Benefits of Dance and Movement for Individuals with Autism Spectrum Disorder

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Summary of Research Findings

Individuals who have Autism Spectrum Disorder (ASD) are currently diagnosed under the DSM-V as having “persistent deficits in social communication and social interaction across multiple contexts” (American Psychiatric Association, 2013, p. 50). Individuals with ASD are characterized by having “restricted, repetitive patterns of behaviors, interests, or activities” (American Psychiatric Association, 2013). Dance and movement interventions are beneficial for individuals with ASD because it provides the opportunity to build expressive language skills and increase social functioning (Behrends, Muller, & Dziobek, 2012). Dance and movement interventions, the most common being imitation, are meant to increase social attunement and connectedness.

All six studies sought out the social benefits of dance and movement interventions. Three studies expected the participants to have improved social functioning after the dance and movement interventions were implemented (Behrends et al., 2001; Koch, Mehl, Sobanski, Sieber, & Fuchs, 2014; Samaritter & Payne, 2017). Two out of the six aimed to improve self-other distinction (Behrends et al., 2001; Koch et al., 2014). In addition, Koch et al. (2014) expected the participants to have improved body awareness and empathy. Further, Behrends et al. (2001) was aiming to improve self-perception and expressive language. Hartshorn et al. (2006) research study was targeted to increase attentive behaviors and decrease stress. Murcia, Kreutz, Cliff, & Bongard (2010), examined the benefits of dance and movement on well-being in individuals with ASD.

A common dance and movement intervention is imitation, sometimes referred as mirroring movement or mimicry, which involves mimicking your partner’s behaviors, movements, and speech (Behrends et al., 2001). Four out of the six research studies, identified imitation as an effective intervention (Behrends et al., 2001; Koch et al., 2014; Martin, 2014; Samaritter & Payne, 2017). Mimicking has been linked to increasing the desire to associate with others, and through learning the social behaviors of others social functioning often improves (Behrends et al., 2001). In addition, Kinesthetic empathy can be taught to individuals with ASD using mirroring (Koch et al., 2014). There is still a lot of research to be done on imitation, but the overarching goal is to increase social connectedness, imitation skills, and attunement (Martin, 2014). A form of mirroring is dyadic dance and movement. Two studies used a form of improvised movement that reflected their partners movement, with the participant being the leader (Koch et al., 2014; Samaritter & Payne, 2017). This enhanced the participants ability to communicate their emotions as well as the desire to express emotions (Koch et al., 2014).

The hypotheses across 4 articles of the literature reviewed contained an overarching theme that mutually sought to understand the potential for increase in socialization in individuals with ASD as a result of dance and movement participation; however, physical benefits were also of interest in Martin’s research (2014). Improvements were measured through coded behavioral observations, observation scales, and pre- and post-test questionnaires. (Hartshorn et al., 2006; Koch et al., 2014; Martin, 2014; Samaritter & Payne, 2017). The remaining articles sought to understand overall benefits of dance on well-being (Murcia et al., 2010) and how to develop a dance and movement intervention tailored to individuals with ASD (Behrend et al., 2001). All studies that directly observed participation in dance and movement yielded significant improvements in socialization. Children with ASD in particular were observed exhibiting increased attentive behavior and decreased stress and negative response to touch when compared to individuals in the control group who did not participate in dance and movement (Hartshorn et al., 2006), as well as increased orientation of the face and body and synchronization of movement toward a partner while participating in dyadic DMT sessions (Samaritter & Payne, 2017). Another study demonstrated that adults with ASD, who also participated in dyadic DMT, displayed increases in body awareness, self-other distinction, empathy, and self-perception skills from pre-to post-test questionnaire results and in comparison to individuals who did not receive the intervention (Koch et al., 2014). Murcia et al. (2010) observed perceived benefits across physical, emotional, psychological and spiritual domains as a result of dance and movement participation amongst adults not specified as having a disability. The aforementioned intervention was extremely varied (folk, disco, salsa, ...) which may account for the increase in domains of wellness affected. The remaining articles sought to develop a theoretical framework for dance and movement interventions for individuals with ASD. In doing so, both articles explored the benefits of mirroring as an intervention by looking at previous research and found that mirroring was beneficial in increasing cooperative abilities and sensitivity to other’s movements (Behrends et al., 2001; Martin, 2014).
Knowledge Translation Plan

Recreational therapists can implement dance and movement as an intervention. However, a CTRS cannot implement dance and movement therapy because it requires education and licensure to practice. When developing a dance and movement intervention, client safety and comfort is of utmost importance. As mentioned in Martin (2014), individuals with ASD may experience overstimulation when appraising another individual or stimulus as safe or dangerous (p 549). It is therefore important to establish a relationship with the client to foster feelings of safety (Martin, 2014). It is also important to treat all clients individually and tailor interventions to their needs through formal assessments, observations, and/or interviews with relatives (Martin, 2014). Other symptoms of ASD discussed consisted of difficulty with empathic processes and nonverbal communication (Behrends et al., 2012). By understanding the individual’s needs through formal assessment, this can serve to further promote a relationship with the client, assist in communicating with the client and understanding their needs without verbal communication.

Dance and Movement interventions should be facilitated by the recreational therapist. The ideal population would be children or adults with autism and the following is how participation would look as a result of the literature acquired. Participants will alternate working 1:1, with a partner, and with the whole group (Koch et al., 2014). Literature has demonstrated that warm-up activities have been effective when implementing dance and movement interventions. Therefore, the session will consist of a warm-up exercise, high intensity movement activity, dyadic dance/movement intervention, and a cool-down exercise (Hartshorn et al., 2006; Koch et al., 2014). The length of the session will be 45-60 minutes, once a week. This will allow for time to complete all interventions and provide time for a warm-up and cool-down exercise. Adaptations will vary per participant as symptoms of ASD vary in manifestation, and therefore, formal assessments should be conducted in order to determine the individual needs of clients (Behrends et al., 2012). However, another adaptation to dance and movement activities may consist of adapting the music and dancing style to the age and demographic of the group (Behrends et al., 2012). Interventions used in the sessions can include clapping your name, mirroring, obstacle courses, dyadic dance/ movement, and dancing in rhythm (Koch et al., 2014; Hartshorn et al., 2006).

References


