusiastic and energetic 18 year old lady with autism, moderate intellectual and physical disabilities. Currently transitioning from her special school to an adult day centre, Betty is experiencing many changes in her environment, including a move also from her parents' house to a group home to live with peers. In the new environments, Betty meets many new people and is trying to adjust to new routines. The transitions heighten her levels of anxiety and she strongly indicates how much she's missing her mother during her time (5 days a week) at the day-care centre. The range of feelings and experiences are understandably overwhelming for Betty and she often expresses her anxiety through challenging behaviours including incessant crying and screaming.

Having demonstrated a deep enjoyment for music in group programs offered at the day centre, an application for a plan review, outside of the usual 12-month review period, was made by Betty's mum to explore the possibility of adding music therapy to her plan to address her heightened anxiety and challenging behaviours. Given the exceptional number of transitions Betty had experienced, and the resulting changes to her immediate needs and goals, the review was granted and weekly music therapy was added to her NDIS support plan. Betty now continues to enjoy group music therapy provided at the day centre where she is able to experience positive interactions with staff and peers, but also now participates in individual music therapy. Here her preference of songs and instruments is respected and acknowledged and she is empowered to take some control over her environment by making choices and alternating her leading or following within activities. Betty's challenging behaviours have never been displayed during her individual sessions, highlighting her comfort levels, and day centre staff frequently comment on her reduced display of agitated behavior the afternoon following her sessions. Evaluation will be undertaken in collaboration with Betty's mother and support worker at 6 months to assess progress and determine whether new goals are required. New program plans will be submitted to the planner as necessary.

Case Example: Addressing confidence and communication for 30yo Tamara*

Tamara is a 30 year old softly spoken, warm and creative woman living with an intellectual disability and memory loss resulting from severe epilepsy. A skilled craft maker, Tamara spends lots of time creating beautiful gifts for family and friends who reside overseas. Having had very limited opportunity for community engagement prior to the NDIS introduction, Tamara's plan reflected strongly her hopes and goals to feel useful and to help other people, to live in an environment where she felt safe and encouraged to reach her potential, and specifically, to increase her confidence and communication through music therapy.

Songwriting within music therapy sessions has harnessed Tamara's creativity and broadened her means of connecting and communicating with friends and family, with recordings able to be sent internationally. Songwriting has also increased Tamara's confidence providing opportunity for her to take control and demonstrate autonomy within the writing process. Her confidence has grown in general shared music making too, and the music therapist's latest progress report makes recommendations for Tamara to soon engage in a community music making activity to increase both her independence and connectedness.

Mental Health (including Dual Diagnosis)

Considerations for Participants

Would music therapy help you achieve your goals? Discussion and thinking around these questions might be helpful in deciding:

- Is music an important part of your life? (Relevance)
- Does music sometimes affect how you're feeling? Does it affect you differently at different times? (Healthy & Unhealthy Uses)
- Would you like to share your music time with other people? (Connectedness)
- Would you like to explore ways to express yourself more? (Identity)
- Could playing music with other people help you feel better? (Emotions)

Information for planning

Feelings of isolation and disconnectedness are commonly reported among people with a mental illness and it is not uncommon for those affected to sway towards music and other creative outlets as a means of expression and connection with others. If the person you care for is interested in music, there might be a way to cultivate and expand that interest to benefit their social connections and also address other goals in a way that is positive and fun. Music therapists often provide group programs that help to develop both music and social skills enabling successful participation in the group and in other daily interactions. Music therapists can also support individuals who have emotional or behavioural issues and would benefit from the opportunity to express and share their feelings in a safe and caring relationship. Typical goals that are funded by NDIS to support people's mental health are:

- To reduce isolation
- To foster identity formation
- To increase social interaction
- To reduce problematic uses of music
- To facilitate emotional growth and development.

Context and Research

Mental illness is often referred to as the invisible disability, but can cause severely disabling outcomes. The NDIS Act describes the impact of impairment resulting from psychiatric conditions as 'reduced psychosocial functioning'. The National Mental Health Consumer and Carer Forum, in their 2011 document *Unravelling Psychosocial Disability*⁸⁶, defines psychosocial disability as "the disability experience of people with impairments and participation restrictions related to mental health conditions. These impairments and restrictions include loss of, or reduced abilities to function, think clearly, experience full physical health, and manage social and emotional aspects of their lives". Recent figures from the Mental Health Council of Australia⁸⁷ indicate that 258,640 Australians (one third of the total claimants) were claiming the Disability Support Pension for a psychiatric or psychological condition.

Functional impairment resulting from a mental health condition can impact many facets of daily life or domains of functioning, including the ability to work or study, socialise and take care of a home. Consequently, people with severe mental illness are often unemployed, single and socially isolated. This resultant psychosocial disability can be persistent and enduring, lasting for decades. Functional impairment can be mild to very severe such that individuals can require some support, or may be completely unable to function without support, in certain areas of life.

Social isolation can be one of the most debilitating effects of mental illness. Symptoms such as social withdrawal and isolation are further compounded due to potential separation from family and

friend supports, and difficulty in gaining stable employment⁸⁸. Social isolation, disconnectedness from society, and an inability to re-establish a sense of belonging can be psychologically distressing, and debilitating⁸⁹.

Music therapy can provide supported opportunities for social 're-connection' for individuals experiencing mental illness. In a group setting, music can stimulate social and verbal interaction, providing a focus point for discussion and activity. Music therapy offers an evidence-based modality for supporting recovery of people experiencing depression and anxiety⁹⁰ as well as psychotic-based illness⁹¹. Recent Cochrane reviews report that music therapy has strong and significant positive effects on global state, social functioning and symptom reduction for people with mental illness⁹².

A primary reason people with mental illness experience an impaired ability to function in aspects of daily life, even when symptoms of the illness have improved, is because they experience cognitive impairment, which can include difficulties in processing and remembering information. Music therapists often use resource-oriented and strengths-based models of practice⁹³ and draw on the existing interests and strengths of the client rather than just focusing on fixing problems or curing pathology. A recent study⁹⁴ identified that although music therapy programs within mental health services can support initial stages of recovery, community-based music opportunities for sustained recovery are lacking. Specialised music services are required to support the needs of those living with mental illness and scaffold access to community-based music programs.

Music therapists use song sharing and listening to explore and develop self-concept. Within a facilitated therapeutic environment, sharing songs in a group setting promotes social interaction, the breaking down of barriers, and greater personal insights through collaborative discussion. Music therapists also use active music making as a means for people to reconnect with and develop a healthy sense of self. This can include modifying or facilitating access to instruments or accessible learning modalities, supporting the development of music groups or bands, and using improvisation or existing musical forms. Songwriting is another powerful tool used in music therapy to provide opportunities for self-expression, exploration, and identity processing.

Case Example: Developing regulation strategies and self-esteem in 15yo Mary*

Mary is a 15 year old living with Obsessive Compulsive Disorder (OCD), depression and suspected Autism Spectrum Disorder. When establishing her NDIS plan, Mary and her family wished to prioritise supports and interventions that provided positive experiences and opportunity for achievement whilst addressing goals of anxiety reduction and emotional intelligence for social skill development and connectedness. They felt music therapy might be a particularly effective intervention to address Mary's psychosocial aims and funding was allocated for her to participate in fortnightly sessions with a registered music therapy provider.

Individual music therapy sessions have to date enabled Mary to develop techniques that assist her anxiety regulation and relaxation. Whilst Mary's OCD limits interaction with material objects in her surrounding world and her playing of instruments in sessions, music therapy has assisted her to develop a strong connection with her voice and body. Her confidence to implement breathing and singing techniques in moments of significant anxiety is growing and success using such techniques heightens Mary's self-esteem, in turn prompting further use of her newly developed skills in daily life.

Her emotional understanding and empathy has also been developing with time spent exploring the sounds, physical sensations and appropriate expression of emotions Mary has previously had difficulty articulating. Development of such skills is beneficial for Mary's capacity to connect to others particularly during adolescence.

Case Example: Musical resources for emotional expression and social opportunities

Tom is a 22 year old man living with schizophrenia. He has been discharged from the mental health system as he is currently stabilised with medication. However, as a result of his history of fluctuating mental health, he has dropped out of uni, not been able to manage a job, and has disengaged from his friends and social networks.

One of Tom's goals is to build on his natural interest in music and develop instrumental skills on guitar. He feels that this will be an important and valuable way for him to build social connections with other young people his age. His music therapist also suggests that they use individual therapy sessions to work through issues of self-concept and stigma associated with mental illness, and explore and develop Tom's current uses of music to manage his mood. They plan to use music listening and discussion as well as instrumental playing to build musical skills as a resource for emotional expression and healthy self-concept.

Tom's music therapy plan now includes a weekly individual session for a period of 12 months. Tom's aim is to join a music group or band down the track, and thus evaluation will be conducted at 6 months to determine his progress towards this goal.

Music therapy can support people like Tom to progress to group music therapy to address social isolation, manage anxiety in social contexts, and help with symptom management in social situations. Here, music therapy helps to build capacities for social participation and strengthening identity. The musical role is a health-based identity, where someone sees themselves as a 'guitarist' or 'band member' participating in the community rather than a psych patient.

For Further Information

- This study
Dr Jeanette Tamplin
jeanette.tamplin@unimelb.edu.au
- Music Therapy
Australian Music Therapy Association Inc
www.austmta.org.au
- Music Therapy and the NDIS
Melissa Murphy. NDIS rep, A.M.T.A. ndisrep@austmta.org.au
- The National Disability Insurance Scheme
<http://www.ndis.gov.au>
1800 800 110
- Music Therapy Research
Professor Katrina Skewes McFerran, The University of Melbourne
k.mcferran@unimelb.edu.au

References

- ¹ Darrow, A.-A. (2014). Promoting Social and Emotional Growth of Students with Disabilities. *General Music Today*, 28(1), 29-32.
- ² Pienaar, D. (2012). Music Therapy for Children with Down Syndrome: Perceptions of Caregivers in a Special School Setting. *Kairaranga*, 13(1), 36-43.
- ³ Dieringer, S. T., Porretta, D., & Gumm, E. (2013). Using Music Therapy Principles to Enhance Physical Activity Participation in Children and Adolescents With Disabilities. *Palaestra*, 27(3), 42-46.
- ⁴ Klaphajone, J., Thaikruea, L., Boontrakulpoontawee, M., Vivatwongwana, P., Kanongnuch, S., & Tantong, A. (2013). Assessment of Music Therapy for Rehabilitation Among Physically Disabled People in Chiang Mai Province: A Pilot Study. *Music & Medicine*, 5(1), 23-30.
doi:10.1177/1943862112470462
- ⁵ Dunning, B. A., Martens, M. A., & Jungers, M. K. (2015). Music lessons are associated with increased verbal memory in individuals with Williams syndrome. *Research in Developmental Disabilities*, 36, 565-578. doi:10.1016/j.ridd.2014.10.032
- ⁶ Krikeli, V., Michailidis, A., & Klavdianou, N.-D. (2010). Communication Improvement through Music: The Case of Children with Developmental Disabilities. *International Journal of Special Education*, 25(1), 1-9.
- ⁷ Stevenson, K. (2003). Music therapy assisted communication with children with severe disabilities. *New Zealand Journal of Music Therapy*, 1, 82-92.
- ⁸ Curtis, S. L., & Mercado, C. S. (2004). Community music therapy for citizens with developmental disabilities. *Voices: A world forum for music therapy*, 4(3). Retrieved from <https://normt.uib.no/index.php/voices/article/view/185/144>
- ⁹ Shiloh, C. J., & Lagasse, A. B. (2014). Sensory Friendly Concerts: A community music therapy initiative to promote Neurodiversity. *International Journal of Community Music*, 7(1), 113-128.
doi:10.1386/ijcm.7.113_1
- ¹⁰ Stige, B., Ansdell, G., & Elefant, C. (2010). *Where music helps: Community music therapy in action and reflection*. Gower Publishing, Ltd..
- ¹¹ Warner, C. (2005). Music therapy with adults with learning difficulties and 'severe challenging behaviour' (Doctoral dissertation, University of the West of England).
- ¹² Elefant, C. (2010). Giving voice: Participatory action research with a marginalized group. *Where Music Helps. Community Music Therapy in Action and Reflection*, 199-215.
- ¹³ Clifford, S. M., & Dissanayake, C. (2009). Dyadic and triadic behaviours in infancy as precursors to later social responsiveness in young children with autistic disorder. *Journal of Autism and Developmental Disorders*, 39, 1369-1380. doi:10.1007/s10803-009-0748-x

- ¹⁴ Schertz, H. H., Odom, S. L., Baggett, K. M., & Sideris, J. H. (2013). Effects of Joint Attention Mediated Learning for toddlers with autism spectrum disorders: An initial randomized controlled study. *Early Childhood Research Quarterly*, 28(2), 249-258. doi:10.1016/j.ecresq.2012.06.006
- ¹⁵ Dunst, C. J., & Trivette, C. (2009). Capacity-Building Family-Systems Intervention Practices. *Journal of Family Social Work*, 12(2), 119-143. doi:10.1080/10522150802713322
- ¹⁶ Prior, M., Roberts, J. M. A., & Rodger, S. (2011). A review of the research to identify the most effective models of practice in early intervention for children with autism spectrum disorders. Australian Government Department of Health and Ageing, Australia. Retrieved from http://www.fahcsia.gov.au/sites/default/files/documents/09_2012/review_of_the_research_report_2011_0.pdf
- ¹⁷ Reschke-Hernandez, A. (2011). History of music therapy treatment interventions for children with autism. *Journal of Music Therapy*, 48(2), 169-207.
- ¹⁸ Warren, P., & Nugent, N. (2010). The Music Connections Programme: Parents' perceptions of their children's involvement in music therapy. *New Zealand Journal of Music Therapy*, 8, 8-33.
- ¹⁹ Lim, H. A., & Draper, E. (2011). The Effects of Music Therapy Incorporated with Applied Behavior Analysis Verbal Behavior Approach for Children with Autism Spectrum Disorders. *Journal of Music Therapy*, 48(4), 532-550.
- ²⁰ Holck, U. (2004). Turn-taking in music therapy with children with communication disorders. *British Journal of Music Therapy*, 18(2), 45-54.
- ²¹ Geretsegger, M., Holck, U., & Gold, C. (2012). Randomised controlled trial of improvisational music therapy's effectiveness for children with autism spectrum disorders (TIME-A): Study protocol. *BMC Pediatrics*, 12(2). <http://www.biomedcentral.com/1471-2431/12/2> doi:10.1186/1471-2431-12-2
- ²² Kim, J., Wigram, T., & Gold, C. (2008). The effects of improvisational music therapy on joint attention behaviours in autistic children: a randomized controlled study. *Journal of Autism and Developmental Disorders*, 38, 1758-1766. doi:10.1007/s10803-008-0566-6
- ²³ Oldfield, A., Bell, K., & Pool, J. (2012). Three families and three music therapists: Reflections on short term music therapy in child and family psychiatry. *Nordic Journal of Music Therapy*, 21(3), 250-261. doi:10.1080/08098131.2011.640436
- ²⁴ Kim, J., Wigram, T., & Gold, C. (2009). Emotional, motivational and interpersonal responsiveness of children with autism in improvisational music therapy. *Autism*, 13(4), 389. doi:10.1177/1362361309105660
- ²⁵ Thompson, G., McFerran, K., & Gold, C. (2013). Family-centred music therapy to promote social engagement in young children with severe autism spectrum disorder: A randomised controlled study. *Child: Care, Health & Development*, 40(6), 840-852. doi:10.1111/cch.12121
- ²⁶ Williams, K. (2010). *The effectiveness of a short-term group music therapy intervention for parents who have a child with a disability*. (Masters Thesis), Queensland University of Technology, Brisbane. Retrieved from http://eprints.qut.edu.au/37643/1/Kate_Williams_Thesis.pdf

- ²⁷ Wimpory, D., Chadwick, P., & Nash, S. (1998). Brief report: musical interaction therapy for children with autism: an evaluative case study with two-year follow-up. *Journal of Autism and Developmental Disorders*, 25(5), 541-552.
- ²⁸ Nicholson, J. M., Berthelsen, D., Abad, V., Williams, K., & Bradley, J. (2008). Impact of music therapy to promote positive parenting and child development. *Journal of Health Psychology*, 13(2), 226-238. doi:10.1177/1359105307086705
- ²⁹ Oldfield, A., Adams, M., & Bunce, L. (2003). An investigation into short-term music therapy with mothers and young children. *British Journal of Music Therapy*, 17(1), 26-37.
- ³⁰ Oldfield, A., & Bunce, L. (2001). "Mummy can play too..." Short-term music therapy with mothers and young children. *British Journal of Music Therapy*, 15(1), 27-36.
- ³¹ Gold, C., Wigram, T., & Elefant, C. (2006). Music therapy for autistic spectrum disorder. *Cochrane Database of Systematic Reviews*, Issue 2. Art. No.: CD004381. doi:DOI: 10.1002/14651858.CD004381.pub2.
- ³² Thompson, G., & McFerran, K. (2013). "We've got a special connection": Qualitative analysis of descriptions of change in the parent-child relationship by mothers of young children with autism spectrum disorder. *Nordic Journal of Music Therapy*. doi:10.1080/08098131.2013.858762
- ³³ Booth, R. (2004). Current practice and understanding of music therapy in Victorian special schools. *Australian Journal Of Music Therapy*, 64.
- ³⁴ Stige, B., & Aarø, L. E. (2012). *Invitation to Community Music Therapy*. New York: Ashgate.
- ³⁵ McFerran, K. S. (2013). Playing out your feelings on instruments. In B. Thompson & R. A. Neimeyer (Eds.), *Grief and the Expressive Arts: Practices for Creating Meaning*. New York: Routledge.
- ³⁶ D'Eath, M., & Walls, M. (2004). *Quality of Life of Young People with Intellectual Disability in Ireland*. Paper presented at the 3rd Annual NDA Disability Research Conference, Burlington Hotel, Dublin.
- ³⁷ Foley, K. R., Dyke, P., Girdler, S., Bourke, J., & Leonard, H. (2012). Young adults with intellectual disability transitioning from school to post-school: A literature review framed within the ICF. *Disability and Rehabilitation*, 34(20), 1747-1764.
- ³⁸ National Disabilities and Carer Council. (2009). *Shut Out. The Experience of People with Disabilities and their Families in Australia*. Australia.
- ³⁹ Elefant, C. (2010). Whose Voice is Heard? Performances and Voices of the Renanim Choir in Israel. In B. Stige, G. Ansdell, C. Elefant & M. Pavlicevic (Eds.), *Where Music Helps. Community Music Therapy in Action and Reflection*. Surrey, England: Ashgate.
- ⁴⁰ Stige, B. (2010). Reflection. Musical Participation, Social Space, and Everyday Ritual. In B. Stige, G. Ansdell, C. Elefant & M. Pavlicevic (Eds.), *Where Music Helps: Community Music Therapy in Action and Reflection* (pp. 125-147). Surrey, England: Ashgate Publishing Limited.

- ⁴¹ Stickley, T., Crosbie, B., & Hui, A. (2012). The Stage Life: promoting the inclusion of young people through participatory arts. *British Journal of Learning Disabilities*, 40(4), 251-258. doi: 10.1111/j.1468-3156.2011.00703.x
- ⁴² Curtis, S. L., & Mercado, C. S. (2004). Community Music Therapy for Citizens with Developmental Disabilities. 4(3). Retrieved from Voices: A World Forum for Music Therapy website
- ⁴³ Rickson, D. (2014). Stepping into the Spotlight: Collaborative Efforts towards Musical Participation. *Approaches: Music Therapy & Special Music Education*. Retrieved from website: <http://approaches.primarymusic.gr>
- ⁴⁴ Gooding, L. (2011). The Effect of a Music Therapy Social Skills Training Program on Improving Social Competence in Children and Adolescents with Social Skills Deficits. *Journal of Music Therapy*, 48(4), 440-462.
- ⁴⁵ Rickson, D., & Watkins, W. (2003). Music Therapy to Promote Prosocial Behaviors in Aggressive Adolescent Boys-A Pilot Study. *Journal of Music Therapy*, 40(4), 283-301.
- ⁴⁶ McFerran, K. S., & Shoemark, H. (2013). How musical engagement promotes well-being in education contexts: the case of a young man with profound and multiple disabilities. *Int J Qual Stud Health Well-being*, 8, 20570. doi: 10.3402/qhw.v8i0.20570
- ⁴⁷ Wood, S. (2006). "'The Matrix': A Model of Community Music Therapy Processes" *Voices: A World Forum for Music Therapy*. Retrieved from <https://voices.no/index.php/voices/article/view/279/204>
- ⁴⁸ Laiho, S. (2004). The Psychological Functions of Music in Adolescence. *Nordic Journal of Music Therapy*, 13(1).
- ⁴⁹ McFerran, K. S. (2012). Music and Adolescents. In N. S. Rickard & K. McFerran (Eds.), *Life-long engagement in music: Benefits for health and well-being* (pp. 95 – 106). New York: Nova Science Publishers.
- ⁵⁰ McFerran, K. S., Lee, J. Y., Steele, M., & Bialocerkowski, A. (2009). A descriptive review of the literature (1990-2006) addressing music therapy with people who have disabilities. *Musica Humana*, 1(1), 45-80.
- ⁵¹ Lee, J. (2014). A phenomenological study of the interpersonal relationships between five music therapists and adults with profound intellectual and multiple disabilities. *Qualitative Inquires in Music Therapy: A Monograph Series*, 9, 43-86.
- ⁵² Lee, J.-Y., & McFerran, K. (2012). The improvement of non-verbal communication skills of five females with profound and multiple disabilities using song-choices in music therapy. *Voices: A World Forum For Music Therapy*, 12(3), from <https://normt.uib.no/index.php/voices/article/view/644/559>.
- ⁵³ McFerran, K. S. (2010). *Adolescents, Music and Music Therapy: Methods and Techniques for Clinicians, Educators and Students*. London: Jessica Kingsley Publishers.
- ⁵⁴ Baker, F., Wigram, T., Stott, D., & McFerran, K. (2008). Therapeutic Songwriting in Music Therapy. *Nordic Journal of Music Therapy*, 17(2).

- ⁵⁵ Tamplin, J. (2006). Song Collage Technique: A New Approach to Songwriting. *Nordic Journal of Music Therapy*, 15(2).
- ⁵⁶ Saarikallio, S., McFerran, K. S., & Gold, C. (2015). Development and validation of the Healthy-Unhealthy Uses of Music Scale (HUMS). *Child and Adolescent Mental Health*, online first. doi: 10.1111/camh.12109
- ⁵⁷ Papinczak, Z. E., Dingle, G. A., Stoyanov, S. R., Hides, L., & Zelenko, O. (2015). Young people's uses of music for well-being. *Journal of Youth Studies*(ahead-of-print), 1-16. doi: 10.1080/13676261.2015.1020935
- ⁵⁸ Garrido, S., & Schubert, E. (2015). Music and people with tendencies to depression. *Music Perception*, 32(4).
- ⁵⁹ Jackson, N. A. (2010). Models of response to client anger in music therapy. *The Arts in Psychotherapy*, 37(1), 46-55. doi: 10.1016/j.aip.2009.09.006
- ⁶⁰ Thompson, G., & McFerran, K. (2015). "We've got a special connection": qualitative analysis of descriptions of change in the parent-child relationship by mothers of young children with autism spectrum disorder. *Nordic Journal of Music Therapy*, 24(1).
- ⁶¹ Rainey Perry, M. (2003). Relating improvisational music therapy with severely and multiply disabled children to communication development. *Journal of Music Therapy*, XL(3).
- ⁶² McFerran, K. S. (2013). Playing out your feelings on instruments. In B. Thompson & R. A. Neimeyer (Eds.), *Grief and the Expressive Arts: Practices for Creating Meaning*. New York: Routledge.
- ⁶³ Barnes, C., Oliver, M., & Barton, L. (Eds.). (2002). *Disability studies today*. Cambridge, UK: Polity Press in association with Blackwell Publishers.
- ⁶⁴ Hooper, J. (2002). Using music to develop peer interaction: An examination of the response of two subjects with a learning disability. *British Journal of Learning Disabilities*, 30, 166-170.
- ⁶⁵ Mertens, D. M., Sullivan, M., & Stace, H. (2011). Disability communities: Transformative research for social justice. In N. K. Denzin & Y. S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (4th ed.). Thousand Oaks, CA: SAGE Publications, Inc.
- ⁶⁶ Lee, J. (2015, August). *Meaningful moments across the contexts*. Paper presented at the 8th Nordic Music Therapy Congress, Oslo, Norway.
- ⁶⁷ Noone, J. (2008). Developing a music therapy programme within a person centred planning framework. *Voices: A World Forum for Music Therapy*, 8(3).
- ⁶⁸ Hooper, J., Wigram, T., Carson, D., & Lindsay, B. (2008a). A review of the music and intellectual disability literature (1943-2006) part one: Descriptive and philosophical writing. *Music Therapy Perspectives*, 26(2), 66-79.
- ⁶⁹ McFerran, K. S., Lee, J. Y., Steele, M., & Bialocerkowski, A. (2009). A descriptive review of the literature (1990-2006) addressing music therapy with people who have disabilities. *Musica Humana*, 1(1), 45-80.

- ⁷⁰ Lawes, C., & Woodcock, J. (1995). Music therapy and people with severe learning difficulties who exhibit self-injurious behaviour. In T. Wigram, B. Saperston & R. West (Eds.), *The art and science of music therapy: A handbook* (pp. 261-272): Harwood Academic Publishers.
- ⁷¹ Ritchie, F. (1993). Opening doors: The effects of music therapy with people who have severe learning difficulties and display challenging behaviour. In M. Heal & T. Wigram (Eds.), *Music therapy in health and education*. London and Philadelphia: Jessica Kingsley Publishers.
- ⁷² Warner, C. (2005). *Music therapy with adults with learning difficulties and 'severe challenging behaviour': An action research inquiry into group music therapy within a community home*. (Doctoral dissertation), University of the West of England, Bristol.
- ⁷³ Hooper, J. (2001). Overcoming the problems of deinstitutionalization: Using music activities to encourage interaction between four adults with developmental disability. *Music Therapy Perspectives*, 19(2), 121-127.
- ⁷⁴ Hooper, J. (2002). Using music to develop peer interaction: An examination of the response of two subjects with a learning disability. *British Journal of Learning Disabilities*, 30, 166-170.
- ⁷⁵ Agrotou, A. (1994). Isolation and the multi-handicapped patient: An analysis of the music therapist-patient affects and processes. *The Arts in Psychotherapy*, 21(5), 359-365.
- ⁷⁶ Agrotou, A. (1998). *Psychodynamic group music therapy with profoundly learning disabled residents and their carers: Developing a theory and practice for the realisation of therapeutic aims for residents and the acquirement of therapist's skills by carers*. (Doctoral dissertation), University of Sheffield.
- ⁷⁷ Graham, J. (2004). Communicating with the uncommunicative: Music therapy with pre-verbal adults. *British Journal of Learning Disabilities*, 32, 24-29.
- ⁷⁸ Lee, J. (2009). *Using song-choice in music therapy to improve communication skills of adults with profound and multiple disabilities*. (Masters thesis), The University of Melbourne, Melbourne. Retrieved from <http://dtl.unimelb.edu.au>
- ⁷⁹ Lee, J. (2011, July). *Preference and choice on songs in music therapy to develop communication skills of adults with profound and multiple disabilities (Research poster)*. Paper presented at the 13th World Congress of Music Therapy, Seoul, South Korea.
- ⁸⁰ Watson, T. (2007). Working with people with profound and multiple learning disabilities in music therapy. In T. Watson (Ed.), *Music therapy with adults with learning disabilities*. London, New York: Routledge.
- ⁸¹ Wigram, T. (1992). Aspects of music therapy relating to physical disability. *Australian Journal of Music Therapy*, 3, 3-15.
- ⁸² Wigram, T. (1997). The effect of VA therapy on multiply handicapped adults with high muscle tone and spasticity. In T. Wigram & C. Dileo (Eds.), *Music, vibration, and health*. Cherry Hill, NJ: Jeffrey Books.

- ⁸³ Wigram, T., McNaught, J., Cain, J., & Weekes, L. (1997). Vibroacoustic therapy with adult patients with profound and learning disabilities. In T. Wigram & C. Dileo (Eds.), *Music, vibration, and health*. Cherry Hill: Jeffrey Books.
- ⁸⁴ Wigram, T., & Möller, A. S. (2002). Music therapy with physically and/or developmentally delayed clients. In T. Wigram, I. N. Pedersen & L. O. Bonde (Eds.), *A comprehensive guide to music therapy: Theory, clinical practice, research, and training* (pp. 169-175). London: Jessica Kingsley Publishers.
- ⁸⁵ Hooper, J., Wigram, T., Carson, D., & Lindsay, B. (2008b). A review of the music and intellectual disability literature (1943-2006) part two: Experimental writing. *Music Therapy Perspectives*, 26(2), 80-96.
- ⁸⁶ National Mental Health Consumer & Carer Forum, *Unravelling Psychosocial Disability*, 2011, NMHCCF: Canberra.
- ⁸⁷ Mental Health Council of Australia, *Mental illness and the income support system: key issues brief*, 2014:
http://mhaustralia.org/sites/default/files/docs/mental_illness_and_the_income_support_system_key_issues_paper.pdf
- ⁸⁸ Glynn, S. M., & Lui, A. (2007). Enhancing socialization capacities in people with schizophrenia. In D. J. Castle, D. L. Copolov, T. Wykes, & K. Mueser (Eds.), *Pharmological and psychosocial treatments in schizophrenia* (2nd ed., pp. 165-177). London: Taylor and Francis.
- ⁸⁹ Glynn, S. M., & Lui, A. (2007). Enhancing socialization capacities in people with schizophrenia. In D. J. Castle, D. L. Copolov, T. Wykes, & K. Mueser (Eds.), *Pharmological and psychosocial treatments in schizophrenia* (2nd ed., pp. 165-177). London: Taylor and Francis.
- ⁹⁰ Maratos A, Gold C, Wang X, Crawford M. (2008). Music therapy for depression. *Cochrane Database of Systematic Reviews*, Issue 1. Art. No.: CD004517. DOI: 10.1002/14651858.CD004517.pub2.
- ⁹¹ Mössler K, Chen X, Heldal TO, Gold C. (2011). Music therapy for people with schizophrenia and schizophrenia-like disorders. *Cochrane Database of Systematic Reviews*, Issue 12. Art. No.: CD004025. DOI: 10.1002/14651858.CD004025.pub3.
- ⁹² Gold, C., Solli, H. P., Krüger, V., & Lie, S. A. (2009). Dose–response relationship in music therapy for people with serious mental disorders: Systematic review and meta-analysis. *Clinical psychology review*, 29(3), 193-207.
- ⁹³ Rolvsjord, R. (2010). *Resource-oriented music therapy in mental health care*. Barcelona Publishers.
- ⁹⁴ Hense, C. (2015). Forming the Youth Music Action Group. *Voices: A World Forum for Music Therapy*, 15(1).