

# Dance Movement Therapy as an Evidence-based Therapy For People with Disabilities 2025



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# **Acknowledgement of Country**

The DTAA acknowledges the Traditional Custodians of the lands on which we live, meet and work. We wish to pay our respects to the Elders past and present and recognise the continuous connection of Aboriginal and Torres Strait Islander and Indigenous peoples to land, water and Country.

# **Abbreviations**

**DMT** – Dance Movement Therapy

DTAA – The Dance Movement Therapy Association of Australasia Incorporated

**Dmt/Dmts** - Dance movement therapist/s

KMP - Kestenberg Movement Profile

MARA – Movement Assessment and Reporting App

NDIS - National Disability Insurance Scheme

**RCT** – Randomised Control Trial



# **Foreword**

Fifty years ago, I returned to the UK from my travels around Canada, the United States of America, and Mexico. I knew what I must do. I had had one of those 'aha' moments whilst meditating on Mount Shasta in California, that I must now train in dance in Devon, South-West England at a place called Dartington College of Arts.

Now, let me pause there. I'm a meditator. I've been meditating for more than fifty years. That gives me access to a particular way of knowing. I am also a scientist, whose first degree was in physiology and biochemistry, with a psychology subsidiary, and I am a Cochrane author. That means I have engaged in the most rigorous form of research about DMT, some of which is cited in this application. That is another way of knowing. I am also a practitioner of Authentic Movement (one of the many tools used in DMT), which provides me with another way of embodied knowing. I am a creative writer and have conducted arts-based research. And I am a clinician who has learned from my clients. I could go on. There are many ways of knowing, not all of which carry the same weight with policymakers. I would argue that if we want to know whether something works or not, we should undertake Randomised Controlled Trials (RCTs), and systematic reviews of RCTs as I have when conducting Cochrane research. But we should also ask clients when we can. We should learn from them, the experts. And we should put ourselves in the role of client, learning from experience as students of DMT both during training and beyond.

Back to my story. At Dartington, I had to attend psychology lectures. But I quickly discovered I was repeating the first year of my degree, so I asked the Head of School whether I could write an essay on something called 'dance therapy' instead. She agreed, and the rest, as they say, is history.

In the past 50 years, I have been privileged to work with people who face a range of difficulties in a society with a dominant narrative that is disabling, sexist, heteronormative, racist, ageist, and in so many other ways determined to denigrate, marginalise and silence. I have been particularly struck by the silencing of embodied knowledge by the hegemonic voice of scientism. I know there is not a 'one size fits all' approach to therapy. There must never be, otherwise we risk colluding with the forces that silence and oppress. When I visit and work with my colleagues in Australia and New Zealand, I am humbled by the current-day efforts to honour indigenous populations. It is my hope that, through this application, embodied ways of knowing can be 'unsilenced' in the same way that the voices of indigenous populations around the world are finally beginning to be heard. We have a long way to go, but I look forward to the journey.

Bonnie Meekums, PhD

# **Acknowledgements**

The DTAA is immensely grateful for the support of those participants, their families and communities who believe in Dance Movement Therapy (DMT). We acknowledge their contribution to past and current research and their willingness to write testimonials and share photographic images. Without their understanding and collaboration, this significant document could not have been created.

We also acknowledge the wisdom and efforts of the Dance Movement Therapy pathfinders and the dedication of both retired and current Dance movement therapists and researchers globally, who have tirelessly contributed to advancing this field. Their work inspires us to continue the development and enhancement of Dance Movement Therapy practices and to encourage ongoing research into its efficacy.

The DTAA would like to express our special and sincere gratitude to Bonnie Meekums, PhD, a UK-based senior Dance Movement Psychotherapist, clinical supervisor, researcher, educator and writer; to Sandra Kay Lauffenburger, a senior Dance and Somatic Movement Psychotherapist, clinical supervisor, educator, and the past DTAA President (2020-2022); and to Steve Harvey, PhD, a New Zealand-based Dance Movement Therapist, psychologist, researcher and educator, and member of Hanny Exiner Memorial Foundation. All dedicated their time to read and advise on this document.

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# **Executive Summary**

I am very proud to be invited to highlight the key points in this document: **Dance Movement Therapy as an Evidence-based Therapy for People with Disabilities 2025**. I bring to this summary 22 years' experience as a Dance Movement Therapist, working in the disability sector (children and adults), in acute mental health, addictions recovery, dementia support and more recently as a team member in an NDIS-registered Creative Arts Therapy practice. I am a Clinical Supervisor, educator, and the President of the DTAA. I also bring lived experience of recovery from a major depression using the nonverbal dance improvisation-based approach of DMT pathfinder Hanny Exiner.

Time and time again, I find myself working with people who state this is the only therapy that works for them: from an 8-year-old boy with ADHD and Autism to a 59-year-old woman with a long history of psychosocial disability, mental health misdiagnosis, marginalisation and disadvantage, to a 45-year-old man living with early onset dementia. We form a relationship that is grounded in the body and together we create something new. Gradually the person's confidence grows, and they begin to be able to create something new for themselves. It is not a cause-and-effect treatment, it is not an improvised dance class; Dance Movement Therapy is an evidence-based therapy that leads to real and substantial improvements and an increased quality of life.

The unique aspects of Dance Movement Therapy:

- Works with the whole person;
- Focuses on nonverbal communication;
- Is relational, present moment-focused;
- Is creative and non-judgemental; and
- Can be enjoyable and motivate people to engage.

The profession of Dance Movement Therapy emerged in the post-Second World War era in the USA, driven by the need to support psychiatric hospital patients—many of whom were suffering from what we now recognise as post-traumatic stress disorder (PTSD). These individuals were unable to engage in any available treatments. They faced little possibility of improvement and no quality of life. However, they were found to be responsive to dance and movement, particularly in a group setting, which provided a new pathway for therapeutic engagement, self-expression and recovery (Chaiklin, n.d.).

While the simple act of moving has physiological benefits (e.g., less pain, increased mobility, improved mood), Dance Movement Therapy is a whole-person therapy like no other. It is serious. It is:

- More than moving the body;
- More than creative expression;
- More than nonverbal communication;
- More than embodied knowing;
- More than playful improvisation; and
- Scientifically proven to be effective.

For NDIS participants, DMT can be helpful for working on multiple, short and mid/long term goals, simultaneously, e.g. increased mobility, improved social skills, cognitive processing, self-awareness, self-care and confidence.

Here in Australia, people have been offering dance as therapy since the 1970s, to children in education and community settings, to adults in physiotherapy/brain injury rehabilitation and in residential care settings for people with intellectual disabilities.

The professional organisation was formed in Australia in 1994. Professionals initially worked with groups of people with disabilities of all kinds and all ages. Generations of Dance movement therapists have since trained and work today with a vast range of populations and in a wide range of settings all over the country and online. Dmts are sought after by NDIS participants and the programs and services they offer are effective.

DMT works with the person's physical, social, emotional, cognitive and cultural functioning – the whole person.

The registered DMT workforce in Australia is well-educated and adheres to rigorous professional standards and ethical and legal requirements, including ongoing (annual) supervision and professional development hours. From the moment a person registers as a practising member, they begin a journey of ongoing professional development and their DMT work is supervised by a Clinical DMT Supervisor or Professional Member - a highly experienced practitioner. Additional supervision is encouraged to support specific areas of knowledge, e.g. understanding the nature of Cerebral Palsy. A Dmt is also expected to continue a regular dance practice, seek therapeutic support that includes body-based practices, and regularly meet and dance/converse with their peers. This is a professional and proven form of therapy that requires an enormous commitment from the therapist.

Speaking from my own experience and my observations of the DMT community, this diverse group loves what they do.

You will see in the following document that Dance Movement Therapy is an evidence-based therapy for people with disabilities. Research has been summarised to highlight the therapeutic benefits. What is featured here is just a part of the total available literature. It has been put together by an impressive group of experienced and passionate Dmts.

Dance Movement Therapy continues to offer a unique and effective treatment option for people who cannot engage or benefit from more structured therapies. Many are NDIS participants.

I trust you will enjoy reading this document and look forward to discussing the inclusion of DMT as a therapeutic support within the NDIS.



# Introduction

The Dance Movement Therapy Association of Australasia Incorporated's (DTAA) *Dance Movement Therapy as an Evidence-based Therapy for People with Disabilities 2025* provides disability and health professionals, policymakers and members of the community with an overview of the efficacy of Dance Movement Therapy (DMT) and the benefits DMT provides to people with disabilities.

### This document highlights:

- Why Dance Movement Therapy (DMT) is a necessary therapy support for people with disability;
- Methodologies of DMT Outcomes Measurement;
- Evidence for and benefits of DMT interventions; and
- Case studies to demonstrate the efficacy of DMT

The **Bibliography of Research and Evidence** is intended as an overview and does not include an exhaustive list of DMT research, potential outcomes and case studies in the disability sector. The evidence base for DMT is continually growing, nationally and internationally, with Australia being one of the leading countries for DMT research (Zaščirinska et al., 2024).

DMT plays a significant role in supporting people with disabilities by improving their communication, interpersonal and social skills, and assisting them to express their emotions verbally and nonverbally. Body and movement-based interventions can integrate body and mind in a safe, meaningful and nonjudgmental therapeutic space. From movement to cognition/thinking, social connection, communication and self-regulation, Dance Movement Therapy plays a vital role in supporting people to achieve their therapeutic goals and brings change in every aspect of life (Meekums, 2002; Payne, 2008).

All case examples and testimonials have been provided by DTAA-registered Dmts who obtained consent from their NDIS participants. The personal information, including names, has been anonymised to ensure privacy protection.

All DTAA-registered Dmts comply with the NDIS Act (2013) and complete the Worker Orientation Module – 'Quality, Safety and You', prior to working with NDIS participants. All members cater to the requirements of diverse communities, including First Nations, culturally and linguistically diverse communities and LGBTQIABS+ communities. Dmts respect and respond to cultural, historical, and socioeconomic impacts on participants' disabilities.

Throughout the document, the DTAA decided to use person-first language following the Australian Government's Style Manual (the Australian Government, n.d.). Person-first language emphasises the person, not the disability, as it refers to the person or group before the reference to the disability (the United Nations, 2021). The DTAA believes in the social model of disability where it is the social environment that limits on a person, not their disability (the Victorian Government, 2022). We equally acknowledge some people and communities choose to use identity-first language. We endeavour to remain inclusive and respectful of diversity.

# **Dance Movement Therapy**

### **Overview**

Dance Movement Therapy (DMT) is defined as the relational and therapeutic use of dance and movement to further the physical, emotional, cognitive, social, and cultural functioning of a person.

DMT is grounded in the understanding of the unity between body and mind, promoting growth and change in both areas. By engaging in dance and movement, individuals can enhance their physical, emotional, cognitive, and social wellbeing. Our trained Dance Movement Therapists (Dmts) tailor their methods to meet the unique needs of diverse groups and individuals by combining dance, movement observation and analysis and creative processes all of which are founded in psychological and scientific theories and research.

Dmts work in clinical, institutional, community and private settings with individuals and groups, using clear therapeutic contracts, agreements, and goals, often within a defined time frame. Verbally and nonverbally, they attune to participants' requirements and cultivate the therapeutic relationship requisite for growth and change. Sessions are tailored to meet the individual requirements and abilities of participants, ensuring inclusivity and diversity.

# Whole-Person Therapy – Body and Mind

The core principle of DMT is that body and mind are interconnected, and movement is seen as an expression of the whole self, including emotions and thoughts (Bloom, 2006; Meekums, 2002; Payne, 2008). Dmts support people to integrate body and mind, achieving a stronger sense of self and emotional and physical wellbeing. In any moment, DMT supports people physically, emotionally, socially and cognitively. DMT improves fine and gross motor skills, coordination, enhancing mobility and body awareness (Manders, et al., 2022; Takahashi & Kato, 2022; Valentini, et al., 2023). As individuals move their bodies and express themselves, physical tension is reduced. Simultaneously, DMT stimulates memory, attention, and problem-solving skills through movement and play.

### **Nonverbal Communication**

DMT focuses on nonverbal communication, expression and preverbal experience that cannot be captured or addressed through verbal therapies. It allows participants to make sense of their bodily signals and internal senses in an intersubjective relational space (Lauffenburger, 2020). It is particularly effective for individuals whose disabilities affect verbal communication, such as people with autism who use communication devices (Erfer, 1995) and people with Down syndrome (Fan & Ko, 2023; Sengupta & Banerjee, 2020). A study of children with anxiety (Weitz & Opre, 2022) found that those who were reluctant or fearful of discussing their feelings directly experienced important emotional benefits through nonverbal interventions such as Dance Movement Therapy (DMT). In this sense, DMT supports individuals to express their challenging and sometimes unspeakable emotions safely (Meekums, 2000) in a creative, nonverbal and direct manner.

### **Relational Focus**

As DMT is a relational therapy, it enhances participants' capacity to relate to others through movement and the body (Akapo, 2023; Barnet-Lopez, et al., 2016; Erfer, 1995; Koch, et al., 2016: Manders, et al., 2022; Meekums, 2002; Tomaszewski, et al., 2023; Veid, et al., 2023). Participants experience kinaesthetic empathy with a Dmt or others in a group through nonverbal communication and movement (Fischman, 2009). Kinaesthetic empathy is a "bodily attitude that makes use of the resonance of another's movements in one's own body" (Payne, et al., 2019, p. 8). This fosters a sense of belonging and connection with others, ultimately reducing feelings of isolation and enhancing a sense of community. Dmts also work on building a secure attachment with participants. The shared, reciprocal and pleasurable movement experiences in DMT sessions have been shown to contribute to a deeper connection and improved attachment styles (Doonan & Bräuninger, 2015).

# **A Creative Approach**

Creativity is a therapeutic premise of DMT (Lauffenburger, 2020). Creativity is a resource within the client and within the therapeutic relationship and sits as the foundation for all therapeutic interaction (Wengrower, 2016, as cited in Lauffenburger, 2020, p. 26). Symbolic communication through creativity bridges body and mind (Caldwell, 2014, as cited in Lauffenburger, 2020), and creativity enables the process by which the client explores personal meaning, sense of self, and unique relational experiences (Lauffenburger, 2020, p.26). Creativity enhances a sense of self, increasing confidence, assurance and affirmation as it allows originality and spontaneity to flourish (Wengrower, 2009). In a DMT session, the Dmt will guide participants to move from verbal discussion and reflection into improvisational movement to explore and express those topics more deeply. Dmts support individuals to use their imagination with the aid of music, props and colours and their bodies to develop their creativity (Wandsworth & Hackett, 2014). This invites a level of self-expression that may be impossible if words are the only vehicle.

### **Neuroscience and DMT**

The discovery of mirror neurons offers support to the established practice of movement mirroring, central to the work of Dmts (Berrol, 2006), and mirroring movements to enhance participants' interpersonal skills (Bresler Nardi, et al., 2022). Dmts are trained to attune to and mirror participants' movements, helping them integrate and organise sensory experiences and self-regulate (Stern, 2000). Experience of being mirrored leads participants to find meaningful connections, feel seen and understood, and increase confidence in self-expression, communication, and interpersonal skills (Aithal, et al., 2021; Berrol, 2006; Eberhard-Kaechele, 2019; Koch, et al., 2014; Manders, et al., 2022; Mastrominico, et al., 2018). For example, clinical studies (Fields, Sanders, & Nadel, 2001, as cited in Homann, 2010; Martin, 2014) found that when children with autism are mirrored by adults, they demonstrate increased social behaviour and engage in reciprocal play with others.

Recent neurobiological research provides evidence that mental health issues can improve when unconscious material is accessed, and its meaning is integrated into the sense of self. DMT's nonverbal access to emotional experience provides a gateway to unconscious material which can then become integrated through neuroplastic processes. Neuroplasticity is an activity of the brain where the brain adapts and alters its neural connections, resulting in changes in behaviour, thinking, and emotional reactions (van der Kolk, 2015). For example, DMT interventions were found effective in modulating neurohormones, like serotonin and dopamine in teens with mild depression (Jeong et al., 2005).

### **Movement Improves Quality of Life**

Movement can change the biochemical status of the body to regulate emotions, reduce stress, enhance vitality, and improve coping (Chace, 1953; Haller et al., 2019; Laws & Conway, 2019; Meekums et al., 2015a; Tavormina & Tavormina, 2018 as cited in Christopher & Tamplin, 2022). Similar effects were reported in a study of people living with Parkinson's disease (Millman et at., 2021). DMT focuses on proprioception (awareness of the body in space) and interoception (awareness of one's body and its internal states) (Millman, et al., 2021, p34). The practice can therefore support increased physical competency in movement (Teixeira-Machado et al., 2017; Zhang, et al., 2019), stress management (Payne, et al., 2020) and even self-confidence (Briggs, 2022; Loughlin, 1993). In another study of people with dementia, the improvement in quality of life is reported as DMT engages in the sensory systems and stimulates physical, emotional, and cognitive functioning (Goldstein-Levitas, 2016).

# **Approaches for People with Disabilities**

DMT supports people with disabilities to form healthy social connections with others, integrate sensory requirements, develop a sense of self, and increase fine and gross motor skills by moving the body (Clark & Smith, 2017; Erfer, 1995; Leventhal, 1981; Seach, 2007).

Movement is central to how we think and feel, and key to the development of our body and mind. When we stay still or have no support for movement, our cognitive and emotional capacities become compromised. For example, people with disabilities such as Cerebral Palsy (Valentini, et al., 2023) and Down syndrome (Takahashi, et al., 2023) have physical challenges. It is also common that people with autism have a restricted range of motion, often difficulties with motor coordination and a rigidity in movement flow that impacts on their everyday function (Manders, et al., 2022). Engaging in DMT, motor skills, balance, body awareness, body coordination and motor planning can be improved (Albin, 2016), impacting individuals' ability to perform physical tasks, self-care skills, and participate in community opportunities such as sports and leisure activities. Working with a Dmt over time can help an individual maximise their potential and lead to a more fulfilling life.

Utilising props including balls, fabrics, elastic bands, and musical instruments, Dmts assist individuals with disabilities to engage in sensory experiences important for development, as well as stimulating creative expression and interpersonal connections both nonverbally and bodily (Lyons et al., 2024). Dmts empower participants by offering them choice and control over their movements and play during sessions. With NDIS participants, Dmts may use augmented communication tools such as a communication board and an iPad to support participants' communication and expression of feelings.

This person-centred, strengths-based and relational DMT approach not only enhances engagement but also provides a safe environment where individuals can build their sense of self, take risks and expand their potential. No participant is the same as another; therefore, no DMT session or program plan is the same. A DMT starts where the participant is at and finds ways, collaborate, connect and engage while meeting their needs and working towards their goals.



# **Sample Session:**

# **Working with Adult Participants**

- DMT sessions may start with a verbal check-in.
- Dmts introduce a warmup to begin moving the body. The warmup may include grounding and breathing and identifying body parts proprioceptively which leads to increased body awareness (Takahashi & Kato, 2022). This part of the session might be directly guided by a Dmt or participants may choose to move how they want to move.
- In a safe space, participants and Dmts move relationally, by mirroring and attuning to each other's movements. The intent is that a creative, embodied exploration evolves, with a sense of playfulness and self-expression.
- Participants may be encouraged to come to the session with themes they want to express through
  movement or dance. This process of deciding on the theme and exploring through movement supports
  a deeper understanding of an issue or theme, emotional regulation, establishment of a clearer sense of
  self, and relational skills. Alternately, the therapist may suggest a theme, guided by their assessment of
  the individual's needs and movement patterns.
- At the end of a session, participants are typically encouraged to verbalise how they felt during the improvisation, or what thoughts, feelings, memories or images/mental pictures emerged. This integration of verbal and nonverbal understanding assists the participant in integrating sensory, motor, interoceptive senses into cognitive understanding (Capello, 2009). At this stage, participants may be invited to draw the movement experience, offer movement gestures or verbal reflections (use of communication devices such as sign boards and communication books are encouraged for participants). DMT is a holistic intervention that supports participants to express themselves both verbally and nonverbally, enhancing their overall experience and wellbeing.

# **Sample Session:**

### **Working with Child Participants**

- With child participants, DMT interventions incorporate dynamic bodily movements, dance and play (Valentini et al., 2023). Bodily interventions and play assist children to regulate emotions, express themselves, and build interpersonal skills with others (Engelhard, 2024).
- In guided playful movement, children learn how to take turns as they create and pass movements to the Dmt or others in a group. This supports them to gain social and interpersonal skills.
- For child participants, Dmts often work on the process of transitioning from a session back to the family/classroom/community. For example, sharing a small gesture or breathing sequence together with the therapist or group signals the end of the session. An end-of-session ritual can assist participants who struggle with transitions to recognise the ending and transition more smoothly to the next thing. The application of this skill helps a child with social functioning in community, school and family settings.

# **Psychosocial Disability**

In the 1940s dance was offered in psychiatric institutions to support war veterans in their emotional and physical rehabilitation. The efficacy of this new modality, Dance Movement Therapy, gained a significant place in mental health treatment in the USA and in the UK (Levy, 2005). The effectiveness of DMT in treating mental health issues such as depression and anxiety is outlined in several studies conducting meta-analysis of research, and systematic review of DMT (Bresler Nardi, et al., 2022; Karkou, et al., 2019; Millman et al., 2021; Punkanen et al., 2014). The objectives of DMT for mental health treatment focus on physical, mental, emotional, social, and sometimes vocational aspects of a person's life, depending on the participant's presenting issues.

DMT is founded on the principle that dance movement, supported by a trained therapist, can lead to transformative changes in behaviour, thinking, self-esteem and emotional regulation. This strengthens social connections and independence and addresses physical goals such as improved body image, proprioception, balance, strength and coordination, greater physical and mental health. With a growing body of evidence supporting these benefits, we believe DMT can significantly enhance mental health outcomes for participants.

# **Case Study:**

# DMT works safely with people with psychosocial disability

Charlotte, 15, with Foetal Alcohol Spectrum Disorder and ADHD, has been attending DMT to learn to regulate her emotions and process her childhood trauma. Charlotte feels that dancing is a way for her to reduce stress in her social life and process 'big emotions'. DMT has been supporting Charlotte to express herself and to be herself.

For the first year of DMT, she was always dancing on her own while a Dmt was mirroring her dynamic body language. After a year, Charlotte started not only to mirror the Dmt and move in synchrony but also to face the Dmt directly. Charlotte learned interpersonal skills and became more relational. Once Charlotte begins dancing, she calms down quickly and focuses. By regulating her nervous system, she has been able to build good friendships at school and begin to engage in additional social activities.

### **Trauma**

People with disability experience trauma due to past and possibly ongoing experiences of exclusion, discrimination and abuse. An understanding of intersectionality, the process by which individuals who suffer more than one discrimination are subjected to increased risk, is essential in the therapy setting. Dmts are trained to consider this social context since DMT is a holistic intervention that takes into account the individual's physical, mental, spiritual and social wellbeing. It is now recognised that experiences of trauma affect cognition as well as nonverbal, physiological, and motoric realms (Blue Knot Foundation, n.d.; Rothschild, 2010; van der Kolk, 2014). Hence, it is reasonable and vital that bodily interventions are employed for people with disability who have also experienced trauma to support their wellbeing. DMT is strongly recommended for trauma processing (Denning, 2017; Dieterich-Hartwell & Melsom, 2022; Eberhard-Kaechele, 2021; Guy & Topalian, 2017; Levine & Land, 2015). Connecting with the body can significantly assist in managing symptoms like flashbacks, dissociative episodes, hypervigilance, and emotional numbness (Dieterich-Hartwell, 2017, p.38). DMT that focuses on interoception supports people to recover from trauma (Dieterich-Hartwell, 2017).

DMT is effective and beneficial in treating PTSD. It can offer relief from PTSD symptoms through its inherent connection to the body and physical movement (Dietrich-Hartwell, 2017; Parker, 2018). The mirroring of movements may activate mirror neurons, enhancing empathy and emotional connection (Berrol, 2006; Rullita & Baiq, 2019). Trauma-informed DMT approaches are designed to provide the necessary support, safety and understanding required in such sensitive situations.

# **Case Study:**

# **Finding a Voice Through Movement**

Jack is a War Veteran diagnosed with PTSD. He was in a residential psychiatric hospital program but could not speak of the horrors he held in his body. As a result, he could not participate in the verbal therapy group. He was stuck, held in the past, unable to speak, unable to move forward. Until he joined the weekly DMT group. Movement, play, rhythm, vocalising, creative exploration and nonverbal interaction in a safe, fun, inclusive, non-judgemental space opened the door to the beginning of his recovery. He began to laugh and smile, to engage meaningfully with others, and gauged his own readiness to reflect on, then describe his experience in the sessions (verbal reflection was not mandatory). After 5 sessions, he found his voice and began to speak. On discharge, Jack shared that he was booked in to a verbal therapy group in his local area. Sometimes nonverbal work such as DMT is a necessary precursor to the next stage of treatment.

# Professional Association - the DTAA and the Profession of Dance Movement Therapy

The Dance Movement Therapy Association of Australasia Inc (DTAA) is the only professional peak body for Dance Movement Therapy (DMT) in Australasia. It sets the standards for training, practice, and supervision and publishes a register of suitably trained and experienced DMT practitioners.

The DTAA was established as an incorporated association, registered in Victoria in 1994, and became a registrable Australian body in May 2019. The organisation operates across Australasia, with Professional Members throughout Australia, New Zealand, and a growing number of Asian countries, including China, India, the Philippines, Vietnam, Malaysia and Taiwan.

# **Registered Dance Movement Therapists**

The DTAA offers registration for those eligible to practise Dance Movement Therapy (DMT) at three levels of experience: Associate, Provisional Professional and Professional, each distinguished by a minimum number of hours of practice and supervision. More experienced Dmts can apply to register as Clinical DMT Supervisors.

The application process requires evidence of qualification/completion of training and hours of supervised practice (experience working with a minimum of two distinct populations), together with two supervisor reports. The application is then evaluated by a Professional Membership committee – a group of our most experienced members. Only those who meet the stringent requirements are granted registration.

The DTAA counts clinical practice hours differently from other equivalent peak bodies. We have a strict policy on what counts as clinical practice hours. Only face to face leading of sessions counts towards registration as a Dmt. We understand that training courses require students to document hours spent in simulated practice in class, in placement preparation, observation, assisting a professional, note taking, evaluation, report writing, meetings and self-reflection. Therefore, the chart below showing minimum requirements for the DTAA's clinical practice hours reflects potentially 5-6 times this amount, as counted by other peak bodies.

To fully qualify for registration and on renewal each year, all DTAA-registered Dmts must obtain a National Police Check and Professional Indemnity insurance. Where relevant, they must also hold a Working with Children's Check (WWCC) and NDIS Worker Check or similar.

DTAA-registered Dmts are required to adhere to the following policies and documents:

- The DTAA Constitution
- The Code of Ethics and Rules of Professional Conduct
- The Scope of Practice
- The Competency Standards
- The Supervision Policy for the DTAA Members and
- The Grievance, Complaint and Appeal Procedures

All are viewable on the DTAA's website: <a href="http://www.dtaa.org.au">http://www.dtaa.org.au</a>



Once registered, all members are required to complete a minimum of 10 hours of supervision, 20 hours of continuous professional development (CPD) hours per annum, maintain Professional Indemnity insurance, and are expected to make an active contribution to the profession.

As of January 2025, there are 110 members recognised by the DTAA as Dance movement therapists (Dmts) in Australia. In addition, there are 15 registered Clinical DMT Supervisors across the region.

DTAA's community of Dmts is culturally diverse and the DTAA is internationally acknowledged as the representative organisation for Dmts in the Australasian region.

Registration Levels	Clinical Practice Hours	Supervision Hours	Details
Professional Member	250 hours	80 hours	Completed a DMT training course to an approved level Permitted to use the title Dance Movement Therapist
Provisional Professional Member	80 hours	20 hours	A graduate of a DMT training program who is progressing towards Professional Membership.
Associate Member	40 hours	10 hours	A graduate of a DMT training program within the past year or are returning to the profession after an extended break.  Must submit a professional development plan outlining their proposed path toward Provisional Professional Membership which must be approved by DTAA's Professional Membership Committee.
Clinical Supervisor (post Professional Membership requirements)	500 hours	50 hours	Clinically experienced with a wide range of populations, and able to supervise practitioners.  Has held the status of Professional Member for a minimum of FIVE years  Completed a training course in supervision skills and theory

# **Objectives of the DTAA**

As stated in its Constitution, the DTAA's focus is to promote the growth, development, and recognition of quality Dance Movement Therapy (DMT) in Australasia in the following ways:

- Establishing and maintaining standards for training, professional practice, and supervision for Dmts registered in Australasia
- Providing a home for the profession of DMT, with information, resources, services and support for members, consumers, health professionals and the wider community.
- Publishing a Listing of DTAA-registered Dmts who meet specific criteria (DMT training, supervised practice hours, plus annual CPD and supervision requirements)
- Liaising with relevant peak bodies in Australia, including Allied Health Professions Australia (AHPA) (of which we are a member), Australia and New Zealand Creative Arts Therapies Association (ANZACATA), Australian Music Therapy Association (AMTA), and the Psychotherapy and Counselling Federation of Australia (PACFA)

# **Professional Training and Education**

Training options for Dance Movement Therapy (DMT) in Australia include AQF Level 8 and AQF Level 9 programs. The Graduate Diploma and Masters post-graduate programs are regulated by Australian Skills Quality Authority (ASQA) and Tertiary Education Quality and Standards Agency (TEQSA). ASQA and TEQSA work with the Australian Government Department of Education, Skills and Employment, to regulate multi-sector providers to meet regulatory expectations.

The DMT training programs in Australia are generally structured across two years with students engaging in both experiential and theoretical learning. The existing training programs have been developed in response to trends in the United Kingdom (UK), the United States of America (USA) and Europe where Dance Movement Therapy has been integrated into Allied Health, Psychotherapy practice and university education since the 1960s (Karkou, et al., 2019; Levy, 2005).

The programs are rigorous, adhere to the DTAA competency standards, and provide students with clinical practice in the workplace across a diverse range of client populations.

The DTAA registration application process requires submission of documentation including evidence of hours of professional practice and clinical supervision from graduates of all training programs. This is evaluated on an individual basis by a Professional Membership Committee.

Further information on the programs listed below can be found on their respective websites.

- o International Dance Therapy Institute of Australia (IDTIA) (Victoria)
- Tensegrity Training (Queensland)
- Master of Creative Arts Therapy University of Melbourne (Victoria)

# **Research Focused Higher Education**

DMT Doctoral programs offered by the University of Melbourne and other institutions worldwide are at the forefront of promoting research both nationally and internationally, encouraging collaboration across disciplines, and developing robust approaches to practice and research in the DMT field. This allows graduate researchers from art, music, dance movement and drama therapy to engage with local, national, and international stakeholders to further develop the research-basis for creative arts therapies, including DMT (University of Melbourne, n.d.).

# Professional Training for working with people with disabilities

DMT training includes both the theoretical knowledge and practical skills needed for working with people with disabilities. Each course ensures trainees understand how to research, establish goals and develop programs and approaches designed to suit the unique needs of a range of population groups and individuals. As a result, graduates are prepared to transfer these program development skills to any group or person.

Trainees work across a wide range of settings that include day centres for adults with disabilities, registered NDIS service providers, special needs schools, learning support classes, residential care settings, psychiatric hospitals, brain injury rehabilitation programs, creative arts therapies holiday programs and more. Experience with a minimum of two population groups is required prior to graduation and for registration with the DTAA.

Dmts continue to increase their knowledge and abilities to work with individuals with disabilities via continuous professional development (CPD), specialised supervision, and further training.

# **Research and Evidence**

The American Journal of Dance Therapy was the first professional research journal established in 1977, followed by Arts in Psychotherapy (Elsevier) since 1982, Arts & Health (Taylor & Francis) since 2009 and Body, Movement, and Dance in Psychotherapy (Taylor & Francis) since 2006 (Zaščirinska, et al., 2024). DMT research has employed systematic reviews (e.g., Morris et al., 2021), meta-analysis (e.g., Chen, et al., 2022) and Cochrane reviews (e.g., Karkou, et al., 2017). The DTAA has published the journal *Moving On* starting in 2002. Australian researchers are leading contributors to DMT research (Zaščirinska et al., 2024).

Notably, the late Dr Kim Dumphy developed the Movement Assessment and Reporting App (MARA) for assessing DMT's effectiveness with NDIS participants (Dunphy & Hens, 2018). A pilot research project of implementing the MARA method (Dunphy & Hens, 2018) was conducted for 12 NDIS participants with intellectual disabilities for 16 weeks. This project concluded that the NDIS participants and their families found the MARA reporting system useful and provided insightful information on their goals and achievements.

The effectiveness of DMT for people with multiple disabilities has been studied since the 1970s finding that DMT can significantly improve physical and psychological outcomes for people with disabilities, including those with intellectual, developmental, physical and emotional challenges (Takahashi & Kato, 2022). Growth in empirical evidence regarding the benefits of utilising dance and movement as therapeutic interventions addressing mental health issues and improving lifestyles for people with disability and trauma also supports the need for DMT as a recognised therapy by the NDIS (Bräuninger, 2012; Homann, 2010, Levine & Land, 2016).

### **Evidence-based or Evidence-informed**

Dmts are trained in both evidence-based and evidence-informed practices. In the literature, these terms can be used interchangeably (Kumah et al., 2019) but the DTAA believes it is pertinent to share a definition to explain how Dmts incorporate evidence from a range of sources, including peer-reviewed literature and observations made in the therapy room, into their practice. The table below summarises the difference and similarities between evidence-informed practice and evidence-based practice.

**TABLE 1**A summary of the differences and similarities between evidence-informed practice and evidence-based practice

Evidence-based practice	Evidence-informed practice	Similarities between evidence- based practice and evidence- informed practice
Evidence-based practice adopts a "cookbook" approach to applying evidence into practice, and so leaves no room for flexibility (Nevo & Slonim-Nevo, 2011).	Evidence-informed practice recognizes practitioners as critical thinkers (McSherry 2007; Nevo & Slonim- Nevo, 2011), and encourages them to be creative and to consider the clinical state and circumstances when making patient care decisions.	Both evidence-informed practice and evidence-based practice are approaches for making informed clinical decisions (Woodbury & Kuhnke, 2014)

*Note.* The differences and similarities between evidence-based practice and evidence-informed practice. From "Evidence-informed practice versus evidence-based practice educational interventions for improving knowledge, attitudes, understanding, and behavior toward the application of evidence into practice: A comprehensive systematic review of undergraduate students", by Kumah, E.A. et al., 2019, 4, *Campbell Systematic Reviews*. doi: 10.1002/cl2.1015. Copyright 2019 by Campbell Collaboration Wiley.

Dmts are encouraged from the beginning of their training to gather, apply and evaluate evidence from a range of sources, in an ongoing manner, always keeping the participant and their goals front of mind. Observation of body-based participant/therapist/group interactions is one area that Dmts are uniquely trained in, informing planning, decision making and evaluation. Some methodologies specific to DMT are shared below.

# **Methodologies of Outcome Measurements**

Dmts evaluate the outcomes of their therapeutic interventions using both qualitative and quantitative methodologies, as well as with standardised reporting procedures that are commonly used within allied health settings. These methods and procedures include;

### Laban /Bartenieff Movement Analysis System (L/BMS)

A system taught to all trained Dmts for observing and recording changes in movement including posture, gestures, and body part integration as well as movement qualities (rhythmic use of force, time, spatial access, and muscle tension) that relate to emotional states (Morita, et al., 2013). L/BMS training makes DMT unique among other therapies and psychotherapies because it offers significant skills for working with populations who use communication devices. Several assessment tools based on L/BMS have been developed for specific DMT populations. These include:

- Movement Psychodiagnostic Inventory (Cruz, 2009) created for observing movement of hospitalised psychiatric patients
- Body Movement Scale (Kalish, 1976) for people with autism and other disorders

### The Kestenberg Movement Profile (KMP)

The KMP is a system of movement notation and analysis (Loman, 1995, p.213) designed to assist in understanding developmental movement patterns in infants through to adult populations (Amighi, et al., 1999). KMP is also used by Dmts to observe, plan treatments, interventions and goals.

 Movement Assessment and Reporting App (MARA) as the Outcome Framework for DMT (Dunphy & Juma, 2020; Lebre et al., 2020)

This framework evaluates physical, cultural, emotional, cognitive, social, and integrational aspects of the participant. The MARA tool provides Dmts with a research-based approach to working within the NDIS funding frameworks (Dunphy & Hens, 2020). This tool allows Dmts to assess against defined therapeutic outcomes, capture numerical and qualitative data including photos, drawings and film to support assessment and reporting to communicate with participants and NDIS stakeholders throughout the planning, implementation and review processes.

### • Other Forms of Empirical Evidence

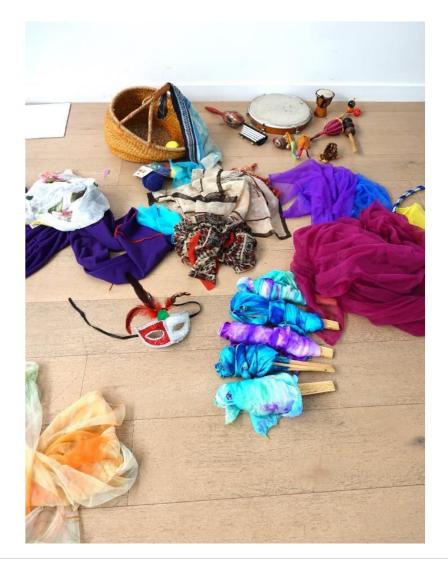
The research by Takahashi and Kato (2022) reports that some DMT studies were measured by methods such as the Human Figure Drawing Test, Skin Temperature Biofeedback and Verbal Questioning. Other research methods are summarised in the Bibliography of Research and Evidence section.

# **Evaluation Reports**

The evaluation reporting process of DMT for NDIS participants includes a comprehensive and individualised assessment of their physical, cognitive, social and emotional functioning. This holistic and participant-centred approach prioritises the unique requirements and goals outlined in each participant's NDIS plan. Therapeutic goals are collaboratively developed with participants and their families to evaluate wellbeing across multiple domains.

The process begins with thorough intake interviews conducted by Dmts to gather insights into each participant's background and aspirations. Observational assessments (using e.g. L/BMS) during therapy sessions yield valuable data on engagement levels, sensory patterns, movement preferences, and emotional expressions. Standardised tools may be employed to quantify improvements in mobility, coordination, movement integration, sensory sensitivity, interoceptive awareness, connection with others and emotional regulation. Dmts can utilise DMT-specific outcome measurement methods, as detailed in the Methodologies of Outcome Measurements section of this document, as baseline assessments, to track progress and to measure outcomes. The report encompasses all relevant domains, including communication, social skills and gross motor abilities.

Furthermore, feedback from participants, their families and support networks strengthens the evaluation, providing a comprehensive view of a participant's progress. This multifaceted approach captures both qualitative and quantitative changes, enabling therapists to customise interventions effectively and ultimately improve participants' overall quality of life and daily functioning.



# **Testimonials**

Testimonials reflect the experience of NIDS participants who have engaged or currently engage in DMT, expressed in their own words or those of their caregivers or relevant professionals.

# **Language and Communication**

"Dance Movement Therapy has been invaluable to my daughter's recovery from DSRD (a form of Autoimmune Encephalitis). It has played an integral part in reestablishing neuro pathways during her healing process for her cognitive development, speech, and social emotional wellbeing. I strongly feel not being able to access Dance Movement Therapy would be detrimental to her ongoing remission and ability to function to her full capacity."

(Participant's (20s) caregiver)

"I like to attend Dance Movement Therapy as it makes me **feel free and more confident**. I like to **communicate through movement**."

(Participant, 20s)



"Within the first month of starting Dance Movement Therapy, we saw further improvements in our daughter's cognition and language. She **went from 3-word sentences to 5-7-word sentences, initiating simple conversations** and showing a willingness to **engage with others** outside her core family group."

(Participant's (20s) Caregiver)

### **Personal Care**

"We saw a further **burst in independence** in our daughter after starting Dance Movement Therapy: putting her plates in the dishwasher, clothes in the washing machine, preparing and packing away her own activities, making choices when with a support worker."

(Participant's (20s) Caregiver)

"Dance Movement Therapy has helped me to be **my happiest self and to feel freer** when moving my body."

(Participant, 30s)

"Dance Movement Therapy helped me to experience the joy of moving and **understand the strength in my body** and **the choices I have** in the ways I move. This helped me to **manage my emotions**."

(Participant, 17)

"DMT is a valued form of therapy for our participants at a hospital. They have been able to utilise this therapy to not only promote physical and mental health and wellbeing but also connect with their culture and express this through music and dance in a safe and supportive environment alongside the therapist. "

(Participant's Care Team Leader, 30s)

"I feel good when I am at a dance movement therapy session."

(Participant, 20s)

"I like going to Dance Movement Therapy because I feel relaxed."

(Participant, 20s)

# **Mobility and Movement**

"My client has increased her ability to **express herself through movement**, which has also **increased her balance** and coordination skills."

(Participant's support worker)

"Dance Movement Therapy **relieves my stress** and **makes my body relaxed and more flexible**. It provides me with a state of calm in a fun way."

(Participant, 20s)

"We (as parents) have noticed Dance Movement Therapy has **given my son confidence with movement** to express his emotions and feelings."

(Participant's (30s) Parent)

"I have been **learning balance and coordination to keep myself safe**. Dance Movement Therapy gives me **the coping mechanisms to cope with all my challenges."** 

(Participant, 40s)



# **Interpersonal Interactions**

"Dance Movement Therapy is continuing to help my son, 9, to understand the positioning of his body in the space. His dance movement therapy allows him to express himself and regulate his emotions by moving, play and social connections."

(Participant's Caregiver)

"This participant has **found a safe space** for their psychological and emotional expression with the Dmt. They are able to **confide any challenges and positive aspects** with the Dmt."

(Participant's Care Manager, 30s)

"There is no judgement in the therapeutic relationship with my Dmt and I can express happiness, sadness, excitement, disappointment, achievement, the bad, the good...."

(Participant, 40s)



# **Functioning**

"Dance Movement Therapy has been crucial for me in learning to cope with my disabilities and my life. Each session gives me profound hope to keep going and not give up. Dance Movement Therapy has been fundamental in connecting with my body, breath, emotions and life again after being severely disconnected from decades of chronic pain/mental health/trauma. This therapy is improving my ability to function and the quality of my life."

(Participant, 40s)

"Since starting Dance Movement Therapy, our son has shown remarkable improvement in engagement, focus, and emotional regulation. He enjoys the creative and relationship-based sessions, which have helped him develop important life skills. His teachers have also observed his increased focus, willingness to try new tasks, and better peer interactions. He is now eager to attend DMT sessions."

(Participant's (10s) Caregiver)

"I'm in my mid-30s and I realised I could release stored emotions through dance and gain positivity. I'm so grateful that I get to express myself through dance."

(Participant, 30s)



"A lot of time, at school, or in society, I cannot be myself. Dance Movement Therapy provides me with a safe space in which I can go and **be myself** and **I can express myself and my feelings**. Big body movements help me get out all the jiggles and **help release some of my big emotions**. Dance Movement Therapy helps me **connect my emotions with my body and helps me to regulate**."

(Participant, 15)

"Dance Movement Therapy has made a great impact on my daughter's ability to **move through her emotions physically.** She has **found a freedom in her expression**, which releases the emotion in the moment rather than suppress it. DMT has given her permission to **connect to her body without fear or judgement."** 

(Participant's (6) Caregiver)

"I feel my body moving in ways I haven't known. I **feel more present** than before, like **I'm really here** dancing here now. I feel like a new man. I feel **my body getting more acquainted with my brain**. They feel more in sync than they usually do."

(Participant, 40s)

"I feel **refreshed and free** when I am doing DMT, and I only like this therapy. I **can express myself and be powerful."** 

(Participant, 10s)

"Dance Movement Therapy has seen my daughter with selective mutism, open up, express authentically, speak and process and release more emotionally than any other therapy she's tried. Also, moving in ways that she's comfortable with helps stimulate her appetite and reduce her ARFID (Avoidant/Restrictive Food Intake Disorder) symptoms briefly."

(Participant's (10s) Caregiver)

### **Community Living**

"My daughter has **gained the ability to attend and actively participate with peers in a group setting**, this is something that she was unable to do prior to Dance Movement Therapy."

(Participant's caregiver)

"I have been having trouble at school and don't have many friends, so I sit alone at lunchtime. I love to dance so mum brought me to see a dance movement therapist and we do lots of dancing to the music I love, and then we talk about my dance. It helps me to feel like I have something good in my life and somehow, I am now having more fun at school and fighting with my brother less."

(Participant, 12)

"I like DMT as it makes me feel happy and better inside my head, my heart, and my body. **It's a fun way to exercise** and it makes me feel good about myself so **I can go out without feeling scared and make new friends."** 

(Participant, 20s)

"My mum took me to Dance Movement Therapy and we did lots of dance and we even made a cubby where I could do anything I wanted. I could jump and be big and **it helped me to be quiet**. I found it hard to be still and quiet before, but as I danced, I could be free and didn't have to try to get my body to do other things. **I can sit still at school easier now.**"

(Participant, 8)

"My daughter enjoys her Dance Movement Therapy sessions. It is helping her to feel more comfortable going out in the community."

(Participant's Caregiver)



# **Bibliography of Research and Evidence**

# **Language and Communication**

Communication is vital for human interaction and is a fundamental human right. Without it, individuals become isolated and unable to reach their potential. Speech involves complex motor skills across multiple brain areas and muscle groups, requiring coordination of speed, rhythm, and timing (Leary & Donnellan, 2012). DMT works with these elements to improve breathing and strengthen speech muscles, supporting individuals to speak more clearly and assert themselves better, such as gaining the ability to say "NO" when previously limited to "YES" responses (Owen, 1999).

For individuals with disabilities, playful and creative movements can significantly enhance more spontaneous and varied communication attempts and language development. DMT fosters understanding and recognition of nonverbal cues, such as facial expressions, posture, and gestures. Creating supportive environments that incorporate music, dance, and other forms of embodied expression, can enhance communication and interaction, supporting individuals such as people with dementia to feel more understood and connected (Dzwiza-Ohlsen & Kempermann, 2023; Hill, 2008). Some participants are encouraged to use augmentative and alternative communication (AAC) boards and devices, sign language or typing boards at a DMT session (Owen, 2009). This encourages these individuals to have choice and control and the ability to comment on their moving and dancing experience. With regular sessions over time, the individual will gain mastery over an expanded vocabulary of movement possibilities, which will have a positive impact on their social skills, self-esteem, emotional control, and ability to engage in social gatherings.

# Case Study: DMT improves communication and interpersonal skills

Zoe, 10, with autism spectrum disorder (Level 2), engaged in one-on-one DMT sessions for approximately 12 months. Initially, Zoe presented as withdrawn, often looking down and avoiding eye contact. She frequently remained silent when feeling overwhelmed, struggling to express her emotions.

A Dmt introduced a soft fabric, ribbon, and silky veil to encourage her to start movements. She became curious about how the props moved, leading her to engage in moving and dancing. As the sessions progressed, Zoe gradually began to express herself through dynamic and sharp movements. This shift led her to vocalise her feelings and thoughts such as, "This fabric feels good." and "I don't like when people laugh at me."

Zoe now mirrors the Dmt's movements and tells stories through the dance. She continues to engage in DMT as it supports her to communicate more clearly and relate to others.

Population	Research Methodologies / Methods	Key Findings	References
Autism	3-month DMT (24) sessions (n=3) Childhood Autism Rating Scale (CARS) Wessex Language Test Body Attitude Checklist	The results showed an <b>improvement in body attitude</b> and <b>an increase in communication scores immediately</b> after the intervention, indicating that DMT had a positive effect on the participants' ability to communicate. Long-term interventions were recommended.	Sengupta & Banerjee, 2020
	DMT program (n=1) Kestenberg Movement Profile	A child with autism started to <b>understand verbal cues</b> through the interactions of the DMT and <b>maintained eye contact</b> .	Loman, 1995
	6-month DMT (17-19) sessions (n=17-19, out of which n=3 with ASD) Interviews with caregivers VB-MAPP Assessment	Children showed significant improvements in verbal understanding and ability, increased verbal expression and active verbal interactions were observed. The ability to maintain conversations and narrate stories was enhanced.	Fan & Ko, 2023
	Case study (n=1) 40 DMT sessions Laban Movement Analysis with 3 scales	The participant became able to type to communicate and eventually began to speak.	Owen, 1999
Dementia	Ethnographic methodology participant observation interviews with selected participants, including staff and management.	DMT facilitates self-expression and communication among people with dementia when their verbal abilities decline. DMT can enhance brain plasticity, improve memory, executive function, and motor skills. It activates brain areas associated with perception, emotions, and spatial memory, which are profoundly impaired in dementia.	Ho et al., 2015
	Review of 10 studies (n= 984 from various countries) the PRISMA guidelines	DMT is effective in improving global cognitive function, memory, executive function, attention, language, and mental health by stimulating neuroplasticity.	Huang et al., 2023
	Conceptual Analysis Literature Review	As verbal abilities decline, individuals with dementia can still express themselves through nonverbal means such as gestures, facial expressions, and body language. Emotions and intentions can be communicated effectively.	Dzwiza-Ohlsen & Kempermann, 2023

	A perspective review synthesising existing research and clinical observations on the effects of DMT	DMT leverages movement as a form of nonverbal communication, which is useful for individuals with dementia who may have difficulty with verbal expression. This allows them to express emotions, requirements and thoughts using body language.	Dieterich-Hartwell, 2024
	10-week DMT program (n=8) Mixed Feasibility Study using a convergent mixed methods design	The DMT program demonstrated that the participants used body movement to communicate and express their feelings effectively.	Lyons et al., 2024
Cerebral Palsy with severe epilepsy and autism	Case Study (n=1) 7-month DMT sessions Analysis of sessions	Typing incorporated in the DMT sessions, facilitated the 9-year-old boy's communication. He accessed significantly more movement options and qualities of movement. He could stay focused for much longer and be still, which enabled him to explore creative writing and songwriting in response to the music used in the sessions.	Owen, 2009

### **Personal Care**

DMT can assist individuals with disabilities to increase their level of personal care by strengthening their physical, emotional, and cognitive abilities. DMT encourages participants to build awareness about their own body and body connections. This awareness helps improve a participant's ability to recognise sensations, to understand what their body needs, and to take the actions necessary for self-care. For example, the process of gently holding and pressing the muscles and breathing is a practice that involves self-awareness and self-care. This is a proprioceptive intervention. This routine assists participants in taking care of themselves and enhances their body awareness. DMT can increase the ability of a person to process and respond to sensory input, which is crucial for tasks like feeling water temperature or coordinating hand movements.

Improvement of fine and gross motor skills through DMT supports participants in upskilling tasks like dental hygiene, dressing and grooming. DMT improves physical coordination and balance which can aid in activities like bathing, dressing and preparing a meal.

By addressing the physical, cognitive, and emotional barriers that individuals with disabilities may face, DMT can play a significant role in enhancing their ability to perform personal care tasks with greater independence and confidence.

Population	Research Methodologies / Methods	Key Findings	References
Autism	10-week DMT program (n=16) The Body-Image-Sculpture Test	Young adults with autism were able to sense their own bodies, distinguish themselves from others, and feel comfortable in their own bodies. These changes supported the capacity for personal care.	Koch et al.,2016
Dementia	12-week DMT program (N=201) 3 Armed RCT Assessed 4 times over 12 months	DMT has emotional and behavioural benefits. It can improve mood, reduce agitation and wandering, and stabilize behaviour. It also assists in maintaining emotional skills and behaviour.	Ho et al., 2015
	Conceptual Analysis	The emotional and expressive dimensions of dance can <b>improve</b> mood and reduce symptoms of depression and anxiety.	Dzwiza-Ohlsen & Kempermann, 2023
	6-month DMT program, (4 sessions/week) Philadelphia Geriatric Center Morale Scale (PGCMS), Geriatric Depression Scale (GDS), Abbreviated Mental Test (AMT), Quality of life (QOL) and	Improvements were observed in the Bristol Activities of Daily Living Scale, indicating <b>better performance in daily personal care activities.</b>	Simona, et al., 2020

	Bristol Activities of Daily Living Scale (BADLS).		
Population	Research Methodologies / Methods	Key Findings	References
Intellectual Disability	3-month DMT program (26 sessions) Koppitz Human Figure Drawing Test	The DMT intervention improved participants' body knowledge. The mean number of developmental items increased from 10.9 (pre-test) to 13.3 (post-test).  These findings suggest that DMT can be an effective intervention for improving body knowledge and developmental maturity in adults with intellectual disabilities.	Barnet-Lo´ pez et al. , 2015
Down syndrome	Review of research studies, peer- reviewed articles, and other academic sources	DMT enhances emotional wellbeing, reduces symptoms of anxiety and depression, and improves mood for adults with Down syndrome. It also promotes self-esteem, self-confidence and self-efficacy.	Briggs, 2022
	8-month DMT program (n=12) Romberg Test	This study focused on how DMT can improve motor abilities and coordination in adults with Down syndrome. The Romberg test results indicated <b>improvements in proprioceptive and vestibular functions.</b>	Cosma, et al., 2017
Psychosocial Disability (depression, anxiety)	Systematic review of 15 DMT studies	The participants with mood disorders such as depression gained <b>embodied cognition and interoception</b> , which involve heightened bodily awareness and emotional sensitivity.	Millman, et al., 2021
Eating Disorder	14-week DMT sessions (n=12) Toronto Alexithymia Scale (TAS-20) Multidimensional Body-Self Relations Questionnaire (MBSRQ)	The DMT group showed significant improvements in body image, specifically in appearance, self-evaluation and body areas satisfaction. They also showed a significant decrease in appearance orientation.	Savidaki, et al., 2020
Turner Syndrome	A 4-year-qualitative intervention study (n=14) with female participants with Turner Syndrome	The participants demonstrated deeper self-understanding and emotional growth.	Loughlin, 1993

# **Mobility and Movement**

DMT enhances mobility and movement for individuals with disabilities by combining therapeutic and creative movement techniques to address physical, neurological, and emotional requirements. It offers a holistic approach to improving motor function, body awareness, and confidence in movement (Albin, 2016; Berrol, 1992; Capello, 2008; Hackney & Earhart, 2010; Owen, 1999). As DMT interventions are body and movement-based, they support participants to improve both gross and fine motor skills, promoting better body control and coordination. Practising intentional movements assists individuals in strengthening muscles and refining motor abilities. DMT increases flexibility and range of motion as it often starts with a warmup where participants are encouraged to do stretching and fluid movements. DMT prevents stiffness and enhances joint mobility, enabling individuals to perform everyday tasks with greater ease. Regular sessions maintain muscle elasticity and support functional movement. Sessions are conducted in a safe space where participants are respected and given permission to move at their own pace. DMT enhances balance and coordination. Movements focusing on weight shifting, rhythmic timing and spatial awareness support individuals to improve their stability and reduce the risk of falls. DMT also supports body coordination by integrating symmetrical and asymmetrical movement patterns. Gentle, rhythmic movements increase circulation, relieve stiffness, and reduce chronic pain or discomfort. The focus on movement as a form of therapy promotes relaxation and overall physical comfort and function.

Rhythmic and repetitive movements used in DMT not only build muscular strength and cardiovascular endurance but also activate brain regions responsible for motor control and coordination. This stimulation supports neuroplasticity, supporting individuals to manage movement challenges caused by neurological conditions such as stroke, cerebral palsy, or Parkinson's disease.

DMT is for everyone of all ages and supports people to build on their capacity. DMT can incorporate the use of walkers, wheelchairs, or prosthetics, assisting individuals practise moving confidently and effectively with these aids.

Furthermore, movement interventions support participants to increase self-esteem as emotional barriers towards one's body image and mobility are addressed, and interventions are designed to rebuild a positive relationship with one's body.

# Case Study: Movement increases confidence in mobility and improves the quality of life

Anna, 45, experienced a traumatic brain injury and suffers from PTSD. Anxiety and panic attacks, followed by vision loss severely impacted her balance and independence. She longed to regain control over her body and mind.

DMT became a life-changing experience for Anna. A safe and supportive, non-judgmental space provided by a Dmt assisted Anna in reconnecting with her body and staying present. Rhythmic stomping movements broke the cycle of anxious thoughts and reduced panic attacks. The body awareness improved Anna's spatial orientation, fostering a sense of control. Mobility exercises, tailored to her vision loss, gradually built her confidence. Anna progressed to independent movement, with cross-lateral movements enhancing her coordination and posture. DMT also addressed Anna's emotional resilience. Movement became a tool for expressing repressed emotions, finding joy and exploring constructive ways to manage them.

As Anna's confidence grew, she began engaging socially once again, slowly transforming isolation into connection. And Anna could walk confidently in low-vision conditions. She gained tools for better mobility and emotional regulation supporting social engagement.

Population	Research Methodologies / Methods	Key Findings	References
Autism	DMT program (n=1) Kestenberg Movement Profile	The child with autism used more adaptive movements.	Loman, 1995
	10-week DMT Group Therapy (n=1) 5-point Likert Scales Laban Movement Analysis Kestenberg Movement Profile	The participant showed <b>an increased movement repertoire</b> in the last two of the ten sessions including the use of fuller body movements and movements previously modelled.	Manders, et al., 2022
Dementia	12-week DMT program (N=201) 3 Armed RCT Assessed 4 times over 12 months	Participants showed an improvement in balance, coordination, and overall physical wellbeing.	Ho et al., 2015
	A perspective review synthesising existing research and clinical observations on the effects of DMT.	DMT supports increased functional connectivity across brain networks and leverages somatic memory to improve motor skills for people with dementia. It encourages coordination, muscle strengthening and flexibility. Rhythmic, synchronised movements can improve balance and gait resulting in a reduced risk of falls.	Dieterich-Hartwell, 2024

	Ethnographic methodology	Movement enhances wellbeing of individuals with dementia.	Hill, 2008
	participant observation	DMT facilitates movement and mobility contributing to the	
	interviews with selected participants,	overall wellbeing of people with dementia.	
	including staff and management.		
	10-week DMT program (n=8)	DMT assisted participants improve their mobility and	Lyons et al., 2024
	Mixed Feasibility Study using a	movement, contributing to their overall physical and emotional	
	convergent mixed methods design	wellbeing. Participants experienced an increase in their	
		movement repertoire through tailored group activities such as	
		mirroring, lively rhythms and the use of movement props.	
	Quality of Life in Alzheimer's Disease	Participants in the dance intervention group showed an	Thumuluri et al., 2022
	(QoL-AD) questionnaire	improvement in balance resulting in a reduced risk of falling.	,
	6-month DMT program,	Significant improvements were noted in balance, flexibility,	Simona, et al., 2020
	(4 sessions/week)	strength, and overall mobility.	·
	Philadelphia Geriatric Center Morale		
	Scale (PGCMS),		
	Geriatric Depression Scale (GDS),		
	Abbreviated Mental Test (AMT),		
	Quality of life (QOL) and		
	Bristol Activities of Daily Living Scale (BA-		
	DLS).		
Intellectual Disability	5 DMT studies (1970-2021) reviewed	Young and middle-aged adults with intellectual disability	Takahashi & Kato, 2022
,	Preferred Reporting Items	improved motor coordination, ground contact, vertical	
	Meta-Analysis (the PRISMA) Guidelines	movement to the ground, and walking abilities.	

Population	Research Methodologies / Methods	Key Findings	References
Down syndrome	Review of research studies, peer-reviewed articles, and other academic sources	DMT improves physical fitness, motor skills, coordination, balance, and muscle strength in adults with Down syndrome. It supports mitigating health issues such as obesity, diabetes, and Alzheimer's disease.	Briggs, 2022
	10-week DMT sessions (n=31) RCT (intervention group, n=16 and non- intervention group, n=15) The Timed-up and Go (TUG) Test Achenbach System of Empirically Based Assessment (ASEBA)	DMT interventions significantly <b>improved dynamic balance</b> in individuals with Down syndrome. The intervention group showed a statistically significant difference and large effect sizes in dynamic balance measurements (f (1, 29) = 4.52, P = 0.04, $\eta p^2 = 0.14$ ).	Takahashi, et al., 2023
	3-month DMT sessions (n=23) The BioSway Balance System The Postural Stability Test	The participant's capacity to balance <b>improved significantly</b> . Significant improvements were observed in the PST (mean result decreased from 2.40 to 1.65; $p = .006$ )	Aleksander-Szymanowicz, et al., 2023
Williams Syndrome, Down syndrome and Cerebral Palsy	Literature Search GARS-2, ASSP, ADOS-G, CBRS, FEAS, HHD, TUG, OMNI, and PACES questionnaires	DMT interventions improved general <b>coordination and balance</b> and decreased maladaptive behaviours in children with disabilities.	Valentini, et al., 2023
People with Visual Impairment	4-week DMT group therapy (n=5) Single subject experimental design with pre-tests and post-tests	All children with visual impairment and additional disabilities showed <b>improvements in their gross motor skills</b> , with notable gains in areas such as <b>positioning</b> , <b>running</b> , <b>and jumping</b> .	Gupta & Bhan, 2024
Parkinson's Disease	Systematic review on DMT as a rehabilitation tool in adults and older	Improved motor functionality, balance and gait.	Zuliani, et al., 2023
Stroke	individuals with neurological diseases. The Joanna Briggs Institute methodology	DMT interventions significantly improved balance and functional capacity in stroke patients.	
Multiple Sclerosis	Preferred Reporting Items for Systematic reviews Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist	DMT with multiple sclerosis patients led to improvements in mobility, balance, cognitive functions, and emotional wellbeing.	
Fibromyalgia	Systematic review of seven studies (n=335) Meta-analysis	DMT interventions evidenced improvements in physical function, including cardiorespiratory functional capacity and mobility skills among patients with fibromyalgia.	Murillo-García et al., 2018

Population	Research Methodologies / Methods	Key Findings	References
People with neurodegenerative diseases	Systematic searches from 721 initial papers, 33 RCTs and 24 systematic analyses were ultimately included.	DMT significantly <b>improves motor function, balance, and gait in individuals with Parkinson's disease</b> . DMT supports in managing symptoms like tremors, bradykinesia, and postural instability.	Wu et al., 2022
Trauma	Systemic Review of existing literature on the use of DMT for female participants who experienced interpersonal trauma Narrative synthesis	The study evidenced that DMT can increase physical ability and awareness among the participants.	Liang & Bryant, 2024
	Qualitative meta-synthesis	Creating awareness of the mind-body connection assists people who experience trauma to increase mobility and range of movement. This creates a healthy physical relationship with the self and others.	Levine & Land, 2015
Turner Syndrome	A 4-year-qualitative intervention study (n=14) with female participants with Turner Syndrome	The DMT interventions improved coordination and led to fluid movements through space. By exploring different movement qualities and shapes, participants gained confidence in their physical abilities, facilitating more assertive and expressive movement in daily life. The use of movement props and energetic music supported participants to move dynamically to build strength and flexibility.	Loughlin, 1993

# **Interpersonal Interactions**

DMT is an interpersonal and relational therapy that focuses on creating a safe and nonjudgemental environment. Dmts use mirroring and attuning techniques to enhance intersubjectivity with participants. This supports them to understand and practise interpersonal skills in a therapeutic space and transfer these skills to their day-to-day life routines. For example, one study of people with dementia demonstrated that DMT interventions focusing on their personhood and emotional wellbeing, improved interpersonal interactions among participants (Hill, 2008). DMT is also offered in group contexts where individuals are encouraged to interact with others verbally and nonverbally, observe social cues, and practise turn-taking and cooperation. Experiencing inter-relational connections with the Dmt and peers within a group, builds trust, rapport and a sense of self. Group interventions can be designed to support individuals who have experienced isolation and trauma, supporting them to find a meaningful connection with others in a therapeutic setting.

# **Case Study: DMT improves social skills**

Claudia, a teenager with Down syndrome, moderate intellectual disability and autism, struggled to maintain socially appropriate distance in gymnastics classes, pushing, standing too close in line and stressing other class members. Claudia attended DMT sessions, exploring concepts of physical space, distance, personal boundaries using elastic bands and hula hoops. She also experienced moving away and toward the Dmt using her favourite music. Music and props provided visual cues and an element of fun which increased engagement. This creative exploration led her to understand and respect personal space. As a result, the troubles with the classmates ceased. Having an embodied experience of where the body is in space, in relation to another and the environment, was highly beneficial for Claudia; her proprioception skills, self-awareness and social interactions all improved.

Population	Research Methodologies / Methods	Key Findings	References
Autism	PRISMA (Preferred Reporting Items for	DMT interventions, particularly mirroring techniques, have been	Takahashi et al., 2019
	Systematic Reviews and Meta-Analyses)	found to assist individuals with ASD improve their social skills,	
		including social engagement, attunement, and synchronisation.	
	DMT program (n=1)	The child with autism increased spontaneous interactions with	Loman, 1995
	Kestenberg Movement Profile	the therapist and gained playful skills, decreased the rigid	
		circling patterns and formed a mutual relationship.	
	10-week DMT program (n=16)	The mirroring exercises <b>improved the participants' relationships</b>	Koch, et al., 2016
	The Body-Image-Sculpture Test	with others.	

	10-week DMT Group Therapy (n=1) 5-point Likert Scales Laban Movement Analysis Kestenberg Movement Profile	The participant's <b>affective engagement increased</b> in the less structured open-ended dance with the Dmt.	Manders, et al., 2022
	5 DMT studies (1970-2021) reviewed Preferred Reporting Items Meta-Analysis (the PRISMA) Guidelines	<b>DMT interventions improve social and communication skills</b> for people with a combination of autism and intellectual disability.	Takahashi & Kato, 2022
Dementia	Conceptual Analysis Literature Review	Movement and dance help people with dementia to tap into and communicate emotions, providing a means for connection with others and expression of inner experiences.	Dzwiza-Ohlsen & Kempermann, 2023
	10-week DMT program (n=8) Mixed Feasibility Study using a convergent mixed methods design	Interpersonal interactions were improved by creating a supportive, empathetic, and engaging group environment where familiar songs, group activities, movement props and sensory activities were used.	Lyons et al., 2024
	6-month DMT program, (4 sessions/week) Philadelphia Geriatric Center Morale Scale (PGCMS), The Geriatric Depression Scale (GDS), Abbreviated Mental Test (AMT), Quality of life (QOL) and Bristol Activities of Daily Living Scale (BADLS).	Significant improvements were noted in balance, flexibility, strength, and overall mobility due to the DMT and aerobic exercises. Enhanced social relationships and mood were reported, with patients becoming more eager to attend sessions and showing better interactions with friends and family.	Simona, et al., 2020
	8-week DMT group (16 sessions) One control group and an intervention group.	Interactive dance activities increased brain network efficiency, fostered social connections, and increased life satisfaction, happiness and enjoyment.	Thumuluri et al., 2022
Intellectual Disability	3-month DMT sessions (n=26) Koppitz Human Figure Drawing Test	Participants showed <b>significant improvements in interpersonal relationships, self-concept and body awareness, self-confidence</b> , the ability to identify <b>emotions and reduced anxiety</b> .	Barnet-Lopez, et al.,2016

Population	Research Methodologies / Methods	Key Findings	References
Psychosocial Disability	10-week DMT (20) sessions (n=109)	Participants reported a decrease in avoidant reactions and	Veid, et al., 2023
(depression, anxiety)	Clinical Outcomes in Routine Evaluation	reduced insecurity in social situations after the DMT	
	Outcome Measure (CORE-OM)	intervention. The participants showed significant improvement	
	Relationship Questionnaire	in social functioning from pre-intervention to follow-up, while	
	Body Image Questionnaire	the control group did not show any change.	
Anxiety	DMT (n=8)	The study employed and analysed mirroring interventions and	Bresler Nardi, et al., 2022
	Milner Method	found out that seven types of somatic mirroring are effective for	
	Phenomenological Hermeneutics	children with anxiety to learn interpersonal skills. DMT	
	Qualitative Paradigm	effectively reduces anxiety symptoms in children by enhancing	
		their confidence, self-awareness, and emotional regulation	
		through physical interventions and movement.	
Trauma	Qualitative Systemic review of 15 DMT	Group DMT fosters self-expression and new relationships,	Tomaszewski, et al., 2023
	studies and its efficacy on PTSD	enhancing a sense of safety and flow state.	
Turner Syndrome	4-year-qualitative intervention study	DMT interventions supported participants to overcome lack of	Loughlin, 1993
	(n=14) with female participants with	confidence about their short stature and other physical	
	Turner Syndrome	differences, learn to empathise and feel more comfortable in	
		social interactions.	

#### **Functioning**

DMT can assist improved functioning in physical, emotional and psychological aspects, cognition, and social contexts. DMT emphasises the connection between the body and the mind, supporting individuals with disabilities to feel more integrated and in tune with their physical selves. DMT supports not only the physical aspects of the individual (see the Mobility and Movement Section) but also supports emotional and psychological aspects. Nonverbal movement in space helps a person express feelings, and this is particularly beneficial for those with communication challenges. DMT supports participants to understand and regulate their emotions and reduce stress and anxiety.

DMT also improves concentration, cognitive engagement and problem-solving skills. For example, playful movements assist the child to find creative solutions and express something unbearable in their reality through their imagination and nonverbal communication. Occasionally, Dmts employ choreographic patterns of movements to help improve cognitive function and memory.

The holistic DMT approach can significantly enhance the quality of life for people with disabilities, offering them a range of tools they can use to function better in their daily lives.

#### Case Study: DMT improves chronic pain, panic attacks and social participation

Christie, 48, with a diagnosis of adjustment disorder and chronic pain, has been experiencing severe migraine pain and frequent panic attacks that have significantly impacted her quality of life, ability to focus, ability to maintain relationships and level of community participation. This has affected her independence as she struggles to leave the house.

During her first year of DMT, the sessions focused on encouraging movement by identifying sensations and impulses through mindful movement practices, and dance improvisations. This exploration aimed to enhance her capacity and motivation to connect with her body and surroundings. She engaged in dance, trying various styles and music genres. This provided her with a safe and joyful way to reconnect with her body and fostered greater engagement with the Dmt, despite the ongoing challenge of migraine pain.

After approximately a year of DMT, Christie was able to attend in-person sessions independently. She could drive herself to therapy and tolerate short commutes to nearby shops and grocery stores. In her second year, the focus shifted to enhancing her ability to monitor her nervous system's arousal levels and utilising various DMT techniques to reduce pain and the frequency of panic attacks.

DMT has instilled in her the confidence that she possesses practical tools and accessible strategies to manage her chronic pain, contributing to significant improvements in her emotional and mental wellbeing.

Population	Research Methodologies / Methods	Key Findings	References
Kestenberg Movem 7-week clinical control treatment group intervention control Bipolar 12-item Heidelberger State Questionnaire of Magelf-constructed scale Emotional Empathy DMT group and control Crossover Research Social Communication (SCQ) Strengths and Differ (SDQ)	DMT program (n=1) Kestenberg Movement Profile	The child with autism <b>showed fewer autistic symptoms and related more spontaneously</b> .	Loman, 1995
	7-week clinical controlled trial (n=31; treatment group (n=16), and no-intervention control group (n=15) Bipolar 12-item Heidelberger State Inventory Questionnaire of Movement Therapy Self-constructed scale Emotional Empathy Scale	The participants improved wellbeing, body awareness, self-other distinction and increased social skills.	Koch, et al., 2014
	(SCQ) Strengths and Difficulties Questionnaire	Significant improvements in social communication (SCQ scores) for children in the DMT group compared to the control group.  DMT shows promise in enhancing the social and emotional wellbeing of children with ASD, regardless of their preferred mode of communication.	Aithal et al., 2021
	Weekly DMT sessions RCT (n=78)	With a 15.27% decrease in overall negative symptoms in the treatment group compared to a 6.99% increase in the control group, the study highlighted the potential benefits of DMT in improving empathy, self-awareness, and social interaction in individuals with ASD. It was also noted that nonverbal interventions, motor movement and sensorimotor experiences are important for therapeutic change.	Hildebrandt, et al., 2016
Dementia	Systematic review on DMT Social Communication Questionnaire (SCQ) Strengths and Difficulties Questionnaire (SDQ)	Aerobic dance was beneficial for individuals with dementia and cognitive impairments.	Zuliani, et al., 2023

12-week DMT program (N=201) 3 Armed RCT Assessed 4 times over 12 months	<b>DMT</b> interventions support the regulation of cortisol levels, to reduce stress and regulate immunity. This inhibits the progression of dementia.	Ho et al., 2015
Conceptual Analysis Literature Review	Engaging in regular physical activity supports overall physical health, including cardiovascular health, muscle strength and flexibility and cognitive function. This can contribute to a better quality of life and increased independence.	Dzwiza-Ohlsen & Kempermann, 2023
A perspective review synthesizing existing research and clinical observations on the effects of DMT.	Participants in the DMT group experienced <b>improved daily functioning where the</b> diurnal cortisol slope remained significant even after one year.	Dieterich-Hartwell, 2024
10-week DMT program (n=8) Mixed Feasibility Study using a convergent mixed methods design	The DMT program enhanced participants' creative expression through movements, which supported their thinking, memory, imagination, and creativity. Participants also improved connections with their physical sensations and emotions through embodied experience.	Lyons et al., 2024
6-month DMT program, (4 sessions/week) Philadelphia Geriatric Center Morale Scale (PGCMS), The Geriatric Depression Scale (GDS), Abbreviated Mental Test (AMT), Quality of life (QOL) and Bristol Activities of Daily Living Scale (BA-DLS).	Overall cognitive and emotional states improved, as evidenced by better scores on the Philadelphia Geriatric Center Morale Scale, Geriatric Depression Scale, and Abbreviated Mental Test.	Simona, et al., 2020
Systemic review with meta-analysis (n=579)  RCT (6 weeks, 3 months, 4 months, 10 months, and 12 months)  Geriatric Depression Scale (GDS),  GDS-15 Beck Depression Inventory (BDI) and four dichotomous items of the GDS.	Depressive symptoms were alleviated by participation in the movement to music. Testing at intervals showed that dance-based interventions significantly decreased depression among persons with mild cognitive impairment (MCI) and dementia.	Wang, et al., 2022

	8-week DMT group (16 sessions) One control group and an intervention group.	The intervention group <b>demonstrated increased global efficiency and modularity in brain networks</b> , with global efficiency increasing from 0.17 to 0.21 and modularity (Q) increasing from 0.63 to 0.69.	Thumuluri et al., 2022
Population	Research Methodologies / Methods	Key Findings	References
People with neurodegenerative diseases	Systematic searches from 721 initial papers, 33 RCTs and 24 systematic analyses were ultimately included.	DMT activities provide emotional uplift and can assist in the management of psychological symptoms such as depression and anxiety.	Wu et al., 2022
Intellectual Disability	5 DMT studies (1970-2021) reviewed Preferred Reporting Items Meta-Analysis (the PRISMA) Guidelines	Improved body image and body awareness increased overall emotional wellbeing. The DMT interventions resulted in muscle relaxation and improved physical stability and controlled shifting of the centre of gravity.	Takahashi, & Kato, 2022
	9 DMT sessions (n=7) Participatory Action Research Arts-based Research	Over time, participants showed an increased ability to self-assess and provide feedback. Tools like diaries, photos, body collage artworks, and group discussions were effective in supporting self-assessment. This study shows that participants with intellectual disabilities can reflect and self-assess when accessible and diverse tools are provided.	Dunphy & Hens, 2020
Down syndrome	Review of research studies, peer- reviewed articles, and other academic sources	Participation in DMT supported adults with Down syndrome to <b>develop a stronger sense of self-identity and self-expression.</b>	Briggs, 2022
	8-month DMT program (n=12) Stand up and Go Test Tinetti Test	The study found that DMT improved the participants' balance, posture, and motor control. The "Stand up and go" test improved from 1.78 to 1.16, and the Tinetti test score improved from 1.79 to 0.96. Balance and spatial-temporal orientation issues decreased from five to two by the end of the program.	Cosma, et al., 2017
Williams Syndrome, Down syndrome and Cerebral Palsy	Literature Search GARS-2, ASSP, ADOS-G, CBRS, FEAS, HHD, TUG, OMNI, and PACES questionnaires	DMT was effective in <b>enhancing the wellbeing</b> of children with various disabilities, including intellectual disabilities, Williams syndrome, Down syndrome, and cerebral palsy.	Valentini, et al., 2023
Cerebral Palsy	24 DMT sessions (n=26) RCT Controlled group of traditional kinesiotherapy exercises	The DMT group exhibited greater improvements in independence function, self-care, mobility, locomotion, communication, psychosocial adjustments, and cognitive function. The study concluded that DMT could positively	Teixeira-Machado et al., 2017

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		influence motor function, emotional, and social aspects, supporting the concept of complex multimodal psychomotor adjustments.	
Population	Research Methodologies / Methods	Key Findings	References
Psychosocial Disability (depression, anxiety)	Quasi-experimental waitlist control design study Body Image Scale WHO-5-Wellbeing Index	Findings commend dance sessions as effective psychotherapeutic mechanisms to <b>mitigate body dissatisfaction and improve body image and wellbeing</b> of women with disabilities.	Pandya, 2024
	Mixed quantitative and qualitative study	Quantitative findings suggest that DMT has the potential to enhance psychosocial functioning and reduce the severity of negative symptoms of schizophrenia.	Bryl, et al., 2022
	Systematic review of 15 DMT studies	The study reinforces the DMT premise that <b>bodily</b> , <b>psychological and emotional changes reciprocally influence one another.</b> DMT programs result in positive changes in mental health and wellbeing measures including mood, vitality, self-efficacy, coping, body image and anxiety. Cognitive neuroscience research in a DMT context provides evidence that <b>dance impacts a variety of cognitive functions including embodiment.</b>	Millman, et al., 2021
	Online survey via a Qualtrics link with qualified Dmts (n=8)	Through kinaesthetic empathy, the therapists recognised changes in self-perception, self-regulation, and self-attunement in the participants.	Christopher & Tamplin, 2022
Trauma	Qualitative systemic review of 15 DMT studies and its efficacy on PTSD	DMT can improve bodily sensations, perceptions, motor skills, psychological processes, and interpersonal skills.	Tomaszewski, et al., 2023
	Systemic Review of literature on the use of DMT for female participants who experienced interpersonal trauma Narrative synthesis	The study evidenced that DMT can enhance body-mind integration, promote a sense of safety, aid in trauma processing and empower participants who experienced trauma.	Liang & Bryant, 2024
Other Mental Health Disorders	Literature review on studies of DMT	DMT has been shown to have positive results, especially on body image, anxiety, and depression among people living with Parkinson's, dementia, cancer, obesity, heart failure, and hypertension.	Gokcen, et al., 2020

People with chronic headache	Rater-blinded RCT	Significant improvements were reported in negative symptoms, general psychopathology, and functional remission. The findings of this study indicate that goal-oriented DMT may be used for achieving more effective psychosocial outcomes.	Gokcen, et al., 2020
Population	Research Methodologies / Methods	Key Findings	References
Chronic Pain	Meta analysis	Participation in DMT sessions can <b>improve secondary symptoms of depression</b> , such as <b>self-esteem</b> , <b>quality of life</b> , <b>and socio-occupational functioning</b> . The study found that <b>depression scores decreased through dance</b> and the therapeutic relationship, addressing issues nonverbally, and creatively integrating solutions.	Karkou, et al., 2019
Fibromyalgia	Systematic review of seven studies (n=335) Meta-analysis	Dance-based interventions significantly <b>reduce pain levels in people with fibromyalgia</b> , with an overall effect size of -1.64, which is considered large. This reduction was consistent across all five studies included in the meta-analysis. <b>Reduction of depression and anxiety</b> was also reported.	Murillo-García et al., 2018
Turner Syndrome	4-year-qualitative intervention study (n=14) with female participants with Turner Syndrome	Participants demonstrated deeper self-understanding and emotional growth. They gained confidence in their physical abilities and movement, developed greater emotional resilience and self-esteem and better emotional regulation. Participants learnt to process painful feelings about their bodies, such as those related to infertility and short stature.	Loughlin, 1993

## **Community Living**

DMT can support people with disabilities to navigate community living by enhancing skills that promote independence, social engagement, and emotional wellbeing. DMT equips participants with social skills such as building relationships with others, and collaborating in play and stories. By experiencing a safe nonjudgemental relationship with the Dmt, participants can develop a sense of interdependency. Group DMT offers a unique approach that fosters a sense of belonging among participants in a therapeutic setting. DMT is a powerful therapy that fosters community engagement and increases personal wellbeing.

Many government organisations are seeking innovative ways to encourage participation in community activities. DMT not only promotes physical health but also strengthens social connections, enhancing collaboration within the community.

Group sessions enhance resilience, self-esteem, and confidence, enabling individuals to engage more actively in community activities. Regular movement not only improves physical endurance but also supports individuals to practise real-life tasks necessary for independent living. Furthermore, DMT enhances self-awareness, helping participants bridge the gap between self-perception and how others perceive them.

## Case Study: DMT improves physical mobility and independence in the community

Mia, 24, with Down syndrome regression disorder (DSRD) and Catatonia regressed to the level of a 4-year-old two years ago. Mia initially remained selectively mute and exhibited no eye contact or facial expressions. Initially, she engaged in a DMT session for a maximum 5 minutes.

A Dmt introduced developmental movement patterns to Mia and used various sensory props to bring awareness to her body. Mia gradually started to smile and show a variety of gestures. After two months, she started to form sentences and began to tell her stories about her family and thoughts. In 12 months, Mia demonstrated improvement in coordination and balance. Her concentration increased as she was able to engage in a DMT session for an hour.

In her community, Mia started to make friends and go out more often. She gained independence in her personal care routine, often showering without assistance. Mia now participates in community groups and attends DMT group sessions, where she has taken on a leadership role.

Population	Research Methodologies / Methods	Key Findings	References
Autism	DMT program (n=1) Kestenberg Movement Profile	The child with autism demonstrated an improved ability to handle his aggression and his relationships with the other boys.	Loman, 1995
	7-week clinical controlled trial (n=31; treatment group (n=16), and no-intervention control group (n=15) Bipolar 12-item Heidelberger State Inventory Questionnaire of Movement Therapy Self-constructed scale Emotional Empathy Scale	The participants increased their willingness to bring their own music and initiate movement, which indicates their involvement and commitment in community activities.	Koch, et al., 2014
	2-month DMT bi-weekly sessions (n=38) Behaviour Coding MANOVA	Children with autism (3-7 years old) in the DMT group spent less time wandering, less time negatively responding to touch, less time resisting the teacher, and more time showing on-task passive behaviour.	Hartshorn, et al., 2001
	6-month DMT (17-19) sessions (n=17-19, out of which n=3 with ASD) Interviews with caregivers VB-MAPP Assessment	Children increased <b>friendly bodily expressions and interactions with family members</b> and <b>improved adaptability</b> to the environment and <b>social interactions.</b>	Fan & Ko, 2023
Dementia	12-week DMT program (N=201) 3 Armed RCT Assessed 4 times over 12 months	The DMT program supported the participants to express themselves, and <b>reduced fear and isolation</b> . The group therapy supported them to <b>gain a sense of integration and connection with others.</b>	Ho et al., 2015
	Conceptual Analysis Literature Review	Group movement provides opportunities for social engagement and interaction, reducing feelings of isolation and loneliness, which are common in individuals with dementia.	Dzwiza-Ohlsen & Kempermann, 2023

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	A perspective review synthesizing existing research and clinical observations on the effects of DMT	The DMT group showed significant decreases in depression, loneliness, and negative mood. The participants gained a greater sense of belonging, selfesteem, vitality, and positive socialisation, ultimately improving their quality of life.	Dieterich-Hartwell, 2024
	10-week DMT program (n=8) Mixed Feasibility Study using a convergent mixed methods design	Group DMT sessions offer opportunities for social interaction, building morale, and creating a sense of community and belonging among participants.	Lyons et al., 2024
	6-month DMT program, (4 sessions/week) Philadelphia Geriatric Center Morale Scale (PGCMS), The Geriatric Depression Scale (GDS), Abbreviated Mental Test (AMT), Quality of life (QOL) and Bristol Activities of Daily Living Scale (BADLS).	Participants reported increased satisfaction with their quality of life, more engagement in activities, and a sense of usefulness to society and family, indicating better community living.	Simona, et al., 2020
	Qualitative feedback collected from participants to assess social connection and subjective experiences  Attendance records maintained to measure participant engagement and feasibility of the intervention	Qualitative feedback from participants indicated that they felt <b>socially connected</b> to the group, and <b>increased life satisfaction</b> , <b>happiness</b> , <b>and enjoyment</b> from interactions with others. The intervention had a high attendance rate of 96%, indicating good feasibility and participant engagement.	Thumuluri et al., 2022
People with neurodegenerative diseases	Systematic searches from 721 initial papers, 33 RCTs and 24 systematic analyses were ultimately included.	By improving physical, cognitive, and emotional health, DMT contributes to a better quality of life for individuals with neurodegenerative diseases. It supports independence and enhances the overall sense of wellbeing. DMT encourages social interaction and engagement, which can reduce feelings of isolation and loneliness.	Wu, et al., 2022
Intellectual Disability	5 DMT studies (1970-2021) reviewed Preferred Reporting Items	Improved self-awareness.	Takahashi, & Kato, 2022

	Meta-Analysis (the PRISMA) Guidelines		
	16-week DMT program (n=12) MARA	Nine participants commented on outcomes of DMT, or skills developed in the DMT program being transferred to contexts outside it. Improvements were noted in mobility, and emotional regulation including mood, relaxation, communication skills, social skills, and confidence.	Dunphy & Hens, 2018
Population	Research Methodologies / Methods	Key Findings	References
Williams Syndrome, Down Syndrome and Cerebral Palsy	Literature Search GARS-2, ASSP, ADOS-G, CBRS, FEAS, HHD, TUG, OMNI, and PACES questionnaires	The social impact of these therapies was significant, as improved physical abilities allowed for more fulfilling participation in social life.	Valentini, et al., 2023
Psychosocial Disability (depression, anxiety)	Qualitative findings of 8 studies (n=351)	<b>Decrease in depression scores</b> in favour of DMT groups in all studies.	Karkou, et al., 2019
	10-week DMT (20) sessions (n-=21) Beck Depression Inventory (BDI) scores	Participants reduced depression and anxiety, nurtured a secure attachment style and increased emotional awareness in adults. They increased vitality and overall quality of life in adults.	Punkanen et al., 2014
Trauma - PTSD	Literature Review	DMT provides patients with tools for long-term recovery, such as improved interpersonal skills, self-awareness, emotion regulation, and self-compassion. These skills support prevent relapse and contribute to overall wellbeing.	Parker, 2018
Borderline Personality Disorder with Complex Trauma	Case Study (n=1)	After attending bi-monthly DMT sessions, with a combination of group therapy and individual psychotherapy, the participant felt empowered to make healthier choices, such as applying for jobs and joining a choir, which she had not done in three years.	Harty, 2024
Other Mental Health Disorders	Systematic review of 15 DMT studies	DMT improves performance on mental rotation (the ability to mentally perceive how an object fits in space). Children dancing compared with children doing physical exercise scored better on mental rotation.	Millman, et al., 2021
People with chronic heart failure	Systematic review Meta-analysis of RCT	DMT supports the recovery from heart failure and ensures an improvement of functionality and quality of life.	Gomes Neto et al., 2014

Turner Syndrome	4-year-qualitative intervention study	The group setting in DMT offered a supportive	Loughlin, 1993
	(n=14) with female participants with	environment where participants connected with others	
	Turner Syndrome	without fear of judgement, enhancing their ability to	
		interact with others in various social contexts.	

# **Conclusion**

Dance Movement Therapy is an effective, beneficial and evidence-based form of therapy for people of all ages living with disability; its effectiveness is supported by a long-standing history of empirical research and by the lived experience of participants.

In this document, the Dance Movement Therapy Association of Australasia Inc., (DTAA) explains what Dance Movement Therapy is and provides information about the rigorous training, registration and ongoing professional development requirements of a Registered Dmt in Australia, the myriad benefits of regular DMT support for people living with disability and includes a summary of available research relevant to this submission. To provide a lived-experience perspective, there are case studies offered by Registered Dmts, and testimonials from the voices of Australian NDIS participants, their caregivers and the other relevant professionals.

The information clearly demonstrates how DMT addresses the NDIS goals of: Improving or maintaining disability-related functional capacity in areas such as:

- Language and Communication
- Personal Care
- Mobility and Movement
- Interpersonal Interactions
- Functioning, and
- Community Living

It also highlights the unique nature and key features of DMT, how the therapist works, what a session includes and the different measurement methods that can be used to assess, observe and record therapeutic goals and outcomes - showing how Dmts are guided and informed by the ever-evolving body of research, by observations and experiences occurring in the therapeutic relationship, and by the requirement to uphold professional standards and remain accountable.

DMT is unique in its ability to work with the whole person: body and mind; the physical, emotional, cognitive and social/relational aspects of self.

The therapist, trained to attune and mirror a person, can quickly form a meaningful and largely **nonverbal relationship**, particularly where that person cannot communicate via spoken language.

**The moving body** both symbolises and opens the door to change in posture, strength, coordination, physiology and mood. This, in turn, opens the door to growth and change in intra-personal and social domains.

**Creativity** explains how a Dmt approaches the relationship and the therapeutic work – providing a safe, nonjudgemental space where the participant can play with the new. Motivation and invitation come from props/sensory materials, rhythm/music, and body-based interactions and improvisations between participant and therapist, all the while focusing on the participant's goals.

DMT is also uniquely positioned to work with people living with physical, developmental, behavioural and psychosocial disability, those who need communication devices and with all ages.

DMT can stand alone as a primary therapy or complement and enhance the effects of other therapies such as psychology, counselling, occupational therapy, speech therapy or physiotherapy.

The case studies and testimonials featured in this document indicate the ways in which DMT benefits NDIS participants and their families. These are the voices of those who ask for the right to choose a legitimate and evidenced form of therapy as part of their support plan.

The DTAA believes that this document demonstrates that Dance Movement Therapy is an evidence-based therapeutic support that is effective and beneficial for a wide range of NDIS participants – particularly those who find verbal or structured therapy options challenging - and deserves to be officially included in the NDIS Therapy Supports and Early Childhood Supports categories for NDIS participants.



## References

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