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A dance movement therapy intervention for people with a personality disorder: A Delphi study

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ABSTRACT

Dance Movement Therapy (DMT) is an established treatment in mental health care for clients with a personality disorder (PD). Literature on DMT and personality disorder shows that self-regulation, interpersonal relationships, and cognition are key objectives to focus on during the clinical application of DMT for PD. To date, no systematic descriptions of DMT interventions for PD are available. A systematic review of the literature concluded that DMT interventions in PD mainly covered body-oriented approaches and cognitive strategies. This study aimed to collect opinions from expert dance movement therapists on applications of a DMT intervention for PD, and more specifically, the use of dance-informed procedures, such as improvisation and choreography. A Delphi approach was used to arrive at a consensus between five participants (DMT experts). From these findings, a systematised intervention description is presented for clinical application of DMT for PD clients that can be implemented and used for efficacy research. The intervention consists of three phases, with a focus on (I) embodied presence and somatic/sensory awareness, (II) dance improvisation and (III) choreography. These foci could enhance (body) self-efficacy beliefs, emotion regulation, the integration of experiences and healthy interpersonal functioning.

Introduction

Personality disorder

People with a personality disorder (PD) suffer from enduring inflexible patterns in their cognitions and emotions, which lead to significant subjective distress, affecting both self-functioning related to aspects, such as identity and self-direction, and interpersonal functioning concerning aspects, such as empathy and intimacy (American Psychiatric Association., 2013). According to the Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; APA, 2013), there are ten specific categorical types of PD divided into three clusters; Cluster A: paranoid, schizoid and schizotypal; Cluster B: antisocial, borderline, histrionic and narcissistic; and Cluster C: avoidant, dependent and obsessive-compulsive. Other types consist of 'personality change due to another medical condition' and 'not otherwise specified'

PD (PDNOS). All types of PD have an onset in adolescence or early adulthood and are stable and pervasive over time (APA, 2013). Chronic traumatic stress or an accumulation of negative experiences during childhood can develop into severe personality pathology, chronic depression, and post-traumatic stress disorder (Felitti et al., 1998). A community-based, global systematic review and meta-analysis showed a PD prevalence of 7.8% for PD (Winsper et al., 2020). In addition, approximately 25% of patients in primary care and 50% in psychiatric outpatient settings meet the criteria for PD (Beckwith, Moran, & Reilly, 2014; Moran, Jenkins, Tylee, Blizard, & Mann, 2000). Dance Movement Therapy, one of the modalities within the Creative Arts Therapies, is considered an established treatment in multidisciplinary mental health care for clients with a PD (Dutch Mental Health Standards/Creative Arts Therapies AKWA-GGZ, 2018; Karkou & Sanderson, 2006).

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Dance movement therapy for clients with a personality disorder

Results from a systematic literature review and thematic synthesis (Kleinlooh, Samaritter, van Rijn, Kuipers, & Stubbe, 2021) revealed only four expert studies exploring Dance Movement Therapy (DMT) for PD and no systematised intervention descriptions, which are essential for enhancing the methodological quality of DMT clinical research (e.g., Bryl et al., 2020; Karkou, Aithal, Zubala, & Meekums, 2019; Koch et al., 2019). Findings also demonstrated a predominant use of body-oriented approaches and cognitive strategies in DMT for PD, with a rather minimal use of dance-informed interventions. Such interventions are understood to be informed by practices stemming from dance as an art form, being originally at the core of DMT (Samaritter & Cantell, 2021). They differ from for example interventions informed by psychological theories, in their arts-related experiential characteristics with dance procedures, techniques and structures specifically tailored towards a therapeutic aim (Samaritter, 2018). The minimal use such dance-informed structures in the treatment of clients with PD is notable as literature on DMT for PD describes how working within a transitional space and a symbolic realm in dance, are important as they facilitate full engagement within a movement situation, while the use of aesthetic procedures allows for artistic distancing from painful experiences (Batcup, 2013; Manford, 2014; Pierce, 2014). In addition, such a dance-informed approach differentiates DMT from other body-oriented psychotherapies, which supports strengthening the unique identity of DMT (Payne, Warnecke, Karkou, & Westland, 2016; Tantia, 2016; Vulcan, 2013). Therefore, the first aim of this study was to collect experts' opinions on clinical applications of dance-informed interventions for clients with a PD based on general diagnostic criteria, of all categorical PD types, encompassing impairments in cognitions and emotions (APA, 2013). A second aim was to use these contributions to build a consensus-based systematised intervention description emphasising dance-informed aspects and procedures, such as improvisation and choreography.

Method

Data collection

A Delphi approach was used (McKenna, Keeney, & Hasson, 2011) to collect opinions and gain consensus among a panel of DMT experts on clinical applications of dance informed interventions for clients with a PD. Four methodological steps of the Delphi procedure were followed: (a) purposive sampling of the participants, (b) a meeting with the participants in order to explain the aim of the study and the research methodology and procedures, (c) sending questionnaires to collect data in a written format and (d) member checking to check in with the participants, on how they considered and responded to the synthesised data and the researchers' interpretations of the data to reach a consensus.

Purposive sampling

Following a purposive sampling technique (Patton, 2018), five experts in DMT and PD were selected from a large group of registered creative arts therapists, who all participated in an ongoing project for describing interventions for specific client populations. In this project it is required that the creative arts therapists follow established quality criteria guidelines put forward by the Dutch Federation of Creative Arts Therapies (Federatie voor Vaktherapeutische Beroepen, 2015) to assure the quality of the intervention description. As such, the selected dance movement therapists from this group were already familiar with the process of describing interventions.

Participants

All participants, four females and one male, hold a DMT Master's degree with an average of 11.5 years of working experience in DMT for clients with a PD at the time of this study. Their ages ranged from 35 to 55, with a mean age of 45.5. Three participants worked in Dutch mental health care institutions in a multidisciplinary setting, from which two offered DMT in a Schema Focused treatment (SFT) setting and one within a Mentalisation-Based Treatment (MBT) setting. Two participants offered DMT to clients with a PD in a multidisciplinary mental health care setting and in their private practice. Both SFT (Young, Klosko, & Weishaar, 2003) and MBT (Bateman & Fonagy, 2004, 2006) are evidence-based specialist programs and are offered in many mental health care institutions in the Netherlands to clients with PD (Hutsebaut, 2020). Dance movement therapists working in such institutions are often trained in one of these specialist programs integrating related aspects in DMT. SFT expands on conventional cognitive therapy and places emphasis on the therapeutic relationship, affective experience, and the discussion of early life experiences (Young et al., 2003). MBT focuses on the clients' ability to mentalize. The capacity to understand oneself and others in terms of intentional mental states, particularly when it comes to explaining behaviour (Bateman & Fonagy, 2004, 2006).

Meeting

A face-to-face meeting was organised to explain the aim of the study and the utilised research methodology and procedures.

Questionnaires

The questionnaire was developed by following the guidelines for describing an intervention as proposed by the FVB (2015) (for details see Appendix) consisting of 4 main domains:

- 1) Architecture/structure of the intervention contains the following four subdomains:
- a) the number of treatment phases, b) the number of sessions and frequency per week that DMT is offered within a treatment, c) the structure within one session and d) the duration of one session.
- 2) Goal setting; the main goal defines the desired end situation of the described intervention, with the therapist focusing on the main problem. The subgoal(s) are further specifications of the main goal, contribute to the main goal and can be a secondary or a conditional target.
- 3) Content of the intervention; the actual DMT activities are described in a concrete way. These concern specific exercises, movement structures or DMT methods applied in one or more sessions at a certain point in time and treatment phase aiming for a specific treatment goal.
- 4) Applied facilitating style; the therapist's attitude concerning the relationship with the client within the clinical setting and during goal setting. A self-administered questionnaire with seven questions was sent out to each of the five participants. They were asked to respond within two months and a reminder was sent to assure a timely response.

Member checking

Member checking was applied to reach a consensus and explore the accuracy and credibility of the analysed dataset with the participants of this study (Birt, Scott, Cavers, Campbell, & Walter, 2016). A set of processes was set out to check in with the participants, on how they considered and responded to the synthesised data and the researchers'

interpretations of the data (Ravitch, & Carl, 2016). First the synthesised data, organised per question, were sent to the five participants and they were asked to score each synthesis on a 5-point Likert scale (Likert, 1932), (1: strongly agree; 2: agree; 3: neither agree nor disagree; 4: disagree; 5: strongly disagree). Space was included for comments and questions. After having received the scores and responses, a last check was arranged by the researcher by phone for the participants to engage with a researcher's interpretations and discuss possible concerns or unclarities. The researcher was offered a way to better understand the participants' wordings and perspectives and gather additional information which was finally included in the results.

Ethics

Participants were offered the opportunity to ask questions about the study and applied procedures before signing an informed consent. They were also informed that they could withdraw from the study at any time. All materials were anonymised, and data were stored safely protected by a password. The research adhered to the ethical regulations of the University.

Data analysis

The data from the questionnaires were analysed with a qualitative content analysis approach (Mayring, 2020; Schreier, 2014). The systematic analysis consisted of four steps. In step one, the data were read several times to gain a holistic and preliminary sense of the content. In the second step, the data were organised under the domains mentioned earlier of an intervention description. Each domain was represented with a code, which allowed for a deductive coding procedure. In consultation with the second author, a third step, inductive open coding (Strauss & Corbin, 1990) was applied within the previously composed domain groups. In step four, the collected words and concepts were analysed and compared for overarching structures. The findings were then structured in line with the domains to build an intervention description (FVB, 2015).

Results

General findings

Almost all participants responded to all the questions. One participant did not respond to the question concerning the domain facilitating style, despite two reminders having been sent. However, through member checking, this participant strongly agreed with the synthesised data. After reading the data several times, it was apparent that the answers were either described in an extensive and detailed way or through

a more general approach. For example, 'emotion and theme-focused movement' did not offer any details as to how the activity would be executed in DMT, while for some activities, every step was described comprehensively. When grouping the data under the coded domains of an intervention description, it was apparent that the participants also offered information belonging to other domains. For instance, there was an interrelationship between the intervention content and the goal setting. The majority of the information could be categorised in the domain of content of the intervention. Notably, most of the details concerning the facilitating style, were offered by the participants who worked in Mentalisation Based Treatment or a Schema Focused Treatment multi-disciplinary setting.

Domain: Architecture of the intervention

The results showed that within a certain treatment period three treatment phases are recommended. One single DMT session consists of three phases. The duration of the overall intervention and a single session varied. Table 1 presents in detail the results in the domain architecture of the intervention.

Domain: Goal setting

Within the domains of goal setting the analysis showed that for each of the three treatment phases, an overarching theme could be identified. In phase one, the experts focused on embodied presence and somatic/sensory awareness, phase two pertained to dance improvisation and phase three emphasised choreography. Table 2 presents in detail the findings on goal setting per treatment phase.

Domain: Content of the intervention

The content of the intervention follows the three overarching treatment phases, (a) embodied presence, and somatic/sensory awareness with content concerning body-movement and dance-oriented activities, (b) dance improvisation with a focus on exploration in dance and (c) choreography in which clients compose a dance. Table 2 presents in detail the findings on the content per treatment phase.

Domain: Facilitating styles

In phase one the facilitator is clear and predictable for establishing safety and holding, in phase two the clients are stimulated to take more responsibility and in phase three the clients are invited and stimulated to choreograph their own dance. Table 2 presents in detail the findings on facilitating styles per treatment phase.

 Table 1

 An overview of the findings within domain one: the architecture of the intervention.

| Domain 1: Architecture of the intervention | | |
|---|---|--|
| a) Number of treatment phases over a certain treatment period | 3 treatment phases | |
| b) Number of sessions & frequency per week | Between 6 and 25 sessions (once a week), depending on the setting (open or closed groups/ private practice; clinical settings; open or closed; ongoing or time bound DMT groups). | |
| c) Structure within a single session | arrival and interpersonal relating supported by verbal and non-verbal procedures including a physical warm-up with move- ment exploration | |
| | deepening movement themes that emerge, giving form and meaning | |
| | 3) closure in which clients share and reflect on their experiences of the session and a transition is made to daily life | |
| d) Duration of one session | The duration of a single session ranged between 60 and 90 or 120 min depending on the setting. | |
| | The duration of a single group DMT session should ideally be 75 min, considering the attention span of clients with a PD in a clinical multidisciplinary setting. | |

 Table 2

 Synthesis of the findings of the domains of goal setting, intervention content and facilitating style along with the identified three treatment phases in DMT.

| | Phase 1: Embodied presence & somatosensory awareness | Phase 2: Dance improvisation | Phase 3: Choreography |
|------------------------------------|---|--|--|
| Domain 2: Goals & subgoals | Enhancing body self-efficacy beliefs Developing clients' self-appreciation, confidence, and a sense of control Subgoals: Developing interoceptive awareness. Discovering new potential and limitations in body/ movement/dance; Discovering own movement vocabulary and movement preferences, creativity, emotions, skills, and acting/behaviours | Exploration and expression of personal themes for engagement and emotion regulation to process experiences Subgoals: Experiencing play and pleasure in own body and becoming familiar with dance improvisation. Gaining mastery over movements & broadening movement vocabulary; Engaging in emotions through self-expression in dance. Developing narrative movement material, creating meaning and processing experiences | Creation of a choreography to support distancing from and integration of emotionally charged narrative movement material and finding meaning through cooperation with group members <i>Subgoals</i> : Planning and structuring expressive movement material. Discovering a new self & encountering new perspectives from others. Being competent to make choices independently. Experiencing safe connections & pleasurable cooperation. Developing empathy and intimacy |
| Domain 3: Content | Body-oriented group activities (grounding, using balance, weight, and strength) Moving body scan / full-body movement Applying the Chace approach and creative movement exploration independently & in a group Mirroring, leading & following | Exploring dance elements with repetition & varying with dynamics in movement & polarities individually and in a group (Body-Space-Time-Flow-Shape). Including verbal guidance (e.g., shrink, turn, freeze, fore-/backwards, fast/slow, large, small, straight, round etc.) Improvising with props, other artforms, metaphors, storytelling, involving risk-taking, etc. Moving authentically and with emotion/theme-focused movement Sharing narrative movement material through verbal/non-verbal reflections Exploring interpersonal connections (act & react / leading & following) | Choosing and deepening movement narrative material from earlier phases supported by verbalisation and offering peer feedback Creating a movement phrase first with support, then independently Repeating & memorising movement phrases and attention to movement quality details Adding dance elements, using movement preferences, etc. Presenting/sharing/observing the choreography to support meaning making Optional: choosing music or other artforms that match the choreography Adding theatre elements (e.g., costumes, lightning, sound) |
| Domain 4: Facilitating style | Being reliable, stable, predictable, direct, and offering structure for establishing safety and holding | Coaching and encouraging clients' unique identity to surface. Moving along and in time offering more responsibility. Offering feedback, compliments, and kind confrontation for setting realistic boundaries | Inviting and stimulating clients to structure narrative movement material into a choreography, reminding them that the creative process is more important than the end product |

Member checking results

All five participants strongly agreed on the number of treatment phases. Strong agreement was also found between the participants on how long one DMT session should last and which facilitating style should be used in session. There was quite a consistent agreement level concerning the number of sessions (1 agreed / 4 strongly agreed), the structure within one session (2 agreed / 3 strongly agreed), the domain of goal setting (2 agreed / 3 strongly agreed), and content of the intervention (1 agreed / 4 strongly agreed). In the last member check by phone, one participant indicated that he/she could not immediately recognise the own descriptions from the data synthesis. After explaining the steps of the data analysis and synthesisation by the researcher, the participant agreed that the defined overarching themes captured his/her own descriptions. Three participants noted that the identified goals, content, and facilitating styles could not always be applied sequentially in line with the three treatment phases. The participants also shared that intervention applications depended on what was necessary in the moment of a session, for instance, offering extra structure and support for the group or an individual client. They emphasised the importance of clients showing 'a certain readiness' before they were invited to the following phases of DMT to prevent them from experiencing dysregulation.

Discussion

This study aimed to collect experts' opinions on clinical applications of DMT in dance-informed interventions for PD. A consensus-based systematised intervention was created from this information, which had not yet been achieved for DMT for clients with a PD. The results show that the intervention architecture is highly dependent on the setting in which DMT is offered, which indicates that the intervention

needs to be tailored to each specific setting. In addition, the experts mentioned that this type of flexibility is also necessary to act accordingly to the needs of individual clients and the group. In this dynamic process, the dance movement therapist chooses the necessary intervention applications, while simultaneously taking the architecture of the intervention into consideration.

Phase one: Embodied presence and somatosensory awareness

The experts mentioned that clients with a PD need to show a 'certain readiness' in phase one to prevent dysregulating in the following phases. This attitude of readiness encompasses the clients' ability to tolerate and integrate frustrating and satisfying experiences that emerge from more dynamic dance-informed approaches (Manford, 2014; Pierce, 2014; Röhricht, 2015) as offered in phase two and three. Two core themes that are present in DMT relate to stimulating this. 'Embodied presence' encompasses the clients' perceived bodily feelings for developing a sense of self and a readiness to move, whilst through 'somatosensory awareness' the anatomical, visceral and neuropsychological functioning is supported, creating a vitalising effect (Samaritter, 2018). The findings show that the experts focus on these themes by supporting the clients in discovering and gaining more confidence in body, movement and dance while strengthening their bodily self-efficacy beliefs. These beliefs pertain to the body-related part of self-efficacy, for example, 'I can move well'; 'My body is flexible' or 'I can produce something beautiful' (Fuchs & Koch, 2014). The identified activities in phase one are in line with a previous DMT/PD study (Kleinlooh et al., 2021), reporting that in DMT for PD, there was a focus on the application of body-oriented activities. However, the experts in this study also described the use of creative movement and dance group activities to support clients in discovering their movement potential. The identified facilitating style in phase one corresponds with DMT/PD literature in which it is argued that creating safety and holding supports the clients in tolerating intense internal sensations that may emerge during DMT (Batcup, 2013; Pierce, 2014; Röhricht, 2015).

Phase two: Exploration and expression in movement and dance improvisation

In phase two, the focus lies on dance improvisation to evoke emotional engagement and expression whilst allowing for the processing of emerging experiences. Dance improvisation is an established approach in DMT (e.g., Adler, 2002; Bräuninger, 2014; Wiedenhofer & Koch, 2017; Sandel, Chaiklin, & Lohn, 1993). The healthy capacities of the client are addressed, creating a base for therapeutic change which contributes to stress reduction, wellbeing and improving body self-efficacy beliefs (Samaritter, 2018; Wiedenhofer & Koch, 2017). Dance improvisation requires a high degree of freedom, adaption, and self-organisation (Wiedenhofer & Koch, 2017), while paradoxically, PD pathology is characterised by disorganisation in the personality system (Livesley & Larstone, 2018). In this study, identified activities offer some insight into how clients are supported during this challenging phase. Clients are guided through specific movement activities while different music, art forms and props are offered. As such, exploration, self-regulation and the maintenance of movement, connectedness, expression, and symbolisation develop (Kleinlooh et al., 2021). Furthermore, clients are invited to vary and repeat new movements to develop a sense of mastery. Literature on DMT shows that this 'as if' testing and repetition supports enactive cognition, executive functioning and reduces anxiety (Koch, 2017; Samaritter, 2018). Furthermore, the findings show that concepts from authentic movement are applied to help clients track their movements and emotions without judgement. This resonates with mindfulness practices used in cognitive behavioural therapies for clients with a PD (e.g., Linehan, 1993). The identified subgoals of phase two are in line with findings from the DMT/PD literature in which it is argued that dance offers a symbolic space for therapeutic change in which an artistic distance from painful experiences is created (Batcup, 2013; Manford, 2014; Pierce, 2014). Lastly, clients are encouraged to share their experiences and emotions through verbal and nonverbal reflections, in line with the DMT and PD literature, describing how the capacity to think about their own and others' mental states within the present moment can increase (Batcup, 2013; Pierce, 2014).

Phase three: Choreography

The findings show how in phase three clients are invited to create a dance by choosing narrative movement material established during the previous phases. The experts described this process as a way for clients to distance themselves from emotionally charged narratives while integration of self-states takes place. In line with findings from a study on DMT and PD, these are relevant themes to focus on (Kleinlooh et al., 2021). There is DMT literature that describes the use of choreographic processes (e.g., Bräuninger, 2014; Halprin, 2002; Schoop & Mitchell, 1974; Victoria, 2012), which could positively influence the clients' identity, sense of autonomy, self-efficacy beliefs and feelings of self-control and wellbeing (Koch, 2017; Lange, Leonhart, Gruber, & Koch, 2018). The act of choreography assists in slowing down expressive processes so inner conflicts can be identified while clients move from hesitation to mastering expression (Jorba-Galdos, 2014). Moreover, core executive functions, such as self-control, working memory and creative thinking are addressed (Diamond, 2013; Hanna, 2014; Risner, 2000; Sheets-Johnstone, 2012). For these reasons, the use of choreography in DMT could be specifically beneficial for people with a borderline PD, as their executive functioning is often impaired (Ruocco, 2005). In addition, focusing on a specific task diminishes neural responses to emotional stimuli, while emotion regulation and mentalising capacities are expanded in PD clients (Batcup, 2013; Livesley & Larstone, 2018).

The findings revealed no activities defined for phase three. Instead, the experts used action words that, interestingly, all belong to dance-informed procedures. These procedures support self and other relatedness, exploration of alternative perspectives and actions, decision and meaning-making, enactive cognition, and executive functioning (Samaritter, 2018). Following these procedures requires a certain autonomy and self-directedness from the clients with a PD, which are key characteristics to focus on in PD pathology (APA, 2013), with the findings showing that the facilitating style is in accordance with this phase. Lastly, the experts encouraged clients to actively cooperate with group members by presenting and explaining their choreography while receiving and offering feedback to each other. This sharing of one's dance addresses certain performativity, social interaction, and empathetic sense-making through which meaningful and healthy relationships can develop (Samaritter, 2018), which are all major treatment foci in PD pathology (APA, 2013).

Strengths

This is the first study that presents consensus-based DMT clinical applications of dance-informed interventions for PD, which can be tailored for different mental health care settings. The used questionnaire was based on mandatory domains for systematically developing interventions and the quality criteria guidelines for intervention descriptions (FVB, 2015) were followed. This guarantees a certain validity of the findings which contributes to the methodological quality of research in DMT. In a DMT/PD study from Kleinlooh et al. (2021), a focus on body-oriented interventions was identified. Through this study, the use of dance-informed interventions in DMT is placed in the foreground and detailed information is offered as to how improvisation and choreography can be applied in DMT for clients with PD.

Limitations

According to the FVB (2015) five experts are sufficient for reaching a consensus. Nevertheless, the inclusion of more DMT and PD experts' opinions would have strengthened the generalisability of the findings. We would like to emphasize that the data for this study have been collected in just one Western European country and therefore should be understood as culturally situated. Also, National health policies, institutional regulations, and gender of the dance movement therapists may have impacted the findings. Last, the focus in this study was on general PD (APA, 2013), and not on specific PD clusters. Therefore, the intervention applications may need to be adapted depending on the PD category or possible co-occurrence with other diagnostic categories.

Conclusions

This study offers insights into experts' applications of a dance-informed DMT intervention for clients with a PD. The findings show that the dance movement therapists agreed on three treatment phases over a certain treatment period and within a single session, while the duration of the overall intervention and a single session varied. Within the identified three DMT phases, the focus lies on the embodied presence and somatosensory awareness, dance improvisation and choreography. Treatment goals and activities encompass attention for (body) self-efficacy beliefs, emotion regulation, integration of experiences, healthy interpersonal functioning and the identified facilitating styles accommodated the offered content and goal setting.

Recommendations

The presented dance-informed intervention applications for DMT/PD can be protocolised, manualised, evaluated and further developed for clinical practice and research. For treatment efficacy research, it is necessary to explore which factors of the interventions can create

therapeutic change. Therefore, in pre- and post-evaluations, the experiences and opinions of the practitioners and the PD clients' need to be incorporated. It is also recommended to determine for which specific PD categories the dance-informed DMT interventions would be most beneficial. Lastly, differences in socio-cultural and gender aspects, National health policies, and institutional regulations need to be considered when applying the proposed dance-informed intervention in DMT for PD.

Author contributions

All three authors, RS, JS, and BK, made a substantial contribution to the information and material submitted, and they have read and approved the final version of the manuscript. SK collected the data. SK and RS analysed the data. SK wrote the manuscript. RS and JS, and BK contributed to the content of the article.

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Declarations of Interest

None.

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Appendix

The following explanation of subjects adopted from the (FVB, 2015) were used to frame the final questions including dance-improvisation and choreography as the focus of attention.

1) Architecture of the intervention:

This concerns the build-up of the intervention and includes the treatment phases (start, middle and end), the number of sessions and any other parts of the intervention that are subject to change, such as the duration of one session or the number of sessions per week. This subject leads to the following questions:

- a. How many sessions do you propose and please explain why?
- b. How many phases does the intervention consist of over time and how do you define them?
- c. How long is one single session if it is offered once a week?
- d. How many phases does one single session consist of and what is the focus?

2) Goal setting:

The main goal defines the desired final situation of the described intervention whilst the focus of the therapist is on the main problem. The subgoal(s) are further specifications of the main goal and contribute to the main goal. Subgoals can be a secondary or a conditional target. This subject led to the following question: Define the main and subgoals and include the factors you believe are addressed or focused on when using dance-informed approaches as dance improvisation and choreography?

3) Content of the intervention:

Activities are described to reach the goals in a certain (relevant) order, and they need to be described in such a way that the reader can imagine what is meant. This subject led to the following question: Which activities do you propose per phase within the context of goal setting?

4) Facilitating style:

This concerns the position and accompanied attitude that is taken on by the therapist, relative to the client. This includes details on what is done and how this therapeutic attitude is executed by the therapist. This subject led to the following question: Which facilitating style do you execute during the specific phases of the intervention when using dance-informed approaches as dance-improvisation and choreography?

References

- Adler, J. (2002). Offering from the conscious body. The discipline of authentic movement. Rochester, VT: Inner Traditions.
- American Psychiatric Association, A. P. (2013). Diagnostic and statistical manual of mental disorders: DSM-5. Washington, DC: American Psychiatric Association.
- Batcup, D. C. (2013). A discussion of the dance movement psychotherapy literature relative to prisons and medium secure units. *Body, Movement and Dance in Psychotherapy*, 8(1), 5–16. https://doi.org/10.1080/17432979.2012.693895
- Bateman, A., & Fonagy, P. (2006). Mentalizing and borderline personality disorder. In J. G. Allen, & P. Fonagy (Eds.), The handbook of mentalization-based treatment (pp. 185–200). John Wiley & Sons Inc. https://doi.org/10.1002/9780470712986.ch9.
- Bateman, A. W., & Fonagy, P. (2004). Mentalization-based treatment of BPD. Journal of Personality Disorders, 18(1), 36–51. https://doi.org/10.1521/pedi.18.1.36.32772
- Beckwith, H., Moran, P. F., & Reilly, J. (2014). Personality disorder prevalence in psychiatric outpatients: A systematic literature review. *Personality and Mental Health*, 8(2), 91–101. https://doi.org/10.1002/pmh.1252
- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*, 26(13), 1802–1811. https://doi.org/10.1177/1049732316654870
- Bräuninger, I. (2014). Specific dance movement therapy interventions which are successful? An intervention and correlation study. The Arts in Psychotherapy, 5, 445–457. https://doi.org/10.1016/j.aip.2014.08.002
- Bryl, K., Bradt, J., Cechnicki, A., Fisher, K., Sossin, K. M., & Goodill, S. (2020). The role of dance/movement therapy in the treatment of negative symptoms in schizophrenia: A mixed methods pilot study. *Journal of Mental Health (Abingdon, England)*, 1–11. https://doi.org/10.1080/09638237.2020.1757051
- Diamond, A. (2013). Executive functions. Annual Review of Psychology, 64, 135–168. https://doi.org/10.1146/annurev-psych-113011-143750
- Dutch Mental Health Standards/Creative Arts Therapies AKWA-GGZ. (2018). (https://akwaggz.nl/generieke-module-vaktherapie-gemeenschappelijke-taal-voor-de-disciplines/).
- Federatie voor Vaktherapeutische Beroepen. (2015). [Dutch Federation of Creative Arts Therapies]. (https://fvb.vaktherapie.nl).
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. American Journal of Preventive Medicine, 14(4), 245–258. https://doi. org/10.1016/s0749-3797(98)00017-8
- Fuchs, T., & Koch, S. C. (2014). Embodied affectivity: On moving and being moved. Frontiers in Psychology, 5. https://doi.org/10.3389/fpsyg.2014.00508. Article 508.
- Halprin, D. (2002). The expressive body in life, art, and therapy: Working with movement, metaphor and meaning. Jessica Kingsley Publishers.
- Hanna, J. L. (2014). Dancing to learn: The brain's cognition, emotion, and movement. Rowman & Littlefield.
- Hutsebaut, J. (2020). Make therapy simple again! *Tijdschrift voor Psychotherapie*, 46(2), 96–106.
- Jorba-Galdos, L. (2014). Creativity and dissociation. Dance/movement therapy interventions for the treatment of compartmentalized dissociation. The Arts in Psychotherapy, 41(5), 467–477. https://doi.org/10.1016/j.aip.2014.09.003
- Karkou, V., Aithal, S., Zubala, A., & Meekums, B. (2019). Effectiveness of dance movement therapy in the treatment of adults with depression: A systematic review with meta-analyses. Frontiers in Psychology, 10, 936. https://doi.org/10.3389/ fpsyg.2019.00936
- Karkou, V., & Sanderson, P. (2006). Arts therapies: A research-based map of the field. Edinburgh: Elsevier Churchill Livingstone.
- Kleinlooh, S. T., Samaritter, R. A., van Rijn, R. M., Kuipers, G., & Stubbe, J. H. (2021). Dance movement therapy for clients with a personality disorder: A systematic review and thematic synthesis. Frontiers in Psychology, 12, Article 581578. https://doi.org/ 10.3389/fnsvg.2021.581578
- Koch, S. C. (2017). Arts and health: Active factors and a theory framework of embodied aesthetics. *The Arts in Psychotherapy*, 54, 85–91. https://doi.org/10.1016/j. ain.2017.02.002
- Koch, S. C., Riege, R., Tisborn, K., Biondo, J., Martin, L., & Beelmann, A. (2019). Effects of dance movement therapy and dance on health-related psychological outcomes. A meta-analysis update. Frontiers in Psychology, 10, 1806. https://doi.org/10.3389/ fpsyg.2019.01806
- Lange, G., Leonhart, R., Gruber, H., & Koch, S. C. (2018). The effect of active creation on psychological health: A feasibility study on (therapeutic) mechanisms. In *Behavioral Sciences*, 8 p. 25). https://doi.org/10.3390/bs8020025
- Likert, R. (1932). A technique for the measurement of attitudes. Archives of Psychology, 22(140), 55.

- Linehan, M. M. (1993). Cognitive-behavioral treatment of borderline personality disorder. Guilford Press.
- Livesley, W. J., & Larstone, R. (Eds.). (2018). Handbook of personality disorders: Theory, research, and treatment. Guilford Publications.
- Manford, B. (2014). Insecure attachment and borderline personality disorder: Working with dissociation and the capacity to think. *Body, Movement and Dance in Psychotherapy*, 9(2), 93–105. https://doi.org/10.1080/17432979.2014.891261
- Mayring, P. (2020). Qualitative content analysis: Demarcation, varieties, developments [30 paragraphs]. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 20(3). https://doi.org/10.17169/fqs-20.3.3343. Art. 16.
- McKenna, H., Keeney, S., & Hasson, F. (2011). The Delphi technique in nursing and health research. John Wiley & Sons, Inc.
- Moran, P., Jenkins, R., Tylee, A., Blizard, R., & Mann, A. (2000). The prevalence of personality disorder among UK primary care attenders. *Acta Psychiatrica Scandinavica*, 102(1), 52–57. https://doi.org/10.1034/j.1600-0447.2000.102001052.x
- Patton, M., Q. (2018). The SAGE encyclopedia of educational research, measurement, and evaluation (Vols. 1–4). SAGE Publications, Inc. https://doi.org/10.4135/ 9781506326139. Access Date: December 1, 2020.
- Payne, H., Warnecke, T., Karkou, V., & Westland, G. (2016). A comparative analysis of body psychotherapy and dance movement psychotherapy from a European perspective. Body, Movement and Dance in Psychotherapy, 11(2–3), 144–166. https:// doi.org/10.1080/17432979.2016.1165291
- Pierce, L. (2014). The integrative power of dance/movement therapy: Implications for the treatment of dissociation and developmental trauma. Arts in Psychotherapy, 41 (1), 7–15. https://doi.org/10.1016/j.aip.2013.10.002\
- Ravitch, S. M., & Carl, N. M. (2016). Qualitative research: Bridging the conceptual, theoretical, and methodological.
- Risner, D. (2000). Making dance, making sense: Epistemology and choreography.

 Research in Dance Education, 1(2), 155–172. https://doi.org/10.1080/713694259
- Röhricht, F. (2015). Body psychotherapy for the treatment of severe mental disorders -An overview. Body, Movement and Dance in Psychotherapy, 10(1), 51–67. https://doi. org/10.1080/17432979.2014.962093
- Ruocco, A. C. (2005). The neuropsychology of borderline personality disorder: A metaanalysis and review. Psychiatry Research, 137(3), 191–202. https://doi.org/10.1016/ j.psychres.2005.07.004

- Samaritter, R. (2018). The aesthetic turn in mental health: Reflections on an explorative study into practices in the arts therapies. *Behavioral Sciences*, 8(4), 41. https://doi.org/10.3390/bs8040041
- Samaritter, R., & Cantell, M. (2021). Wording the complexity of dance movement therapy: A scoping review on how dance movement therapists describe their clinical practice. In H. Wengrower, & S. Chaiklin (Eds.), Dance and creativity within Dance Movement Therapy: International perspectives (pp. 111–123). Routledge/Taylor & Francis Group. https://doi.org/10.4324/9780429442308-11.
- Sandel, S., Chaiklin, S., & Lohn, A. (1993). Foundations of dance/movement therapy: The life and work of Marian Chace. The Marian Chace Memorial Fund.
- Schoop, T., & Mitchell, P. (1974). Won't you join the dance. California: Mayfield. Schreier, M. (2014). Qualitative content analysis. In *The SAGE handbook of qualitative data analysis* (pp. 170–183). SAGE Publications Ltd. (https://www.doi.org/10.4 135/9781446282243).
- Sheets-Johnstone, M. (2012). From movement to dance. Phenomenology and the Cognitive Sciences, 11(1), 39–57. https://doi.org/10.1007/S11097-011-9200-8
- Strauss, A., & Corbin, J. M. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Sage Publications, Inc.
- Tantia, J. F. (2016). The interface between somatic psychotherapy and dance/movement therapy: A critical analysis. Body, Movement and Dance in Psychotherapy, 1–16. https://doi.org/10.1080/17432979.2015.1109549
- Victoria, H. K. (2012). Creating dances to transform inner states: A choreographic model in Dance/Movement Therapy. Body, Movement and Dance in Psychotherapy, 7(3), 1–17. https://doi.org/10.1080/17432979.2011.619577
- Vulcan, M. (2013). Crossing the somatic-semiotic divide: The troubled question of dance/movement therapists (DMTs) professional identity. The Arts in Psychotherapy, 40(1), 6-19. https://doi.org/10.1016/j.aip.2012.09.001
- Wiedenhofer, S., & Koch, S. C. (2017). Active factors in dance/movement therapy: Specifying health effects of non-goal-orientation in movement. *The Arts in Psychotherapy*, 52, 10–23. https://doi.org/10.1016/j.aip.2016.09.004
- Winsper, C., Bilgin, A., Thompson, A., Marwaha, S., Chanen, A. M., Singh, S. P., ... Furtado, V. (2020). The prevalence of personality disorders in the community: A global systematic review and meta-analysis. *The British Journal of Psychiatry: the Journal of Mental Science*, 216(2), 69–78. https://doi.org/10.1192/bjp.2019.166
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). Schema therapy: A practitioner's guide. Guilford Press.