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Method Development: Dance/Movement Psychotherapy to Address Substance Use Disorder in

Cultural Appalachia

Capstone Thesis

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Dance/Movement Therapy

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Abstract

Arts-based-embodied research was used to investigate the potential effectiveness of Dance Movement Psychotherapy methods to treat substance use disorder from a trauma-informed and cultural approach, based on subjective/objective findings of the writer. Residents of diverse demographics, aged 26-59, within the cultural region volunteered to attend one or more of the three workshops offered. Methods were created based on theoretical, historical, and clinical research and implemented through workshops with the intent to promote community, self-expression, empathy, and creativity-all beneficial traits for on-going mental/physical health recovery and resiliency. Movement observation and participant feedback indicated overall increased awareness and deeper knowing of self and other, reduced feelings of physical/mental stress, and renewed confidence and curiosity. Discoveries supported embodied, arts-based research to reflect and process new knowledge to develop and implement future dance/movement psychotherapy research and future applications in the treatment and on-going recovery of persons with substance use disorder in the Appalachian cultural region.

Keywords: arts-based-research, method-development, body-based, dance-movement-psychotherapy, trauma-informed, mirror-neurons, polyvagal-theory, substance-use-disorder, Appalachia, neuroplasticity.

Dance/Movement Psychotherapy Methods to Address Substance Use Disorder in Cultural
Appalachia

Introduction

“One doesn’t have to operate with great malice to do great harm. The absence of empathy and understanding are sufficient.”

The above quote belongs to Charles M. Blow, cited by Pollini (2019) in an article which highlights West Virginia’s rank as first in fatal drug overdoses, neonatal opioid withdrawal syndrome (CAMC Health Systems, 2017), and “first and second respectively” (Pollini, 2019, p. 355) for hepatitis B and C infection. The author highlights barriers such as fear and thwarted policy-making and offers, “Stigma, whether rooted in lack of empathy or lack of understanding, is at the heart of this refusal” (p. 355). Salyers & Ritchie (2006) acknowledge West Virginia’s lead alongside Kentucky in the number of persons with 1 or more adverse childhood experiences (ACE) to bring attention to underlying traumas as contributing factors to substance use disorder (SUD).

Dance/movement psychotherapy (DMP), as it is referred to by Helen Payne (2006), will be used interchangeably with Dance/movement therapy (DMT) throughout this paper. DMP has the potential to be an economical, evidence-based, trauma-informed approach to treating SUD in the cultural region of Appalachia. The complex region made up of 422 counties within 13 states, along the mountainous terrain from rural Alabama up to rural New York, has a history as rich as its natural resources. With a land so “rich”, residents often live in poverty conditions seen in many under-developed countries or live paycheck to paycheck with little to no job security (Moody, Satterwhite, & Bickel, 2017). A trauma-informed approach is warranted as various factors of the region, culture, and socio-economic climate (Moody, Satterwhite, & Bickel, 2017)

result in complex traumas defined as “forms of traumatization and exposure that are often chronic” which potentially fuel the overwhelming presence of SUD (Courtois & Ford, 2016, p.10).

The Diagnostic Statistical Manual (DSM) describes features of SUD as cognitive, behavioral, and physiological symptoms reflecting persistent use of a substance (APA, 2013). Substance use or abuse has the potential to lead to addiction by which “individuals compulsively consume drugs or alcohol despite increasingly negative consequences” (Margolis & Zweben, 2011, p. 27). Margolis & Zweben (2011) explore SUD through a disease model from a biopsychosocial approach. Persistent drug use is understood to interfere with one’s natural reward system, changing neural circuitry and patterns. This leads to the potential for genetic susceptibility and/or a behavioral disorder, to then result in the disease of addiction (2011).

Effective, evidence-based treatments sensitive to cultural dynamics of strenuous physical labor, history of exploitation, poverty, strong sense of community, and faith are crucial for establishing viable avenues for coping and recovery (Moody, Satterwhite, & Bickel, 2017). Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) are self-help groups grounded in cognitive-behavioral theory which have informed DMP interventions for persons with SUD (Brown, 2009; Milliken, 2008; Rose, 1995). Somatic, kinesthetic, and cognitive based movement interventions allow for an alternative, complimentary treatment to drug therapy.

Orienting to the addicted individual requires an understanding of the various factors interacting internally, externally, and developmentally (Brown, 2009; Moody, Satterwhite, & Bickel, 2017; Milliken, 2008). Bronfenbrenner’s ecological systems theory (EST) expands on developmental theory further by including the impact of outside, or external influences such as environment and culture. As EST focuses on systems at the micro, meso, and macro level,

internal family systems (IFS) therapy follows suit by differentiating, embodying, and listening to the various parts which create the Self (Anderson, et. al., 2017).

Community oriented approaches that consider the individual as a sum of all their parts (Anderson, et. al., 2017) including developmental, social, and environmental factors provide the full picture and opportunity to address SUD more effectively (McGraw-Hill, 2015). Moody, Satterwhite, and Bickel (2017) note the Community Reinforcement Approach (CRA) with Opioid Substance Therapies (OSTs) would align with the culture as it uses social, recreational, vocational, and family oriented reinforcers to help clients toward recovery.

Dempsey (2009) Miller (2002), Rose (1995), Lawlor (1995), and Milliken (2008), through multi-modal approaches to DMP with the addicted populations, discovered themes such as challenges with self-esteem, emotions, self-care, and relationships. Significance was placed on isolation, shame, guilt, anxiety, and underlying traumas. While 12-step programs informed their approaches, DMP theories utilizing movement observation, physical movement, and embodied awareness provided the opportunity to safely explore new adaptive behaviors to foster resilience and creatively integrate what is being learned (Miller 2002; Miliken, 2008).

Evidence supports the need to promote somatic and body experience in therapy (Elbrecht & Antcliff, 2014). Elbrecht and Antcliff (2014) emphasize the significance of haptic (touch) perception and cite Fulkerson (2011) defining haptic touch as “an inherently active and exploratory form of perception involving both coordinated movement and an array of distinct sensory receptors in the skin,” (p.493). They suggest this bottom-up approach for the kinesthetic motor impulses to surface and guide the self through felt body sensations to then unearth new cognitive insights (Elbrecht & Antcliff, 2014). Recent scientific research and discovery of concepts such as neuroplasticity (Siegel, 2003), polyvagal theory (Porges, 2011), mirror neurons

(Berrol, 2006), and the psychosomatic impact of trauma leans toward holistic, embodied approaches to treating psychological disorders, physiological symptoms of trauma, and promoting resilience through body-mind integration (Buckley, Pulkanen, Ogden, 2018; Cardona, 2017; Elbrecht, 2018; Loizzo, 2018; Rothschild, 2004; Van Der Kolk, 2014; Loizzo, 2018). Siegel (2003) further explores neuroplasticity through mindfulness, recognizing the “embodied nature” of humans (p. 29). Mirror neurons (Berrol, 2006; Siegel, 2003) support the process of “kinesthetic empathy”, a key tenet of DMP whereas witnessing or “trying on” one’s movement provides opportunity to be seen on many levels (Milliken, 2008, p.9). Embodied, creative, and expressive movement encourages mindful exploration of self in relation to environment, to engage in and process old and new experiences.

As a citizen of the region, I discovered the healing benefits of creative movement and rhythm intuitively as a result of my traumatic experience and lack of access to proper rehabilitative care for brain injury following my second surgery for a rare brain disorder. The procedure resulted in short-term memory loss, compromised working memory, cognitive processing difficulties, heightened senses, and personality/emotional changes. The event lent toward various conflicts and barriers related to physical, social, psychological, and spiritual health. While memory recall of the first month of recovery was/is not retrievable-aside from fleeting images, feelings, sensations, and photos-the reality of continuing life with an unpredictable brain in an unfamiliar body set in and led a strenuous trek toward optimal health. The lack of access to adequate, affordable, evidence-based, mental/physical health care further strained/strains this journey to recovery and serves as a parallel, in specific ways, to relate and empathize with those seeking rehabilitative treatment for SUD.

To gain a broader, objective understanding of the cultural appropriateness and acceptance of DMP for those of Appalachia, I gathered data by observing and interacting with participants as they engaged mindfully in expressive and embodied, movement-oriented methods. The intent remained to prove DMP would be an accessible approach worthy of embracing for the people of Appalachian culture to propagate community, empathy, growth, and self-awareness. Ultimately, based on these findings and review of literature, I make a case for adopting DMP as an alternative treatment, as well as, an avenue to promote empathy and understanding toward persons living with addiction.

Literature Review

Information regarding cultural characteristics were considered, along with current and past treatments for persons living in Appalachia, to develop potential DMP methods for treating persons with SUD. Developing and utilizing DMP methods allowed me to incorporate and implement the knowledge I have gained while attending Lesley University to explore and document first-hand observations of the cultural appropriateness, initial response to, and potential acceptance of this therapeutic alternative. Ultimately, my goal in choosing this venture, was to provide evidence, create a resource, and demonstrate the effectiveness of DMP as a process to promote community, self-expression, empathy, embodied awareness, and healthy coping mechanisms. Further ambitions would be for this thesis to encourage state/county representatives, physicians, and community members to recognize and adopt DMP as an evidence-based treatment for SUD by creating common sense policies and measures to offer choice in safe, alternative treatment options.

Substance Use Disorder

Opioid use disorder is of utmost significance for Appalachia. Opioid use becomes a disorder when the consumption of the substance becomes a problematic pattern “leading to clinically significant impairment or distress” (APA, 2013, p.541). Characteristics of the disorder include: taking the opioid in larger amounts, for longer periods of time than intended; a persistent desire and uncontrolled use; structuring time and plans around obtaining the drug; strong cravings; continued use despite persistent problems or harmful side effects socially, physically, and psychologically (APA, 2013).

Risk of the disorder includes genetic predispositions and environmental factors (APA, 2013). The regional abundance of strenuous, physical labor jobs presents higher risk for opioid addiction due to work-related injury (Moody, Satterwhite, & Bickel, 2017). Physically intense jobs and the cultural probability of experiencing complex trauma (ACES) causes the population to be prone to chronic pain (Moody, Satterwhite, & Bickel, 2017; Sansone, Whitecar, and Wiederman, 2009). Recently, major pharmaceutical companies and mal-practicing physicians have been held accountable for the reckless infiltration and prescribing of pain pills (Bateman, Evans, & Johnson, 2017). These circumstances further perpetuate the cultural distrust of outside agencies and health care providers and the need for alternative, community-oriented treatments to drug therapy for SUD treatment (Pollini, 2019; Sheldon, E.M. & Sheldon, K., 2017).

Professionals’ lack of insight for the Appalachian culture may contribute to the resistance of past treatments and programs, proposing a shift toward community oriented, multi-modal approaches (Moody, Satterwhite, & Bickel, 2017). Geography, lack of health care coverage, and “lack of sufficiently trained and accessible health care providers” creates additional barriers (2017, p. 127).

Once leading in production for steel, timber, coal, etc., the region suffered major losses with notable companies shutting down, financially-able populations leaving the region in droves, and those left behind bearing the brunt of an already stunted economy further compromised by the recessions (Moody, Satterwhite, & Bickel, 2017; Pillay, Gibson, Lu, & Fulton, 2018). The unemployment and underemployment rates defined heavy loss and despair (Blustein, Kozan, Kellgrein, 2013). Job loss may result in stress, sense of powerlessness, chronic illness, and a perception of seemingly unwavering barriers if the financial support is unavailable to properly cope and move forward (Blustein, Kozan, Kellgrein, 2013). Social, psychological, biological, and environmental stressors have the potential to attract persons toward substances initially to self-medicate or numb unwanted emotions (Brown, 2009; Margolis & Zweben, 2011;).

“Eventually, the abuse of substances is how these individuals learn to cope with their emotions,” (Dempsey, 2009, p.163). The addicted person looks to external sources to fill an internal void, or perhaps self-medicate “when experiencing unbearable psychological angst or suffering,” (2009, p. 163; Khantzian, 1997).

Treatment & Theory

“Prolonged drug use causes brain changes that affect functions such as brain metabolic activity, receptor availability, and responsiveness to environmental cues. The brain changes persist long after the cessation of drug use. These changes, along with new memory associations, are responsible for the cognitive and emotional characteristics of addictive behavior, especially the compulsion to seek and use drugs,” (Margolis & Zweben, 2011, p.30). Margolis & Zweben (2011) investigated five theories of addiction through disease, learning, family, psychoanalytic, and biopsychosocial models.

Theorists such as Albert Ellis (relational emotive therapy) and Aaron Beck (cognitive behavior therapy) propose irrational thoughts and feelings may lead to SUD: They utilize CBT techniques to aid in the development of self-efficacy (Margolis & Zweben, 2011). Bandura offers a Social Learning Theory with significance placed on modeling and positive/negative reinforcers for behavior. “Individuals learn early in their drug use to detect internal cues and act preconsciously to prevent the onset of aversive symptoms,” (p.37). Psychoanalytic theories vary with attention to ego and object relations theory (Ashbach & Schermer, 1994) with Khantzian’s (1997) suggestion that addiction is a way to self-medicate and cope with unfavorable emotional and environmental stressors (Margolis & Zweben, 2011).

Rose (1995) highlights self-esteem, relationships, emotions, and self-care, as four challenging areas of focus in treatment with addicted individuals. Relevant issues pertaining to this population include: isolation, loneliness, despair, shame, anxiety, powerlessness, violence, co-occurrence of trauma, loss of control, mind/body separation and disconnection to the Self (Rose, 1995; Dempsey, 2009; Milliken, 2008; Murray-Lane, 1995; Lawlor, 1995; Miller, 2002). Beneficial methods and interventions are those which promote resilience toward a path of on-going recovery.

Moody, Satterwhite, and Bickel (2017) propose successful evidence-based, interventions sensitive to the culture will require: “(a) public health dissemination strategies adapted to the region, (b) greater reliance on evidence-based treatment strategies, and (c) the expansion of telehealth in the absence of a more equitable distribution of healthcare providers” (p. 128). The distrust of outsiders and medical professionals warrants public-based interventions geared toward education and community-outreach to regain trust by collaborating with mental health professionals and empowering residents (2017). Conducive approaches to address the

complexity that is SUD, require consideration of developmental, environmental, biological, psychological, social, and spiritual aspects of the addicted individual.

The Community Reinforcement Approach (CRA) is a “psychotherapeutic intervention that uses social recreational, familial and vocational reinforcers to assist clients toward recovery,” and understood to be a successful treatment for cocaine and opioid addiction (Moody, Satterwhite, & Bickel, 2017, p. 130; Smith, Meyers, & Miller, 2001). This model includes training in communication, problem-solving, relapse prevention skills, vocational guidance, and relational counseling (2017).

Miller (2002) utilized an integrated model with male and female adolescents and adult survivors of childhood traumatic abuse. The ATRIUM model is based on cognitive-behavioral and relational theory and “simultaneously addresses the problems of trauma-related addictions and mental health challenges” (2002, p.160). Interventions are designed to “intervene at the three levels impacted by trauma and addiction, the body, mind, and spirit” through the concept of the Triadic Self (encompassing the Victim, Abuser, and Non-protecting bystander) to change addiction-based patterns of behavior (p. 160). This community-based approach uses Trauma Reenactment which can be understood as telling a narrative (2002).

Medical treatment such as drug therapy serve as maintenance while psychological treatment “provides the skills to promote and maintain abstinence” (Moody, Satterwhite, & Bickel, 2017, p. 130). Brown (2009) provided case examples of implementing DMP with the Transtheoretical Model of Change (Prochaskas, DiClemente & Norcross, 1992) in a methadone treatment program. Her study validated past qualitative DMP studies of addiction and DMP’s ability to help clients: “Regain control over their bodies, decrease their sense of shame, decrease

their defenses, embrace their spirituality, become whole, safely experience their emotions, and receive social support,” (p.198).

Trauma & Addiction. Trauma and addiction are co-occurrent. Margolis & Zweben (2011) state “addiction itself is a result of an altered brain state secondary to a chemical *assault* on the brain by extensive drug use,” (p. 34). While an individual may abuse a substance in order to numb unwanted feelings or trauma, the persistent use and dramatic change that the substance creates becomes traumatic, and “alters areas of the brain that control memory, cognition, and primary drive states,” (2011, p. 34). Therefore, addiction should be viewed and treated from a trauma-informed approach as trauma is defined as “an event, series of events, or set of circumstances experienced by an individual as physically or emotionally harmful or life-threatening with lasting adverse effects on the individual’s functioning and mental, physical, social, emotional, or spiritual well-being,” (SAMHSA, 2019). As witnessed in Appalachia, treating pain with opioids has the potential to perpetuate dependency and addiction. Barnstaple and DeSouza (2017) state persons with chronic pain and Fibromyalgia “often have associations with psychological suffering” and many “have experienced traumatic events, blurring the line between physical and psychological causation” (p. 2).

Dance/Movement Psychotherapy: An Integrated Approach

DMP is built upon psychodynamic theories and the premise that one’s overall health is based on a balanced, working relationship between mind, body, and spirit. Shame, isolation, guilt, anxiety, and underlying trauma are common characteristics of persons with addiction which result in challenges with self-esteem, emotions, self-care, and relationships (Brown, 2009; Dempsey, 2009; Rose 1995; Miller, 2002). DMP offers group catharsis “by allowing group members to unite around a common theme without necessarily verbalizing their pain” (Brown,

2009, p.189). This is accomplished with DMP concepts such as kinesthetic empathy, active imagination, and emotional mindfulness while embodying and moving from resistances, polarities, metaphor, and imagery toward relationship and authentic self (Levy, 1988; Brown, 2009; Dempsey, 2009; Rose, 1995).

DMP maintains that “body movement reflects inner emotional states” and “changes in movement behavior can lead to changes in the psyche, thus promoting health and growth,” (Levy, 1988, p.1). Movement serves as language to communicate and so, “fulfills a basic human need,” (Sandel, Chaiklin, and Lohn, 1993, p.77). Movement patterns, gestures, and qualities reveal symbolic expressions of self and experience (1993). By sharing organic embodied expressions, persons learn from one another and develop new perspectives and boundaries (1993). DMP groups with addicted persons has the unique opportunity to align with the *12-Steps* as Brown (2009) states, “The most profound way to contact one’s spirit is to go deeper into the body,” (p.189). As a result, one can discover their “true self” and heal shame, a common feeling among addicts (Johnson, 1990).

DMP groups are usually structured in Chacian style which consists of a warm-up, theme development, and closure: Based on population traits or environment, other structured movement-based approaches may be used to foster awareness and relationship with the embodied self (Brown, 2009). Plevins (1996) offers the use of meditation and/or “being” in silence to initially bring attention to “the perception of sensations” to be re-visited at the sessions end “with the objective of bringing consciousness to the reality of change and transformation in the body through time” (p. 122). Brown (2009) compares the Chacian warm-up to motivational interviewing which “develops trust, respect, empathy, and empowerment,” (Sciacca, 1997, p.46).

Themes from the warm-up are further developed and integrated through embodied methods followed by group closure.

Embodied Awareness. Brown (2009) states, “Whereas addiction leads individuals to experience a loss of control, DMP helps one regain control by reclaiming their bodies (selves) via movement,” (Milliken, 1990; Perlmutter, 1992; Plevin, 1996; Thompson, 1997). Eddy (2017) states, “...bringing awareness to the physical body unpacks solutions for the body, the mind, and the spirit,” (p.248). Awareness allows for the individual to register markers of stress, joy, fear, anger, and the satisfaction of pain and being pain-free (Eddy, 2017). One might examine this battle of addiction by acknowledging opposites or polarities. For example: ingesting a drug may cause negative effects, but the result of fulfilling the craving brings stronger satisfaction, a sensory experience which becomes difficult to achieve through other modes (Margolis & Zweben, 2011).

For those with addiction, focusing on internal sensations may prove to be a challenge as ingesting substances may have begun from a yearning to numb internal feelings. The immediacy of dance/movement promotes awareness of the body in the moment and results in greater insight into one’s feelings (Eddy, 2017). Embodied mindfulness and DMP applications promote dialogue with the parts of the self using movement; allows the parts to be seen, heard, and understood; and, portrays the feelings as less extreme and easier to accept and integrate (Schwartz, 2013).

The embodied, mindful process of DMP allows individuals to gain insight and interact with the immediate perceptions regarding the “shadow” and “light” parts of the Self, a Jungian approach used by dance/movement psychotherapist Mary Whitehouse (Levy, 1988; McCabe, 2015); The IFS model combined with DMP would encourage the client to move toward self-

acceptance and integration by releasing the hold of judgement and inner/outer polarization (Schwartz, 2013; Levy, 1988). In respect to the first step of the *12-Step* model, surrendering to a higher power, Schwartz (2013) offers, “When those parts are willing to relax (give up to a higher power, perhaps?) and let the warm acceptance of self shine on the problematic ones, those parts will admit that they don’t like their protective or polarized roles and want to change, and will reveal the roadmap for that to happen,” (p. 816).

“Through a process of inner focus and dialogue, clients learn that the aspects of themselves they have hated or feared actually have been trying to protect them and are often frozen in time during earlier traumas or attachment injuries,” (Schwartz, 2013, p.805). Like DMP, Schwartz (2013) emphasizes the use of mindfulness not to solely create awareness but to “take the time to listen inside and learn from them” and in doing so, one realizes those parts were acting from a place of protection, albeit in “misguided ways” (p.810). Bronfenbrenner’s EST explains the impact of external factors and systems on how the body and individual moves and relates in space (Ecological Systems Theory, 2018; McGraw-Hill, 2015). EST comprises the micro-, meso-, and macro systems which the individual interacts with and therefore is influenced by (2018).

Movement as Narrative. Through movement, one physically interacts with polarities and unconscious feelings-the unconscious material comes to the surface to be used as tools for self-discovery and developing compassion for the parts that make them whole (Schwartz, 2013). “Together, the unconscious and imagination form a bridge,” to move through possibilities toward cohesion and self-regulation (p.87). Van Der Kolk (2014) states, “what is critical is that the patients themselves learn to tolerate feeling what they feel and knowing what they know” which may take weeks or even years (p.127). The persistent attempt to block unwanted feelings also

blocks the energy which allows for healthy coping, social interaction, etc. (2014). Ultimately, “trauma robs you of the feeling that you are in charge of yourself,” (2014, p. 205).

According to Van Der Kolk, “Trauma is not stored as a narrative with an orderly beginning, middle, and end...flashbacks can contain fragments of the experience, isolated images, sounds, and body sensations that initially have no context other than fear and panic,” (p.137). Restoring the mind/body connection and the ability to recognize and tolerate discomfort encourages self-efficacy which is “a person’s confidence and self-assurance that he or she will be able to deal effectively with a difficult situation,” (Margolis & Zweben, 2011, p. 38). The individual can then use imagery and embodiment to transform past traumas to fit a new, tolerable, evolving narrative (Budgeon, 2003; Margolis & Zweben, 2011; Van Der Kolk, 2014; Eli & Kay, 2014). The body/narrative, the duality of subject/object, is rather an event “continually in the process of becoming-as multiplicities that are never just found but are made and remade,” (Budgeon, 2003, p. 50). The narrative body is the performative body “the embodied ‘I’, the self, the knower, the storyteller” (Loots, 2016, p.379), “an active and productive force” constantly in a state of becoming (Budgeon, 2003, p.50).

Methods

A qualitative, arts-based research design was used to discover the potential use of inter-modal, embodied movement approaches to promote self-expression, increase empathy, and build community among those of the Appalachian culture. The methods were predicted to demonstrate the appropriateness of DMP to serve as appropriate and effective in decreasing stress, anxiety, and tension by promoting healthy social interactions, increasing embodied awareness, and gaining a sense of self. Laban Movement Analysis (LMA), Bartenieff Fundamentals (BF), and Kestenberg Movement Profile (KMP) are all movement observation instruments that can be used

to organize body movement, document movement qualities, patterns, transitions, and relationship to space (Bartenieff & Lewis, 1980). Participants' subjective input and the narrator's embodied internal/external responses were documented in written notes following each workshop. These notes informed me in creating a dance that reflected the movement qualities I observed. No participant's movement was directly recorded.

Three unique, Chacian style workshops incorporated guided movement meditations and tactile exploration to create stability and connection to internal sensations by attuning to somatic experience. In workshop I, somatic-based mindfulness while exploring/shaping/molding clay and other tactile objects promoted grounding to elicit spontaneous, unconscious material to engage in community story-telling. The second workshop investigated movement preferences and self-regulation using the tenets of LMA; and, promoted kinesthetic empathy. Movement, writing, and imagery were used as tools in the third workshop to discover, process, and share embodied stories reflective of self as moving with community. Group themes developed such as what it means to be seen, movement as language and metaphor, and broadening perspectives as a result of expanding movement repertoire.

As researcher, I organized participants' feedback into specific categories representing concepts of DMP: Community, Resistances, Commonalities, Polarity, Self-Awareness, Balance, Stopping/Starting, Boundaries, Kinesthetic Empathy, Active Imagination, Playfulness, Metaphor, Expanding perspectives. With my personal Surface tablet, I video recorded my improvised movement sequence elicited from meditating on and embodying participants' movement qualities, feedback, and workshop themes. First, I watched and studied my improvised movement sequence while simultaneously writing my initial response in words, seen in Figure 9 on p. 40. Immediately after I watched my improvised movement sequence a second

time with undivided attention, I completed a written reflection (Figure 10, p. 41) incorporating my felt-body experience as witness and the spontaneous words/phrases discovered from my first viewing.

Then, I extracted still images from the video recording of my movement I felt embodied the DMP concepts mentioned in the above paragraph. I engaged in a drawing-meditation while studying and sketching from my selected images: I freely sketched and meditated on my collective capstone endeavor up to that moment. Following my free-sketch/meditation, I wrote a reflection based on my drawing-meditation and my capstone-thesis journey, in its entirety, which can be seen in Figure 11 on p. 41. Skimming my written reflection, I randomly underlined written phrases that caught my attention and aligned them with the images in sequential order. My written phrases decorate the captions of the images representing my movement-based research on pp. 36-39.

Participants

Social media platforms, Facebook and Instagram, and word of mouth were used to recruit participants of Appalachian culture to attend workshops for me to examine the potential receptivity and effectiveness of DMP methods. White and mixed/race (non-Hispanic) male and female adults of the working/lower and middle class, ranging in ages from 26-59, attended one or more of the three DMP workshops. Participants identified as spiritual, and/or, predominantly, with the Catholic and Baptist denominations of Christianity. However, regardless of their past/present religious practice and/or upbringing, some specifically emphasized their “strong faith in God”. Workshop I (WI) had 8 participants; Workshop II (WII) had 5; and, Workshop III (WIII) had 6.

WI: Somatic Experience and Stability

Goals. Promote grounding, self-awareness, and mind/body connection through mindfulness, movement, and sensory exploration.

Procedure. Body attitude, movement, and internal responses were observed while participants interacted with modeling clay as a transitional object to promote grounding and somatic awareness during the guided movement meditation. Participants voiced appreciation for incorporating the clay as it helped them to remain focused and stay in the meditation. Visible changes in held body tension, posture, and breath were documented. Objects with varying textural/sensory qualities (i.e. bright, hard, goopy, spongy, feathery, smelly, etc.) encouraged embodied, sensory exploration and active imagination while conjuring related memories and associations members shared with the group. Following discussion, participants formed triads with the directive to combine their chosen items to create a story; I provided small, paper, paint samples (found at home improvement stores) to incorporate the name of the color into their story. Each triad chose to share their stories with the group before closing with reflections. One participant verbally recognized how each story held symbolism, serving as authentic and a metaphor for circumstances, events, and emotions relevant, presently affecting their lives.

WII: Movement Preferences and Kinesthetic Empathy

Goals. Increase empathy and awareness of the body in space while moving in relationship to others.

Procedure. The experience began with the group convening in a circle offering small movements for the group to try on and attuning to the body before engaging in a walking meditation. I guided movers using LMA efforts, encouraging them to attune to space, bodily sensations, and movement preferences. Initially, the movers walked about the space with indirect intention, joking and laughing with one another. Noticeable shifts in body attitudes and

focused attention were observed when participants were encouraged to become aware of their peers in the space; explore qualities, patterns, initiation of movement that were different from their own; and eventually try on their peers' movement qualities by mirroring in dyads.

Each person, including myself, had the opportunity to mirror with one another before ending group with sharing and reflections. Feedback indicated overall increased awareness of self and other. The intimacy and potentially intimidating action of mirroring was discussed as participants processed the experience, emphasizing the ability to see others on a new, deeper level and learning about oneself and peers, simultaneously. The KMP concept of starting/stopping remained a theme with the researcher guiding investigative movement to notice the body in moments of stillness, or pausing, before initiating the next step. One participant used movement and metaphor to embody a recent stressing transition in life and a feeling of going back and forth; After embodying and moving the stressor, released tension was observed indicated by a sustained exhale, relaxed facial features and shoulders, and verbal expressions.

WIII: Embodied Story-Telling

Goals. Promote embodied listening, kinesthetic empathy, and social engagement.

Procedures. *The Secret Color of Language Cards* (Segal, 2011) depicting vibrant colors, imagery, and affirmations/messages were displayed in a circle for which participants were encouraged to walk around and notice the card which stood out most to them or they connected to in some way. They were encouraged to share their name with the group and how they resonated with the card they chose. With the qualities of their card in mind, they participated in a walking meditation while shaping clay in their hands, explored movement qualities creating three separate poses or postures, created images to reflect their experience, and paired with a peer to share and combine each other's stories. The group ended with opportunity to share,

discuss, try on movements, and provided written feedback of how they felt at the close of the group.

Movers shared their process and discoveries elicited from the experientials. Resistances and polarities within the self were themes, in addition to mutual empathy. By working together with their joint stories, one dyad demonstrated their combined movement sequence as a way of supporting and moving through their emotions, and allowed the group to mirror them. Others shared their embodied stories, pointing out the unique ability to use movement to create a cohesive story while respecting both similarities and differences; movement offered a bridge to relating with another's story.

Arts-Based-Inquiry

Body movement observation/analysis and documented feedback from the workshops aided my inquiry of the use of DMP with persons of cultural Appalachia. Figures 1-8 on pp. 36-39 reflect perceptions of the participants' progressions. Embodying participants' non-verbal presentations and the DMP concepts derived from their feedback (Community, Resistances, Commonalities, Polarity, Self-Awareness, Balance, Stopping/Starting, Boundaries, Kinesthetic Empathy, Active Imagination, Playfulness, Metaphor, Expanding perspectives), I improvised a movement sequence was created and video recorded. My movement observations and internal-felt responses while reviewing the recording were notated in a designated journal.

Body/Movement Observations. My movement qualities mirrored participants' dominant body attitudes and efforts beginning at near reach as held in vertical space, with light weight and sustained time using shape/flow. The sequence was defined by short, sudden moments of strong advancing movements, arcing and spoking, before retreating to body-center. Repeated

movements included shifting weight back and forth while rocking and/or spreading in sagittal space; and, circular motions of spiraling or spinning around the room using indirect spatial effort.

Spontaneous words and phrases elicited while witnessing my own movement, shown in Figure 9 (p. 40) included: caution, sustainment, body-center, connections, letting go/releasing, but still coming back to center, stepping out, taking in, being held, back and forth, pushing, pulling, returning, pausing, blanketing, balance, giving in, trying something new, returning to preferences, integrating, incorporating, to grow, to bloom anew.

After viewing the sequence, a final time with undivided attention, I created another piece of writing shown in Figure 10 (p. 41) using the spontaneous words from before. The reflection reads:

“Caution, sustainment, body center and inward connections. Letting go and releasing-the ability to come back to centering connections is there. Stepping out, taking in, being held breaking out-Pushing and pulling-returning to center. Pausing. Power in the pause. Breaking out in balance giving in-blanketing, holding preferences. Trying something new and returning to preferences while integrating, incorporating, balancing to grow, to bloom anew. From resistance, awareness of resistance of mind and body, grows connections to centering to the heart-the breath-which reaches out with sustained energy to continue moving. Breathing. Through stillness and reaching, spinning, spiraling, and returning to centering. To knowing. To accepting. To growing. Within and beyond. Of self and environment. Changing. Becoming. Knowing,” (Aitken, March 19, 2019).

Integrating Findings. During the capstone writing process, still images were chosen from my video which symbolized the DMP concepts moved in the sequence, maintaining the order for which they occurred. The images inspired visual art and a free-write, represented in Figure 11

on p. 41, for further studying and understanding. Connections between the finished writing and the still images surfaced, linking observations, internal sensations, and participants' feedback. This finding led me to scan the writing piece, underlining words/phrases that stood out most. The underlined words/phrases were then matched with the still images according to original sequence and can be found in Figures 1-8 on pp. 36-39. I was intrigued as the written phrases, now captioning the images, painted an authentic picture of the process introducing DMP to Appalachian residents.

Discoveries

Feedback, discussion, and responses indicated the positive impact of convening in a social atmosphere to relate with one another to relieve stress through playful, creative means and the lack of such opportunities in the region. For participants who attended more than one workshop, their ability to recognize and name feelings/sensations noticeably increased, as did the ability to use movement and verbal language to navigate and respond to the felt-body experience, making meaning for oneself. This discovery surfaced in my expressive movement reflections as my movement began as small, contained, and sustained; I felt cautious, as though each small movement and sensation allowed me to expand, anticipating a new feeling, pausing, reflecting, then branching out once more-pushing the limits.

Each mindful movement I made became new body-knowledge to build upon to derive meaning, therefore, continuing to move with intention. Participants voiced curiosity of peers' ways of moving, acknowledging the desire to embody their movement qualities: Learning from one another and embodying peers' movements presented a dynamic effect, relating with and broadening perspective before returning to original presentations-a gained insight of others resulted in gained insight of self (Pallaro, 1996; Dockery, 2014). Participants' movements

appeared to become more intentional, direct, and elicited meaning they shared with the group. This suggested increased awareness, confidence, and self-efficacy.

By manifesting emotions through movement, the qualities, postures, and gestures became self-projections or objects to interact with. For example, the participant in WII explored polarizing emotions of a specific experience; feelings of frustration, of moving forward and having to take steps backward in a transitional life experience. The polarizing emotions were physically embodied and verbally processed appearing to result in a sense of control, acceptance, and integration of the evident felt experience (Pallaro, 1996). The process demonstrated object relations theory, Bronfenbrenner's EST (Ecological Systems Theory, 2018; McGraw-Hill, 2015), and IFS (Anderson, et. al. 2017) models' ability to promote embodied reintegration of emotions and events through story-telling (Denborough, 2014).

The arts-based-inquiry movement, pictured in Figure 1 (p. 36), revealed the significance of establishing grounded awareness and interaction with the internal sensing self in order to activate and approach curiosity with the external world during the workshops. Figures 2 (p.36), 3, and 4 (p. 37), referenced the movers' embodied listening to their parts which make them whole and serve specific roles. The posture in Figure 5 (p. 38) demonstrated the complexity of defenses. As the image depicted bound strength held in the chest with the body moving, reaching in sagittal space, I realized the role one's defenses and resistances have in providing safety and protecting the self, yet the needed balance and creativity to remove barriers to evolve. Movement during WIII allowed a dyad to project emotions through gestures and postures demonstrating the mindful process of reframing to make unwanted, uncomfortable feelings tolerable. Their moving together, and the rest of the group following suit, provoked an internal

sensation in myself of being lifted as I witnessed softening brows, unclenched jaws, and bodies meshing inward resting against the spine.

Figures 6 (p. 38) 7, and 8 (p. 39) capture my reflections of the group's progression and participants awakening their kinesthetic sense (Levine, 2010), as described in the last paragraph. The moment I sensed an overwhelming lightness as if being lifted and observed a shifting in each person's embodied presence, I understood the "difference between *willing* a movement and *being* the movement" (Levine, 2010, p.285). That moment and the following closing discussions captured the grand power of embodied relational movement to promote emotional intelligence, empathy, growth, stability, and self-knowing.

Discussion

Arts-based-inquiry allowed me to consider objectively and subjectively the participants' experience, providing insight for steps moving forward to bring DMP to the Appalachian region. Each workshop appeared to be well-received, indicated by participants' overall response. The experience brought to light the unique possibilities for DMP to reduce stress, isolation, physical/psychological discomfort; and, promote self-awareness, empathy, healthy coping mechanisms, social interaction, and creativity- all constructs beneficial for treatment of SUD.

Utilizing a culturally-informed approach highlighted the opportunity for DMP to reach the population on an accessible, authentic level. Incorporating clay as a transitional object to access the mind/body connection offered a cultural, easily attainable medium to establish grounding, safety, and attunement. The high prevalence of complex trauma, SUD, and cultural factors suggest community-based, body-oriented psychotherapy to address the various systems and barriers at play. DMP ultimately uses the body and organic movement as a vehicle for change, providing an economical option for psychotherapy. With the understanding that our

experiences are held in our body-brain, and movement qualities and patterns represent the self, embodied therapeutic interventions offer immediate catharsis, reflection, and adaptation.

The experimental movement process of making meaning for oneself hearkens self-regulation and adaptive or maladaptive behaviors we adopt when reacting to internal/external stimuli.

Object relations theory (Pallaro, 1996), EST (Ecological Systems Theory, 2018), and IFS (Anderson et. al., 2017; Schwartz, 2013) acknowledge relational awareness of behaviors or parts inside and outside of the body. These behaviors become patterns, however, if one remains mindful and objective, maintenance of body/mind connection and the autonomy to cognitively pause, reflect, and then choose how to respond becomes accessible. By manifesting emotions through movement, the qualities, postures, and gestures became self-projections or objects to interact with. For example, the participant explored polarizing emotions of a specific nature; feelings of frustration related to moving forward and having to take steps backward in a transitional life experience. The polarizing emotions were physically embodied and verbally processed, appearing to result in a sense of control, acceptance, and integration of the evident felt experience (Pallaro, 1996). By moving through one's stories and emotions, one has the chance to communicate with the parts of themselves and re-integrate negative memories and symbolism to establish self-efficacy through relational awareness and broadened perceptions.

Social components of DMP present applications to gain insight into various identities, roles, and relational tendencies learned through shared experiences and kinesthetic empathy. For the addicted population, interacting within DMP's therapeutic social framework would create space to develop interpersonal and communication skills. Medical centers attend to the withdrawal symptoms of infants born with neonatal abstinence syndrome (NAS) by providing low-sensory environments and symptom regulation through volunteers' therapeutic contact by

holding the baby (MacMullen, Dulsk, & Blobaum, 2014; CAMC Health System, 2017). The relational quality and developmental foundation of DMP would benefit both the guardian and the infant. DMP theories and applications would simultaneously offer psychoeducation and address the physical/mental health of the infant and guardian by modeling body-based methods for the guardian to: attend to the infant's physiological symptoms, address biopsychosocial health stressors, develop healthy attachment and attunement.

Conclusion

DMP based community efforts could help re-integrate and re-socialize addicted persons with their respective non-addicted counter-parts. Community (including police officers, emergency response teams, medical personnel, politicians, etc.), peers, and family members may rise above the stigma and remove the often-held label of "otherness" by moving mindfully together, connecting to universal human emotions and experience. Observed development of new relationships and the deepening of old ties during workshop experientials supports DMP as a tool to address implicit/explicit prejudices toward the vulnerable population.

Moving in community is a natural, evolutionary, biologically supported way to communicate with self and other. Research has shown that the brain regions responsible for emotional processing and response to internal external stimuli are both impacted by trauma and persistent drug use. The research in the literature review of this study presented evidence that the practice of DMP has the potential to heal trauma by re-wiring brain circuitry through creative, sensory-oriented and embodied interventions (Levine, 2010; Buckley, Punkanen, & Ogden, 2018). Mindful, creative movement's relationship to neuroplasticity has also shown the potential for DMP to address physical and emotional pain (Barstaple & DeSouza, 2017; Murillo-García, Villafaina, Adsuar, Gusi, & Collado-Mateo, 2018; Payne, 2009).

DMP applications are grounded in mindful, embodied awareness to dialogue with the self and experiences as manifested in the body. Every experience becomes part of one's story, molding and shaping one's being. Research suggests that traumatic experiences are held in the body, in turn affecting neurological and psychological functioning, interrupting the mind/body connection. Re-visiting the chapters of personal narrative through embodied movement with an expanded movement vocabulary provides individuals the autonomy to identify emotional experiences, leading to greater tolerance and understanding. Providing an integrative perspective for the treatment of trauma and addiction, utilizing theoretical applications focusing on the individual as well as the individual within community, enables providers to address the various presenting symptoms.

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Figures



Figure 1. "Sensing, relating inward-enveloping, holding the self," (Aitken, 2019).



Figure 2. "So curious, I enter one step at a time, activating my spirit, my essence," (Aitken, 2019).



Figure 3. “Body says listen to the stories I have to share of experience, emotion, of life, and the journey,” (Aitken, 2019).



Figure 4. “New knowledge presents itself, for holding, for understanding to recognize the power,” (Aitken, 2019).



Figure 5. “Our defenses, they protect us, to resist is to protect, but to create is to explore,”
(Aitken, 2019).



Figure 6. “To lift self and other, to mirror and move as one, to see in a new way, to embody our
neighbor-and their journey opens. Empathy and self-reflection,” (Aitken, 2019).



Figure 7. “To move with our stories and another’s, filling in the blanks, piecing together the puzzle,” (Aitken, 2019).



Figure 8. “Seeing spontaneous truth. The truth revealed which moves us to grow, to expand, offer perspective and opportunity. To embody both old and new. Grounding, resiliency, belief in

self to mold, to shape one's reality. To move and be moved. To see flaws and know beauty, to know beauty in our flaws. Body is brain, brain is body," (Aitken, 2019).

caution
sustainment
body center, inward
letting go, releasing
but still coming back to
center
stepping out, taking in
back and forth
pushing pulling
turning pausing
balance giving in
blanket holding
returning to
integrating preferences
to grow
to bloom
new

Figure 9. Witness Response 1 (Aitken, 2019)

THESIS APPROVAL FORM

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Graduate School of Arts & Social Sciences
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Student's Name: Taylor E. Aitken

Type of Project: Thesis

Title: Method Development: Dance/Movement Psychotherapy to Address Substance Use Disorder in Cultural Appalachia

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

Thesis Advisor: Meg Chang Ed. D. BC-DMT