Beyond Words: Somatic Mechanisms of Dance Movement Therapy in Fostering Peer Connection and Self-Expression Among Neurodiverse Adolescents

Sara Rampurada

Abstract

Young adults with developmental disabilities frequently experience severe social isolation because traditional social spaces heavily rely on verbal communication. This study investigates how dance/movement therapy (DMT) fosters nonverbal self-expression and peer connectivity among neurodiverse young adults. Ten participants (5 men, 5 women; ages 18-21) in a self-contained special education classroom in New Jersey attended weekly DMT sessions over four weeks. Interventions included mirroring exercises, group circle formations, and music guided movement improvisation. After each session, participants completed an adapted 5 point visual Likert scale using facial expressions and hand gestures to accommodate varying communication abilities. By Week 4, affirmative ratings for peer connection increased from 50% (n = 5) to 80% (n = 8), while perceived ability to express oneself through movement increased from 30% (n = 3) to 80% (n = 8), and negative ratings dropped from 30% (n = 3) to 0%. Facilitator observations further revealed increased spontaneous social interaction and reciprocal physical engagement. These findings suggest that integrating dance movement therapy (DMT) into special education curricula provides an accessible, effective approach for reducing communication barriers and promoting self expression among transition-age youth with developmental disabilities.

Introduction

The purpose of this paper is to show how somatic movement improves nonverbal self-expression and social connectivity amongst young adults living with developmental disabilities. Severe social isolation among individuals with developmental disabilities represents a public health crisis that is often overlooked. According to a national survey reported by the Brown University School of Public Health, approximately two thirds of respondents faced isolation or companionship, from all different types of disabilities (Siliezar, 2025). Establishing peer relationships amongst young adults with developmental disabilities feels like an “insurmountable challenge” due to communication difficulties, social anxieties, and social stigmas surrounding disabilities (All Friends Network, 2025). Everyday socialization typically relies on fluid dialogue–which puts individuals with developmental disabilities at a distinct disadvantage. The article notes that, “many individuals may struggle with verbal expression, making it difficult to articulate thoughts and feelings during casual conversation” (All Friends Network, 2025). Since traditional social settings over-rely on verbal communication, these individuals are often marginalized and experience external barriers. In the general population, peer connections are often formed through natural spaces such as community centers, clubs, and sports.

However, these spaces frequently lack the structural accommodations for those with developmental disabilities. Many young adults with developmental disabilities lack an IEP, which decreases opportunities for them to engage in meaningful social activities (Our Place, 2025). This persistent isolation can thus lead to clinical consequences, including an increased level of

anxiety and depression. While community clubs and recreation programs often fail to meet the needs of individuals with developmental disabilities, similar obstacles are also present in spaces for physical activity. Individuals with disabilities often encounter “exclusion and a lack of belonging in physical activities stemming from barriers including lacking professional resources and reproduction of stereotypical…norms” (Anderson & Mathews, 2024). To mitigate these obstacles, dance/movement therapy (DMT) offers an inclusive approach that traditional activities often lack. Rather than relying on verbal communication for self-expression, the American Dance Therapy Association (n.d.) defines DMT as “the use of movement to promote emotional, social, cognitive, and physical integration of the individual, for the purpose of improving health and well-being.”

Somatic movement transforms interaction into a shared kinesthetic experience, rather than centering the body around spoken language. Therefore, utilizing techniques such as mirroring exercises, improvisational movements, and expressive gestures can create a space for more meaningful social connectivity and emotional expression. Emotional literacy can be improved through creating different emotional states and physical motions in movement (Mohan, 2025).

By bridging their internal states and external physical forms, such as swaying slowly or jumping, participants gain both the self-awareness needed to recognize their feelings, and the ability to share them with others.

Methods and Protocol

Prior to data collection, administrative approval was obtained from the participating school, and written informed consent was secured from all participants and/or their legal guardians, in accordance with ethical guidelines for research involving human subjects.

The study included 10 young adults attending a private special education school in New Jersey. Participants ranged in age from 18-21 years old, with there being an even distribution between men and women (5 men, 5 women). The sample reflected a cohort of heterogeneous groups of neurodivergent students, including participants with autism spectrum disorder (ASD) and co-occurring developmental disabilities, all of whom received instruction within a self-contained classroom. Participants attended one class of dance movement therapy (DMT) per week over a four–week duration. While sessions ran over four weeks, the study focused on comparing baseline measures from the initial sessions and outcomes from the final session. Key interventions included mirroring exercises, group circle formations to establish cohesion, and movement improvisation guided by music to encourage self-expression. A Likert scale (see Figure 1) was used to measure participants' self–reported measures of nonverbal self-expression and social connectivity for each class. To account for varying reading and communication abilities, the scale utilized visual facial expressions (e.g., representing negative, neutral, and positive emotions), as well as hand gestures.

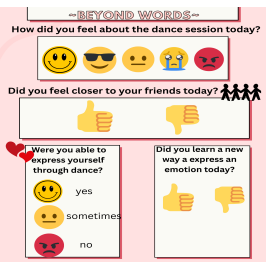

Figure 1: Post-session visual assessment protocol to assess peer connectivity and self-expression among participants

Results

All 10 participants completed the Beyond Words evaluation following each of the four weekly sessions (*N* = 10; 100% completion rate across all participants). Overall, participant responses reflected an upward trend in peer connection, self-expression, and session enjoyment, as familiarity between peers and the class environment increased. Affirmative responses regarding peer connection increased from 50% (n = 5) in the first session to 80% (n = 8) by Week 4. Similarly, participants who felt they could express themselves through movement increased from 30% (n = 3) to 80% (n = 8), with negative ratings dropping from 30% (n = 3) down to zero. Selections on the 5–point emoji scale shifted mainly toward positive affective markers (smiling/sunglasses emojis) by Week 4. While neutral and negative ratings were not entirely eliminated, they were reduced (with only n = 1 reporting negative affect and n = 1 reporting neutral affect in Week 4), indicating that the vast majority of participants experienced positive social and kinesthetic gains.

Discussions and Conclusions

This study demonstrates dance/movement therapy (DMT) to enhance nonverbal self-expression and peer connectivity amongst transition-age youths with developmental disabilities. Over the course of four weeks, participants were exposed to structured activities including mirroring experiences, improvisational movements, and group circle movements, which allowed participants to bypass traditional verbal communication barriers. This progression from baseline hesitation to active peer engagement addresses the challenges the participants face both socially and in their ability for self-expression. By implementing an adapted, visually grounded tool, the study successfully allowed participants to accurately and independently communicate their emotional and relational experiences. Integrating dance and movement therapy within special education programs offers a high-impact strategy to reduce communication barriers and encourage authentic belonging for young adults.

Beyond the qualitative metrics of the survey, facilitator observations showed the behavioral breakthroughs over the course of the study. During the first session, participants were characterized by closed posturing and hesitation to join group circle movements. By Week 4, these defensive postures transitioned to reciprocal physical engagement, and clear indicators of excitement were shown during mirroring practices, such as spontaneous smiling and mutual laughter. Most notably, one participant with a history of severe tactile defensiveness voluntarily took a peer’s hand to close the gap of the circle during the final week — a milestone that the classroom staff noted had never occurred in school settings.

Despite the positive outcomes gained from this study, several methodological limitations should be addressed when interpreting the study. First, the sample size (N = 10) drawn from a single self-contained classroom restricts the generalizability of the results across broader populations of individuals with a developmental disability. Second, the four–week timeframe of

this intervention limits insight into the long–term retention of learned movement and social connectivity once structured sessions cease. Third, the study lacked an active control group, meaning extraneous variables such as classroom familiarity or educator presence cannot be excluded. Finally, while the *Beyond Words* Likert scale allowed for accessible self-reporting, relying solely on participant responses did not account for daily mood states or sensory fatigue.

To support young adults with developmental disabilities, secondary schools and specialized special education programs should formally include somatic movement into weekly curricula. Special education teams can integrate dance/movement therapy practices directly into Individualized Education Programs (IEPs) to help combat social isolation and increase self-expression.

References

All Friends Network. (2025, November 9). *Navigating the friendship maze: Challenges faced by adults with developmental disabilities*. https://allfriendsnetwork.org/navigating-the-friendship-maze-challenges-faced-by-adults-with-developmental-disabilities/

American Dance Therapy Association. (n.d.). *What is dance/movement therapy?* https://adta.memberclicks.net/what-is-dancemovement-therapy

Anderson, A., & Mathews, R. (2024). Dance/movement interventions and students with disabilities: A critical review. *Routledge Open Research*, *3*(30). https://routledgeopenresearch.org/articles/3-30

Mohan, M. (2025, March 17). *The benefits of dance therapy for autism*. Links ABA Therapy Solutions. https://linksaba.com/the-benefits-of-dance-therapy-for-autism/

Our Place. (2025, June 2). Combating isolation for adults with intellectual and developmental disabilities. *Forbes*. https://www.forbes.com/sites/forbeseq/2025/06/02/combating-isolation-for-adults-with-intellectual-and-developmental-disabilities/

Siliezar, J. (2025, August 21). *Higher rates of loneliness persist among working-age adults with disabilities, study finds*. Brown University School of Public Health. https://sph.brown.edu/news/2025-08-21/disabled-adults-loneliness