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FRIENDSHIP AND DANCE/MOVEMENT THERAPY WITH
ADULTS WITH DEVELOPMENTAL DISABILITIES

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Thesis submitted to the faculty of Columbia College Chicago

in partial fulfillment of the requirements for

Master of Arts

in

Dance/Movement Therapy & Counseling

Department of Creative Arts Therapies

(Formerly Dance/Movement Therapy and Counseling Department)

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Abstract

The purpose of this research study was to understand the role and impact of dance/movement therapy on friendships between adults with developmental disabilities. The primary question this study answered was: how does dance/movement therapy contribute to the formation and maintenance of friendships between adults with developmental disabilities? This study followed the single instrumental qualitative case study methodology and involved adult participants with developmental disabilities who were part of a day services program. The data were collected in the form of a research journal documenting signs of friendship during the sessions and interviews with group participants. The data were analyzed using sequential analysis, and themes identified as contributing to friendship development and maintenance included facilitating social connection, initiation, conflict resolution, a sense of belonging, and a shared positive experience. These themes with their explicit connection to dance/movement therapy provide an enriched understanding of the integral and unique role of dance/movement therapy in the development and maintenance of friendships. The dance/movement therapy interventions and concepts that are involved in the themes set dance/movement therapy apart from other therapeutic interventions for friendship development and maintenance for adults with developmental disabilities.

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Chapter One: Introduction

When I think about what is important to me in my life, I think about a variety of things, but relationships I have with others stand out as being irreplaceable. Whether they are family relationships I was born into or friendships I have developed over time, the people in my life are what matter most. When I think about what life would be like without my personal relationships, I venture to say that it would be rid of love, joy, connection, purpose, and overall vitality. Family relationships and connections are subject to circumstance to some extent. But with friends, there are mutual choices and benefits as a result of being in relationship. I am very fortunate to have benefitted from a variety of friendships throughout my life, and consider them of utmost importance.

Ever since I started working with individuals with developmental disabilities (DD), I have been crushed to hear about their lack of friendships. Many parents of children with DD have shared wishes and dreams for their children with me that included them to have a friend or spend time socially with another child outside of school. As my experience working with individuals with DD expanded to including adults, I learned that increasing social skills and social relationships was still a top desire and treatment goal. For a variety of reasons, individuals with DD tend to struggle to form and maintain friendships. Many of the challenges related to friendship development and maintenance become obvious when considering what it means to live with a developmental disability. For the purposes of this study, it is important to understand what developmental disability is and in particular, how living with a developmental disability impacts an individual's social skills and relationships.

Developmental Disability

In order for adults with DD to receive psychosocial support services, they must have a developmental disability diagnosis. According to the Developmental Disability and Bill of Rights Act of 2000, developmental disability is defined as “a severe, chronic disability of an individual that is attributable to a mental or physical impairment, is manifested before the individual attains age 22, is likely to continue indefinitely, and results from substantial functional limitations in three or more areas of major life activity” (Sec. 102 definitions, 8). The act described major life activities: self-care, receptive and expressive language, learning, mobility, self-direction, capacity for independent living, and economic self-sufficiency. All of these major life activities can affect people with DD’s ability to make and sustain friendships.

DD are a part of clinical diagnoses that appear in the fifth edition of *The Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* (American Psychiatric Association, 2013). DD are included in the *DSM-5* under the umbrella of neurodevelopmental disorders. Several neurodevelopmental disorders include DD with social difficulties in their diagnostic criteria. Such disorders are intellectual disabilities, social (pragmatic) communication disorder, and autism spectrum disorder. Clinical definitions of disorders with social difficulties can manifest as a lack of friendships and social connections in the lives of individuals with DD.

Friendship

Friendship is another crucial component of this study to understand in context. Friendship is somewhat of a subjective term that is generally influenced by an individual’s or group’s age and culture. Rossetti (2011) and Attwood and Gray (n.d.) agreed on a definition of friendship that will be used for this study. Friendship is defined as individuals interacting in relationship receiving some perceived personal benefit, or mutual satisfaction. Friendships

between individuals with DD manifest in a variety of ways, both verbally and nonverbally. Examples of activities that signify friendships include: inside jokes, talking on the phone with others, having contact with friends outside of school, holding hands, and dancing together (Cook, 2008; Miller, 2005; Rossetti, 2011). Based on the previously stated definition of friendship and my own observations and experiences of movement qualities within social interactions, I arrived at verbal and nonverbal indicators of mutually beneficial friendships. For the purposes of this study, indications of friendships observed in dance/movement therapy (DMT) sessions will be evidenced by participants making eye contact, making friendly posture/gesture movements towards another group participant (holding/shaking hands or high-fiving/fist bumping), mirroring movements or movement qualities of other group participants, moving in close proximity (overlapping potential kinespheres) of other group participants, displaying positive affect (eyes widening, smiling, laughing) when moving with or close to another group participant, using the word friend to describe another group participant, or inquiring about the wellbeing of another group participant.

Role of Dance/Movement Therapy

Definition of dance/movement therapy. DMT was defined by the American Dance Therapy Association as “the psychotherapeutic use of movement to further the emotional, cognitive, physical, and social integration of the individual” (American Dance Therapy Association, 2009). DMT will refer to the intervention techniques used in this study to foster the social integration of the individual. My style of DMT is rooted in Marian Chace’s theories and is focused on facilitating natural social interactions between group participants through movement interventions.

Theoretical framework. My DMT framework is based in positive psychology and a strengths-based approach. When working with individuals with DD, I capitalize on abilities rather than their social deficits. I celebrate moments of positive interaction and support them with positive reinforcement. In doing so, I facilitate self-affirmation and self-efficacy. During DMT sessions, I allow for an improvisational structure but also recognize the need for directives when working with individuals with DD.

Purpose of the Research

This research study explored friendships between individuals with DD following a series of group DMT sessions. The study discovered and brought clarity to the role and impact of DMT on forming and maintaining friendships between adults with DD. In the following chapter, I will provide a context and background for this study through a review of the existing literature related to adults with DD, friendship, and DMT.

Chapter Two: Literature Review

Marian Chace, a pioneer of DMT, conducted her clinical work on the basis that “dance is communication and thus fulfills a basic human need” (Chaiklin & Schmais, 1993, p.77). DMT facilitates the fulfillment of many basic human needs through a variety of movement interventions. Kitwood (1997) proposed that everyone has needs that must be met in order to thrive and function. Individuals with cognitive impairments and DD often require more support in order to meet their needs. In this literature review, the basic human need of social interactions and friendships for individuals with DD will be discussed.

The reviewed literature contained information on the development of social skills for individuals with DD. The current literature tended to focus on social skill development for individuals with DD through the use of cognitive-behavioral didactic approaches. Little literature exists in the field of DMT bridging the development of social skills to creating and maintaining friendships between individuals with DD. Consequently, this literature review will address the general development of interpersonal social relationships within the population of individuals with DD. In addition, the use of DMT as a means of facilitating the development of social skills within the population of individuals with DD will be discussed. The relevance of social skills and friendships facilitated by other creative arts therapies for people with DD will also be explored.

Disabilities with Social Difficulties

When discussing friendships between individuals with DD it is important to acknowledge those DD that include social deficits in the diagnostic specification. As aforementioned, according to the Developmental Disability and Bill of Rights Act of 2000, developmental disability is defined as “a severe, chronic disability of an individual that is attributable to a

mental or physical impairment, is manifested before the individual attains age 22, is likely to continue indefinitely, and results from substantial functional limitations in three or more areas of major life activity” (Sec. 102 definitions, 8). The federal document described major life activities that can affect people with DD’s ability to make and sustain friendships. For assessment and treatment planning purposes, clinicians use the *DSM-5* (American Psychiatric Association, 2013). In the neurodevelopmental disorders section of the *DSM-5*, specific disorders with social implications are discussed. The neurodevelopmental disorders that are relevant to this literature review are intellectual disability, social (pragmatic) communication disorder, and autism spectrum disorder.

Intellectual disability. A specific type of developmental disability/neurodevelopmental disorder that is characterized by social difficulties is intellectual disability. According to the diagnostic criteria in the *DSM-5* (American Psychiatric Association, 2013), people with intellectual disabilities must have deficits in intellectual functioning confirmed by clinical assessment and individualized, standardized intelligence testing, as well as “deficits in adaptive functioning that result in failure to meet developmental and socio-cultural standards for personal independence and social responsibility” (p. 33). Adaptive functioning refers to activities of daily life including social participation and communication. As a result, someone with the diagnosis of intellectual disability may experience deficits in the ability to form and sustain friendships. Standardized levels of severity for intellectual disabilities are mild, moderate, severe, and profound, and are based on the amount of support needed. According to the *DSM-5*, someone with mild intellectual disability is immature in social interactions and may have difficulty accurately perceiving peers’ social cues. Someone with moderately severe intellectual disability may have successful friendships across life, but social judgments and communication pose

challenges in their relationships. Individuals with severe and profound intellectual disabilities have very limited speech communication but respond to social interaction from family members and familiar others with enjoyment and pleasure. People with intellectual disabilities are still able to have social interactions and friendships, but they are characterized slightly differently according to their level of disability.

Social (pragmatic) communication disorder. Another type of neurodevelopmental disorder that may present social difficulties is social (pragmatic) communication disorder. According to the *DSM-5*, individuals with this disorder have difficulties with social use of language. These difficulties result in functional deficits related to social participation and development of social relationships, and can cause challenges in social situations such as making and sustaining friendships.

Autism spectrum disorder. Autism spectrum disorder is another classification of neurodevelopmental disorders that affects social functioning and the ability to form friendships. The *DSM-5* (American Psychiatric Association, 2013) noted that individuals with well-established diagnoses of autistic disorder, Asperger's disorder, and pervasive developmental disorder not otherwise specified in the *DSM-IV* should be given the diagnosis of autism spectrum disorder. The *DSM-5* outlines diagnostic criteria for autism spectrum disorder to include persistent deficits in social communication and social interaction across multiple contexts. The social deficits may be manifested as deficits in "developing, maintaining, and understanding relationships" (p. 50), which may include difficulties in making friends. Other social deficits may include deficits in nonverbal communicative behaviors and deficits in social-emotional reciprocity. Attwood (2002) identified that a person with Asperger's syndrome has a conception of friendship that is different than that of his or her peers and often results in a lack of friendship

with peers. In the four stages that Attwood identified, children progressed from a lack of desire for social interaction with peers to a desire for peer interaction that was often unsuccessful. Observations indicated that this was due to lack of social skills, misinterpretation of social cues, or the inability to find peers with shared interests, experiences, and thought processes (Attwood). Similarly, Miller (2005) indicated that adolescents with autism and Asperger's syndrome generally had a desire for social interaction but lacked the skills or understanding to relate successfully.

Additional diagnostic criteria described in *DSM-5* (2013) for autism spectrum disorder include restricted and repetitive patterns of behavior, interests, or activities, and symptoms that are present in the early developmental period and cause clinically significant impairment in important areas of functioning. The severity of autism spectrum disorder is specified using levels: requiring support, requiring substantial support, and requiring very substantial support.

In addition to the *DSM-5* diagnostic criteria, Attwood's (2002) and Miller's (2005) perspectives outlined the reality of friendship and social interaction for people with autism spectrum disorder. Individuals with DD often experience challenges and difficulties related to social situations and developing and maintaining friendships. Specifically, Rossetti (2011) identified several potential barriers to the development of friendship amongst individuals with DD including difficulty with communication, difficulty initiating time spent together, the need for social prompts, and the need for redirecting during conversation.

Although the development of friendships for people with DD may pose challenges, Baumeister and Leary (2005), Kitwood (1997), and Hall (2009) concluded that a lack of relationships resulted in compromised psychological and physical health including feelings of depression and anxiety. The existence of relationships is a basic human need that yields health

and wellbeing (Baumeister & Leary, 2005). It is important that individuals with DD are seen as capable of forming and maintaining friendships because while the challenges are significant, the benefits outweigh the challenges.

Understanding Friendship for Individuals with DD

Friendships and social connections are important for everyone to develop a sense of belonging (Baumeister and Leary, 2005). However, the need for friendships is particularly important for individuals with disabilities to help them overcome diagnostic challenges and develop feelings of inclusion in society. According to Kitwood (1997) and Hall (2009), inclusion and belonging also give people a place and role, which contributes to their overall functioning and quality of life.

While Kitwood's (1997) work primarily was with individuals with dementia, his theory of needs is applicable to all people, and for the sake of this literature review, those with DD. Individuals with DD and individuals with dementia share vulnerability and decreased ability to take initiative to get their needs met. When the need for social relationships and inclusion is not met, Kitwood said that individuals are more likely to "decline and retreat" (1997, p. 20). However, Kitwood (1997) and Hall (2009) stated that when this need is met it is possible for people to engage more with others and their environment, improving their quality of life.

Inclusion and belonging. Hall (2010) and Hall (2009) stated that despite over a decade of inclusion policy, individuals with intellectual and DD are still discriminated against and are generally not included in society. Got and Cheng (2005) discussed that people with disabilities tend to not receive as much emotional support and companionship from their family and friends as others without disabilities. Similarly, Orsmond, Krauss, and Seltzer (2004) found that almost 50% of their sample of 235 adolescents and adults with autism spectrum disorders did not have

any peer relationships outside of pre-arranged settings. Additionally, their data indicated that the difficulty forming and maintaining friendships in childhood persists into adulthood for individuals with autism spectrum disorder. Hall (2009) confirmed that young adults with intellectual and DD have limited opportunities to develop friendships and thus have limited experiences of social inclusion. Researchers agree that adults with DD's needs for belonging are not being met (Got & Cheng, 2005; Hall, 2009; Hall, 2010; Orsmond, Krauss & Seltzer, 2004).

Hall (2010) conducted two case studies with arts-based interventions for the purpose of creating inclusion and belonging for individuals with DD. Hall found that a sense of belonging is much more than social inclusion and equal rights; "To belong is to feel attached, to feel valued, and to have a sense of insidership" (p. 54). Through the case studies that Hall conducted, she concluded that belonging and inclusion is possible for individuals with DD through art and theater activities. Hall (2009) conducted a phenomenological study describing the experiences of social inclusion for young adults with intellectual disabilities. Hall found that individuals with intellectual and DD felt a sense of belonging "when people talked to them, when others treated them similarly, and when they experienced positive interactions" (p. 33). Based on Hall (2009) and Hall's (2010) research studies, individuals with DD can feel a sense of belonging that likely contributes to their quality of life.

While there are some opportunities for inclusion, many individuals with DD's needs for a sense of belonging are not being met due to a variety of factors. Frankel, Myatt, Sugar, Whitham, Gorospe, and Laugeson (2010) presented that social challenges might extend beyond childhood since isolation makes it more difficult for people with autism spectrum disorders to understand peer etiquette that is necessary to making and keeping friends. Too few opportunities

for friendship development and difficulties with socialization seem to contribute to individuals with DD's unmet and ongoing needs for inclusion and belonging.

Defining friendship. Forming and maintaining friendships are a way for individuals with DD to feel a sense of belonging and inclusion, in turn increasing their quality of life. The *American Psychological Association Dictionary of Psychology* (2007) defined friendship as:

a voluntary relationship between two or more people that is relatively long-lasting and in which those involved tend to be concerned with meeting the others' needs and interests as well as satisfying their own desires. Friendships frequently develop through shared experiences in which the people involved learn that their association with one another is mutually gratifying. (p. 391)

Since people with DD experience challenges related to socialization, friendships for this population are more complicated. Most authors who have studied individuals with DD agree that friendships are needed and they can exist, but they have different ideas of what makes a friendship for this population (Attwood, 2002; Johnson, Douglas, Bigby, & Iacono, 2011; Rossetti, 2011). Rossetti shared his working definition of friendship to be, "reciprocal and meaningful interactions that are chosen individually, occur outside of friendship programs, and are based on shared interest" (p. 23). In his definition of friendship, Rossetti also claimed a sense of mutual satisfaction in social outcomes results from friendships.

Attwood and Gray (n.d.) defined friendship differently based on chronological and cognitive ages. Attwood and Gray divided friendship into four levels between childhood and adolescence. In the first level (ages 3 to 6 years), friendship is based on proximity and physical attributes. The second level (ages 6 to 9 years) introduces the concept of reciprocity in which friendship is based on shared interests. The third level (ages 9 to 13 years) of friendship involves

an awareness of other's opinions and increased value placed on trust and loyalty. The fourth and final level of friendship (adolescence to adult) involves more self-disclosure and the desire to be understood. Additionally, Attwood and Gray outlined several social behavior skills believed to be necessary for the development of friendship: asking for assistance, giving compliments, criticizing others, accepting suggestions, showing reciprocity, sharing, resolving conflicts, monitoring and listening, showing empathy, boundary setting, and initiating and ending interactions. Attwood and Gray defined friendship based on skills and levels of interaction, while Rossetti (2011) defined friendship more broadly as any interaction resulting in mutual satisfaction. Common themes in the definition of friendship included individuals interacting in meaningful relationship while receiving some perceived personal benefit.

Friendship indicators. Literature reflected differences in what social activities signified friendships. In Rossetti's (2011) study, friendships emerged between the participants through the formation of the Rainbow Dance Troupe. Rossetti wrote, "the connections of their friendships were readily apparent, clearly reflecting reciprocal feelings and natural interactions" (p. 27). Rossetti identified inside jokes and an increase in participation and interaction within the group as signs of friendships forming within the dance troupe. Instead of dance, Miller (2005) used drama therapy to develop friendship skills between children with pervasive developmental disorders and reported an increase in talking on the phone with others and having contact with friends outside of school as ways that friendships manifested in the participants enrolled in her study. Additional standards of friendship were described by Cook (2008) as the sense of camaraderie that formed in the group as well as students joining hands and dancing together.

Johnson et al. (2012) studied social interactions specifically between adults with severe intellectual disabilities. Having fun and hanging out were themes identified as contributing to

positive and pleasurable social interactions for participants, which may contribute to friendships. Having fun included social interactions involving routines consisting of physical or vocal interactions in the form of rhythmic play, games, or songs resulting in laughter and positive affect. Comedic interactions including vulgarity, pranks, jests, and banter also were a part of fun social interactions between adults with severe intellectual disabilities in this study. Pleasurable social interactions were also characterized by hanging out which involved physical contact (hand holding, hugs) and reassuring presence. Five of the six participants with intellectual disabilities in Johnson et al.'s (2012) study demonstrated an interest in connecting with other people through physical contact or companionship, suggesting a desire for friendships. As identified in the existing literature, friendship manifests in individuals with DD in a variety of ways, both verbally and nonverbally.

Treatment Suggestions for Friendship and Social Skill Development

Numerous researchers have studied people with DD's relationships in an effort to understand how to support successful and positive relationships in order to continue to improve quality of life for them. In the literature, the term social skill is used to describe abilities that help individuals to interact appropriately and competently with others in a given social context (VandenBos, G. R. (Ed.), 2007). Friendship development skills and social skills overlap significantly and at times are used interchangeably.

Treatment for deficits in social skills for individuals with DD traditionally takes place in a group setting with didactic teaching of specific skills and social modeling involving a behavioral framework (Frankel et al., 2010; Koenig, White, Pachler, Lau, Lewis, Klin, & Scahill, 2010; Laugeson, Frankel, Gantman, Dillyon, & Mogil, 2011; Mackay, Knott, & Dunlop, 2007; Stichter, Herzog, Visovsky, Schmidet, Randolph, Schultz, & Gage, 2010; Whitby, Ogilvie, &

Mancil, 2012). Skills were taught, modeled, and reinforced yielding an increase in social skills, growth in interactive relationships, and enhanced friendships.

Targeted social skills. Often the social skill treatment programs involved following a curriculum that identified social skills to teach. The curricula tended to involve teaching social etiquette and social norms. Stichter et al. (2010) created a social competence intervention for individuals with high functioning autism or Asperger's syndrome. The social skills their program focused on were recognizing facial expressions, sharing ideas, turn-taking during conversations, recognizing feelings and emotions of self and others, and problem solving. Results revealed improvements in social competence and social functioning in all 27 participants over 20 sessions. Comparatively, the clinicians in Koenig et al.'s (2010) study facilitated activities that required socialization using similar social skills such as playing cooperatively, turn-taking, listening to others, problem solving, and tolerating frustration and change to a group of children with pervasive developmental disorders. Results indicated that over the course of the 16 sessions, the children in the groups became more interactive. Additionally, Mackay et al. (2007) focused on the social skills of social and emotional perspective-taking, conversation skills, and friendship skills for children and adolescents with autism spectrum disorders. Specifically, researchers identified friendship skills to include developing the concept of having a friend, learning not to correct other children all the time, being aware of what others know, accepting rules, being aware of other people's personal space, and the effects of tone of voice on others. Following the series of 12-16 weekly sessions with a total of 46 participants, researchers found an increase in social competence and social functioning. In another program developed for children with DD, Frankel et al. (2010) targeted specific friendship skills including conversational skills, skills for entering and initiating interactions with peers, expanding and

developing friendship networks, good sportsmanship, good host behavior during play dates, and handling teasing. The UCLA PEERS Program for adolescents with autism spectrum disorders that was evaluated by Laugeson et al. (2011) targeted conversational skills, electronic communication (text messages, social media), choosing friends, appropriate use of humor, strategies for engaging and ending peer interactions, planning and coordinating “get-togethers” (p. 1031), good sportsmanship, handling teasing, bullying, gossip, arguments, and disagreements. In total, common targeted social skills within these studies were conversation skills, turn taking, problem solving, and initiating social connections.

Contextualized practice. Many of the social skills treatment programs also involved an aspect of contextualized practice of the identified skills (Frankel et al., 2010; Laugeson et al., 2011; Mackay et al., 2007; Stichtter et al., 2010; Whitby et al., 2012). Role-playing was a common method of practicing skills across studies. For example, in Frankel et al.’s study, child participants were coached to actively try the social skills at home with parent assistance. Participants rehearsed calling other class members on the phone and practiced learned social skills during weekly play dates with other group participants. Results indicated a modest improvement in successful play dates for children in the study following the friendship-training program. Laugeson et al.’s study also encouraged behavioral rehearsal of skills learned in the UCLA PEERS program. Whitby et al. suggested contextualized practice by guided practice, self-monitoring instruction, monitoring and prompting for social interactions, role plays, question and answer games, and video modeling. The group work intervention developed by Mackay et al. targeted skills through contextualized practice by facilitating games, group discussion, role playing, and independent choice activities. By providing ample practicing of social skills with peers, generalization to other areas of life was encouraged (Whitby et al.,

2012). Contextualized practice may assist individuals with DD with transitioning skills learned in therapy sessions to other places and people.

Skill modeling. Another aspect of many social and friendship skill programs was modeling of appropriate and applicable social skills by the facilitator and peers (Laugeson et al., 2011; Stichter et al., 2010; Whitby et al., 2012). Stichter et al. incorporated skill modeling in their program for individuals with high functioning autism and Asperger's syndrome. Facilitators modeled skills such as recognizing facial expressions, sharing ideas, taking turns in conversations, recognizing and acknowledging feelings and emotions in others, and problem solving. Through participation in the program, participants improved their social competence and functioning based on the results of the Social Responsiveness Scale. Whitby et al. also encouraged pro-social modeling by educators and peers for a group of children with Asperger's syndrome. As part of the UCLA PEERS program, teens with autism spectrum disorder learned social skills from social modeling of the facilitators. Observing others performing skills can help individuals with DD understand how to apply the skills to him or herself.

Skill reinforcement. Reinforcement of social skills is a final aspect of the traditional social skills treatment suggestions for individuals with DD and is paramount to the behavioral approach. In Koenig et al.'s (2010) study, the licensed therapists and peer tutors used behavioral strategies to promote pro-social behaviors (positive reinforcement) and discourage undesirable behaviors (negative reinforcement or punishment) during socialization groups for children with pervasive developmental disorders.

Occasionally, when treatment involved parents or typically developing peers they assisted in the reinforcement of the social skills. Both Frankel et al. (2010) and Laugeson et al. (2011) evaluated social skills programs for individuals with DD, specifically autism spectrum

disorder, that involved their parents. Parents attended separate but concurrent sessions and learned how to reinforce the skills the individuals with DD were learning in another room. Both programs resulted in an overall improvement in social skills and successful play dates for participants.

Social skills specific to adults with DD. Many of the studies involving individuals with DD and social skills involved children. There is a gap in the research and a need for more research on adults with DD as identified by Reichow and Volkmar (2009) and Clegg, Ansorge, Stackhouse, and Donlan (2012). In a synthesis of 66 research studies, Reichow and Volkmar evaluated a variety of interventions aimed at increasing social behaviors for individuals with autism spectrum disorder. Only three of the 66 studies involved adults and therefore did not lead to conclusive results of a superior treatment modality, suggesting further research for the adult developmental disability population is needed. Additionally, in Clegg et al.'s longitudinal study, following interviews with adults with pervasive developmental and communication impairments and their parents, they discovered that 77% reported being a part of a friendship group but only two individuals or 7% reported having one very good friend. In Clegg et al.'s study, parents identified social isolation as a concern because their children found it difficult to initiate and maintain friendships. Therefore, more research on understanding friendships between adults with DD is warranted.

Social skills treatment involving creative arts therapies. In contrast to the traditional didactic methods of social skills treatment, additional findings suggested that social skills are developed through the use of art, drama, and music therapies with people with DD. Got and Cheng (2008) conducted a quantitative study on the effects of art therapy for adult participants with DD. The study utilized questionnaires and found that parents of participants who received

the treatment felt their children improved in the areas of social interaction and language comprehension, whereas the parents in the control group (no art therapy treatment) reported no change. Consistent with Got and Cheng's findings, Lister, Tanguay, Snow, and D'Amico (2009) found through feedback from interns, supervisors, parents, and caregivers of clients with DD that there were positive changes in areas of self-esteem, social skills, and communication following art therapy, drama therapy, music therapy, and DMT. Reportedly, these changes extended to their lives outside of the center and resulted in building friendships and increasing their social networks (Lister et al., 2009). Similarly, but in a study with children, Miller (2005) reported an increase in interaction with friends outside of the group as evidenced in an increase in phone conversations. Miller's study utilized drama therapy with a group of children ages 10 to 12 with DD and resulted in an increase in social skills in almost every child as reported in teachers' ratings.

In summary, review of the literature indicated social skills and friendships increased in people with DD who participated in traditional didactic behavioral treatment models as well as creative arts therapies. As previously stated, there is a need for more research on friendship development for adults with DD (Johnson et al., 2012). There is a gap in the literature to fill with regards to how the creative arts therapies, specifically DMT, can contribute to friendship and social development and maintenance for adults with DD.

Social Skill and Friendship Development Using DMT

DMT is defined by the American Dance Therapy Association as "the psychotherapeutic use of movement to further the emotional, cognitive, physical, and social integration of the individual" (American Dance Therapy Association, 2009). Review of the literature indicated that DMT might contribute to friendship and social skill development for individuals with DD.

Studies in this section include both adults and children with DD. Many DMT studies used observation as a data collection method and indicated an increase in social skills and social interaction for individuals with DD following participation in DMT groups. Cook (2008) observed adolescents with DD became more comfortable with one another as they explored and learned new skills for communicating and expressing themselves in the DMT sessions. Duggan (1995) observed more cooperative and meaningful interactions amongst a group of adolescents with learning disabilities. Torrance (2003) observed an increase in positive interactions between violent participants with autism during the session and outside of the session by sitting close to one another during breaks. Additionally, both Torrance and Cook observed a shift in their participants' movement after a series of DMT sessions. Torrance and Cook initially observed participants engaging independently in vertical movements that moved up and down in the vertical dimension. Over the course of the sessions, Torrance and Cook observed more horizontal movements that moved side to side in the horizontal dimension and engaged more with peers. Review of the literature indicated that improvement in social skills occurred through DMT for both children and adults with DD (Cook, 2008; Duggan, 1995; Torrance, 2003). Specific concepts in DMT such as the therapeutic alliance, nonverbal communication and expression, group rhythmic activity, and group cohesion further support the role of DMT to increase social skills for people with DD.

Modeling relationship through the therapeutic alliance. Although the ultimate goal in friendship is peer interaction/communication, the therapist must first model nonverbal communication in the formation of relationships. As discussed in Levy (2005), Marian Chace communicated a deep acceptance of her clients by moving with them and establishing relationships through movement. By being in the present moment and validating clients'

experiences, Chace modeled positive relationships. Torrance (2003) discussed the importance of a shared language between the therapist and group members. The shared language was generated by nonverbal reflections of the students' movement first modeled by the therapist, and then reflected by the whole group, thereby establishing relationships. Additionally, Ylönen and Cantell (2009) observed that through a particular relaxation method, a trusting relationship was nonverbally modeled through eye contact.

Nonverbal communication and expression. For individuals with DD who struggle with verbal communication, social skills associated with nonverbal communication are extremely important for relating to others. As Erfer (1995) suggested, "movement is a universal means of communication" (p. 196). Through DMT sessions, movement is explored as a form of expression and communication. In reference to her work with children with autism, Erfer described the effectiveness of nonverbal communication in establishing relationships due to underdeveloped communicative speech. Through movement, children became more aware of themselves, leading to interactions with others (Erfer). Erfer discussed the importance of the dance/movement therapist in facilitating awareness through DMT techniques such as mirroring as a basis for relationship building. Additionally, body part identification as a part of the warm-up, music, and props increase awareness and provide opportunities for interactions to develop.

Mirroring. DMT techniques such as mirroring are used to communicate nonverbally and establish relationships (Duggan, 1978; Erfer, 1995). The technique of mirroring, which involves reflecting back someone else's movement and meaning, communicates acceptance (Duggan, 1978; Levy, 2005) and helps create rapport between people. Erfer found that mirroring established a connection between her and the children with autism with whom she worked. This connection and acceptance is the basis for developing relationships.

Props. Another technique in DMT is using props to establish contact through nonverbal means (Duggan, 1978; Erfer, 1995). Duggan offered that the prop, because it is an object, might be more comfortable for the child to relate to and can be used as a bridge for human interaction. In Erfer's experience with children with autism, she found that the use of props enabled children to tolerate a relationship that otherwise would have been too threatening. Props keep boundaries intact, respect personal space, and in turn, help individuals feel less vulnerable when interacting with others. Sandel and Kelleher (1987) found that props stimulate and initiate interpersonal awareness and interaction with older adults. The techniques of mirroring and use of props in DMT are useful in generating nonverbal communication and lead to establishing interpersonal relationships. Through the use of props and mirroring in DMT sessions, Duggan (1978) saw progress in the children with cerebral palsy with autistic behaviors that she worked with. Over the course DMT sessions, Duggan observed increased eye contact and proximity and synchrony of individuals' movement in the sessions. Cook (2008) also observed an increase in both nonverbal and verbal communication between her adolescent students with DD over the course of her 10-week study involving DMT interventions with props and mirroring.

Group rhythmic activity. Marian Chace identified group rhythmic activity as a core concept of her approach to DMT (Chaiklin & Schmais, 1993). Chace observed that when she used rhythm as a therapeutic intervention tool, her participants increased their body awareness and communication. As described by Levy (2005), Chace used group rhythmic activity to support the expression of thoughts and feelings in a controlled and structured way. Additionally, Chace used rhythm to create a feeling of solidarity amongst a group of people. Torrance (2003) also incorporated the use of rhythm as she developed a therapeutic relationship with a group of autistic adolescents in a DMT group. According to Torrance, introducing strong, rhythmic music

created group cohesion. Similarly, Duggan (1995) suggested that structure could be provided in a dance therapy session through the use of rhythm. Torrance also observed other social skills such as turn-taking and movement conversations develop as a result of group rhythmic activity and mirroring. She observed that students accepted one another as they took turns doing a movement in the center of the circle and the rest of the group copied their movement.

Synchrony. Similarly, Schmais (1985) identified synchrony referring to “events happening at the same time” (p. 18) as a component of the group healing process that leads to therapeutic change. Schmais contended that people become identified with one another through moving together in the same rhythm and spatial configuration. Schmais found that through synchrony in rhythm, space, and/or effort, individuals often engage in new relationships in the DMT group. In summary, literature indicated that through rhythmic group activity and synchrony, participants’ social skills were enhanced.

Group cohesion. Additionally, in Duggan’s (1995) study of adolescents with learning disabilities, she observed a change in peer interactions over the course of group DMT sessions. Peer interactions reportedly shifted from competitive to cooperative and supportive. Torrance (2003) also observed changes in the movement patterns of the group as the sessions progressed; participants chose to stay in the circle with the group longer rather than leave the circle. Therefore, research suggests that participating in DMT may lead to a more cohesive group where friendships can form.

It is clear that through participating in DMT sessions, people with DD improved their social skills. DMT concepts such as modeling through the therapeutic alliance, nonverbal communication and expression involving mirroring and props, group rhythmic activity and

synchrony, as well as group cohesion all contribute to the development of social and friendship skills.

Conclusion

Overall, researchers (Baumeister & Leary, 1995; Got & Cheng, 2005; Hall, 2009; Hall, 2010; Kitwood, 1997) agreed that relationships and friendships are important for all people, including individuals with DD. Researchers (Frankel et al., 2010; Koenig et al., 2010; Laugeson et al., 2011; Mackay et al., 2007; Stichter et al., 2010; Whitby et al., 2012) investigated the development of social skills and how they contribute to friendships for individuals with DD and found success in behavioral/didactic methods. Other researchers observed an increase in social skills in DMT participants (Cook, 2008; Duggan, 1978; Duggan, 1995; Erfer, 1995; Torrance, 2003; Ylönen & Cantell, 2009). However, a gap in the research exists regarding the effect that the observed social skills in DMT groups have on creating and maintaining peer relationships and friendships. Additionally, there is a gap in the literature describing social and friendship skill development for adults with DD rather than children (Clegg et al., 2012; Reichow & Volkmar, 2009). In order to address the mentioned gaps in the literature, the following questions guided my research. How does DMT contribute to the formation and maintenance of friendships for adults with DD? In particular, what is it about DMT that facilitates friendship uniquely from other interventions?

In conclusion, review of the literature provided understanding for how friendships between individuals with DD are developed and currently understood. After review of the existing literature, I sought to add to the wealth of knowledge in connecting the fields of DMT and DD. In the next chapter, I will describe how I answered the research question: How does DMT contribute to the formation and maintenance of friendships for adults with DD?

Chapter Three: Methods

Methodology

The methodology that was adopted for this study was single instrumental qualitative case study. Creswell, Hanson, Plano, and Morales (2007) described case study research as a qualitative approach where the researcher investigates a case over time through extensive, detailed, and focused data collection methods. Stake (1995) with the help of Louis Smith, one of the first educational ethnographers, defined a case as “a bounded system” (p. 2). Yin (2009) discussed research questions that began with “how” or “why” often were appropriate for the case study methodology because of their results yielding more explanatory data. In addition, Yin suggested appropriate research questions for the case study methodology were about a contemporary set of events that the investigator had little or no control over. My research question arose from an interest in understanding the social interactions between individuals with DD that I was observing. A case study methodology was a relevant and logical choice for my study as I had the opportunity to facilitate a group over a set period of time and in doing so could develop a deeper understanding of how and why friendships were created and maintained.

As is common in case study research as described by Creswell (2007), I built an in-depth and contextual understanding of the role of DMT in facilitating friendships between adults with DD. The research question I identified began with “how” and was motivated by a clinical question and related to the treatment goals of the clients, thus indicating that a qualitative case study was an appropriate methodology. In addition, as Yin (2009) suggested, the focus for case study research is on a “contemporary phenomenon within a real-life context” (p. 2) which correlated nicely with the focus of my research—real issues that were part of an already existing day program. How friendships are created and maintained is a real-life phenomenon and

understanding them involved multiple contextual conditions. In contrast to narrative methodology, case studies focus on an issue (in this case friendship) and then the case itself was used to help understand the issue.

As described by Creswell, the qualitative case study methodology allowed me as the researcher to achieve a subjective understanding of a particular bounded system over time, in this case a DMT group of adults with DD. Multiple forms of data were collected and analyzed for subjective themes related to the participants' experience of friendship throughout the course of a series of DMT sessions. Yin (2009) described the importance of triangulation and collecting multiple forms of data due to the variety of variables in a real-life context. Stake (1995) also emphasized the importance of interpretation by the researcher in case studies. Due to the cognitive abilities and disabilities of the participants with DD in my study, I relied heavily on my observations and interpretations of their responses and interactions.

There are many forms of case study research (Creswell, 2007; Stake, 1995; Yin, 2009). This study was a single instrumental case study because it focused on one issue (friendships) illustrated by one case. Stake (1995) suggested that instrumental case studies examine a particular case in order to give insight into a question aimed at general understanding. The case for this research study was instrumental because the case of adults with DD who participated in DMT helped provide understanding of their friendships. Cruz and Berrol (2004) identified the qualitative case study as a powerful way to communicate and help others understand therapeutic ideas, which aligned well with the motivation, value, and contribution of this research study. In general, this single instrumental qualitative case study aimed to understand how DMT contributed to the formation and maintenance of friendships for adults with DD by focusing on the interpretation of results for one case.

Participants

The participants in this research study were 12 adults with DD who were clients at a life skills day services program at an agency that supports individuals with DD. Five of the participants were males and seven of the participants were females. Exact ages of the participants were unknown, however all were over the age of 21 and under the age of 40. Fifty percent or six of the participants were of African American ethnicity. Five of the participants were Caucasian and one of the participants was of Latino/a ethnicity. Diagnoses of the participants included Down's syndrome, autism, general developmental delay, and visual impairment. Participants were familiar to one another prior to this study as they all were clients at the same day services program. Some of them were friends already as discovered in the first round of interviews and other participants were less familiar with one another as they did not know one another's names. Additional participants in this study were caregivers or family members of participants in the DMT group who were invited to complete a survey communicating their observations of the effect of DMT on friendships of participants.

Participant recruitment procedure. The researcher and a day services department administrator from the agency identified participants for the DMT group. Participants were selected based on the common treatment goal of increasing social skills. The department administrator also informed the researcher that participants were selected based on their availability and willingness to attend movement based therapy sessions. There was no exclusion criteria based on gender, age, or race when recruiting participants for this study.

Informed consent and assent. Once participants were identified, legal guardians were contacted for informed consent (see Appendix A) to participate in the research study.

Participants' case managers at the agency assisted in the process of contacting participants' legal guardians for consent to participate in this study.

Once all participants' legal guardians returned the informed consent forms to participate in the study, the participants with DD met with the researcher to give assent (see Appendix B) to participate in the study. Participants were provided a hard copy of an assent form tailored to their reading comprehension level fully informing them of the purpose, procedure, benefits, and potential risks. The researcher read the informed assent document aloud and participants were given opportunities to ask questions in the group setting. Following the initial informed consent/assent to participate in the study, verbal assent was re-attained prior to each verbal interview (see Appendix C). Only those participants who gave consent and assent participated in the DMT sessions and this study.

Caregivers and family members were invited to give informed consent (see Appendix D) and complete a survey based on their observations following the DMT sessions (see Appendix E). Individual participants' case managers worked with the agency administrator and this researcher to distribute and collect the surveys. Through the informed consent and assent processes, participants' rights were upheld. Participant involvement in this study was very important for providing an enriched understanding of how DMT contributed to developing and maintaining friendships. Together with the researcher, participants helped depict meaning and understanding of data collected. Tellis (2007) asserted that this way of understanding is important to the case study methodology.

Data collection location. Data was collected during weekly DMT sessions in a large open room within the day services facility. Individual interviews were held with participants three times throughout the data collection process at the beginning, middle, and end of the series

of 12 DMT sessions. The individual interviews were held in private rooms with the research participant, researcher, and additional staff from the agency to ensure safety of the participants.

Procedure

Once informed consent and assent were obtained from all research group participants, I began holding a series of 12 weekly DMT groups. As the researcher, I facilitated each of the 12 DMT sessions and personally collected the data. I collected multiple forms of data in order to depict the multiple perspectives of this case study.

DMT sessions and interventions. During the 12 DMT sessions, numerous interventions were designed to facilitate friendships between group participants. The sessions followed an improvised Chacian structure with a friendship-focused lens. As the facilitator, I placed emphasis on the therapeutic alliance between the group participants and myself in order to model appropriate social interactions and friendships. Another Chacian concept, group rhythmic activity, was prevalent during DMT sessions and often initiated by group participants and further developed by myself as the facilitator. Each session incorporated a Chace-inspired body part warm-up led by group participants taking turns picking and moving a body part (Chaiklin & Schmais, 1993).

Group dynamics. As the facilitator, I used an improvised structure to adapt DMT interventions to current dynamics amongst the group with inspiration from Yalom's (2005) therapeutic factors. Many of the interventions during the sessions had to do with facilitating a group movement experience creating universality and cohesiveness amongst group members. Beginning and ending each of the sessions in a circle facilitated group cohesion by creating a shape in space where each group member could see every other group member. Yalom's therapeutic factor of altruism was present when group members were invited to give

compliments to one another, which happened during most sessions. Additionally, Yalom's concept of imitative behavior was present throughout every session by incorporating DMT mirroring interventions and reflecting other group members' movements during group choreography. Finally, interpersonal learning was a part of every session by incorporating various friendship facilitation techniques.

Friendship facilitation techniques. Using a positive psychology approach, I called attention to individual strengths, positive behaviors, social skills, and indications of friendships. Group participants were guided to ask other participants' their names when dancing together and address group members by name. As the facilitator, I modeled, positively reinforced, and encouraged other social skills such as making eye contact. In addition, I facilitated interpersonal movements such as high-fives and hand-shakes when greeting other group members and taking turns. Group members supported other group members by clapping. Participants also were guided to dance with (holding hands and/or in close proximity) and like (mirroring) other participants. Additionally, I occasionally introduced and facilitated the use of props such as balls, scarves, ribbon sticks, bean-bags, and parachutes for participants to use to relate to one another.

Group choreography. Group cooperation and team building were facilitated by group choreography projects. Most sessions included a dance created by the group members themselves around a theme suggested by one of them or myself as the facilitator. Dance themes included what makes me happy, what makes a good friend, how dancing makes me feel, and so on. Group participants took turns contributing a movement to represent how the theme applied to them. Participants also selected music and the order of the movements to make a dance.

On the day of the fifth session, the day services center had a performance singing competition for all of the participants in the day services program. All of the participants in all of the DMT groups at the site were invited to perform on the stage. Many of the participants in this study chose to perform, amongst many additional performers. This performance opportunity was an additional shared movement experience that was later processed during the research group as desired by the group participants.

The purpose of initiating the aforementioned interventions was to use DMT techniques to facilitate friendships between group participants in order to understand how DMT affects the friendships of group participants.

Data collection methods. I collected data in the form of a research journal, individual verbal interviews, and family/caregiver surveys. The research journal I kept set parameters for my observations to include initial observations of participants and their interpersonal actions at the beginning of the session, interventions I used throughout the session to facilitate friendships, and participants' interpersonal responses to the interventions and signs of friendship throughout the sessions. My research journal followed the format in Appendix F and I completed one entry immediately following each of the 12 DMT sessions using written words. Stake (1995) suggested observations gave the researcher a greater understanding of the case: Researcher observation notes provide good records of events and thorough information for future analysis. The research journal I kept aimed to document and capture all events pertaining to friendship development and maintenance during every DMT session.

The categories I chose to include in the research journal were based on indicators of friendship gathered from the literature. Researchers (Cook, 2008; Johnson et al., 2012; Miller, 2005; Rossetti, 2011) identified inside jokes, increased participation and interaction with others,

increased contact outside of the group (including phone conversations), hand holding/ physical contact, individuals dancing together, and a sense of camaraderie as signs of friendship. I correlated the identified friendship indicators to observable and assessable movements based on my previous experiences working with individuals with DD. Observations of friendships I recorded included eye contact, positive affect when moving with or close to another group participant, use of the word “friend” to describe another group participant, and inquiring about the wellbeing of another group participant. In addition, I used Laban Movement Analysis concepts related to space and shape to record how friendships manifested during the sessions. I recorded individuals’ use of kinesphere (the physical space one takes up) and interpersonal space and touch. I recorded my observations of shaping qualities (rising, sinking, spreading, enclosing, retreating, and advancing), which are associated with moving towards or away from pleasant or unpleasant stimuli (Moore, 2009)—in this case another group participant. I also recorded the use of a posture or gesture including a wave, high five, hand hold/ hand shake, and fist bump toward another participant as a sign of friendship. Finally, I included observations of mirroring, or the reflecting back, of movements as an observation of an attuned social interaction that included mirroring movements of another participant, mirroring movement qualities of another participant, mirroring use of space of another participant, mirroring tension flow of another participant, and mirroring affect of another participant. All of these observations I recorded in my research journal were observable signs of friendship based on the definition of friendship used in this study: Individuals interacting in relationship receiving some perceived personal benefit and mutual satisfaction.

An additional form of data that I collected was in the form of individual verbal interviews with each of the participants. Case study expert, Stake (1995) asserted that what we cannot

observe ourselves is being observed by others and in case study research it is advised to count on the descriptions and interpretations of others. Part of achieving an understanding of the entire case was to discover the multiple views of the case. Stake wrote, “The interview is the main road to multiple realities” (p. 64). In order to understand the multiple realities involved in my case, I did three rounds of individual interviews with the participants. I did one round of interviews prior to our first DMT session, a second round of interviews after the sixth or seventh sessions and a final round after the final and twelfth session. I asked the same questions about participants’ friendships in every round of interviews. See Appendix G for a complete list of the questions asked. Each interview lasted approximately five minutes. I audio-recorded the interviews and later transcribed them manually.

The third form of data I attempted to collect was in the form of qualitative surveys sent to caregivers and family members of DMT group participants. The surveys were distributed after the final DMT session with the assistance of the day services administrator and individual case managers. A copy of the distributed survey can be found in Appendix E. It was designed to determine the perceived effect of DMT on friendships of group participants by caregivers and family members. Unfortunately, despite active and persistent follow up by myself, none of the surveys were completed and returned. Therefore there was no data collected in the form of surveys from family members and caregivers of group participants.

Ethical Considerations. Careful ethical consideration was given to protect the identities, rights, and wellbeing of participants in this research study. Individuals identified to participate in the DMT group were selected based on individual treatment goals that corresponded to the clinical problem identified for this research project. Therefore, participants were not treated for something that was not a part of their existing treatment plan. Only those

participants who gave consent and assent participated in this research DMT group. Every attempt was made to minimize risk and ensure safety for participants. All DMT interventions were based on clinical considerations for wellbeing of the participants.

Participants in this study received an informed consent form tailored to their reading comprehension level, fully informing them of the purpose, procedure, benefits, and potential risks (Appendices A, B, C). Participants in this study were given the option to cease participation at any time, ensuring rights of participants were upheld throughout the study. No participants chose to withdraw from the study. Participants also were not forced to attend DMT sessions if they were unavailable, absent, or chose not to attend. As the researcher, I always encouraged participation, but never threatened, forced, or coerced group members to attend and participate. Therefore, there were occasional absences during the course of the 12 sessions.

There was the potential for a breach of confidentiality for DMT group participants whose caregivers and/or family members completed surveys related to the participant's experience. However since these individuals (family members and caregivers) were a part of their existing treatment and/or support team there posed no ethical violation. In addition, this potential for breach of confidentiality is not outside the norm of being involved in treatment at this agency. Finally, identities of research participants were kept confidential and replaced with pseudonyms in all documentation and data analysis procedures. All research study records will be destroyed at the time of submission of this thesis.

Data Analysis

Data were analyzed using sequential analysis, a method developed by Chesler (1987). The sequential analysis method followed a seven step structured process of coding and deriving themes and theories from raw qualitative data. Steps of sequential analysis as described by

Chesler included, identifying key terms, re-stating key phrases, reducing phrases to create clusters, attaching labels to reduced clusters, generalizing ideas about the phrases in each cluster, generating mini theories, and finally integrating theories into an explanatory framework. I closely followed Chesler's sequential analysis structure with slight modifications based on my data and process.

I applied Chesler's (1987) sequential analysis method to the data collected from my research journal and interview transcripts. After transcribing all of the interviews, I highlighted key phrases/terms within the interview transcripts and from each session in my research journal. Then I went through and re-stated all of the key terms from the interviews and my research journal by putting them in one list/place. I later organized the key terms I identified into clusters based on the main categories of interview questions and research journal sections. The labels I chose for the clusters were simple and self explanatory: friendship progressions, how they know who their friends are, things they like to do with their friends, how DMT helps them make/stay friends, friendship interventions, friendship movement observations, and miscellaneous comments. By doing this, I had what I thought was the salient data from my case in one organized place.

Next, I strayed from Chesler's (1987) steps slightly and repeated steps three and four. I read through my organized and clustered key terms numerous times over the course of about a month before I arrived at new clusters of data and phrases. I then determined new labels for the new clusters that were based on developing mini-theories in order to answer my research question: How does DMT contribute to the formation and maintenance of friendships for adults with DD? These new labels became themes and the data in the clusters became support for the themes. The last three steps of Chesler's sequential analysis somewhat blended together for me

in my data analysis process. I will discuss the labels/themes and clusters of data/support that I arrived at in Chapter 4. I will continue to discuss analysis of the data incorporating the final step of Chesler's sequential analysis in Chapter 5. I incorporated my theories into an explanatory framework through discussion of application of my results to the fields of DMT, friendship, and DD.

Themes identified through data analysis were checked for validity by utilizing a resonance panel of experts in the fields of DMT and DD. Discussion with a resonance panel ensured validity by verifying that I saw and analyzed all aspects of the data (Creswell, 2007). An additional validity strategy that I intended to use was triangulation. However, since one of the anticipated forms of data (surveys for caregivers/family members) was not successfully collected, the data was not exactly validated by this measure. Still, multiple forms of data were collected and themes were validated by both data sources. By collecting multiple forms of data, the themes identified through sequential analysis were validated.

Chapter Four: Results

As a result of data analysis, I identified themes to explain how DMT contributed to the formation and maintenance of friendships for adults with DD within my bounded case. The identified themes resulted from using Chesler's sequential analysis process to qualitatively analyze data from my research journal and individual interviews with group participants. Additionally, the themes were validated by a resonance panel of five experts in the field of DMT who had professional clinical experience with individuals with DD. The following themes reflect the growth and development of participants' friendships following the series of 12 DMT sessions. These themes have been identified to explain how DMT contributes to the formation and maintenance of friendships for adults with DD.

Social Connection

DMT contributes to friendships by facilitating opportunities for social connection. Numerous times throughout every session I modeled, facilitated, and illuminated social connections. During the first session, as the facilitator, I modeled social skills by asking another participant's name, shaking his hand, and asking to dance with him before dancing together. Participants continued to follow the facilitated structure and then during the following sessions, participants continued to ask names and shake hands of participants with whom they interacted. I positively reinforced these moments by saying "nice job asking to dance with (participant's name)" and other similar phrases. A member of the resonance panel validated that asking to dance instead of just grabbing another participant is something that she worked on with the individuals with DD that she works with too. While encouraging and creating an environment for social connections, DMT also is an avenue to experience connections within parameters of social norm expectations.

Boundaries. The social connections facilitated in DMT groups also involve boundaries and personal space. Social boundaries are a complex, nonverbal social norm that sometimes people with DD do not understand. Resonance panelists agreed that social boundaries were addressed in their DMT groups and contributed to effective socialization. In the DMT sessions participants were constantly moving around and with others; therefore, there were many instances where I set boundaries and illuminated issues of personal space. In the sessions towards the beginning, I set personal space boundaries by using markers on the floor as designated places for participants to stand. This set the expectation of social boundaries and personal space.

There were times that participants did not maintain social boundaries with one another, which opened a discussion about what to do when someone is in your personal space in Session 7. One participant suggested, tell them, “I need my space.” I also suggested finding another spot to dance with more room. Participants continued to practice these skills throughout the DMT sessions. In Session 8, I facilitated a freeze-dance style game where participants stopped moving when the music stopped and ensured they had enough personal space. Also, during an interview, one participant discussed his friendship with another participant saying, “(name of participant) moving in my space, I tell him give me my space.” This participant clearly understood how to get his needs met within his friendship, which speaks to the mutual gratification aspect of friendships. As the sessions progressed, there was less of a need for the place markers as participants started maintaining social boundaries and advocating for their personal space. The emphasis on use of space and boundaries contributed to the safety of social connections made in the DMT sessions.

Interactive gestures. Friendly gestures that occurred in the DMT sessions were another way that social connections were facilitated. First, I modeled friendly gestures such as high fives within the structured setting. In Sessions 2 and 3, I modeled using high fives as a way to take turns dancing in the center of the circle. These gestures followed social norms and became a playful way for participants to interact during the sessions. Throughout the series of DMT groups, I observed multiple instances every session of interactive gestures and engagement in mid and far reach space to interact with other participants. Observations of interactive gestures included hand holding while dancing in Session 3, a fist bump in Sessions 4 and 6, waves to participants in Sessions 5 and 7, and spontaneous hugs and high fives in sessions 8, 9, 10, and 11. As the sessions progressed, the interactive gestures became more frequent, personal, and spontaneous. Since the interactive gestures involved touch, they created a physical representation of a social connection. The concrete, visual, and physical interaction that the gestures provided contributed to the participants' friendships as they described in their individual interviews. Several participants identified gestures such as hugs, shaking hands, and "pounds"/fist bumps when asked about how DMT helps them make or stay friends with people.

Deepening relationships. The instances of social connections facilitated in the DMT groups began to transform into longer moments of connection and even what appeared to be nonverbal conversations. As the sessions progressed, participants began to seek out other participants to dance and move with, as opposed to moving with someone simply because of close proximity. Certain participants gravitated towards other participants and they began to intentionally dance together. Additionally, I started to observe longer moments of eye contact when some participants were dancing together starting in Session 8. In Session 9, I observed the

shaping qualities of spreading and advancing towards another participant in two participants for whom I had not seen such shaping qualities previously.

When partner dancing, I initially observed some mirroring of movements between participants in Sessions 3 and 4. But then, in Sessions 7, 8, 9, 10, and 11, I began to witness participants mirroring other participants' use of space, movement qualities, and affect. As participants engaged in mirroring movement qualities, they appeared completely aware of and engaged with one another. There was an apparent nonverbal connection and conversation occurring. These moments of increased eye contact, shaping qualities, and mirroring reflected a deepened relationship. As the sessions progressed, the moments of connection lengthened and intensified and seemed to communicate acceptance and understanding that resembled friendship.

In alignment with my movement observations, participants described their friends as people “who danced with me” and to “go dancing” as something they enjoyed doing with their friends. This speaks to the nonverbal sharing of experience that happened in the DMT sessions. Resonance panelists confirmed that nonverbal sharing of experience occurs in their DMT groups with people with DD as well. As observed by myself as the facilitator and illuminated by participants, DMT provided a safe and consistent opportunity for participants to engage in social connections. By participating in DMT, participants experienced connections through modeling, facilitating, and illuminating social norms, boundaries, gestures, and the nonverbal deepening of relationships. All of these factors contributed to the formation and maintenance of friendships.

Initiation

Over the course of the 12 DMT sessions, participants gradually began to initiate movements and moving with others. They used the skills experienced and developed during the DMT sessions to establish social connections and over time seemed to gain the comfort and

confidence to begin to initiate them. The DMT sessions created an environment for participants to initiate interactions.

Kinesphere progression. I first observed initiation in relationship to participants' own movements in their kinespheres. At the beginning of the series of sessions, participants' kinespheres were either very small or very large. About half of the participants moved within a small kinesphere; their movements were small and close to their bodies. The other half of the participants had very large kinespheres; however, they appeared to lack awareness of where their bodies were in space. As the sessions progressed, participants' kinespheres began to shift to become more of a medium size with increased awareness. In Session 3, I observed that over the course of the session, all of the participants' kinespheres modulated to be at a medium size by the end of the session. And then during Session 5, participants all generally moved in a medium size kinesphere throughout the session. When moving in a medium size kinesphere, participants appeared to have more control and intention with every movement. With participants' increased awareness, control, and intention, they took more ownership of their movements and began to initiate their own movements instead of simply follow my lead.

Turn taking. Participants were also given opportunities to initiate movements and be witnessed by the other participants. I facilitated turn taking by offering participants the chance to take turns dancing in the center of the circle in Sessions 1, 2, and 3. In those sessions, I created a set structure that did not require much initiation. I modeled this by taking a turn as the person dancing in the center and then giving a high five to a participant on the outside of the circle, to signify it was his or her turn to dance. During this intervention, three of the participants needed a significant amount of prompting, encouragement, and modeling to dance in the center of the circle. As the participants became more comfortable with this structure, they began to initiate

lifting their hand up as if communicating they wanted a high five and a chance to dance in the center. In Session 9, one participant initiated the turn taking movement ritual by entering the center of the circle before the end of the body-part warm-up. During the turn-taking movement structure, I also observed the size of participants' kinespheres grow when they moved in the center of the circle. Overall, participants initiated taking up more space as they more actively initiated taking turns dancing in the center of the circle. For example, one participant whose body shape was most commonly in a pin shape started to take on more of a screw shape as she became more comfortable in the group and initiating dancing alone. The turn taking DMT intervention facilitated initiation and validation for participants.

I also facilitated turn taking in the form of group choreography in Sessions 2, 4, 7, and 10. During group choreography, participants took turns sharing movements to create a dance. This involved participants initiating a symbolic or creative movement to add to the movement phrase. Similarly to other structures I facilitated, I started by having everyone contribute a movement one after the other in the pattern of the circle. As the sessions continued, participants began to volunteer or initiate when they wanted to suggest a movement. Through turn taking and group choreography, DMT facilitated a progression of opportunities for participants to take initiative.

Movement relationships. As participants' kinespheres modulated to a medium size and they became more comfortable initiating their own movements, they also began to safely initiate moving with other participants. Next, participants started initiating moving in overlapping potential kinespheres and using mid and far reach space to interact with others. Starting in Session 6, I observed pairs of participants engaging in mid and far reach space to interact with one another. One participant initiated reaching/gesturing to another participant and the other

participant followed their lead, and they began to dance together without prompting from me as the facilitator. Additionally, when I facilitated partner dancing in Sessions 8 and 9, participants initiated interacting with another person with little prompting from me. Participants moved closer to another participant, overlapping their potential kinespheres. Then one or both participants engaged in mid or far reach space, or used a gesture to engage with the other participant. These actions demonstrated participants' successful initiation of a social movement relationship.

Leader/follower. Over the course of the sessions, participants began to initiate different types of movement relationships. One prevalent type of relationship involved a leader and a follower. At the beginning of the series of sessions, participants routinely looked to me as the facilitator to lead the movements. However, as the sessions progressed, participants began to initiate leading movements themselves. I gradually facilitated participants being the leaders (instead of myself) by having participants take turns leading the entire group in a movement across the room in Session 6. Then during partner dancing in Sessions 8 and 9, some of the participants started to initiate leading movements. With each new partnering relationship, participants initiated different ways of moving together that often lead to leading and following. In a sense, this leading and following demonstrated one participant initiating a movement and the other participant following. Sometimes it was a simple step-touch, other times it was holding hands and jumping, and other relationships were initiated with full body swinging movements.

Initiation also manifested throughout the sessions in other ways. Initiating rhythm became more prevalent as participants started strong rhythms that then were followed and added to by the entire group. For example, in Session 10, one participant initiated a strong clap that other participants joined. This instance was spontaneous with no facilitation from me. Through

participating in a series of DMT groups, participants' initiative increased. After participants modulated their kinesphere size and increased body awareness, they began to initiate movements, social interactions, and movement relationships.

Conflict Resolution

As participants began to initiate movements and interactions, they also began to initiate sharing differing opinions both verbally and nonverbally. At the beginning of the series of DMT sessions, participants were very rigid in their preferences and ideas, which led to disagreements between participants. As is common in Yalom's (2005) theory of group dynamics, confrontation and conflict between participants developed once the group participants were comfortable with each other. Through guided resolution during the DMT groups, participants resolved interpersonal conflicts and increased their flexibility. As a result of participating in the DMT groups, participants practiced using the important friendship skill of conflict resolution.

Personal preferences. In the DMT sessions, I frequently gave participants options for individual choices to make based on their personal preferences. At times, I facilitated the opportunity for participants to choose which songs to move and dance to. During Session 3, one participant stood still instead of participating in the body part warm up. When I inquired about his lack of participation, he vocalized that he did not like the music. Since one of the other participants had previously requested the song, I facilitated a discussion about not agreeing with someone else's choice and what that meant for the group. Participants offered suggestions to resolve the conflict about respect for others and "do the right thing." Participants came to an agreement of taking turns making song suggestions. In fact, they chose to include "taking turns choosing songs" as an additional rule for the group. Then, later during an interview, one participant described listening and "taking turns for music" as a way that DMT helps her make

friends. Thus, participants seemed to take ownership of their flexibility towards other participants' music choices and personal preferences. The resolution of this conflict also created understanding and acceptance of others, which contributed to the success of participants' friendships.

Personal Space. Participants negotiated and compromised their personal space constantly during DMT sessions. When there was a lack of respected boundaries or personal space, conflict sometimes arose. As addressed earlier, during an interview, one participant discussed a conflict that was resolved. He said, "I tell him I need my space when he's following me" referring to another participant who engaged in mirroring and echoing movements in close proximity to him. This participant continued to ask for "personal space" from the other participant as they continued to dance with and like one another. The same dyad of participants was discussed when one said, "him dancing look like my dance" which seemed to make him upset and annoyed. Through an open discussion that I facilitated, other group members spoke about "copying" and wanting to be like someone else. Discussion centered on "respect" and "being appropriate" as well as flattery and friendship that arrived at resolving the conflict and a happy medium between the two. Participants continued to compromise their use of space with other participants and successfully resolve potential conflicts during the remaining sessions.

Differing opinions. An additional conflict that arose had to do with verbal expression of differing opinions after dancing together. In Session 7, one of the participants referred to himself as "sexy" and another participant found that to be an "inappropriate" comment and brought it up to the group. A third participant intervened and encouraged "positive behavior." We discussed feelings that were okay, but that certain language made others feel uncomfortable. The

participants worked together to share their opinions, enhanced their understanding of others' points of view, and eventually resolved the conflict.

Through participation in DMT sessions, participants demonstrated increased tolerance to process and solve problems. Participants developed the ability to negotiate and resolve conflicts; they increased their flexibility towards situations. As the group became closer and more cohesive through resolving conflicts, a sense of belonging was established which served as additional support for the following theme.

Belonging

The DMT group gave participants opportunities to develop social connections that led to a sense of belonging, contributing to friendship development. In some ways, as the facilitator, I facilitated belonging and group cohesion. However, in other ways participants initiated movements and movement patterns that were symbolic of belonging as the sessions progressed. One participant identified “we go to group together” as how he knew who his friends were, thus belonging to a group helped define friendship for this participant. Similarly, “being part of a class” is what a different participant said helped her make friends. Another participant said she knew who her friends were by “I like to dance with them.” Still, a different participant referred to the DMT group as “my dance class” demonstrating a sense of affiliation and even ownership of the group. Resonance panelists agreed that showing up and identifying with the DMT group symbolized feelings of belonging and had experienced similar findings in their groups. The DMT group facilitated a sense of belonging in numerous ways for the participants, which contributed to the formation and maintenance of friendship.

Concern for others' wellbeing. There were numerous instances of participants inquiring about others' wellbeing during the series of DMT groups especially when they were

absent from group or not participating. First, this showed that they knew who the other members of the group were. Second, demonstrating care and concern for other participants is a sign of friendship. In Session 3, when one participant was not moving with the group, other participants asked, “Why weren’t you dancing with us?” and “Are you in a bad mood?” This demonstrated their care and concern for the other participants’ wellbeing. During the next session (4), participants inquired about missing participants by asking where they were and why they were not there. In the sixth session, one participant inquired about the wellbeing of another participant during the session by asking how she was feeling that day. In Session 8, a participant asked why another participant was sitting instead of moving with the group. Another participant asked, “Where’s my friend (participant’s name)?” Then, in the ninth session, the same participant exclaimed with excitement, “My friend (participant’s name) is here!” in reference to the participant she was inquiring about the week prior. The awareness of group members as well as the care and concern they demonstrated towards other participants’ wellbeing established a sense of belonging to a group, contributing to their friendships.

Cohesive group circle. A sense of belonging continued to be established as the DMT group grew more cohesive. Sessions began by participants moving in a cohesive circle, and then separating as the session continued. When participants returned to the circle at the conclusion of the session, it signified cohesion because members arranged themselves so that they were spatially connected. For the first four sessions, some participants would not stay in the circle. However, as the sessions progressed, all participants maintained a cohesive group circle, revealing their sense of belonging in the DMT group. This sense of belonging to a group contributed to creating an environment for individual friendships to develop and flourish. The

resonance panelists also observed that cohesive group circles contributed to a sense of belonging and friendships in their professional experience.

Group rhythmic activity. I also observed friendship development through the lens of group rhythmic activity as it related to establishing belonging amongst participants. As the series of 12 sessions progressed, participants engaged in Marian Chace's concept of group rhythmic activity (Chaiklin & Schmais, 1993). In the earlier sessions, participants would occasionally join in one another's clapping or stomping to the beat of the music. They mirrored rhythms while dancing with partners by clapping or bouncing together for brief periods of time. But then, spontaneous group rhythmic activity emerged from the entire group with a pulsing and strong beat during Sessions 11 and 12. This appeared to be the result of a cohesive group that had a sense of belonging to one another. Resonance panelists agreed that in their experience observing group rhythmic activity, a powerful sense of group cohesion and a collaborative community developed.

Shared Positive Experience

A key component of friendship is engaging in mutually enjoyable and beneficial experiences together. During the interviews, many of the participants shared that they liked to dance and listen to music with their friends. As a result, the observed positive emotions and affect while interacting with others in DMT groups likely contributed to participants' friendships.

Positive affect. I observed positive affect such as smiling, laughing, and eyes widening when participants were interacting and dancing during every session. The first couple of sessions, I observed mostly smiling and laughing. Sometimes participants smiled and laughed when dancing by themselves, and other times they started smiling and laughing when engaging

with another participant. During Session 5, while the group was holding hands in a circle, I observed that the participants' smiles were much bigger than in previous sessions. Also, in that moment I felt a pure connection amongst the group, a sense of camaraderie and one-ness. The physical connection of holding hands, combined with the symbolism of a single connected circle, plus the genuine big smiles made this moment stand out to me as the facilitator. I reflected my experience of that moment to the group, and they began to share how dancing with others made them feel. Participants shared positive feelings with enthusiasm and overall were very supportive of one another as demonstrated by clapping and verbally sharing their appreciation. As the sessions continued to progress, I observed even more eye widening and more expressive facial expressions and vocal exclamations from the participants.

Additionally, during interviews participants frequently spoke about the DMT group with enthusiasm. When asked how DMT helps them make or stay friends with others, four of the participants said the DMT group makes them "happy." Three other participants described the DMT group as "fun." Multiple participants described their friends as being "nice" and saying that they like to dance with their friends. The positive emotions and affect that I observed from participants during DMT groups and interviews reflected their shared positive experience during the sessions.

Playful interactions. Many of the instances of positive affect I observed were in conjunction with playful interactions between participants. During the parts of the group that were not as structured, participants often engaged in quick playful interactions that brought a smile to their face or an audible laugh. For example, in Session 2, one participant finger-curl gestured to another participant to come dance with her and both participants started laughing. In Session 3, two participants began playfully jumping together in a circle. There continued to be a

playful quality as seen in the spontaneous high fives that coincided with positive affect in the following sessions.

Platonic friendships. Between Sessions 1 to 6, I observed a shift from positive affect that was in response to interactions between participants of opposite sexes to positive affect that was in response to interactions between participants of the same sex. This represented a potential shift from experiencing joy in romantic interactions to also experiencing positive emotions in platonic/friendship interactions. However, it cannot be assumed that all participants in this study were heterosexual. Since the participants' sexual preferences were unknown, interactions between participants of the same sex might not have been platonic. Still, there did appear to be a shift from romantic to platonic friendships as described during the verbal interviews. During the first round of interviews, two participants named "my boyfriend" or "my girlfriend" as one of their friends. In the last round of interviews, both of these participants named additional people as friends and did not include their boyfriend/girlfriend, reflecting this potential shift towards increased non-romantic friendships.

Validating compliments. An additional component of the shared, positive movement experience facilitated by DMT was the giving and receiving of compliments. By interacting through giving or receiving compliments, participants felt seen and validated, which contributed to their positive experience. Throughout the sessions, I complimented (otherwise referred to as positively reinforced) participants on their creativity, movement, and social skills. And then, towards the end of the series of sessions, participants began initiating compliments towards one another. During Sessions 11 and 12, participants gave compliments such as "you dance like me," and "good dancer," and "good friend" to other participants. One participant, during his third and final interview, stated that DMT helps him make and stay friends by "giving people

compliments, telling everyone how great they are, how awesome they are.” Both giving and receiving of compliments contributed to participants’ feelings of validation, which added to their shared positive experience in the DMT group. The shared, positive, and fun experiences of DMT sessions appeared to contribute to participants’ formation and maintenance of their friendships.

Conclusion

Friendships developed out of this sense of belonging as described in the final verbal interviews. A participant who said she did not have any friends during the first interview named three friends from the DMT group in the final interview. Four participants started naming friends other than siblings and staff members. All other participants named more friends during the final interview than the first interview. DMT contributed to the formation and maintenance of friendships for the 12 adults with DD who participated in the research group. Through using DMT to establish social connections, increase initiation, resolve conflict, create a sense of belonging, and share positive experiences, friendships flourished based on researcher observations and participant interviews.

Chapter Five: Discussion

The purpose of this study was to understand how DMT contributed to the formation and maintenance of friendships for adults with DD. Following a series of 12 DMT sessions, DMT group participants' friendships increased and strengthened. Through use of the sequential data analysis method, it was found that DMT contributed to the formation and maintenance of participants' friendships by facilitating social connection, initiation, conflict resolution, belonging, and shared positive experiences. The findings that were presented as themes listed above were found by analyzing both the research journal entries that I completed following each session and the three interview transcriptions for each of the 12 participants. Additionally, the themes were discussed and validated by a resonance panel of professionals in the field of DMT with experience working with individuals with DD. The identified themes answered the research question, how does DMT contribute to the formation and maintenance of friendships for adults with DD? The research question was answered with this study by providing new and descriptive understanding for how DMT contributed to friendship development for the adults with DD who were participants in this study.

The results of this study confirmed and extended the findings of prior research studies regarding the positive contribution that DMT has on social skill and relationship development for individuals with DD (Cook, 2008; Duggan, 1978; Duggan, 1995; Erfer, 1995; Torrance, 2003; Ylönen & Cantell, 2009). In addition, this research study extended what researchers (Frankel et al., 2010; Koenig et al., 2010; Laugeson et al., 2011; Mackay et al., 2007; Stichter et al., 2010; Whitby et al., 2012) previously found contributed to friendships for individuals with DD and extended interventions beyond behavioral and didactic approaches to include DMT. In this chapter, the results of this research study and how it confirms and extends current literature in

the field will be discussed. Furthermore, additional research suggestions and recommendations for the field will be made. In order to enhance and further the effects of the results of this study, the unique characteristics of DMT that relate to friendship development and maintenance for adults with DD compared to other interventions will be discussed first.

Understanding Friendships through a DMT Lens

DMT offered a unique approach to facilitate friendship development. Specific DMT concepts and interventions were used in the DMT sessions and discussed by participants during interviews as contributing to friendships of group participants. All of the identified themes directly related to movement and body awareness, expression and/or relationships. Deepening and making sense of movement experiences was a key factor in the development and maintenance of friendships, which makes the themes unique to DMT sessions. The DMT interventions and concepts that are involved in the themes set DMT apart from other therapeutic interventions for friendship development and maintenance.

Social connections. DMT facilitated awareness and active use of nonverbal social connections throughout the series of 12 sessions. By modeling and illuminating appropriate interpersonal boundaries and interactive gestures, participants became more comfortable incorporating them into their relationships during the sessions. During interviews, participants discussed personal space, high fives, and hugs as trademarks of their friendships. Engaging in nonverbal social connections was an apparent factor in the friendships of the group participants.

The DMT sessions became a therapeutic container for safe interactions that evolved into deeper relationships. The nonverbal aspects of movement relationships gave participants opportunities to deepen their friendships with other participants. Over the course of the sessions, participants sustained eye contact for longer periods of time while moving together, sought out

other participants to dance with, and engaged in more shaping qualities while moving together. As their interpersonal movement qualities shifted, their relationships deepened.

DMT provided both a place for participants to experiment with and develop initial contacts with others as well as more intimate friendships. Throughout the course of this study, there was a progression from safe and appropriate short contacts towards lengthened and intensified connections that resembled friendship. Because the focus was on nonverbal connections instead of verbal connections, DMT uniquely facilitated this progression and growth of friendship.

Initiation. DMT also facilitated the progression of initiating movements to initiating movement relationships. Over time, participants appeared to become more comfortable and confident to initiate moving in a bigger kinesphere, and eventually overlapping kinespheres. They demonstrated increased ability to take turns and showed increased flexibility letting others take turns as well. In contrast to traditional therapy that might involve initiating contributions to a verbal discussion, DMT facilitated embodied initiation. As identified in studies by Frankel et al. (2010) and Laugeson et al. (2011) peer entry skills are necessary friendship skills. Peer entry skills involve initiating and entering a relationship with another person. For many adults with DD who desire friendships but do not know how to successfully have friends, these skills are very valuable. The embodied aspects of DMT gave participants opportunities to develop nonverbal peer entry skills and initiate connections with others on a level that other types of therapy typically do not address.

Conflict resolution. Conflict is a natural part of human relationships. The ability to solve and resolve conflicts and disagreements is a key component of successful and lasting friendships. For individuals with DD, that often means finding flexibility to counter the

comfortable rigidity. DMT sessions often involved me facilitating negotiation in order to solve conflicts. As the sessions progressed, participants demonstrated increased flexibility to others' preferences and were able to resolve conflicts that came up with less facilitation. Throughout the DMT sessions, participants explored different ways of moving like and with other participants that may have helped them increase their flexibility when interacting with others. By moving in similar ways and dancing with others, participants got to know the other participants' movement styles and understood them as they related to them on a nonverbal level. This way of experiencing and understanding others laid the foundation for increasing flexibility in times of conflict, ultimately leading to conflict resolution. Conflict resolution is a necessary skill to maintain friendships and is facilitated successfully through DMT sessions.

Belonging. DMT created an environment of belonging that enabled friendships to flourish. DMT facilitated inclusion through developing a cohesive group circle and group rhythmic activity that led to group cohesion and a sense of belonging for group participants that was demonstrated by a concern for others' wellbeing and friendship development. The physical sense of belonging that was experienced by group participants is unique to DMT. The DMT concept of group rhythmic activity originally identified by Marian Chace (Chaiklin & Schmais, 1993) was present in the sessions and created a powerful pulse to which everyone in the group contributed. The group beat created a unifying sense to bring all of the group participants together. Similarly, the awareness of physical space and inclusion of all participants in a group circle throughout the session contributed to the sense of belonging created through DMT. Kitwood (1997), Hall (2010), and Hall (2009) all described the importance of social inclusion for all people, especially adults with DD. DMT successfully provided a sense of belonging for adult participants with DD and was a key component of friendships.

Shared positive experience. Many of the participants associated positive emotions with the DMT group as well as dancing and listening to music in general. In addition, I observed many moments of participants' positive affect and playful exchanges when they were interacting with shared movements during every session. The shared positive experience that the DMT group facilitated created a safe environment for friendships to develop. Since relationships often are based on shared interests and experiences (Rosetti, 2011), the positive experience associated with participation in a DMT group lends itself to friendship creation as evidenced by this research group.

Overall, the increase in awareness of nonverbal connections and movement relationships that was facilitated by DMT in various ways created an environment for the creation and maintenance of friendships for adults with DD. The group movement experience created opportunities to initiate social connections and deepen relationships through conflict resolution. The sharing of space and energy created a positive experience that ultimately led to a sense of belonging for all group participants.

Implications

Based on the results of this study, DMT is an applicable method and technique for developing and maintaining friendships for adults with DD. The manner in which DMT contributed to friendships confirms and extends many of the methods identified in the literature. This single bounded case study provided insight and understanding for how DMT contributed to the development and maintenance of friendships for adults with DD.

There is a fundamental need for inclusion and belonging that everyone deserves to have met (Kitwood, 1997). Friendships are an essential way that this need can be met. DMT contributed to the development and deepening of friendships for adult participants with DD in

this study. DMT is a viable treatment method for enhancing quality of life for individuals with DD by contributing to their friendships, thereby meeting their need for inclusion and belonging.

Implications for the field of DMT. The enhanced understanding of how DMT contributed to the formation and maintenance of friendships for adults with DD is very relevant to the field. The results of this research study provide a rationale for DMT to be used as a treatment modality to increase friendships for adults with DD. By understanding how DMT is effective, dance/movement therapists can better facilitate successful interventions and more effectively communicate with other members of the multi-disciplinary team.

Contributions to Existing Literature

This study on how DMT contributed to the formation and maintenance of friendships for adult participants with DD added to and expanded what is currently understood in existing literature. The themes identified for how DMT contributed to friendships also were identified in several different articles about friendship between individuals with DD. The literature included many didactic programs for teaching specific friendship and social skills (Frankel et al., 2010; Koenig et al., 2010; Laugeson et al., 2011; Mackay et al., 2007; Stichter et al., 2010; Whitby et al., 2012). The literature also included many studies on friendship development for children and adolescents with DD but lacked significant research on adults. Reichow and Volkmar (2009) and Clegg et al. (2012) identified that making and keeping friendships are ongoing challenges for individuals with DD, into adulthood. This qualitative case study revealed that through DMT adults with DD increased and strengthened their friendships, and gave insight into how DMT influenced their friendships. DMT facilitated themes of social connection, initiation, conflict resolution, belonging, and a shared positive experience that contributed to friendships during the series of 12 sessions with 12 participants. This study confirmed and extended what is understood

about the formation and maintenance of friendships for adults with DD and extended the application of DMT as a successful intervention for friendship development and maintenance.

Limitations

While this study provided substantial evidence that DMT contributed positively to friendships between adults with DD, there are some limitations to this study. The most significant limitation of this study was one of the data collection methods was not followed. Qualitative data in the form of surveys for parents and caregivers of DMT group participants were distributed but not returned. Therefore data in the form of surveys was not included in the data analysis for themes. Understanding of the case was limited to two methods of data collection and did not include an external source of data. Without the data from the surveys, I was unable to assess any translation of the friendship skills to environments and situations outside of the sessions themselves. The friendships and themes identified were limited to observations during the sessions and interview discussions about friendships. There were no data from an external source as part of the analysis process. While it is unknown why the surveys were not returned, certain possibilities can be considered. Caregiving for individuals with DD is known to be very demanding; therefore is it possible that the caregivers did not have the time or energy to return the survey. While researchers (Frankel et al., 2010; Laugeson et al., 2011) indicated that parental involvement is successful in teaching social skills to children, caregiver relationships with adults with DD may be very different. Adults with DD may have a desire for increased independence from their caregivers, amongst other possibilities. Nonetheless, it is possible that the presumed lack of parental and caregiver involvement in the development and maintenance of friendships for adults with DD is correlated with the general lack of social relationships for this population. Perhaps more caregiver involvement in the

process would be beneficial. In doing further research, it would be important to ask and inquire about the relationship between the caregiver and participant and the degree of physical, emotional, and social involvement. Additionally, the caregivers' interest, desire, and ability to participate would need to be considered before pursuing further research.

An additional limitation of this study was that the participants' understandings of friendships as defined in this study were not confirmed. For example, adult participants with DD may not have the ability to distinguish between romantic and platonic relationships. When discussing friendships during interviews and DMT sessions, participants occasionally mentioned boyfriends and girlfriends in reference to friendships without distinction. For example, participants discussed qualities such as "sexy" and "pretty" as friendship qualities. Therefore, it is unknown to what extent participants understood friendships as being platonic instead of romantic during DMT sessions and interviews. This could have limited the relevance of the themes identified as some of the themes may have been misunderstood by myself as the researcher. For example, I might have misinterpreted what was intended to be flirting as initiating a compliment for another group participant as a friend. Additionally, I may have lacked clarity with the subtle but important difference between a sense of belonging to a group versus a romantic partnership. Since the participants' understanding of friendship as defined in this study was not confirmed, it presents possible limitations to the relevance of some themes. If I were to do this study again, I would ask for the participants for their definition of friendship during the interviews. I also would ask participants about their views on similarities and differences between romantic and platonic friendships as well as one-on-one friendships compared to groups of friends.

Another limitation was that not all of the participants attended all of the 12 DMT sessions. If a participant was not at the program for whatever reason (out of town, sick, work conflict, etc.) he or she did not attend the DMT session. Additionally, one of the participants declined the option to come to the DMT session on a couple of occasions and she was not forced to come, in accordance with ethical standards. Inconsistent attendance was a limitation of this study because all participants did not have the chance to participate in all of the friendship themed DMT sessions. Therefore, some of the 12 participants were not part of the entire group process, possibly causing them to have missed opportunities for additional friendship development. This, however, is typical of any kind of therapy or social group. Perhaps working more closely with the agency to select a day and time for the group that is less likely for absences would help with attendance.

Future Research

Future research ideas have evolved based on the findings of this study. First, there are opportunities to increase validity and reliability and explore how DMT contributes to the formation and maintenance of friendships for other groups of adults with DD. This study (or a similar study) could be done with different groups of adults with DD to increase reliability. Validity could be increased if a way of measuring friendships and change in friendships is developed that is more efficient and accurate. If a quantitative study were developed with hypotheses to test and/or a control group, reliability and validity may be increased. Comparing friendships of DMT group participants with individuals who do not attend DMT groups also might provide insight in to the effect of DMT on friendships. Additionally, researching other methods for external validity besides caregiver involvement would be beneficial.

As a result of this research study, new ideas and questions arose for further research. New questions included, what other aspects of quality of life does DMT develop and enhance for adults with DD? How does self-confidence play a role in friendship development through DMT? Additionally, research may be done by creating a specific DMT program with specific interventions aimed at friendship development and maintenance explored in this study and tested for effectiveness. Research also may be done on individuals with DD's ability to distinguish platonic and romantic relationships and the implications of such on their relationships. Finally, researching way to understand and resolve the barriers to increased caregiver involvement would be beneficial. Successfully achieving caregiver involvement and/or feedback would provide opportunities for reliable and valid research with adults with DD in future studies.

Summary

In conclusion, this study answered the research question, how does DMT contribute to the formation and maintenance of friendships for adults with DD? By investigating this question, the purpose of this study was to understand how DMT contributed to friendships for adults with DD. Following a series of 12 DMT sessions with 12 adult participants, data in the form of a research journal and participant interviews was analyzed using Chesler's sequential analysis method. Analysis revealed DMT contributed to friendships by facilitating opportunities for deepening social connections, increasing initiation, resolving conflicts, creating a sense of belonging, and sharing a positive experience.

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C O L L E G E C H I C A G O

Informed Consent Form

Consent Form for Participation in a Research Study

Title of Research Project: Friendship and Dance/Movement Therapy with Adults with Developmental Disabilities

Principal Investigator: Elise Moore, elise.moore@loop.colum.edu

Faculty Advisor: Laura Allen, lallen@colum.edu, 312-369-7617

Chair of Thesis Committee: Laura Downey

INTRODUCTION

You are invited to give consent for the individual with developmental disabilities (DD) for whom you are the legal guardian to participate in a research study to understand the effect that dance/movement therapy (DMT) has on individuals with developmental disabilities' friendships. This consent form will give you the information you will need to understand why this study is being done and why you are being invited to participate/ give consent to participate. It will also describe what you and the participant will need to do to participate and any known risks, inconveniences or discomforts that you or they may have while participating. You are encouraged to take some time to think this over. You are also encouraged to ask questions now and at any time. If you decide to give consent to participate, you will be asked to sign this form and it will be a record of your agreement to consent to participate. This process is called 'informed consent.' You will receive a copy of this form for your records.

You are being asked to give consent for the participant of whom you are their legal guardian to participate in this study because this study will provide the individual with developmental disability with an opportunity to improve social skills and relationships with others through participating in a DMT group while at XXX.

PURPOSE OF THE STUDY

The purpose of this research study is to understand the effect and/or role of DMT on individuals with DD in terms of forming or maintaining friendships.

PROCEDURES

- 10-12 adults with DD will be selected to participate in a one hour weekly DMT group focusing on social skills and interpersonal relationship development based on their current treatment goals. The group will start on or around February 1, 2013 and end on or around May 10, 2013.

- DMT group participants will participate in 12 DMT sessions at XXX as a part of the life skills day services program.
- Before the DMT sessions begin, half way through the sessions, and after the 12 DMT sessions, participants in the study will be informally interviewed and asked questions about how they view their friendships. Interviews will last approximately five to ten minutes and will be conducted at XXX in the arts center on the second floor. Interviews will be audio-recorded.
- Following the series of DMT groups, approximately 15-20 family members and caregivers of DMT group participants will be asked to complete surveys sharing their perceptions of the effect of DMT on group participants' friendships. .
- Interviews will be transcribed for data analysis, which will be done to find common themes. All raw data will be destroyed no later than May 2015.

If you agree to participate in this study, you will be asked to do the following:

- Consent to the participant whom you are the legal guardian for to participate in weekly DMT sessions from approximately February 1- May 10, 2013.
- Consent to the participant whom you are the legal guardian for to participate in three informal interviews with the researcher at the beginning, middle, and end of the series of 12 DMT sessions.

POSSIBLE RISKS OR DISCOMFORTS

I believe there are no known risks associated with this research study; however, a possible inconvenience may be the time it takes to complete the study.

POSSIBLE BENEFITS

Participants in this study will benefit from participating in DMT sessions. DMT seeks to integrate the physical, psychological, and social aspects of the individual, and in this instance emphasis is placed on the social integration through social skills development and friendships. Participants in this study will possibly gain social skills and new or developed friendships as a result of participating in the study. Past research indicates that social interaction and friendships contributes to enhanced quality of life.

CONFIDENTIALITY

The following procedures will be used to protect the confidentiality of your information and the information of the participant for whom you are the legal guardian for:

1. The researcher(s) will keep all study records locked in a secure location.
2. Audio recordings from the interviews, written surveys, and all electronic files will be destroyed after two years.
3. All electronic files containing personal information will be password protected.
4. Information about you and the participant for whom you are the legal guardian for that will be shared with others will be unnamed to help protect your and their identity.
5. No one else besides the investigator will have access to the original data.
6. At the end of this study, the researcher may publish their findings. You will not be identified in any publications or presentations.

RIGHTS

Being a research participant in this study is voluntary. You may choose to withdraw the participant for whom you are the legal guardian for from the study at any time without penalty. You or they may also refuse to participate at any time without penalty.

Please carefully consider consenting for the individual for whom you are the legal guardian for to participate in this study. If you agree to consent to their participation, please return this form no later than Friday, January 25, 2013. We will be happy to answer any question(s) you have about this study. If you have further questions about this project or if you have a research-related problem, you may contact the principal investigator Elise Moore at elise.moore@loop.colum.edu or the faculty advisor Laura Allen at lallen@colum.edu. If you have any questions concerning your rights as a research subject, you may contact the Columbia College Chicago Institutional Review Board staff (IRB) at 312-369-7384.

COST OR COMMITMENT

- Participants in this study will not incur any costs.
- By committing to this study, you will be expected to consent to the individual for whom you are the legal guardian to participate in a series of 12 weekly DMT sessions and 3 interviews.

PARTICIPANT STATEMENT

This study has been explained to me. I volunteer to take part in this research and consent for the individual for whom I am the legal guardian to take part in this research. I have had opportunity to ask questions. If I have questions later about the research or my rights as a research participant, I can ask one of the contacts listed above. I understand that I may withdraw from the study or refuse to participate at any time without penalty. I will receive a copy of this consent form.

Participant/Parent/ Guardian Signature:	Print Name:	Date:

Relationship (only if not participant): _____

Assent of Individual under guardianship Signature:	Print Name:	Date:

Principal Investigator's Signature	Print Name: Elise Moore	Date

**Appendix B: Informed Consent/ Assent Form for Individuals with DD Participating in the
DMT Group**

Columbia 

C O L L E G E C H I C A G O

Informed Consent/ Assent Form

Agreement to Participate in a Research Project

Title of Research Project: Friendship and Dance/Movement Therapy with Adults with Developmental Disabilities

Researcher: Elise Moore, elise.moore@loop.colum.edu

Advisor: Laura Allen, lallen@colum.edu, 312-369-7617

Chair of Thesis Committee: Laura Downey

HELLO

I would like you to participate in a dance/movement therapy group that I am going to write about. In this letter I will tell you about my project and what I am asking you to do. Please let me know if you have any questions, I am happy to answer them. At the end of this letter, you will be asked to sign your name, which will mean that you agree that you want to be a part of my research project. I also will give you a copy of this paper for you to keep.

ABOUT MY PROJECT

I want to learn about you and your friendships by doing dance/movement therapy with you. I will make some notes about what I see and I also will ask you some questions about what you think. I also will ask your family members or caregivers what they think about your friendships.

SCHEDULE

- Starting in February 2013, we will meet with 9 to 11 other participants at XXX to do a dance/movement therapy group every Friday in the Arts Center until May 2013. We will meet as a group 12 times.
- On the first day, one of the middle days (in March or April) and on the last day, I will ask you some questions about your friendships and how they are the same or different since we started our dance/movement therapy group. It will only take me 5 or 10 minutes to ask you the questions and we will do it in the Arts Center. I will record what you say so I can listen to it again later.
- I also will ask your family members and/or caregivers to write me some notes about what they think about your friendships and doing dance/movement therapy.

What I am asking from you:

- Come to the dance/movement therapy group every Friday from February – May, 2013
- Answer questions that I ask you if you feel comfortable.

RISKS AND BENEFITS

I will make sure that the information you tell me and that I write about stays secret and safe. By participating in my project, you might have fun and make new friends.

YOUR RIGHTS

You do not have to participate in my project if you do not want to. You can choose to quit my project at anytime. If you want to be a part of my project and do dance/movement therapy with me, please sign this form and give it back to me by Friday, February 1, 2013. If you have any questions please let me know.

PARTICIPANT STATEMENT

This study has been explained to me. I volunteer to take part in this study. I have had opportunity to ask questions. If I have questions later about the research or my rights as a research participant, I can ask one of the people listed above. I understand that I may quit the study or refuse to participate at any time without any consequences. I will receive a copy of this consent form.

Participant/Parent/ Guardian Signature:	Print Name:	Date:
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Relationship (only if not participant): _____

Assent of Individual under guardianship Signature:	Print Name:	Date:
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Principal Investigator's Signature	Print Name: Elise Moore	Date
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**Appendix C: Informed Verbal Follow-Up Assent Script for DMT Group Participants Prior
to Each Verbal Interview**

“Hi, _____. I would like to remind you that I am doing a project on our dance/movement therapy group that I am going to write about and you signed a paper to participate in. I am doing this project because I want to learn about your friendships and I will ask you some questions that are going to be recorded so that I can listen and write about them later. I will make sure that what you tell me stays secret and safe. You do not have to participate in my project if you do not want to and you can quit at anytime. Do you have any questions for me? If you would still like to participate in my project you can let me know by saying “yes”.

**Appendix D: Informed Consent Form for Caregivers and Family Members Completing the
Survey**



C O L L E G E C H I C A G O

Informed Consent Form
Consent Form for Participation in a Research Study

Title of Research Project: Friendship and Dance/Movement Therapy with Adults with Developmental Disabilities

Principal Investigator: Elise Moore, elise.moore@loop.colum.edu

Faculty Advisor: Laura Allen, lallen@colum.edu, 312-369-7617

Chair of Thesis Committee: Laura Downey

INTRODUCTION

You are invited to participate in a research study to understand the effect that dance/movement therapy (DMT) has on individuals with developmental disabilities' (DD) friendships. This consent form will give you the information you will need to understand why this study is being done and why you are being invited to participate. It will also describe what you will need to do to participate and any known risks, inconveniences or discomforts that you may have while participating. You are encouraged to take some time to think this over. You are also encouraged to ask questions now and at any time. If you decide to participate, you will be asked to sign this form and it will be a record of your agreement to participate. This process is called 'informed consent.' You will receive a copy of this form for your records.

You are being asked to participate because of your direct experience with the individual(s) with DD who participated in the DMT research group.

PURPOSE OF THE STUDY

The purpose of this research study is to understand the effect and/or role of DMT on individuals with DD in terms of forming or maintaining friendships.

PROCEDURES

- 10-12 adults with DD will be selected to participate in a one hour weekly DMT group focusing on social skills and interpersonal relationship development based on their current treatment goals. The group will start on or around February 1, 2013 and end on or around May 10, 2013.
- DMT group participants will participate in 12 DMT sessions at XXX as a part of the life skills day services program.

- Before the DMT sessions begin, half way through the sessions, and after the 12 DMT sessions, participants in the study will be informally interviewed and asked questions about how they view their friendships. Interviews will last approximately five to ten minutes and will be conducted at XXX in the arts center on the second floor. Interviews will be audio-recorded.
- Following the series of DMT groups, approximately 15-20 family members and caregivers of DMT group participants will be asked to complete surveys sharing their perceptions of the effect of DMT on DMT group participants' friendships. .
- Interviews will be transcribed for data analysis, which will be done to find common themes. All raw data will be destroyed no later than May 2015.

If you agree to participate in this study, you will be asked to do the following:

- Complete the attached survey with honesty and integrity and return it to the researcher.

POSSIBLE RISKS OR DISCOMFORTS

I believe there are no known risks associated with this research study; however, a possible inconvenience may be the time it takes to complete the survey.

POSSIBLE BENEFITS

You, personally, may not directly benefit from this research; however, I hope that your participation in the study may help clinicians in the field of DMT and those who work with individuals with DD to understand friendships between individuals with DD and how participating in DMT session may effect their friendships.

CONFIDENTIALITY

The following procedures will be used to protect the confidentiality of your information:

1. The researcher(s) will keep all study records locked in a secure location.
2. All electronic files containing personal information will be password protected.
3. All audio recordings from verbal interviews, written surveys and electronic records will be destroyed after two years.
4. Information about you that will be shared with others will be unnamed to help protect your identity.
5. No one else besides the investigator will have access to the original data.
6. At the end of this study, the researcher may publish their findings. You will not be identified in any publications or presentations.

RIGHTS

Being a research participant in this study is voluntary. You may choose to withdraw from the study at any time without penalty. You may also refuse to participate at any time without penalty.

If you would like to participate in this study, please return this form and your completed survey by Friday, May 31, 2013. We will be happy to answer any question(s) you have about this study. If you have further questions about this project or if you have a research-related problem, you may contact the principal investigator Elise Moore at elise.moore@loop.colum.edu or the faculty advisor Laura Allen at lallen@colum.edu. If you have any questions concerning your rights as a research

subject, you may contact the Columbia College Chicago Institutional Review Board staff (IRB) at 312-369-7384.

COST OR COMMITMENT

- Participants in this study will not incur any costs.
- By committing to this study, you will be expected to complete the attached survey.

PARTICIPANT STATEMENT

This study has been explained to me. I volunteer to take part in this research. I have had opportunity to ask questions. If I have questions later about the research or my rights as a research participant, I can ask one of the contacts listed above. I understand that I may withdraw from the study or refuse to participate at any time without penalty. I will receive a copy of this consent form.

Participant Signature:

Print Name:

Date:

Principal Investigator's
Signature

Print Name: Elise Moore

Date

Appendix E: Data Collection Tool: Qualitative Survey Distributed to Caregivers and Family Members

	Survey Questions	Responses
1	Have you noticed Participant X talking about dance/movement therapy group members more frequently in the past 12 weeks?	Yes No If so, please share anything you can recall they said:
2	Have you noticed any changes in Participant X's social skills in the past 12 weeks?	Yes No Please describe any changes:
3	Have you noticed any changes in the way Participant X interacts with others in the past 12 weeks?	Yes No Please describe any changes:
4	Have you signed the attached informed consent form, consenting for your responses to be used in the associated research study? *You must sign the informed consent form in order for your responses to be used in study results.	Yes No

Thank you for taking the time to complete this survey!
Your responses will help the researcher and related professionals understand the effects that dance/movement therapy has on individuals with developmental disabilities' friendships.

Appendix F: Data Collection Tool: Research Journal Template

Date: _____

Session # _____

Data/Observations: *(List group members present, describe observations of social interactions and friendships from the beginning of group)*

- Eye contact --- Who: _____
- Side Conversations
- Members in overlapping potential kinespheres – Who: _____
- Posture/ Gesture towards another group participant
- Other-- _____

Intervention(s): *(Designate specific interventions used to facilitate friendships.)*

- Modeling social skills-- Describe: _____
- Use of props -- Describe: _____
- Positive Reinforcement of social skills
- Mirroring
- Partner dancing
- Turn taking while dancing
- Group choreography
- Other -- Describe: _____

Response: (*Designate and describe any observations of friendships, include brief movement assessment.*)

→ Observations of Friendships

- Eye contact --- Who: _____

- Positive affect when moving with or close to another group participant
 - Smiling Laughing Eyes widening Other
- Use “friend” to describe another group member – Who: _____

- Inquire about the wellbeing of another group participant

→ Brief Movement Assessment of Friendships:

Use of Space—Use of kinesphere and interpersonal space/ touch

- Small Medium Large
- Overlapping potential kinespheres
- Engaging in mid/ far reach space to interact with others
- Maintain cohesive group circle in space

Shape-- Use of Shaping qualities

- Rising Sinking Spreading Enclosing Retreating Advancing

Use of Postures/ Gestures directed toward another group participant

- Wave High Five Hand Hold / Hand Shake Fist bump

Other(s): _____

Mirroring

- Mirror movements of other participants
- Mirror movement qualities of other participants
- Mirror use of space of other participants (levels, size kinesphere)
- Mirror tension flow of other participants
- Mirror affect of other participants

Appendix G: Data Collection Tool: Interview Questions for Participants in DMT Group

- Who are your friends?
- Are you friends with anyone in our DMT group?
 - New friends or old friends?
- How do you know they are your friends?
- What do you like to do with your friends?
 - Do you like to dance or listen to music with your friends?
- Is there anything about our DMT group that helps you to make friends?
- Is there anything about our DMT group that helps you to connect with the friends that you have/ old friends?

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NAME: Elise Moore

TITLE OF WORK: Friendship and Dance/Movement Therapy for Adults with Developmental Disabilities

SIGNATURE: *Elise Moore*

DATE: May 15, 2014 EMAIL: elise.moore@loop.colum.edu