Co-leadership in Dance/Movement Therapy: An Art-based Literature Review

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Co-leadership in Dance/Movement Therapy: 
An Art-based Literature Review

Capstone Thesis

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Dance/Movement Therapy

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Abstract

The co-leadership model is an unseen thread in the current picture of the field of dance movement therapy (DMT). Even if it’s deeply rooted in the development of the field, its significance for the current context of culture-informed and evidence-based practice is still under-investigated. This thesis sheds light on the importance of co-leadership in DMT through a historical review of the development of the field, the rationale of using co-leadership in DMT from neuroscientific, psychological and practical perspectives, and a synthesis of empirical studies on effectiveness of co-leadership in DMT. Co-leadership is a tradition in the field of DMT which prospered when second-generation therapists inherited the work from founders of the field. However, the tradition is vanishing as a single narrative unconsciously dominated the field. In this historic lens, the use of co-leadership is a method to honor the tradition and embrace multiculturalism in the field. Studies in neuroscience and psychology provide theoretical frameworks of how co-leadership strengthens the healing factors in DMT. The co-leadership model also solves practical issues that are commonly faced in DMT sessions. The art-based synthesis of empirical studies showed that the co-leadership model enhances the effectiveness of DMT in terms of providing a holding environment, developing meaningful interventions, and facilitating shared insights. The current thesis serves to advocate for more studies on the usage of co-leadership in the field of DMT.
Co-leadership in Dance/Movement Therapy: An Art-based Literature Review

The concept of co-therapy was developed in the 1960s when two or more therapists were engaged to lead a group session (Hudson, 1995). In this setting, the therapy group adapted a leadership structure with at least two therapists partnered to facilitate the group (Okech & Kline, 2006). Today, co-therapy, which is also called co-joint therapy, is still widely used in family and group therapy, usually with a dyad of therapists in the session together. The shared leadership among therapists forms a special therapeutic relationship with the benefit of flexibility of role-taking, resources-supplementing or complementing, strengthening the containment of the session when hostility in the group exceeds the holding ability of a single therapist, and reducing blind spots through shared insight (Heilfron, 1969). The co-leadership model is widely used in dance/movement therapy (DMT) groups as a basic structure for group settings as evidenced by a survey showing that ninety-eight percent of the respondent therapists had co-led DMT groups (Hudson, 1995). Co-leadership is also embedded in various DMT graduate-level programs as a primary pedagogical approach (Payne, 2002). Therapists in training reported the development of their clinical skills and professional relationship through co-leadership in DMT (Rice, 2016) and in cognitive therapy that engages other body-based methods (Chartier et al., 2010). How the co-leadership model will benefit clinical practice in DMT is not yet fully understood through the lens of empirical evidence even though it is widely used in the field. An electronic search was performed in the database of American Journal of Dance Therapy (1977-2019), which is the official journal of the American Dance Therapy Association (ADTA), with final search completed by February 28th 2020, using the keywords “co-therapy OR co-leadership OR co-led OR co-leader OR co-therapists” in title and abstract. After reviewing the full-text articles, the only study that directly focused on the topic of co-leadership was published in 1995 (Hudson). In
light of the advancement of research into the relationship between DMT and neuroscience (Berrol, 2006; Burzynska et al., 2017) and the rising awareness of diversity and inclusion in DMT (e.g. Carmichael, 2012; Chang, 2015, 2016), an investigation of the co-leadership model through these two lenses is warranted to discover new theoretical support.

As the researcher for this project, my authenticity was introduced into this academic project through using my own multi-layered identity as a reference to construct the disclosure. The multiplicity of my own identity always serves as the founding block of my research. As a therapist with a multicultural background, co-leadership in DMT speaks well to two important principles in my culture of origin, which are connection of body-mind-spirit and collectivism. As connection of body-mind-spirit is one of the pillars for DMT (Chaiklin, 2009), my Eastern belief of the somatic nature of human beings built my faith in my current work. In collectivist culture, the group as a whole is highly valued, and wisdom and new knowledge is considered to be beyond the discovery or innovation of an individual (Michailova & Hutchings, 2006). In this sense, having two therapists contributing to the therapeutic work at the same place and time feels like a better holding environment. During my current internship at Boston Children’s Foundation, I experienced being a part of the holding environment created by co-leadership regardless of my role as the leader, co-leader or participant. This experience feels culturally familiar to me and has nurtured my self-growth during DMT training. This experience also informed me that using the co-leadership model may be culturally appropriate for either therapists or clients who share the same collectivism cultural background as me when the congruency of cognitive and bodily experience is considered to be beneficial in DMT (Koch & Fuchs, 2011). Beyond the argument regarding multicultural background, using a methodology which values both intellectual and experiential perspectives is also at the core of my ontological
lens. As a former cognitive neuroscientist, I rely on the newest scientific findings to inform my therapeutic practice. As a flamenco dancer, I honor embodied artwork and tacit knowledge.

Through the movement exploration of empirical studies (Hervey, 2007), the current literature review shed light on the issue of how co-leadership benefits DMT practice pertaining to mental healthcare. The discourse starts with a brief historical review of the development of modern DMT, its multicultural/many-cultured origins, the current concern on multiculturalism in the field, and how the co-leadership model will serve as a call for attention to our roots and inspire culture-sensitive practice in future clinical work with further regard for diversity. Then, an insight-based synthesis of literatures is presented to support the rationale of using co-leadership in DMT with evidence from neuroscience, cognitive science, and psychology. In the third part, systematic review was conducted on the effectiveness of the co-leadership model in DMT through a hybrid method that accommodates art-based inquiry in the widely used medical framework. This multi-perspective literature review, which includes historical, intellectual, intuitive, emotional, and spiritual perspectives, will systematically build the bridge between co-leadership and DMT.

**Literature Review**

**Brief History of DMT and Co-leadership Model**

Dance/movement therapy (DMT) is defined by the American Dance Therapy Association (ADTA) as “the psychotherapeutic use of movement to promote emotional, social, cognitive, and physical integration of the individual, for the purpose of improving health and well-being” (Welling, 2014, para.1). This concept has its counterpart in UK under the name of Dance Movement Psychotherapy (DMP), which the Association for Dance Movement Psychotherapy UK (ADMP-UK, 2013) refers to as “a relational process in which client/s and therapist engage in
an empathic creative process using body movement and dance to assist integration of emotional, cognitive, physical, social and spiritual aspects of self”. To start from a more comprehensive and inclusive perspective, the current project will operationally define DMT as the therapeutic usage of dance and body movement as a major intervention strategy because the current project is focused on the process of the interventions rather than the content. This operational definition of DMT for the current project aims at clinical applications in a practical concern so that audiences from a multi-disciplinary background can find their own way to relate to this work regardless of their theoretical preference and professional identity.

This tradition of using body-based practice and dance/movement as a therapeutic or healing ritual is a universal phenomenon (Chaiklin, 2009). The field of DMT has been built on this global tradition, gradually found its voice, and emerged as an independent field in the mental health domain in the Western world (Levy, 2005; Payne, 2002). The first generation of modern Dance/Movement Therapists in the field combined their creative dance training with the different schools of thoughts in their own clinical practice (Levy, 2005). With the guidance from these founders of the field, the second generation of therapists inherited the DMT clinical practice by observing, shadowing and co-leading with them directly (Leventhal, 1980; Leventhal et al., 2016). During this time, co-leadership is organically used as a training model for therapists. With the need for DMT to be recognized and organized as a profession, professional associations were founded, and training programs are provided in academic institutions (Levy, 2005). However, with the legitimization of DMT into the healthcare model in the Western world, the tradition of using co-leadership as a training model gradually faded away with only a few programs still embedding it in practice (Payne, 2002). Even though co-leadership is a clear thread in the
heritage of DMT from generation to generation, this history of the development of the field is now barely recognized and honored.

At the same time, as the profession of DMT evolved from the multicultural roots of dance as a healing practice in conjunction with the field of psychology, psychiatry and sociology in the Western world, a schema with a single narrative was also unconsciously formulated. The founders of the field of DMT, who have been recorded in textbooks, and the founders of the American Dance Therapy Association (ADTA) all reflect the privileged social conditions of female, heterosexual, White, upper middle-class, and urban professionals (Bourdieu, 2019; Chang, 2016). With the growing awareness and importance of diversity-inclusion and intersectionality within the DMT practice, the international and multicultural origins have been refocused in the field of DMT (Chang, 2015).

The wide use of the single-leadership model in the field may have unconsciously manifested from Western-centered clinical model settings as a metaphor of individualism in contrast to the collectivism of non-Western cultural traditions (Rhee et al., 1996). In the single-leadership model, the leader represents the authority in the therapeutic relationship and thus shows the image of the therapist as a “romantic hero, facing difficulties alone”, which is not considered to be an effective role model for therapists who use body-orientated methods in psychotherapy (Conger, 1994, p. xvii). However, in the co-leadership model, the therapists share leadership through maintaining harmony, interdependence, and cooperation, which resembles the basic feature of collectivism (Triandis et al., 1990). The model of co-leadership embeds a unique cultural representation from non-Western traditions. Adapting a culturally sensitive model will be very important when working with clients who are experiencing cultural trauma (Gailienė, 2019) or cultural transition as a result of immigration (Marcow-Speiser, 1993). A therapeutic
model which embeds the social norm of the culture will model community-based cultural values and thus facilitate the client’s self-help using community resources through their validated cultural values (de Vries, 2007; Rosenblatt, 2004). Furthermore, the co-leadership model symbolizes the collective healing power which will encourage clients to reach out to the community for social support and make better use of it to cope with stress and traumatic reactions (de Vries, 2007).

Besides culture-informed healing for clients, a co-leadership model also represents one of the origins of the field of DMT, which is dance. Paired dance is a commonly used dance format. Embedding the co-leadership model shows the respect to the origin of the field as DMT “is a profession based on the art of dance and augmented by psychological theories involving core human processes” (Chaiklin, 2009, p. 5).

Thus, from the multicultural perspective, the co-leadership model is in trend with the current focus of diversity-inclusion in the field of DMT. From the perspective of community building in the field of DMT, welcoming a therapeutic model that represents a different cultural tradition is a way to acknowledge and value the multicultural/many-cultured origins of the body-mind-spiritual practices and information sharing from around the world. At the same time, this inclusion will develop an accepting and loving space to expand the single narrative which is currently unconsciously dominating the DMT practice (Grayson et al., 2019).

**Co-leadership Model Strengthens the Healing Factors in DMT**

DMT shares universal healing factors with traditional talk therapy while holding its unique healing factors. In other words, DMT functions through its innovative use of non-verbal and embodied experience within a therapeutic relationship when verbalizing awareness may not be possible or necessarily enough for changes and self-growth in therapy (Rosenblatt, 2004). The
following part will describe how the co-leadership model strengthens the healing factors that are universal and specific to DMT pertaining to the neuroscience of polyvagal theory (Porges & Dana, 2018), observational learning theory (Bandura, 1986) in psychology, and its practical concerns (Schmais, 1985).

Firstly, co-leadership strengthens the therapeutic relationship in DMT through the affect co-regulation between co-leaders and more implicit environmental cues for safety, for example facial expressions and bodily gestures. Therapeutic relationship is the critical factor of effective therapy regardless of the theoretical background of therapists in talk therapy (Fiedler, 1950). In a similar way, therapeutic relationship in DMT also serves as the foundation of the whole therapy session (Kottler, 2004; Porges, 2003). During a DMT session, the sense of safety in the therapeutic space is informed by the safe body presented by therapists. Mammals refer to patterns of facial expression and vocal intonation, which are controlled by the brain stem via regulation of the striated muscles of the face and head, as non-verbal signals for safety in social communication (Porges & Dana, 2018). According to the Polyvagal Theory, which links bodily response and human social behavior (Porges, 2003), the social safety signal activates the calm bodily responses. This physiological state then informs the nervous system through bottom-up regulation which then optimizes spontaneous social engagement behaviors. This process serves as the biobehavioral mechanism of the formation of attachment from the psychology perspective and provides the neural basis for the effectiveness of interpersonal engagement as the healing factor in various treatments (Flores & Porges, 2017). Co-leaders in therapy not only provide extra somatic safety signaling for clients in the interpersonal setting, but also support the primary leader’s homeostasis through co-regulation, especially in DMT sessions that achieve psychological changes through body-based methods. This double insurance for holding and
structuring for safety is especially important for clients as a secure base for development (Stern, 1998), as a healthy relationship model in marriage and couples therapy (S. M. Johnson, 2008), for effective psychotherapy treatment (Norcross, 2002), and for positive changes in DMT (D. Johnson, 2007). This secure base serves as the foundation for the working alliance during therapy (Brooks, 1985). It is essential for group therapy engaging activities, like DMT, and for children with lower ego development or cognitive abilities, especially at the beginning of the group phase when cohesion is not established (C. V. Johnson et al., 1998; Riester, 1993).

Secondly, the co-leadership model benefits clients’ observational learning, which plays a vital role in the development of childhood cognitive styles and, concomitantly, in the development of depression and anxiety (Ostrander & Herman, 2006), through providing more positive modeling from multiple leaders. The internalizing of pathological symptoms are rooted in early childhood observation of malfunctioning behaviors in their environments from adults through negative encounters with their social environment (Bandura, 1986; Teubert & Pinquart, 2010). Both depressive social interactions modeled by adults’ and children’s own experience of the consequences of their behaviors result in the pathology of children through their observational learning system (Hawkins et al., 1993). As suggested by a meta-analysis, children’s social emotional development is jeopardized by the dysfunctional modeling of adults that create internal conflict in children in a family with competitive patterns of co-parenting (Teubert & Pinquart, 2010). This negative input into the observational system in toddlerhood predicts children’s later symptoms of attention deficit/hyperactivity disorder, oppositional defiant disorder, affective disorder, and somatic complaints (Umemura et al., 2015). Another meta-analysis on the effect of treatment shows that psychotherapies that resolve this problem decrease internalizing symptoms for children and adolescents with depression (Weisz et al., 2006). To
counter the negative inputs into their observational systems, a large amount of positive inputs is required to update the maladaptive response pattern. Because neural systems automatically diminish the weight of information from the same perspective (See Schomaker & Meeter, 2015 for a review), positive inputs from different perspectives will be more effective in updating behavioral patterns. The co-leadership model provides this multi-perspective input for observational learning. The use of nonverbal expression and activities in DMT allows not only psychomotor catharsis (Levy, 2005) but also symbolization and meaning making from early life or traumatic experience (Hanna, 2008; Leventhal, 1980, 2008).

As trauma survivors, people come to the therapy with traumatized response to neutral environmental stimuli because their experience altered their neural correlates and hardwired their brain to use the perpetrators’ behavior as their only way to behave non-verbally in all environments (Schmais, 1985; van der Kolk, 2015). In this case, the primary leader will give directives during DMT and the co-leader will be a role model to provide an alternative response possibility as a demonstration for trauma survivors. In DMT, co-leaders serve as role models for observation during the non-verbal process which can facilitate the client’s observational learning, perspective change, and personal growth.

From the perspective of DMT theories, this therapeutic effect of behavioral modeling from co-leaders through observational learning speaks to the healing effect of co-leaders as an extra witness in the DMT process. Unlike the primary leader in DMT who conducts the intervention and gives directives, co-leaders function as the silent witness who holds a safe, receptive, and non-judgmental awareness of the movers’ self-expression (Adler, 1999). This process of being witnessed has its own healing power in DMT (Schmais, 1985) and facilitates the client’s self-development through kinesthetic empathy (Fischman, 2009).
Finally, therapy work is rooted in real life situations where conducting the therapy work effectively requires practical concerns (Schmais, 1985). From this perspective, co-leaders function as extra helpers during the treatment design, admission, and evaluation processes in terms of practicing interventions, directing movement-based activities, stage management, and movement observation and analysis.

As DMT is an experiential therapy model, using the self as an instrument is common practice (Chidiac & Denham-Vaughan, 2009; Slavson, 1943). Just like dancers rehearsing before performances, embodying intervention design on self is also important for DMT. Rehearsing is a process when “alternative responses are created and practiced in order to prepare for changes in behavior” (Bernstein, 2014, p. 43). During this preparation phase of DMT, intervention ideas could be practiced and rehearsed among leader and co-leaders through their own embodiment to further their kinesthetic understanding and inspire new ideas.

DMT engages many movement-based activities with the premise that the activities themselves have therapeutic effects (Slavson, 1943; Slavson & Schiffer, 1975). This may introduce extra challenges for the co-leaders. The following challenges were identified for directing movement-based activities for children with behavioral disorders (Wengrower, 2015):

There may be situations when the therapist has to actively separate two children who are involved in a physical quarrel and cannot detach themselves when a verbal intervention is uttered by the therapist, be it an interpretation or any other type of intercession. There might be circumstances when the adult has to physically hold a child, help him to feel his body boundaries and exert some kind of body contact that aims to contain and hold immediately in the more strictly psycho-physical meaning (p. 397).
In these cases, co-leaders can provide the necessary physical boundary for the group members for the purpose of holding the therapeutic space for the group while ensuring individual safety physically and mentally.

Originated from creative dance (Levy, 2005), DMT shares lots of elements with dance as a performing art. Stage management is widely required for DMT interventions. Specifically, the use of various props as physical stimuli will provide children with an enriched environment for multi-sensory development (Halperin & Healey, 2011). A similar pattern is also observed for people with dementia (Fratiglioni & Wang, 2007). In the co-leadership model, the co-leader will serve in this role while the primary leader can focus on conducting the interventions.

Another special element in DMT is movement observation (Moore, 2014; See also Payne, 1992). The assessments during in-take and outcome evaluation in DMT are based on non-verbal expressions from clients. And this could also happen in vivo during DMT when non-verbal communication through movement are used to kinesthetically recognize, accept, validate and then enable the expression in the client (Caldwell, 2013; Wengrower, 2010). As all therapists are still human beings who may be biased by their own perception, co-leaders may provide additional perspective in terms of movement observation and interpretation. Co-leadership will enrich information gathering and the following analysis through cross-validation. Especially true for non-verbal observation and assessment, unconscious bias may be enacted by subtly pathologizing how the “different” body moves and acts (Caldwell, 2013). As for in vivo situations, the co-leadership model is shown to decrease the ratings of avoidance and increase the group members’ relationship with the group (Kivlighan et al., 2012).
Effectiveness of Co-leadership in DMT

Effectiveness studies on DMT methodologies answers the present call for evidence-based practice in the field of DMT (Cruz, 2016; Meekums, 2010). Based on the criteria published by the Centre for Evidenced Based Medicine (CEBM; 2009), a systematic review that focuses “on peer-reviewed publications about a specific health problem and use rigorous, standardized methods for selecting and assessing articles” on randomized controlled trail (RCT) studies is rated as Level 1a (the best) in the field of therapy. The current section of this literature review aims at using systematic review to examine the effectiveness of the co-leadership model in DMT.

However, there is no Institutional Review Board (IRB) for the Lesley University capstone thesis project and so this project will be conducted by the author only. The technical limitation of the project inspired the author to use a hybrid method for this section with the combination of traditional systematic review and art-based inquiry. Aside from practical concerns, a hybrid method makes it possible to include empirical studies with heterogeneous designs to be examined through the same information category, namely tacit knowledge. This also allows the interaction of methods from both art and science traditions.

Method

The general framework of this section follows the protocol of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher, 2009; Moher et al., 2015) for literature search to gather the empirical DMT studies that adapted the co-leadership model in treatment. Electronic searches were performed in PsycINFO, PubMed, MEDLINE with final searches completed by February 28, 2020. The main search strategy used keywords for “dance OR movement OR body-orientated OR somatic-based” in any abstract with combinations of
keywords for “co-therapy OR co-leadership OR co-led OR co-leader OR co-therapist” in text. In addition, the term “therapy” was used as a medical subject heading and used in searching as a key word. The key words selection and search method were inspired by two other systematic reviews on the effectiveness of dance therapy for different populations (Kiepe et al., 2012; Strassel et al., 2011). To enhance the coverage and accuracy of the studies, the author also conducted a manual search of reference lists included in the articles and in the important journals of art therapies: “The Arts in Psychotherapy” and “American Journal of Dance Therapy” and “Body, Movement and Dance in Psychotherapy.” Manual searches on Google Scholar were also performed. Searches were conducted by manuscript author, and search results were collated, checked for duplicates, and sorted by the author. Full-text articles were reviewed by the author, who selected articles for inclusion based on the criteria listed in Table 1.

Table 1

Inclusion Criteria of Reviewed Articles

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Availability</td>
<td>Studies without the full text, abstracts presented in the conferences, brief reports, book chapters and unpublished theses were excluded in this review.</td>
</tr>
<tr>
<td>Study Types</td>
<td>Studies on treatment outcome. Qualitative studies, quantitative studies, and mixed-method studies were included.</td>
</tr>
<tr>
<td>Sample Size</td>
<td>Case studies and studies with larger sample sizes were both included.</td>
</tr>
<tr>
<td>Study Designs</td>
<td>There were no restrictions on the study designs.</td>
</tr>
<tr>
<td>Clients</td>
<td>No restriction on diagnosis, age and nationality were imposed.</td>
</tr>
<tr>
<td>Interventions</td>
<td>Any intervention that applied movement-based methods as a medium to achieve any therapeutic goal. The interventions could be delivered in a group, family, or individual sessions. Interventions could be delivered by either qualified creative arts therapists or other professionals with dance/movement background.</td>
</tr>
<tr>
<td>Settings</td>
<td>No restrictions on the setting of the interventions or the length of the interventions.</td>
</tr>
<tr>
<td>Language</td>
<td>Written in English</td>
</tr>
</tbody>
</table>
A qualitative data synthesis was then performed on the studies to generate the therapeutic themes on effectiveness. This theme generation for data synthesis are based on the three-step model suggested by Thomas and Harden (2008). Given the fact that there are no other co-researchers for cross validation, some of the steps were modified into art-based inquiry which values the subjective expression of the independent researcher rather than objective analysis in the hard sciences society (Moon & Hoffman, 2014). Furthermore, engaging in an art-based narrative-generating method will provide additional information on how the co-leadership model as a latent factor functions in the therapeutic process with its nature of using tacit knowledge of the researcher to inform explicit expression (Linde, 2001; Nonaka & Konno, 1998).

To honor the author’s own identity as a mental health counselor with a specialization in DMT, Authentic Movement (Adler, 1999) was conducted as the method to process tacit response after reading each empirical study. The camera, which videotaped the author’s movement response, served as the witness during moving. After moving, the author made art and then journaled about the moving experience as a transition. Then the author observed the video and conducted the Laban Movement Analysis (LMA) (Moore, 2014) as feedback to the mover. In this way, the author’s different roles as mover and witness who gives the feedback during different time points during the process function as a co-researcher for cross-validation required in the three-step data synthesis model (Thomas & Harden, 2008).

After the initial coding for original texts through Authentic Movement, the first step for the thematic approach on data synthesis was achieved. Then the descriptive themes were generated based on the initial coding. Last, the analytical themes were further synthesized based on descriptive themes.
Results

After searching for relevant materials, 43 studies were identified. After eliminating a duplicated study, 42 studies were selected. After screening through title and abstract, 21 studies were selected, and their full texts were examined. After that, 14 studies remained for content assessment. Three studies were excluded because only one therapist was present in the session (See Figure 1).

Figure 1

PRISMA Flow Diagram

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>8 record(s)</td>
<td>1 record(s)</td>
<td>16 record(s)</td>
<td>1 record(s)</td>
<td>9 record(s)</td>
<td>5 record(s)</td>
<td>2 record(s)</td>
</tr>
</tbody>
</table>

Records after duplicates removed (n = 41)

Records remained (n = 20)

Full-text articles assessed for eligibility (n = 13)

Records included in review (n = 10)

Records excluded based on titles and abstracts (n = 21)

Records excluded based on full-texts
- Conference paper (n = 3)
- Unpublished thesis (n = 1)
- Book (chapters) (n = 3)

Records excluded based on intervention conducton
- Only therapist present for each session (n = 3)

Ten remaining studies were used for art-based coding and theme generation (See Table 2). Three were case reports and three were RCT. There were also two program descriptions with recordings from sample sessions. Two studies contrasted the difference between experimental groups and control groups without randomized assignment of participants. Six of them used a shared-leadership model and four of them adapted an apprenticeship model, which refers to the
co-leadership structure with one leader being more experienced than the other (Jacobs et al., 2011). Clients in the studies covered a wide age range from infants who are under 1 year old to 65 years old. Both non-clinical populations (i.e. infant-parent dyad from the community or children without diagnosis in day care centers) and clinical populations (e.g. people with autism spectrum disorders or posttraumatic stress disorder) were included. Treatment goals include physical recovery (e.g. to restore motor skills), emotional modulation (e.g. to treat blunted affect), coping skills (e.g. to understand how early childhood experience affects later social interactions), and psychoeducation (e.g. to teach parenting skills).

### Table 2

**Descriptive Information of Included Studies (n = 10)**

<table>
<thead>
<tr>
<th>Studies</th>
<th>Study Types</th>
<th>Co-leadership Structure</th>
<th>Clients</th>
<th>Treatment Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ylönen &amp; Cantell, 2009)</td>
<td>Case report (self-identified with qualitative case study)</td>
<td>Shared leadership (DMT’s+ teacher of the clients)</td>
<td>6 children at risk of social displacement and long-term learning disabilities in multicultural day care group (5-7 yrs.)</td>
<td>• to restore motor skills, &lt;br&gt;• to boost self-esteem, &lt;br&gt;• to modulate aggressive behaviors, and &lt;br&gt;• to overcome adjustment challenges.</td>
</tr>
<tr>
<td>(Hildebrandt et al., 2016)</td>
<td>RCT</td>
<td>Apprenticeship (DMT’s)</td>
<td>78 individuals (14-65 yrs.) with ASD</td>
<td>• to treat negative symptoms of ASD including blunted affect, alogia, abulia/avolition, anhedonia, and diminished attention.</td>
</tr>
<tr>
<td>Studies</td>
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<td>Co-leadership Structure</td>
<td>Clients</td>
<td>Treatment Goals</td>
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<tr>
<td>(Martin et al., 2016)</td>
<td>RCT</td>
<td>Apprenticeship (DMT’s)</td>
<td>68 outpatients with Schizophrenia (14 – 65 yrs.)</td>
<td>• to treat negative symptoms of schizophrenia that are associated with disembodied awareness of self.</td>
</tr>
<tr>
<td>(A. P. King et al., 2013)</td>
<td>Clinical trials vs. TAU</td>
<td>Shared leadership (doctoral and masters level clinicians)</td>
<td>Patients with combat PTSD</td>
<td>• to treat PTSD symptoms (measured by both psychological assessment and self-report).</td>
</tr>
</tbody>
</table>
| (Hanvey & Tepper-Lewis, 2019) | Program description  | Shared leadership (DMT’s+ music therapist) | Patients in child and adolescent (5 – 7 yrs.) unit of a comprehensive psychiatric emergency program (CPEP) | • to develop prosocial behaviors,  
• to foster a sense of belonging, and  
• to facilitate a safe and structured environment for self- and group exploration.  
• to improve non-verbal communication between parents and their babies, and  
• to teach parents ten parenting skills areas. |
<p>| (Murphy, 1998)                | Program description  | Shared leadership (DMT’s)     | Infant-parent dyad                               |                                                                                                                                                                                                              |</p>
<table>
<thead>
<tr>
<th>Studies</th>
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<th>Co-leadership Structure</th>
<th>Clients</th>
<th>Treatment Goals</th>
</tr>
</thead>
</table>
| (Leavitt et al., 1996) | Case report | Shared leadership (play therapist + social worker) | 5 pairs of African American siblings (7-12 yrs.) with cumulative & repetitive traumas, & expectation of losing more than one parents AIDS | - to fortify sense of belongings/community/commonality,  
- to carry important person inside and use this as a resource for self-soothing,  
- to provide education on AIDS facts, emotion sharing, and  
- to provide tools for expecting grief. |
| (Edwards, 2015) | Case report (self-identified as qualitative case study) | Shared leadership (DMT and art therapist) | 4 adults (35 – 60 yrs.) diagnosed with Asperger syndrome | - to regulate sensory sensitivity,  
- to practice forming social relationship, and  
- to understand early childhood experience about differentiation in social interactions to improve  
- well-being,  
- body awareness,  
- self–other distinction, and  
- social skills. |
| (Koch et al., 2015) | Matched experimental vs. control groups | Apprenticeship (DMT’s) | 16 adults (16 - 47 yrs.) with ASD | - |
Studies | Study Types | Co-leadership Structure | Clients | Treatment Goals
---|---|---|---|---
(Mastrominico et al., 2018) | RCT | Apprenticeship (DMT’s) | 57 adults (14 - 52 yrs.) with ASD | • to improve empathy (measured with the Cognitive and Emotional Empathy Questionnaire and subscale Empathic Concern of the Interpersonal Reactivity Index).


Ten descriptive themes were generated according to LMA characteristics of the movement responses, namely: stage management, safe structure, containment, playful and non-judgmental space, effective dosage to initiate the intervention, broader therapeutic skill sets, modeling, embodied self-awareness, clinical decision-making, and reflection on movement (See Table 3). LMA consists of four dimensions for movement observation, namely Body, Effort, Space, and Shape. Among these four dimensions, the Effort dimension makes the mover’s inner attitudes visible through the variations of how the person moves (Moore, 2014, p. 65). Four elements of Effort link to making and executing decision (Moore, 2014, p. 68). In this specific case of process analysis for clinical practice, namely DMT, the decision making is about which intervention to apply and when should the intervention be given. The execution of decision is reflected in how the intervention is guided. In general, the overall movement exploration of the empirical studies presents the balanced usage of effort. Attention was equally distributed to immediate and flexible ways reflected in a balanced usage of direct and indirect space effort. Intention of the movement phrases showed the dominance of gentle characteristics because light
weight effort was used more than strong ones. Decision, which is correlated with time effort, was developed gradually as reflected in the mass usage of sustained time effort. Precision of the treatment plan implementing showed a balance of controlled monitoring and free running as both free and bound flow are equally used. Thus, the movement exploration is generally a reflection of the mover’s emotional experience in terms of psychological changes of clinical practice.

Then based on these 10 descriptive themes, three analytical themes were identified, holding environment, meaningful intervention, and shared insights, to further categorize the descriptive themes into higher-level functional domains (See Table 3). Each analytical theme embedded different LMA elements and descriptive themes. For example, the holding environment was characterized by gesturing, which is defined as the “action of the body that is not weight-bearing in upper limbs” (Moore, 2014, p. 32). Each analytical theme is characterized by the engagement of three planes or dominant usage of the sagittal or horizontal plane. Each analytical theme presents different movement states and drives (Moore, 2014) reflected in the different combination of fighting or indulging efforts. Last but not least, the different shape elements were categorized into different analytical themes.

Table 3

Analytical Themes and Descriptive Themes

<table>
<thead>
<tr>
<th>Analytical Themes</th>
<th>Descriptive Themes</th>
<th>Supporting Studies</th>
<th>Sample LMA Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holding Environment</td>
<td>Stage management</td>
<td>(Ylönen &amp; Cantell, 2009)</td>
<td>• upper limb movements,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• horizontal planes,</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• strong weight and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>direct space efforts.</td>
</tr>
<tr>
<td>Safe structure</td>
<td>(Hanvey &amp; Tepper-Lewis, 2019)</td>
<td>• horizontal planes, and&lt;br&gt;• directional arc.</td>
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<tr>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Containment</td>
<td>(Leavitt et al., 1996; Hanvey &amp; Tepper-Lewis, 2019)</td>
<td>• all three planes, and&lt;br&gt;• shaping.</td>
<td></td>
</tr>
<tr>
<td>Playful and non-judgmental space</td>
<td>(Martin et al., 2016)</td>
<td>• quick time and light weight efforts, and&lt;br&gt;• change between shape flow and directional arc.</td>
<td></td>
</tr>
<tr>
<td>Effective dosage to initiate the intervention</td>
<td>(Ylönen &amp; Cantell, 2009; Koch et al., 2015; Hildebrandt et al., 2016; Mastrominico et al., 2018; Hanvey &amp; Tepper-Lewis, 2019)</td>
<td>• growing of body,&lt;br&gt;• sagittal planes,&lt;br&gt;• strong weight and free flow, and&lt;br&gt;• shaping.</td>
<td></td>
</tr>
<tr>
<td>Meaningful Intervention</td>
<td>Broader therapeutic skill sets (Hanvey &amp; Tepper-Lewis, 2019)</td>
<td>• both horizontal and sagittal planes, and&lt;br&gt;• directional arc.</td>
<td></td>
</tr>
<tr>
<td>Modeling</td>
<td>Hanvey &amp; Tepper-Lewis, 2019</td>
<td>• both horizontal and vertical planes, and&lt;br&gt;• shaping.</td>
<td></td>
</tr>
<tr>
<td>Embodied self-awareness</td>
<td>(Ylönen &amp; Cantell, 2009; Martin et al., 2016)</td>
<td>• full-body movements, and&lt;br&gt;• shape flow.</td>
<td></td>
</tr>
</tbody>
</table>
Shared Insights

Clinical decision making
(Murphy, 1998; Ylönen & Cantell, 2009; King et al., 2013; Hanvey & Tepper-Lewis, 2019)
- gestures,
- horizontal planes,
- strong weight and direct space, and
- directional spoke.

Reflection on movement observation
(Ylönen & Cantell, 2009; Edwards, 2015)
- limb movements and gestures,
- horizontal planes,
- light weight and free flow, and
- directional spoke.

Limitations and Recommendations for Systematic Review on Effectiveness

As the current project is conducted by the author without co-researchers, cross-validation was achieved by the same person in multiple roles of Authentic Movement. This is a within-subject design. However, to progress the current project, the author could recruit a research team to achieve cross-validation through between-subject design and apply the traditional three-step model on the data synthesis process. Given the fact that some studies were RCT, a quantitative meta-analysis on these types of studies will also provide strong evidence of the effectiveness of the co-leadership model in DMT. At the same time, artmaking and journaling are also involved in the Authentic Movement process. However, with the author’s background, any further analysis on other modalities may be beyond her expertise. Multi-modality art-based coding could be done with a multi-disciplinary research team. The coverage of included studies is limited to those that are accessible through Lesley’s database and online open resources. The next step of this project could benefit from cooperation with other researchers to gain access to more
databases. All the above further steps with more support from a research team will deepen the levels of analysis for the current project from different perspectives. The limitation and possible further steps for the current project interestingly reveals the importance of co-leadership for a research project.

**Conclusions for Systematic Review on Effectiveness**

The systematic search on electronic databases showed that the co-leadership model is used for DMT interventions for various populations. Hybrid synthesis across heterogeneous studies revealed that the co-leadership model supports the effects of DMT through providing a holding environment, developing meaningful interventions, and facilitating shared insights.

**Discussion**

The current thesis examines the usage of the co-leadership model in DMT through historic review of the development of the field, finding rationale from theoretical literature, and synthesizing empirical studies by an art-based method. This project aims at bridging the gap between co-leadership and DMT by answering the main research question, “how does the co-leadership model benefit DMT practice pertaining to mental healthcare?”

With direct studies on this topic in limited availability, the author developed the whole discourse from scratch. However, using the self as an instrument, the author’s multicultural background, previous training in cognitive neuroscience and psychology, and the practice in dance as a performing art and mental health counseling with specialization in DMT informed the whole disclosure of the current project. This discourse starts with a brief historical review of the development of modern DMT, its multicultural/many-cultured origins, the current concern of multiculturalism in the field, and how the co-leadership model will serve as a call for attention to our roots and inspire culture-sensitive practice in the future clinical work in the world of
diversity. Then, an insight-based summary of literature is presented to support the rationale of using co-leadership in DMT with evidence from neuroscience, cognitive science, and psychology. Finally, a systematic review on the effectiveness of the co-leadership model in DMT using a hybrid method that accommodates art-based inquiry in the widely used medical framework revealed three analytical themes of co-leadership in DMT, which are holding environment, meaningful interventions, and shared insights.

The field of DMT is calling for attention on the multicultural nature of the field and trying to develop an inclusive community (Chang, 2015, 2016). This model represents a cultural tradition which is different from the dominant narrative (Rhee et al., 1996; Triandis et al., 1990). This tradition invites shared insights into the therapeutic space. In Edwards (2015)’s study, movement observations that were recorded for co-therapists “were very similar in many ways but differed with regard to how each therapist perceived the emotional responses of the participants.” The differences regarding movement interpretations between co-therapists opened the space for shared insight on treatment evaluation and may further support an effective treatment plan. A similar pattern was observed in a children’s group when co-therapists used their own somatic countertransference to understand the children’s personal narratives (Ylönen & Cantell, 2009). Even though the usage of co-leadership is a return to the origins of the field of DMT (Levy, 2005), this welcoming of a therapeutic model that represents a different cultural tradition is a way to acknowledge and value the multicultural/many-cultured origins of the body-mind-spiritual practices and information sharing from around the world. Furthermore, this inclusion will develop an accepting and loving space to expand the single narrative which is currently unconsciously dominating the DMT practice.
The new findings in neuroscience and observational learnings are in support of the axiom that, the sum is greater than its parts in terms of co-leadership in therapeutic settings. The massive use of non-verbal components in DMT will benefit from the co-leadership model through the co-regulation on affect among leaders which increases the sense of safety in therapy. And the modeling effect of co-leadership serves as a catalyst for therapeutic change and self-growth for the client. In the current context of managed healthcare, more direct neural evidence is needed to better inform the practitioners. For example, with the development of technology, brain activities of the dyad or multiple people in the group could be recorded simultaneously (for example Dikker et al., 2017; Hu et al., 2017). This may open new opportunities to directly test how the co-leadership model benefits DMT from the perspective of neuroscience. Similarly, more direct investigation of how co-leadership benefits DMT practice (for example Hudson, 1995) will also provide more empirical evidence for the usage of this model.

The hybrid synthesis of empirical study in the current project identified three main themes for co-leadership in DMT, which are holding environment, meaningful interventions, and shared insights. These three themes systematically reflect the effectiveness of co-leadership in DMT in terms of neuroscience, psychology, dance tradition, DMT theories, and multiculturalism. Firstly, the holding environment provided by the co-leadership model speaks to the healing effect of collective dance, which was originally inspired by the founders of the field of DMT (Levy, 2005). The non-verbal holding environment built through co-leadership serves as the bottom-up signal to self-regulation from primitive brain to fore brain (J. L. King, 2019). This non-verbal holding environment is at the core of the healing process which is emphasized in DMT particularly (Bernstein, 2014). Secondly, the meaningful interventions come from the multiple perspectives from different therapists with different personal styles, training
backgrounds and role taking in the co-leadership model (J. L. King, 2019). From the observational learning theory (Bandura, 1986), the variation in learning materials facilitate learning and self-growth. Last but not least, the theme of shared insights demonstrates how the collective wisdom contributes to the multi-cultural origins of DMT (Chaiklin, 2009; Chang, 2015).

Even though using co-leadership seems to be aligned with common wisdom, this model is unfortunately rarely used currently. A big challenge of using co-leadership in the current context of managed healthcare is the concern regarding cost-effectiveness. The practitioners in the field of mental healthcare are consistently fighting for more services for their clients. DMT is considered to be “an inexpensive therapy that can be carried out without extensive forms of special equipment” (Marks, 2005). Further, to use co-leadership in the session, practitioners need more empirical proof of how more therapists present for the session will be more beneficial for the client rather than having just one therapist. Some evidence can be summarized from the empirical study on effectiveness through cross-comparison of similar studies. In one serial study of the EU-funded research project Toward an Embodied Science of Intersubjectivity (TESIS), the DMT effect on empathy and body awareness were suggested to be more robust when the co-therapist model was applied to one specific dyad mirroring exercise with adults diagnosed with Autism spectrum disorder (ASD) (Hildebrandt et al., 2016; Koch et al., 2015; Mastrominico et al., 2018). In particular, the movement interaction, in this case mirroring, with a co-therapist provided a more connected and empathically responsive movement that may be required for this specific population as an appropriate dose for therapeutic change (Koch et al., 2015). The lack of the emergence of emotional qualities in movement during mirroring without the modeling from
co-therapists limited the beneficial effects of the mirroring exercise to a non-significant size (Mastrominico et al., 2018) or a small though clinical meaningful size (Hildebrandt et al., 2016).

By deconstructing the topic and then reconstructing it in both insight- and movement-based ways with cultural awareness, the current literature review sheds light on the issue of how the co-leadership model benefits DMT practice pertaining to mental healthcare. Although DMT benefits from the co-leadership model, as evidenced by this literature review, more studies on this topic are still required. For example, to advocate for the usage of co-leadership in the current context of managed healthcare, more empirical research that directly investigates the cost-effectiveness of the co-leadership model in DMT would be persuasive. To provide further quantitative evidence regarding the effectiveness of co-leadership in DMT, a meta-analysis on randomized controlled trial studies will serve as strong supporting evidence.
References


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In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

Thesis Advisor: Michelle Napoli