



Grounding: Theoretical application and practice in dance movement therapy



Patricia de Tord, MA (Dance Movement Therapy), BA (Communication Science)^{a,*},
Iris Bräuninger, PhD, MA, BTM, ADMTE^{b,1}

^a Freelance Translator from English and French into Spanish, c/ Diputació 294, entlo. 2^a, 08009 Barcelona, Spain

^b Department for Research and Development, Directorate of Nursing, Therapies, and Social Work, University Hospital of Psychiatry Zurich, Lengstr. 31, 8032 Zurich, Switzerland

ARTICLE INFO

Article history:

Available online 6 March 2015

Keywords:

Dance movement therapy (DMT)
Physical, sensory, emotional and social
grounding
Adults with intellectual disabilities
Older people
Bioenergetics

ABSTRACT

In dance movement therapy practice, it is customary and widespread that therapists use and apply concepts of grounding in their sessions and for assessing their clients' movement profiles. Literature exists in Bioenergetics' body oriented psychotherapy; however, theoretical foundation of grounding in dance movement therapy is sparse. This theoretical article revises key concepts of grounding and integrates them in the theory and practice of DMT. The clinical vignettes provide examples of grounding exercises applied to two specific populations, namely older people with dementia and adults with intellectual disability. Grounding exercises provide a therapeutic and creative tool that aims to strengthen the connection to one's body and to one's personal reality. Exercises regarding physical, emotional, sensory and social levels of grounding are applicable to practitioners of DMT and related fields. The theoretical foundation and application of grounding in DMT suggests that its use is especially beneficial, for example, in cases of depression, anxiety, stress, and trauma.

© 2015 Elsevier Ltd. All rights reserved.

Introduction

The term grounding is derived from the word "Ground: The solid surface on the earth" (Oxford Dictionaries, 2014). Planet earth supports us and all humans, animals and plants alike depend on that support. Like a tree that has planted its roots deeply, all organisms, an especially plants try to grow and extend toward the sun in any way possible (Lowen, 2006). Gravity is always present throughout our lifetime. The law of gravity is a tremendous force that rules the universe and pulls us toward the center of the earth, but also acts in the opposite direction (Scaravelli, 1991). Starting from their second week of life, babies are already trying to lift their heads against gravity, and between 6 weeks or 2 months of age, they push their heads more actively against gravity as well as through their forearms (Doralt & Bartlett, 2014). As people get older and weaker, they give in to gravity. Being bipeds, we are constantly trying to maintain a state of balance. However, when that state of balance is altered for external and/or internal reasons our body

reacts correspondingly. When a person is physically, mentally and emotionally well-centered and well-balanced, he/she is considered "to be grounded" (Merriam-Webster, 2013; Oxford Dictionaries, 2014).

Origin of the concept of grounding

The concept of grounding was developed by the body psychotherapist Alexander Lowen (1910–2008) (1993, 2006), and is based on the interaction of body and mind. According to Lowen, human beings are physically, emotionally and energetically grounded to the earth: "we move by the discharge of energy into the ground. (...) All energy finds its way into the earth; this is the principal known as grounding" (Lowen, 2006, p. 71). A person with body awareness who is well-grounded or who "has his feet on the ground" is a balanced, psychologically mature person "who is in touch with reality" (Lowen, 1993, p. 50). The practice of grounding for Lowen starts with the work of feet and legs that foster support, balance and rooting to the earth. The feet and legs lay "the foundation and support of the ego structure" (Lowen, 2006, p. 87). This physical stability allows clients to achieve emotional stability. The practice of grounding is based on the energetic alignment with the earth between feet, pelvis and head (Helfaer, 2011).

* Corresponding author. Tel.: +34 933042816.

E-mail addresses: pdetord@gmail.com (P. de Tord), dancetherapy@mac.com, iris.braeuninger@puk.zh.ch (I. Bräuninger).

¹ Tel.: +41 77 44 22 676.

Current Bioenergetics, which is still defined as a “specific form of body-psychotherapy, based on the continuity between body and mind, and founded by Alexander Lowen” (IIBA, 2013), combines body, analysis and relational therapeutic work which is based on the assumption that the ‘body is the person’ (Lowen, 2011, p. 35). Its concept of grounding is still crucial in dealing with aspects of the person’s loss of physical and psychological reality in cases of patients with trauma issues, borderline disorders, eating disorders, etc. The concept of grounding as it is now seen includes six important aspects or levels: verticality (contact with the ground), contact with one’s own physicality, the capacity for emotional holding, and discharge of energy into the ground. It also includes other equally important aspects, such as being able to understand ourselves and to connect and relate to others, including the therapist (Clauer, 2011). In addition, it refers to the “energetic and psychic processes by which a person perceives and comprehends reality” (Baum, 2011 p. 265).

Dance movement therapy (DMT) and grounding: a brief literature review

Dance movement therapy (DMT) uses movement as a therapeutic tool in order “to further the emotional, cognitive, physical and social integration of the individual” (ADTA, 2013). DMT and Body Psychotherapy share the view on the wholeness of the body, mind and spirit in the sense that the body affects the mind and vice versa. The use of movement observation and movement analysis based on Rudolf von Laban’s (1879–1958) Effort-Shape System (Laban, 2011) allows dance movement therapists to describe grounding principles in movement analysis terms. Nevertheless, the DMT field still lacks a definition of grounding (Pierce, 2014). Laban-based movement analysis is a complex system of notating movement observation. Movement analysis captures an individual’s body language and transcribes it into verbal language (Levy, 2005). Efforts reflect movement qualities and how these movements are done (Laban, 2011). Each of the four effort factors – space, weight, time, and flow – correlates with an inner intention (Laban, 2011; Stanton-Jones, 1992). Physical gravity affects our movements and especially the connection to our center of gravity, which is located in the pelvic area. The question remains, what exactly does it mean when we talk about grounding applied to DMT? “Grounding is one of those words that probably means different things to different people” (Meekums, 2002, p. 64). Thus it remains a confusing concept.

Grounding can be described as one’s ability to perceive and to live in ‘the here and now’, and as one’s contact with the ground (Meekums, 2002). To focus on the present means to pay attention to our body through the senses and through our breathing. Psychologically, grounding can be understood as “a person who is present with him/herself, *at home* in his/her own body/mind” (Hackney, 2002, p. 236), and who has an active relationship with the earth. It describes the relationship that an individual has with the ground as a foundation or support to become rooted and balanced (Panhofer, 2006). In order to be centered and grounded while moving, a person must pay attention to his/her center of gravity in relation to the earth. When the position is unstable and the person tries to avoid falling, he/she must activate antigravity forces and undertake a suitable counteraction (Laban, 2011), or shift the weight effectively from the center of weight (Bartenieff, 2002; Hackney, 2002).

Grounding and the effort factor of weight

The effort factor of weight, which “is not to be confused with body weight per se” (Bartenieff, 2002, p. 56) relates to the body’s grounding and to the assertion of a person in the sense of “What is my intention or impact?” (Stanton-Jones, 1992, p. 70). A person

who moves with strong weight shows more intention, whereas a person who uses light weight shows less intention. Regarding body weight, Bartenieff distinguishes between passive weight (giving in to gravity), active weight (the opposite) and neutral weight, “in which body weight is muscularly supported” (Bartenieff, 2002, p. 56). Working with Effort elements aims to expand clients’ movement repertoire and expressiveness (Hackney, 2002). Focusing on the Effort element of weight (jumping, bending the legs, transferring weight from one leg to the other, etc.) and time, can both activate participants and get them grounded into the self. Results from an international Internet-based survey with 113 DMT practitioners revealed that nearly half of the therapists use grounding exercises to foster psychological health and stability, and work with the Effort weight to increase impulse control (Bräuninger, 2014a). Thus, grounding may relate to the body self or, in other words, may come with deeper body awareness.

Grounding techniques in DMT

Body exercises. Basic movement exercises can help to integrate bodily experiences and to create well-being, stability, integration and connection with reality at physical, sensory, emotional and social level. This can be achieved by walking over different surfaces in various ways (Bräuninger, 2014a; Meekums, 2002): self-massaging of feet, performing ballet plies, making contact with another person through the palms of the hands or the feet, leaning on a physiotherapy ball, jumping and skipping, and becoming “grounded in stillness (p. 67):” paying attention to our feet, legs and weight as well as breathing through “guided visualization” (Meekums, 2002, p. 68).

The force of rhythm and percussion. Rhythm grounds or anchors us because “experiencing rhythm builds up orientation in the here and now” (Bräuninger, 2014a, p. 143). In particular, traditional African rhythms and/or Primitive Expression (PE) use simple and repetitive movements as a form of dance therapy. Voice, drums, and barefoot dancing are used to achieve a sense of support (Margariti et al., 2012) thereby fostering rhythmic grounding. Drums and percussion remind us of a heartbeat and have either a calming or an exciting effect (Schott-Billmann, 2000). African rhythms support grounding on a physical and social level. For example, traditional dances from West Africa such as, Mali, Cameroon, Senegal, Ivory Coast, Benin, etc. frequently use the lower part of the body (pelvis and legs) by bending the legs while both feet press parallel against the ground according to the rhythm of the drums, and by moving the hips with flexibility to achieve greater mobility. Samba, mambo, rumba, and salsa also require a high mobility of the pelvis (Lowen, 2006; Schott-Billmann, 2000). Thus, the upper part of the body is free to move while the lower part is rooted on the ground: “The upper part of the body carries the melody; the lower half carries the rhythm” (Lowen, 2006, p. 70). African traditional dances are usually danced in a circle or in a group to reflect shared activities and reinforce the community and group identity as a whole (Schott-Billmann, 2000). Rhythm creates synchrony, harmony and cohesion (Stanton-Jones, 1992) and reinforces preventive and reparative capacities and traditional coping mechanisms (Harris, 2007a). Synchrony in rhythm appears in the combination of the Effort factors of weight and time, which corresponds to the inner attitude “Near or Rhythm state” (Laban Analysis, 2014). This can be found in the combination of the Effort elements strong weight with suddenness. Rhythm fosters psychosocial aspects, builds up empathy and activates memories and emotions (Bräuninger, 2014a; Sandel, Chaiklin, & Lohn, 1993). Rhythmic synchrony was found in the communication of dementia patients (Nyström & Lauritzen, 2005). Moreover, depressed or anxious people seem to respond well to movement in rhythm (Sandel et al., 1993). Since African dance provides an open structure, it

encourages participation as everyone can see the others. Singing along while moving adds strength to the movements, helps to create pauses and to breathe, and gives more unity to the whole group (Margariti et al., 2012). By singing, making sounds, or making percussion with any part of the body, the brain is stimulated and the production of oxytocin (a hormone also known as the anti-stress hormone) produces security and confidence (Romero, 2013). Body percussion has been described as being the “simplest and immediate form of music-making” (Moritz, 2013, p. 334) where participants synchronize and become aware of their “(...) individual bodies and the ones of those around [them]” (p. 334).

Grounding with different groups of clients

The following examples derived from the literature present grounding exercises that have been applied to different client groups.

Traumatized clients. When working with children and adults who dissociate from their bodies, grounding can be an important intervention to address trauma that has occurred on a body-level. DMT and grounding foster reality testing, address body schema disorder (Koch & Harvey, 2012), and offer “safety of the present moment, serving to down-regulate hyper-arousal” (Pierce, 2014, p. 12). “Grounding. The self needs to (re-) inhabit the body and to be able to stay bodily present in order to not dissociate in social situations” (Koch & Harvey, 2012, p. 381). Clients who have experienced traumatic events can profit from DMT and from grounding exercises in particular, because dancing means to feel one’s existence, to feel vitality and joy, and to feel alive (Bräuninger, 2009; Harris, 2007a, 2007b; Koch & Weidinger-von der Recke, 2009).

Psychiatric patients. Psychiatric patients who lack a sense of self have difficulty being assertive (Stanton-Jones, 1992). People with severe depression for example; tend to appear physically heavy as a result of their passive body weight (Bartenieff, 2002). They are not grounded and have a “floating quality, not able to put their foot down” (Stanton-Jones, 1992, p. 232). When patients’ movements show a great amount of passive weight, the therapist may introduce exercises that animate the use of active weight. Clients may be invited to bounce, to jump, to bend their legs, or to transfer weight from one leg to the other. An intervention study (Koch, Morlinghaus, & Fuchs, 2007) aimed to improve vitality in psychiatric patients with depression and compared three conditions: (1) circle dance group which included jumping rhythms, (2) group that listened to only the music, (3) Ergometer Group. Results showed a significant increase in vitality in the circle dance group compared to the music group and a significant decrease in depression in the dance intervention group compared to the other two groups. Rhythmic movements are well perceived by patients with depression and anxiety who are restless (Chace, 1993).

Older people. Based on results from experts’ opinion, the following recommendations have been suggested for working with the older people (Bräuninger, 2014a): Directive movement exercises may counteract balance problems that have a negative impact on stance and mobility. For example, working with an unstable ground surface and utilizing simple gymnastic exercises on the floor may increase balance, provide security and ground a person. Grounding exercises and sensory stimulation may build up confidence and stability in order to deal with the decline of sensory functions. When a person is confused, disorientated, cognitively impaired and forgetful, grounding experiences may strengthen their awareness in the present through “sensing the surface of floor, standing/walking/laying/relaxing/dancing on it” (Bräuninger, 2014a, p. 146).

Clinical vignettes with older people with dementia and adults with intellectual disability

The following section presents some grounding exercises that were realized during DMT sessions with 2 different populations (older people with dementia and adults with intellectual disability) for 2 years (2010–12) during the studies in DMT of the first author. A description of the facilities, population and sessions, preliminary movement analysis, setting, props and music follows. Four levels of grounding exercises are provided (physical, sensory, emotional and social level) and clinical vignettes illustrate their application in the older people mainly with dementia (group 1) and in adults with ID (group 2 and individual sessions).

Facilities

All group and individual sessions were provided in two centers in Barcelona, Spain. Group 1 was located in a private residential home for older people with physical and cognitive disorders, mainly dementia. The second group and the individual sessions were held in a foundation for adults with intermediate and severe intellectual disabilities (ID).

Population and sessions

Group 1: Older people with physical, cognitive and emotional difficulties. Most of them suffered from intermediate and severe stages of Alzheimer disease. Symptoms included decline in memory and learning, decline in cognition (American Psychiatric Association, 2013), behavioral symptoms, temporal and spatial disorientation, cognition, speech (aphasia), and mobility difficulties. Clients participated in a total of 22 DMT group sessions in 2010–2011, for 1 h a week, on the upper floor of the residency. The average participation was between 10 and 15 clients per session; sessions started with 6 participants and ended with 15. The group was open and flexible to allow the possibility for other residents, who were less confident, more reluctant and/or wandering around (with some curiosity) to join the sessions at the beginning of the therapy. Some of the “guests” eventually became regular members of the group.

Group 2: Three (3) adult women (from 26 to 50 years old) with intermediate intellectual disabilities (ID) participated in a total of 20 DMT group sessions (2011–2012), 1 h a week, in a small room of the Foundation. The group consisted of three adult women with intermediate intellectual disabilities (ID). Two of them were diagnosed with Sturge–Weber syndrome (a neurological and skin disorder) and the third one had Lennox Syndrome disorder. All of them had with development delay and psychological and behavioral problems (ASPASIM, 2009). The third woman had a motor disorder as a consequence of cerebral palsy since birth with a level of mental disability below that of the other two women. All three showed impairment to speech, to auditory function, to learning, to impulse control, to visual skills (strabismus, myopia and others), and difficulties into motor skills in relation to all aspects of life (early care, education, occupation, leisure, sport, housing, etc.) (ASPASIM, 2009).

Individual sessions: N, a woman of 26 years with a genetic disease and severe psychomotor retardation received a total of 20 individual DMT sessions (2011–12), 1 h a week. Sessions took place in a small craft room belonging to the Foundation. N entered into the foundation as a foster child from a family background with episodes of violence. Her emotional and physical health was delayed. Therefore, the main treatment goal was to work on an emotional and physical level by means of a big physiotherapy ball on the ground. She showed good verbal skills (both for speaking and understanding), however she had problems controlling and

regulating her emotions and suffered from several motor development disorders. Overall, she appeared to be very immature and was seeking constant attention. She was very positive and enthusiastic in all DMT sessions.

Preliminary movement analysis

The following Laban-based movement analysis documents characteristics were observed in participants before the sessions. In group 1, two older women were in wheelchairs while the others (mostly women) used a walker and walked with passive weight and sustainment (Laban, 2011) while giving in to gravity. They remained seated most of the time in the residency, and hardly walked or moved except for when they stood up for dancing. They had problems bending their knees or going down on the floor. They showed little eye contact, rarely interacted, hardly touched each other, moved with sustainment, barely walked, and they suffered from various physical problems.

The three adult women from group 2 showed stiff bodies and some psychomotor disorders. They had problems with coordination and moving from high to low levels. Overall, they had difficulties bending their legs, walking easily, transferring weight from one foot to the other while stepping forward, and exhibited some problems in setting both feet completely on the ground.

N, who participated in the individual sessions showed flexible movements, and her legs were bent most of the time. She had difficulties in keeping her legs straight to walk, and in setting both feet completely on the floor. She looked like a fragile “puppet” that could break at any moment. She also had visual problems (strabismus), showed some laterality in her movements, and had difficulties with coordination. She moved with some lightness, as if levitating, but was rushing all the time, due to over excitement, and was in a very alert state, responding with suddenness, which showed her impatience, and was moving constantly around the room, expressing an indirect attitude toward space, which characterized her deficit of attention (Laban, 2011; Bartenieff, 2002).

Setting

Appropriate physical conditions (space, light, etc.) and a safe therapeutic space created a containing environment. As Smith and colleagues have mentioned, a therapy room should be big enough to accommodate all participants together with their mobility aids and small enough that they still feel safely contained (Smith, Waller, Colvin, Naylor, & Hayes, 2012). All of which may contribute to clients' impulse control, responsiveness, and emotional development. The circle as a containing structure for the group as defined by Chace (1993) aimed to support physical containment, which was especially important for the two client groups. Yoga mats were used as a safe support with adults with ID to enable them to lie down without getting hurt and feel comfortable. Walking barefoot or in socks allowed them feeling their feet on the ground.

Props

The use of props stimulates sensory integration, interaction, and self-expression (Bräuninger, 2014a; Lee, Lin, Chiang, & Wu, 2013; Pierce, 2014; Punkanen, Saarikallio, & Luck, 2014) and reminiscence (Smith et al., 2012). Different materials were used, safe and imaginative enough so as to create fun and work on grounding at physical, emotional and social level: a big physiotherapy ball, balls of different size, weight, and color, small soft balls, scarves and percussion instruments and music. For both populations, small percussion instruments were also very useful because they were neither very noisy nor heavy, and clients loved them to play according to their own rhythm and emotional state. In addition, they allowed clients

to be innovative, to have initiative, to be spontaneous, and to move together.

Clinical application of grounding

The use of DMT basic movement exercises, of rhythm and percussion exercises and of props allowed the simultaneous working on one or several of the four levels of grounding exercises:

- *Physical grounding* aims to build the relationship of the person with the ground and to foster vertical stability and physical strength.
- *Sensory grounding* intends to deepen awareness through the senses and through proprioception.
- *Emotional grounding* seeks to support psychological well-being.
- *Social grounding* attempts to expand nonverbal and verbal communication with the therapist and to promote interaction within the participants of the group.

The individual or group setting had an influence on the choices made when designing different grounding exercises. As mentioned by Violets-Gibson (2004), it was assumed that older people with dementia participated less in social life, interacted and spoke less with each other, and felt useless and more dependent on others, especially if living in institutional settings. Consequently, the aim was to work primarily on the social and emotional level through grounding exercises. Grounding exercises for the adults with ID were required to address all the impairments they had in a playful way. Exercises, therefore, were designed basically to address the physical, emotional and sensory levels. In contrast, exercises with older people could not be too playful or childish at the beginning, in order to avoid feelings of embarrassment or of being considered “crazy”. The following exercises give a brief insight into the application of grounding exercises in DMT.

Exercise I: together in the same boat

Props. Large elastic lycra fabric and soft balls, waltz and rhythmic music.

Aim. Mainly, social, emotional and physical levels of grounding.

Description. All seated or standing in a circle and the whole group holds onto the ends of a large lycra stretch fabric and they move it together.

Clinical vignettes: Group 1 – Older people (22 sessions)

We all sit in a circle, grab the elastic fabric and move it to the left and to the right, up and down. “We look like kids” says L. laughing. (Session 4)

Finally, I put a soft ball on top of the fabric, and we move it, making it bounce on top of it, moving and dancing spontaneously to the beat of some waltz music that sounds melodiously in the background. It is a very creative session. (Session 11)

All the participants take the elastic fabric and move to the rhythm of the waves as if we were on a boat on the sea. Several sounds and images come out, such as the Sea. (Session 12)

Exercise II: contact to the ground

Props. Small elastic bands with bells for each foot; small light percussion instruments; traditional West African drums and music.

Aim. Mainly physical, sensory, and social levels of grounding.

Description. This exercise supports different ways of walking, moving, jumping and/or bending the knees toward the ground

Clinical vignette: Group 2 – Adults with ID (20 sessions)

They start as usual walking and stamping on the floor with the bells on our feet. Next, we begin warming up the body with our hands

and fists tapping the torso, pelvis, legs, moving the head side to side, etc. One client leads the movements and makes the percussion accessory sound. (Session 19)

Exercise III: body percussion

Aim. Mainly physical, sensory, emotional levels of grounding.

Description. Body percussion is used as a therapeutic and rhythm tool. This exercise was designed for both populations: to self-massage, to rub their hands, to pat their hands all over their body, and/or to shake it as an instrument of rhythm and sound.

Clinical vignette: Group 1 (older people)

The warm up of the session starts as usual with body percussion, starting from the feet (kicking our feet on the floor), then we go up with our hands while tapping our body, legs, hip joints, belly, thorax and head. We tap on the chest and emit sounds like Tarzan . . . Once we arrive at the head; some images arise, such as getting up in the morning (we do gestures of washing our face, brushing the teeth, combing the hair, etc.). We continue kicking the floor in gallop mode. [. . .] All these sounds and excitement give way to spontaneous childhood songs [. . .]. Then we develop the theme of the voice and we start imitating different sounds of animals (dogs, cats) . . . Each person of the group mimics the sound of an animal, and I realize there are very different cats and dogs. Some very mellow, others very fierce. We finish all together by making sounds as in a jungle. (Session 10)

Exercise IV: Experiencing support

Props. Big physiotherapy ball.

Aim. Mainly physical, sensory, and emotional grounding.

Description. This grounding exercise for N., a woman with ID uses a big physiotherapy ball as a way of experiencing support.

Clinical vignettes: N. (26 yrs.) (20 sessions)

As N. sees the ball, she calls out with joy: “The ball!” She talks to it as if it was a person and she says she loves it. In the second part of the session, we work together as usual on different support exercises against the ball. I help her to rock with the ball and to lean on it without fear. Sometimes she tells me, “I might get hurt!” Then I reassure her by saying that I am here to give her support. I encourage her to try on her own and to lean comfortably on the ball with both feet on the ground. She tries successfully. . . The session passes by quickly, from one exercise to another with the ball. We both end up sitting on the floor with our backs leaning against the ball. Then, we lie down, face up, with the ball between our legs, and start moving it, passing it to each other and rocking with it. (Session 17)

Today we’ve been working with different supports on the ball. N. takes the ball above her head and holds it with her hands . . . We also walk together to the rhythm of music carrying the ball between us, as if it were a baby. We finish together on the floor holding on to the ball . . . N. lies facing up, with her legs bending against the ball. I decide to put on a very mellow and melodic African song. She moves her hips from side to side and she gets transported away. She puts her arms behind her head as if she was relaxing under the sun. (Session 18)

Discussion

General findings

The exercises and clinical vignettes show how grounding was applied in DMT as a creative form of nonverbal communication and as an intervention that could help people to feel grounded in

their bodies and in reality. All levels, including the physical, sensory, emotional and social levels of grounding are interconnected and were applied in an integrative way.

These simple grounding exercises allowed both the older people and the adults with ID to accept and connect with their bodies, with themselves and their reality, as well as with the others in a playful way. On the other way, I observed at the end of the sessions that the exercises of grounding also gave them the confidence to give them more physical strength, to control more their emotions in the case of adults with ID and to be more opened emotionally and solidary in the case of the older people. The older people interacted more and forgot their stress, their feelings of isolation and despair and uselessness. They could focus more in the present, on what they could do instead of their problems and difficulties. The adults with ID improved a lot in their motor skills (coordination, rhythm, contacting the ground, walking and paying attention) and in support (physical and emotional) as well as in connecting with their bodies.

The clinical vignettes furthermore provide examples about how props stimulate the senses (Bräuninger, 2014a; Lee et al., 2013; Pierce, 2014; Punkanen et al., 2014) and support reminiscence (Smith et al., 2012). Hence, props seemed to be helpful devices to support specific treatment goals in meaningful ways. Awareness exercises that address grounding experiences may build up a person’s self-efficacy (Bräuninger, 2014a).

Exercise findings

The first ‘classic’ DMT exercise with the big stretching cloth was ideal for both populations: older people with dementia and adults with ID to work on strength, being united in movement and building confidence.

The older people worked together as a group and entered into a state of playfulness and creativity which helped them to become more opened and integrated emotionally and socially, strengthening cohesion, and connection with their bodies. Moving together as mentioned by Sandel et al. (1993) connected them, improving their communication. It also increased their creativity, which resulted in spontaneous songs and metaphors (such as the one being in the same boat together), in connecting with me, with each other and with their own life experiences and memories according to the definition of emotional and social grounding from Bioenergetics (Clauer, 2011). When participants pulled the cloth they could also sense their own autonomy and strength and that of other group members. Sensing one’s strength or that of others fostered physical and social grounding. By working with physical strength and resistance in a playful way, DMT positively stimulates resilience. Moving to a shared rhythm also supported social grounding as it connected them mutually. Furthermore, confidence and a sense of security were built through sensory stimulation.

The second exercise “Contact to the ground” helped adults with ID to strengthen their contact with the ground, to align their posture, to improve their rhythmic coordination all together, and to bend their legs toward the ground.

It worked on physical level of grounding through stamping, bending the legs and pushing against the floor. African rhythms were especially useful to support contact with the ground, and to work as well on social level. Grounding activated an intensive contact with the floor, but at the same time fostered connectedness as defined by Harris (2007b). A shared rhythm, as provided by this exercise became part of a ritual at the beginning of each session with the adults with ID that was repeated every week. The shared dance group activity could strengthen social empowerment, lifestyle, physical activity (Murrock & Madigan, 2008), quality of life (Bräuninger, 2012a; Hackney & Bennett, 2014), and social interaction (Guzmán García, Hughes, James, & Rochester, 2013), and

reduced isolation (Bräuninger, 2014a, 2014b, 2012b; Koch, Kunz, Lykou, & Cruz, 2013; Sandel et al., 1993). Self contact, as in tapping or touching one's own body could "stimulate sensory perception" (Bräuninger, 2014a, p. 143) "(...) and could build confidence and a sense of security" (p. 142), and thus supported sensory grounding.

Self-touch was again applied in the third exercise "Body Percussion" to foster sensory perception as it helped them to explore their senses and bodily boundaries. The clients could explore, recognize, activate and listen to all the different parts of the body, exploring one's limits so as to live in the "here and now" and to get in contact with the physical reality of the body. The person's confidence increased when each person could feel his/her different body parts without being threatened by the sensation. A body percussion warm-up together opened the door to connect to one's own emotions, allowing to experience unique and creative moments of togetherness in the group, and to encounter symbolic associations, images, and metaphors such as the ones in the shower, washing themselves or being animals, each one being unique. Self-massaging, shaking the body as an instrument of rhythm and sound, exploring the voice, activating all body parts were a good technique to integrate bodily made experiences.

The large physiotherapy ball in the last exercise "Experiencing Support" allowed N. to learn about her abilities and strengths, despite her fragility and her emotional immaturity. N. was flexible in her movements and she showed a wide variety of uses of the ball. She tried various ways of leaning against the ball, sitting on it, playing with gravity and interacting with the ball with different qualities of movement.

At the end she seemed to feel safe enough to give in to gravity, to let herself to find strength and physical and emotional support, and be stable when lying with all her weight over the ball, shaping her own body to the form of the ball, and leaning with her back against the ball in passive weight. She was physically grounded when she pushed both feet against the floor while leaning over the ball. At the same time, she had to activate resistance in order to maintain balance and stability.

Limitations and future directions

One of the main limitations of the present study is the lack of an empirical survey to approach the clinical application of grounding as in fact the sessions were not specifically designed for this study or to test specifically grounding. They were grounding exercises that were designed and held in the sessions during the apprenticeship period of DMT of the first author. The study suggests that grounding seems to offer a successful intervention suitable for DMT, but it needs to be tested.

The other limitation was the limited duration of therapy. It was not until the end of the sessions that some therapeutic benefits as the ones described above could be observed and more sessions would have been needed to keep on working. In the case of the older people, it was a long process to build mutual trust, as they had no confidence in themselves either. When they finally did, the therapist was leaving and they felt frustrated and abandoned again.

The broad and subjective approach to the concept can also be considered as another limitation to this study as it offers mainly a literature review and a few practical examples of grounding in DMT. Prospective empirical research on grounding should examine its effectiveness in mental health, and with people who have suffered from stress, PTSD, eating disorders, sexual, emotional and/or physical abuse, and on different client groups. As depression is frequently treated in DMT with grounding exercises (Bräuninger, 2014a), where feelings of great emptiness and the lack of energy are common (Clauer, 2011; Stanton-Jones, 1992), groundings is an important concept in DMT and mental health. It seems to be

particularly relevant for those who lack a sense of self, who are not well connected with internal and external reality, and who are not well centered due to their pathology, disabilities, experiences, etc., which may have drawn them off the ground. According to Chace (1993), depressed patients "feel their hips are extremely heavy and that their legs are extremely heavy, to the point that they move inadequately because they feel they are carrying such a weight around with them" (p. 359). Schizophrenic and catatonic patients also lack grounding, according to Fischer and Chaiklin (1993), and may feel their bodies as weightless and as if they could 'dissolve into midair' (Chace, 1993, p. 360)

Conclusion

The paper presented here is an attempt to analyze the theoretical contributions and published examples of grounding so commonly known in DMT through literature review and with clinical vignettes which give some practical examples of its application in DMT with individual and group sessions held with older people with dementia and adults ID in institutional settings. The practical application of grounding of this second part further expands the literature review through some basic and creative movement exercises that work on a physical, sensory, emotional and social level of the concept and combine them. As DMT is an eclectic, a multidisciplinary and a creative therapy, this study shows how grounding can use different techniques: movement exercises to connect with the ground, traditional African rhythms and percussion as a structure to connect with the body and with others as well, and different and appropriate tools and props. DMT can use as well techniques from other disciplines such as yoga (breathing techniques and different postures), classical ballet (emphasis on verticality), and even other partner dances not covered here such as Tango, Paso Doble, Swing dances, etc. (with its focus on rhythmic synchrony) to connect people with their bodies, to anchor them physically to the ground and relate them to others.

The term grounding, as it has been analyzed here, correlates with the Effort factor of weight, which dance movement therapists naturally apply when working with various client groups. Thus, grounding principles can easily be adapted by therapists. The theoretical background and the practical examples illustrate the importance of the body and of body awareness to be stable and grounded at physical, sensory, emotional and social level. As an increasing number of people suffer from stress, anxiety and/or depression in their daily lives due to personal, economic, social, or health problems, the theoretical application and practice of grounding in DMT help them to feel anchored and stabilized and to become connected with their physical and psychological reality, with groups or with individuals of all ages and in health services, private environments, and facility settings. The principles or aspects of grounding should be further defined and systematized by all DMT professionals to check if it improves contact with one's own body and with reality, physically and emotionally.

Acknowledgement

We would like to express our thanks to Allison Costello for proof reading this manuscript.

References

- ADTA (American Dance Therapy Association). (2013). *About dance movement therapy*. Retrieved from: <http://www.adta.org>
- American Psychiatric Association. (2013). *DSM 5. American Psychiatric Association. ASPASIM. (2009). Proyecto de funcionamiento institucional, 2009–2010. Unpublished internal document.*
- Bartenieff, I. (2002). *Body movement: Coping with the environment*. New York, NY: Routledge.

- Baum, S. (2011). *Living on shifting sands: Grounding and borderline personality organization*. In V. Heinrich-Clauer (Ed.), *Handbook Bioenergetic Analysis* (pp. 265–292). Giessen, Germany: International Institute for Bioenergetics Analysis (IIBA)/Psychozial-Verlag.
- Bräuninger, I. (2009). Tanztherapie mit kriegstraumatisierten Kindern. In C. Moore, & U. Stammermann (Eds.), *Bewegung aus dem Trauma* (pp. 144–161). Stuttgart, Germany: Schattauer.
- Bräuninger, I. (2012a). The efficacy of dance movement therapy group on improvement of quality of life: A randomized controlled trial. *The Arts in Psychotherapy*, 39, 296–303. <http://dx.doi.org/10.1016/j.aip.2012.03.008>
- Bräuninger, I. (2012b). Dance movement therapy group intervention in stress treatment: A randomized controlled trial (RCT). *The Arts in Psychotherapy*, 39, 443–450. <http://dx.doi.org/10.1016/j.aip.2012.07.002>
- Bräuninger, I. (2014a). Dance movement therapy with the elderly: An international Internet-based survey undertaken with practitioners. *Body, Movement and Dance in Psychotherapy*, 9, 138–153. <http://dx.doi.org/10.1080/17432979.2014.914977>
- Bräuninger, I. (2014b). Specific dance movement therapy interventions – Which are successful? An intervention and correlation study. *The Arts in Psychotherapy*, <http://dx.doi.org/10.1016/j.aip.2014.08.002> (Advanced online publication)
- Chace, M. (1993). Selected writings by Marian Chace. In S. Sandel, S. Chaiklin, & A. Lohn (Eds.), *Foundations of dance movement therapy. The life and work of Marian Chace* (pp. 193–366). Columbia, MD: The Marian Chace Memorial Foundation of The American Dance Therapy Association.
- Clauer, J. (2011). Neurobiology and psychological development of grounding and embodiment. Applications in the treatment of clients with early disorders. *Bioenergetic Analysis. The Clinical Journal of the Institute for Bioenergetic Analysis*, 21, 17–56.
- Doralp, S., & Bartlett, D. (2014). Infant movement motivation questionnaire: Development of a measure evaluating infant characteristics relating to motor development in the first year of life. *Infant Behavior and Development*, 37, 326–333. <http://dx.doi.org/10.1016/j.infbeh.2014.04.002>
- Fischer, J., & Chaiklin, S. (1993). Meeting in movement: The work of the therapist and the client. In S. Sandel, S. Chaiklin, & A. Lohn (Eds.), *Foundations of dance movement therapy. The life and work of Marian Chace* (pp. 136–153). Columbia, MD: The Marian Chace Memorial Foundation of the American Dance Therapy Association.
- Guzmán García, A., Hughes, J. C., James, I. A., & Rochester, L. (2013). Dancing as a psychosocial intervention in care homes: A systematic review of the literature. *International Journal of Geriatric Psychiatry*, 28, 914–924. <http://dx.doi.org/10.1002/gps.3913>
- Hackney, P. (2002). *Making connections – Total body integration through Bartenieff fundamentals*. New York, NY: Routledge.
- Hackney, M. E., & Bennett, C. G. (2014). Dance therapy for individuals with Parkinson's disease: Improving quality of life. *Journal of Parkinsonism and Restless Legs Syndrome*, 4, 17–25. <http://dx.doi.org/10.2147/JPRLS.S40042>
- Harris, D. A. (2007a). Dance/movement therapy approaches to fostering resilience and recovery among African adolescent torture survivors. *Torture*, 17, 134–155.
- Harris, D. A. (2007b). Pathways to embodied empathy and reconciliation after atrocity: Former boy soldiers in a dance/movement therapy group in Sierra Leone. *Intervention*, 5, 203–231. <http://dx.doi.org/10.1097/WTF.0b013e3282f211c8>
- Helfaer, P. (2011). Foundations of bioenergetic analysis. In V. Heinrich-Clauer (Ed.), *Handbook bioenergetic analysis* (pp. 21–33). Giessen, Germany: International Institute for Bioenergetic Analysis (IIBA)/Psychozial-Verlag.
- IIBA (International Institute for Bioenergetic Analysis). (2013). *What is bioenergetics analysis?* Retrieved from <http://www.bioenergetic-therapy.com/index.php/es/>
- Koch, S. C., & Harvey, S. (2012). Dance movement therapy with traumatized dissociative patients. In S. C. Koch, T. Fuchs, M. Summa, & C. Müller (Eds.), *Body memory, metaphor and movement* (pp. 369–485). Amsterdam, The Netherlands: John Benjamins Publishing Company.
- Koch, S. C., Kunz, T., Lykou, S., & Cruz, R. F. (2013). Effects of dance movement therapy and dance on health-related psychological outcomes: A meta-analysis. *The Arts in Psychotherapy*, 41, 46–64. <http://dx.doi.org/10.1016/j.aip.2013.10.004>
- Koch, S. C., Morlinghaus, K., & Fuchs, T. (2007). The joy dance. Specific effects of a single dance intervention on psychiatric patients with depression. *The Arts in Psychotherapy*, 34, 340–349. <http://dx.doi.org/10.1016/j.aip.2007.07.001>
- Koch, S. C., & Weidinger-von der Recke, B. (2009). Traumatized refugees: An integrated dance and verbal therapy approach. *The Arts in Psychotherapy*, 36, 289–296. <http://dx.doi.org/10.1016/j.aip.2009.07.002>
- Laban, R. (2011). *The mastery of movement* (4th ed.). Alton, UK: Dance Books Ltd.
- Laban Analysis. (2014). *Effort states (inner attitudes)*. Retrieved from http://www.laban-analyses.org/lab-analyses-reviews/lab-analyses-notation/effort-dynamics.eukinetics/element_factor_state_drive.htm
- Lee, T. C., Lin, Y. S., Chiang, C. H., & Wu, M. H. (2013). Dance/movement therapy for children suffering from earthquake trauma in Taiwan: A preliminary exploration. *The Arts in Psychotherapy*, 40, 151–157. <http://dx.doi.org/10.1016/j.aip.2012.12.002>
- Levy, F. (2005). *Dance movement therapy. A healing art* (2nd rev. ed.). Reston, VA: American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD).
- Lowen, A. (1993). *Depression and the body*. New York, NY: Penguin Character.
- Lowen, A. (2006). *The language of the body. Physical dynamics of character structure. How the body reveals personality* (3rd ed.). Alachua, FL: Bioenergetics Press.
- Lowen, A. (2011). What is bioenergetic analysis? In V. Heinrich-Clauer (Ed.), *Handbook bioenergetic analysis* (pp. 35–48). Giessen, Germany: International Institute for Bioenergetic Analysis (IIBA)/Psychozial-Verlag.
- Margariti, A., Ktonas, P., Hondraki, P., Daskalopoulou, E., Kyriakopoulos, G., Economou, N.-T., et al. (2012). An application of the primitive form of dance therapy in psychiatric population. *The Arts in Psychotherapy*, 39, 95–101. <http://dx.doi.org/10.1016/j.aip.2012.01.001>
- Meekums, B. (2002). *Dance movement therapy. A creative psychotherapeutic approach*. London, UK: Sage Publications.
- Merriam-Webster Dictionary. (2014). *Grounded*. Retrieved from <http://www.merriam-webster.com/dictionary/grounded>
- Moritz, U. (2013). Bodypercussion: Unser Körper als Rhythmus-Instrument [Body percussion – Our bodies as rhythm instruments]. *Musiktherapeutische Umschau*, 34, 334–349. <http://dx.doi.org/10.13109/muum.2013.34.4.334>
- Murrock, C. J., & Madigan, E. (2008). Self-efficacy and social support as mediators between culturally specific dance and lifestyle physical activity. *Research and Theory for Nursing Practice*, 22, 192–204.
- Nyström, K., & Lauritzen, S. O. (2005). Expressive bodies: Demented persons' communication in a dance therapy context. *Health*, 9, 297–317. <http://dx.doi.org/10.1177/1363459305052902>
- Oxford Dictionaries. (2014). *Ground*. Retrieved from <http://www.oxforddictionaries.com/definition/english/ground?q=ground>
- Panhofer, H. (2006, May). *Cuando las palabras no son suficientes: La Danza Movimiento Terapia (DMT) con niños con trastornos emocionales y de comportamiento* Paper presented at the congress 'Congreso Regional. Educación y discapacidad'. Valladolid, Spain: Junta de Castilla y León.
- Pierce, L. (2014). The integrative power of dance/movement therapy: Implications for the treatment of dissociation and developmental trauma. *The Arts in Psychotherapy*, 41, 7–15. <http://dx.doi.org/10.1016/j.aip.2013.10.002>
- Punkanen, M., Saarikallio, S., & Luck, G. (2014). Emotions in motion: Short-term group form Dance/Movement Therapy in the treatment of depression: A pilot study. *The Arts in Psychotherapy*, <http://dx.doi.org/10.1016/j.aip.2014.07.001>
- Romero, J. (2013). *Lo poco que sabemos lo sabemos entre todos*. La Contra. La Vanguardia. Retrieved from <http://www.lavanguardia.com/lacontra/20130717/54377855693/lo-poco-que-sabemos-lo-sabemos-entre-todos.html>
- Sandel, S., Chaiklin, S., & Lohn, A. (1993). *Foundations of dance movement therapy. The life and work of Marian Chace*. Columbia, MD: The Marian Chace Memorial Foundation of The American Dance Therapy Association.
- Scaravelli, V. (1991). *Awakening the spine. The stress-free new yoga that works with the body to restore health, vitality and energy*. New York, NY: Harper Collins Publishers.
- Schott-Billmann, F. (2000). *Le besoin de danser*. Paris, France: Editions Odile Jacob.
- Smith, N., Waller, D., Colvin, A., Naylor, M., & Hayes, J. (2012). *Dance and dementia project: Findings from the pilot study*. Retrieved from <http://eprints.brighton.ac.uk/11520/1/Dance%20and%20Dementia%20Pilot%20report%20final%202012.12.pdf>
- Stanton-Jones, K. (1992). *An introduction to dance movement therapy in psychiatry*. London, UK: Routledge.
- Violets-Gibson, M. (2004). Dance and movement therapy for people with severe dementia. In S. Evans, & J. Garner (Eds.), *Talking over the years. A handbook of dynamic psychotherapy with older adults* (pp. 197–213). New York, NY: Brunner-Routledge.