Spring 5-8-2020

Dance/Movement-Dialectical Behavior Therapy: Combining Modalities in the Treatment of Substance Use: A Literature Review

Elizabeth Shillington
Lesley University, eshillin@lesley.edu

Dance/Movement-Dialectical Behavior Therapy

Combining Modalities in the Treatment of Substance Use: A Literature Review

Capstone Thesis

Lesley University

May 8, 2020

Elizabeth Shillington

Dance/Movement Therapy

Meg Holland Chang

Abstract

With the number of drug overdoses ever increasing, it has become more apparent that other forms of therapy need to explored in the treatment of substance use. By taking the unique needs of substance use recovery into consideration, the country will be better able to help those seeking treatment. The combined use of dance/movement therapy and dialectical behavior therapy were considered in this literature review, as both have been effective in substance use recovery but have not been used together. Through a discussion of the effectiveness of dialectical behavior therapy and an analysis of dance/movement therapy literature, it has been found that dance/movement therapists have already included dialectical behavior therapy skills in their work, despite not labelling it as such. A number of recurring themes regarding ways to make dance/movement therapy more effective and challenges of working with substance use were also considered. From this analysis, it is believed that combining dance/movement therapy and dialectical behavior therapy is possible and may even be effective when working in substance use recovery.

Keywords: Dance/movement therapy, dialectical behavior therapy, substance use, skills training, mindfulness, emotion regulation, interpersonal effectiveness, distress tolerance

Introduction

"What's it like to feel your feelings? What's it like to feel your body?"

These are the questions I have found myself asking clients. One of the first lessons I learned while at my internship was the challenge clients have with identifying the feelings they are experiencing, and identifying how they feel in their bodies is even harder. When considering the population I am with, this makes sense. For the past year, I have been working with women in a residential substance use recovery program: Women who have not been able to truly experience their emotions or their bodies for years. With this being a population I did not plan on working with, I found myself researching different modalities used with substance use, other than dance/movement therapy (DMT). I stumbled across dialectical behavior therapy (DBT), and with some discussion with my off-site DMT supervisor, I was immediately hooked. I became interested in how DMT and DBT could be used in tandem.

From there, I found myself at the crossroads of substance use, DMT, and DBT. Unexpected but exciting, I realized I was at the starting point to a long journey. Because of my interest in research, I could not wait to see what I could possibly find for this very small, very specific niche. I knew there had to be something out there. I wanted to try something new, as I had never heard of different therapeutic modalities being used together before. From my initial understanding of DBT, I knew it emphasized skills the women at my internship wanted and needed to focus on during their recovery. Because DMT can take so many forms, I had a feeling these skills could be embodied and explored through DMT.

From this endeavor, my goal was that when other clinicians researched the use of DBT and other therapies with substance use, this thesis could help them discover new ways to work with this population. Those clinicians might become interested in doing more research about

DMT, and possibly contact or even work with dance/movement therapists in the future. This would hopefully lead to increased opportunities for dance/movement therapists to find jobs and make a name for themselves in settings they might not have been able to do so in previously.

My interest in this topic also came from the desire to help make DMT more approachable to those who are unfamiliar with the field. The clinicians at my site had never heard of DMT, so I had first-hand experience working with those who were unfamiliar with it. DMT can appear daunting and confusing to those who are not as aware of the importance of embodiment and ability to process emotions through movement. By exploring how DMT can be paired with a more well-known modality, it may appear more accessible to others in the mental health field. Even though DMT is a growing field, it is still relatively small, and as dance/movement therapists we need to actively advocate for it wherever we go, and one way to do so is helping to bridge DMT with other therapeutic modalities.

However, there was something I had learned that stuck with me since the beginning of this internship, and it was how disembodied this population can be. As dance/movement therapists, we need to be aware that our ability to express ourselves through movement can be a privilege that not everyone has had the chance to explore, so we must be mindful when working with people who are not used to being embodied. This can be hard to do so, especially with our personal movement histories, whether they be dance, yoga, or any other movement technique. Because of this, I wanted to find a way to make DMT less threatening and more approachable for this challenging population.

Literature Review

Substance Use

In 2017, there were 2,168 deaths caused by an opioid overdose in Massachusetts (Centers for Disease Control and Prevention, 2019). This puts the state within the top 10 of overdoses in the nation. To further emphasize these troubling overdose statistics, there were 70,237 deaths due to drug overdoses in the United States in 2017 (Hedegaard et al., 2018). From 1999 to 2017, the "rate of drug overdose deaths increased from 6.1 per 100,000 standard population" to 21.7 (p. 1). This highlights the need to find better preventative measures to stop overdoses and the addiction that precedes them. It also shows the need to further develop current treatment options and to continue exploring new options.

When considering a substance use disorder (SUD), it is necessary to recognize that the essential feature of the disorder is the presence of physiological, behavioral, and cognitive symptoms, according to the *Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition* (*DSM-5*, 2013). This includes 10 different families of drugs: alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives (including hypnotics and anxiolytics), stimulants (including amphetamine-type substances, cocaine, and other stimulants), tobacco, and other or unknown substances (American Psychiatric Association, 2013). For the purposes of this thesis, caffeine and tobacco are not included in the discussion of substance use and addiction due to their legal status and lack of inclusion in recovery programs. While there are a number of SUDs, the *DSM*-5 (2013) listed some important common features in all of them:

1. A person is using a substance in larger amounts over a longer period of time that initially intended.

2. A person has numerous unsuccessful attempts at decreasing or discontinuing usage despite a desire to cut down.
3. A person spends a great deal of their time obtaining, using, or recovering from the substance.
4. A person craves the substance.
5. A person is unable to meet expectations at home, work, or school.
6. A person continues using the substance despite recurring interpersonal problems caused or worsened by it.
7. A person gives up recreational, social, or occupational activities that were once important because of the substance.
8. A person continues to use the substance in risky and hazardous situations.
9. A person continues to use the substance despite awareness of the negative impact on any psychological or physical problems.
10. A person requires a larger dose to achieve the same effect due to tolerance.
11. A person experiences withdrawal when tissue or blood concentration of a substance declines.

In essence, an SUD is when a person's relationship to a substance comes before anyone and anything else in their lives. However, all of this can be hard to understand, so it may be helpful to review the diagnostic criteria for alcohol use disorder (AUD), the first SUD within "Substance-Related and Addictive Disorders" in the *DSM-5*. These are located in Appendix A. The requirements for this diagnosis go into great detail as to just how much a substance affects a person's life: It becomes the person's life.

Dual Diagnosis and Comorbidity

Dual diagnosis, also called co-occurring disorders, is "a term for when someone experiences a mental illness and a substance use simultaneously" (National Alliance on Mental Illness [NAMI], 2020, para. 1). It does not matter which disorder developed first, as one may lead to another as a result or as a coping mechanism. According to NAMI (2020), nearly 20% of US adults diagnosed with a mental illness have also encountered an SUD. Approximately "3.7% of US adults experienced a co-occurring substance use disorder and mental illness in 2018" (para. 3), which equates to 9.2 million people (2020). Symptoms of dual diagnosis can vary greatly due to the number of disorders that can occur, but typical symptoms include those of SUDs, acute mood changes, avoiding friends, and thoughts of suicide.

Some of the most commonly occurring mental illnesses with all SUDs are anxiety disorders, depressive disorders, bipolar disorders, and post-traumatic stress disorder (PTSD, *DSM-5*, 2013). Some less common diagnoses are attention-deficit/hyperactivity disorder (ADHD), conduct disorder, and schizophrenia. In addition, there are a number of common personality disorders: antisocial, obsessive-compulsive, paranoid (*DSM-5*, 2013). The *DSM-5* (2013) emphasized that part of the link between depression and AUD may be temporary alcohol-induced "acute effects of intoxication or withdrawal" (p. 497). This should be kept in mind when working with someone with an SUD early in their recovery. Suicidal ideation and suicide attempts are something to be aware of with any SUD, but they are particularly common among inhalant use disorder (2013).

Dance/Movement Therapy

Dance/movement therapy (DMT) is "the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual" (American Dance Therapy Association [ADTA], n.d., General Questions section, para. 1). Pioneered by Marian Chace (1896-1970) in the 1940s and 1950s, it is the result of her work in St. Elizabeth's Hospital in 1942 volunteering with servicemen shortly after the beginning of World War II (Sandel et al., 1993). Titled the Grande Dame of DMT, Chace used "dance as a means of direct communication, expression and interaction with those whom others could not reach" (Levy, 2005, p. 21). Through her unique abilities, Chace laid the foundation for DMT. Chace's contemporaries, Blanche Evan, Trudi Schoop, Liljan Espenak, Mary Whitehouse, and Alma Hawkins, all worked to find their own form of DMT and helped with the formation of DMT as a field. Since the ADTA's foundation in 1966, DMT has gone global, with dance/movement therapists in all 50 states, US territories, and 39 countries (ADTA, n.d.).

Dance/Movement Therapy and Substance Use

While the literature regarding the use of DMT with substance use has grown over the past decade, it is still relatively small when compared to its use with other populations. There are very few dance/movement therapists who are known for their work with those diagnosed with an SUD. However, one of those few dance/movement therapists is Emma Barton, who is also a yoga therapist. Barton has written an article for the *American Journal of Dance Therapy*, presented for the ADTA, and written for several blogs regarding substance use and DMT.

In her article exploring the combined use of DMT and yoga therapy, Barton (2011) discussed a program used for the study called *Movement and Mindfulness: Skills of Stress*

Reduction and Relaxation, which had the goals to "increase skills of (1) stress management, (2) coping, (3) relaxation, and (4) communication among the participants" (p. 158). Due to the nature of severe mental illness and SUDs, "the program emphasized basic yoga activities over more expressive processes in order to build comfort and safety with movement" (p. 164), as it can be challenging for people diagnosed with SUDs to be embodied. Through client self-report and comments from clinical staff members, Barton (2011) found improved stress management, improved relaxation and decreased anxiety, improved understanding of self and others, and improved awareness of thoughts and feelings, as "the combined use of yoga and dance/movement therapy techniques support the process of connecting internally to the experience of the self and consequently improved the ability to effectively express oneself with the surrounding world" (p. 178). This showed that DMT and other movement modalities can improve the social and emotional well-being of people diagnosed with SUDs, as well as the potential for continued research.

Following on a similar note, Barton's ADTA (2014) presentation on DMT and substance use emphasized the use of mindfulness, defined as "the process of wondering and being curious about each moment as it unfolds." She explained how interpersonal stress can be a big trigger, which leads to emotional reactivity, highlighting the fact that poor emotional regulation is a major part of addiction (ADTA, 2014). The way to decrease this reactivity is through the use of mindfulness practices; the more mindful a person is, the less emotional they become. It is through this introspection and self-awareness that one can become fully aware of their emotional experiences and become embodied (ADTA, 2014). Mindfulness also works to improve the understanding of interconnectedness while maintaining individuality. Barton has also written guest blogs for and has been interviewed by a number of substance use recovery websites that

have discussed the use of DMT and the importance of mindfulness (Barton, n.d.; Barton, 2016; Gordon, n.d.; Steinberg, 2015).

Jessica Young, another DMT who works with substance use, discussed the use of DMT with substance use in a video also published by the ADTA (2018). Young stated, "for those who struggle with addiction, it can be scary to be asked to dance, move, and connect to their bodies, as they are more accustomed to coping with their feelings by numbing them with alcohol and drugs" and "especially vulnerable to be asked to move in relationship to another because of the shame connected to substance use" (ADTA, 2018). Despite all this, people still actively participate in her DMT groups. When people feel validated, Young explained, they are more likely to develop trust, engage in relationships, and risk change (ADTA, 2018). This is necessary when considering the difficulty those struggling with substance use experience with creating healthy relationships. Finally, Young emphasized the difficulty of expressing emotions after using substances to numb them and explained how movement can provide relief (ADTA, 2018).

Thomson (1997) highlighted the need to work on both the mental illness and the substance use in dually-diagnosed clients. Historically, the two have been treated separately, with little regard as to how they are connected. Thomson (1997) also outlined clear DMT objectives to focus on recovery:

> 1) to facilitate identification and spontaneous expression of feelings for increased self awareness [*sic*]; 2) to develop tolerance for and transforming of stressful feeling states; 3) to provide an experience of group support for facilitation of trust in others, thereby decreasing isolation; and 4) to explore more adaptive ways of meeting emotional needs. (p. 73)

Through these goals and the sense of community and trust created in the group environment, Thomson (2007) reiterated how DMT can support the newfound ability to be expressive. Pam Fisher (2017) explored how three DMT groups she had when working with substance use were unique, noting how different yet connected emotions were brought up. Because of this, DMT provided the space to learn how to manage one's emotions. However, Fisher (2017) noted how each group's ability to build trust was crucial in creating a safe environment. DMT, Fisher (2017) stated, is a flexible, creative process that can make "a valuable contribution to the recovery process of people who have had long and arduous life journeys, fraught with the ongoing effects of trauma on body, mind and spirit" (p. 235).

DMT has also been paired with different mindfulness practices. Dempsey (2009) discussed the use of guided imagery with DMT as an intervention to reduce anxiety among adult substance users. After completing an anxiety scale to score their anxiety levels, one group participated in the guided imagery and DMT intervention, the second did only DMT, and the third (the control group) chose to participate in neither (2009). The study found that "the anxiety level of each group that received a clinical intervention significantly decreased on all scales" (p. 168). Other benefits included the ability to understand oneself, accept other, and take ownership of one's feelings (2009). From these findings, one can clearly see that DMT impacted the decrease in anxiety in these participants, a common concern among women in substance use recovery.

A master's thesis used a similar technique, guided meditation, with DMT. Sanchez (2012) used guided meditation as a mode to increase awareness of thoughts and sensations in a less anxiety-provoking and nonjudgmental fashion. Using the participants' words as data, Sanchez (2012) categorized the participants' experiences into four specific modes of awareness:

thinking, feeling, sensorimotor, and imagery. From this data analysis, Sanchez (2012) found five major themes:

> A significant portion of the participants experienced a reduction in anxiety producing and/or racing thoughts, development of coping skills for stress management through inner resourcing, the presence of alexithymia, an increase in sensorimotor awareness, and similarities in experience based on their drug of choice. (p. 62)

From this study, Sanchez (2012) found that guided meditation can be a useful way to ease clients into the embodied experience.

Other dance/movement therapists have explored integrating DMT into the world of substance use and recovery. In Bonnie Fisher's (1990) article, working within an inpatient hospital program for substance abuse, particularly how to incorporate DMT into the First Step of Alcoholics Anonymous, was discussed. Fisher (1990) worked to understand the two parts of the First Step—admitting powerlessness and unmanageability—through body awareness, such as "by exaggerating the expression of the bodily attitude, discovering the sensations of that same bodily attitude, and exploring and interpreting the emergent feelings" (p. 328-329). Emphasizing the newfound body and mind connection DMT brings, Fisher (1990) stated "self-acceptance, receptivity, honesty, and spontaneity as expressed through nonverbal pathways support the patient through early recovery" (p. 330). Brown (2009) detailed using Motivational Interviewing (MI) because, just like DMT, it highlighted the importance of meeting the client where they are at. In addition to this, the Transtheoretical Model, or "The Stages of Change," was considered in that Brown (2009) discussed how clients embodied various stages in their recovery. Brown (2009) summarized the use of DMT as an "effective means of experientially implementing

process of change activities to help dually diagnosed methadone treatment program clients increase their motivation to stop using drugs" (pp. 198-199).

DMT has also been brought into a jail addictions program. Milliken (2008) shared that DMT, as a body and mind-based modality, "enables group members to ground and organize themselves so that they can confront issues of recovery without dissociating" (p. 10). Millken also emphasized the need to address shame, as it both fuels and is fueled by addiction, which then can lead to violence and incarceration (2008). Shame was originally addressed through the exploration of opposite feelings and interpersonal connection to create safety (2008). Group work is essential when it comes to working with shame, as it is connected to isolation and fuels the addiction. Milliken (2008) asserted that DMT may help reduce recidivism rates because "integrating movement experiences [opened] the way for more direct exploration of core shame issues" (p. 20) and highlighted the need for longitudinal studies. This was a continuation of Milliken's (1990) first article, which discussed the challenges of working with this population, particularly the use of defenses, the expressed rage, and the fear of closeness. Short-term goals were also explored:

> (a) identifying and tolerating feelings, (b) beginning to trust in oneself and the group, (c) beginning to identify the losses, and (d) exploring more adaptive ways of responding to and coping with the problems and behaviors that result from the illness. (Milliken, 1990, p. 312)

Through an acknowledgement of challenges, Milliken (1990) restated just how rewarding using DMT to work with substance use can be.

Kirane's (2018) editorial emphasized the increased need for DMT as a response to the opioid epidemic. Dance/movement therapists, through their understanding of the body and

movement metaphors, "possess a unique opportunity to identify substance use issues and mobilize an effective treatment response during a critical window of time" (p. 13). Through the use of case studies, Murray-Lane (1995) and Rose (1995) discussed movement metaphor and changes in clients' movement vocabularies when working with substance use, which can include an increased range of expression through the body. Additionally, a number of theses and dissertations have explored the use of DMT with substance use. These include population-specific studies (Aitken, 2019; DiBacco, 2010; Doyle, 2004; Fairfax, 2003; Ferris, 2008; Scott-Haines, 2008; Smith, 2000); the combination of DMT with other interventions, (Daly, 2002; Cavey, 2019); and an analysis of how dance/movement therapists work with substance use (Tillotson, 2007). This shows that just as there has been an increase in published research regarding the use of DMT with substance use, there has been an increased interest in this topic in the academic setting as well.

Dance/Movement Therapy in Residential Substance Use Recovery Programs

When doing a brief Internet search about DMT and substance use, a number of residential substance use recovery programs that listed DMT as a modality for treatment were found. Some of these programs have a dance/movement therapist on site to provide DMT sessions for individuals and groups. One program for substance use, eating disorders, and other co-occurring disorders, emphasized their holistic approach to treatment by stating that DMT helps "residents express a nonverbal language that offers information about what is going on in their bodies" (Timberline Knolls Residential Treatment Center, 2020, DMT at Timberline Knolls section, para. 4). It also works with "the processing of trauma, body image, and/or self-expression" (para. 7) and utilizes body-mind relaxation techniques (2020).

A second program, which did not state anything about having a dance/movement therapist on staff, shared a brief article discussing DMT that stated, “Because dance therapy does not require verbal interaction, it has the unique ability to break down the communication barriers that may cause other forms of treatment to fail” (Asana Recovery, 2018, para. 2). It also mentioned the positive mood that comes from physical movement and how it can make DMT more effective than other treatment modalities (2018). Another program that does not have an on-site dance/movement therapist stated that DMT can increase awareness of body image, behavior, and self-esteem and help with mood management, stress reduction, and disease prevention (Passages Malibu, 2020). “Adding this skill to the toolbox of healthy coping strategies is particularly useful with clients who struggle with substance use and addiction” (para. 5).

DMT is one of many creative arts therapies used at a different program, and it is described as “physical, rather than verbal, expression of emotions and thoughts” (Searidge Foundation, 2016, What is Dance Movement Therapy section, para. 1). The website stated that DMT can help work on the underlying trauma of the addiction, and “by incorporating dance and movement into the traditional treatment process, individuals are able to develop their self-awareness, achieve a greater sense of calm, and build their self-confidence, thereby increasing the likelihood of successful recovery” (2016, Benefits of Dance Movement Therapy for Addiction Treatment section, para. 3). Listed as a recreational therapy on another program’s website, DMT was described as a modality that allows participants to fully express themselves through movement, a universal language: “Dance gives voice to feelings and thoughts, helps resolve unsettled trauma, and helps release fears and anxieties” (Silvermist Recovery Center, 2020, Various Types of Recreational Therapy section, para. 9).

At a non-denominational Christian recovery program, DMT is stated as being one of the treatment options available but does not share any information about a dance/movement therapist or the specific techniques used (Honey Lake Clinic, 2019). The website provided a definition—"Dance/movement therapy (DMT) is the psychotherapeutic use of movement and dance as a part of treatment and recovery programs" (What Is Dance Movement Therapy and How is it Different from Regular Dancing? section, para. 1)— and listed a variety of benefits, including social, emotional, and physical reconnection (2019). An adolescent program did not share any information about an on-site dance/movement therapist, but the website stated that the "intentional movement of the body can be used in the therapeutic process in order to help teens explore deep aspects of their conscious and unconscious minds" (Paradigm Treatment Centers, 2020, para. 2). The website continued by stating that sessions allow the therapist and the client to "evaluate and assess the teens' current state through their body movements, as well as to provide healing opportunities, through the movements" (para. 2).

While these are only just over half a dozen private residential substance use recovery programs, it is still heartening to see that DMT appears on their websites, even if in just a brief, informative blog post. It shows that there is an increasing awareness of and interest in DMT within the field of substance use recovery. However, it appears that there is still some confusion as to what DMT actually is. Many of the websites, particularly those that did not mention offering on-site DMT sessions, copied and pasted the definition from the ADTA (n.d.) website. There also appeared to be some uncertainty as to how to classify DMT. Various sites referred to it as expressive, experiential, recreational, and creative therapies. Expressive arts therapy and creative arts therapy are two umbrella terms under which DMT falls. Experiential therapy is a less widely-used term, and recreational therapy is a completely different field. As more

dance/movement therapists enter the field and work in residential substance use programs, it may help better the understanding of what DMT is and how it can benefit individuals diagnosed with an SUD.

Other Mindfulness-Based and Body-Based Therapies and Substance Use

While the focus of this critical review of the literature is on the use of DMT and DBT with substance use, it is important to acknowledge other therapies that may not necessarily fully meet the criteria of those two. These therapies could be used to inform the understanding of how they can be effective in the treatment of substance use and could be additional resources. When considering how to best treat substance use, one should be aware of all the work that has been done, as it is a stepping stone towards bettering treatment.

Mindfulness-based relapse prevention (MBRP) is one of these therapies. MBRP, which uses guided meditation practices and discussions of the core themes related to substance use, has been found to benefit study participants with severe levels SUD symptoms, as well as participants with both severe levels of SUD symptoms and high levels of co-occurring anxiety and depression symptoms (Roos et al., 2017). Roos et al. (2017) also noted its effectiveness in aftercare and the need for continued research. In an intervention called mindful awareness in body-oriented therapy (MABT), massage, interoceptive skills training, and mindful body awareness practice were combined (Price et al., 2012). Results showed a larger number of drug abstinent days among MABT participants, as well as improvements in co-occurring anxiety, depression, eating disorders, and PTSD (Price et al, 2012). While there were no improvements in body awareness, Price et al. (2012) acknowledged MABT's effectiveness with women in early recovery.

While yoga therapy is a completely different field from DMT, it is another body-based therapy. A number of dance/movement therapists have either used yoga in their work or are also yoga therapists, including Barton (2011). Results from a database search were small, but they did include a number of studies that discussed the effectiveness of yoga therapy with substance use (Bhagabati et al., 2017; Reddy et al., 2014; Sharma, 2018). As stated before, these other mindfulness- and body-based therapies can help inform the field of DMT when working with substance use, as there are commonalities between the modalities that can support healing.

Dialectical Behavior Therapy

Dialectical behavior therapy (DBT), developed by Dr. Marsha Linehan in the 1970s and 1980s, is "a broad-based cognitive-behavioral treatment originally developed for chronically suicidal individuals diagnosed with borderline personality disorder (BPD)" (Linehan, 2015b, p. 3). It is "the only treatment that has been shown effective in multiple trials across numerous independent research studies" (Behavioral Tech, 2019, Marsha Linehan, PhD, ABPP section, para. 2) and at reducing suicidal behavior. It also came from Linehan's own experiences with severe mental illness, as she was diagnosed with schizophrenia as a young adult but later believed it was BPD (Carey, 2011). The name "dialectical behavior" has a purpose: 1. Dialectical comes from dialectic, which is "a synthesis or integration of opposites" (What is the "D" in DBT? section, para. 1); and 2. Behavior recognizes the behavioral approach taken to "target behaviors that are relevant in [the] clients' goals in order to figure out how to solve the problems in their lives" (2019, What is the "B" in DBT? section, para. 1). Within it are four different components: individual psychotherapy, group DBT skills training, in-the-moment

phone coaching, and DBT consultation groups for therapists (2019). This literature review focuses on the DBT skills training component.

Skills Training

DBT skills training (DBT-ST) works to increase resilience and understand "how to change what is and how to accept what is" (Linehan, 2015a, p. 1). The focus of DBT skills training is to "change unwanted behaviors, emotions, thoughts, and events in [a person's] life that cause [them] misery and distress as well as how to live in the moment, accepting what is" (p. 1). It works to change learned, problematic behaviors into healthier ways of coping. The four skills are mindfulness, interpersonal effectiveness, emotion regulation, and distress tolerance.

Mindfulness is "the act of consciously focusing the mind in the present moment without judgment and without attachment to the moment" (Linehan, 2015b, p. 151). By using components of Eastern and Western spiritual traditions, it encourages the ability to simply observe and experience (Linehan, 2015a). Interpersonal effectiveness works to "apply specific interpersonal problem-solving, social, and assertiveness skills to modify aversive environments and to obtain [one's] goals in interpersonal encounters" (Linehan, 2015b, p. 232). It also works to maintain and improve relationships (Linehan, 2015a). Emotion regulation has four parts: "understanding and naming emotions; changing unwanted emotions; reducing vulnerability to emotion mind; and managing extreme emotions" (Linehan, 2015b, p. 318). It recognizes that emotions cannot be completely controlled, but they can be managed (Linehan, 2015a). Distress tolerance includes the abilities "to perceive one's environment without putting demands on it to be different; to experience one's current emotional state without attempting to change it; and to observe one's own thoughts and action patterns without attempting to stop or control them"

(Linehan, 2015b, p. 416). It works to increase one's ability to survive crisis situations (Linehan, 2015a).

Dialectical Behavior Therapy and Substance Use

While substance use was not Linehan's initial focus when developing DBT, it has been studied due to its comorbidity with BPD. Because of this, it means that most of the research, including empirical studies and book chapters, often focuses on dual diagnoses. Even though this literature review does not focus on comorbidity, these resources are still referenced because there is little literature that solely focuses on DBT and substance use.

The decision to use DBT with substance use came from the flawed belief that "addiction problems must be overcome before mental health problems could be successfully treated" (McMain et al., 2007, p. 147). Clearly, this is not an effective way to treat clients, as one cannot be treated without the other being addressed. However, it was found that characteristics of DBT treatment were similar to what was already being used in substance use treatment, and there were similarities between SUDs and BPD, especially the fact "substance abusers have difficulties regulating affect, and that negative emotional states precipitate substance use" (p. 147). To best adapt DBT to substance use treatment, three main categories of interventions were developed: attachment strategies, using skills to cope with urges and cravings and to reduce risk of relapse (the four skills modules), and self-management strategies (2007). Making these adjustments improves the likelihood that treatment is successful.

In a modified DBT program with substance use, results showed participants found a "new lease on life" and a "need for continued formal care" (Flynn et al., 2019). Flynn et al. (2019) found that "the DBT skills training programme helped participants to become more confident

and self-assured as they navigated the recovery process" (p. 7), and there were overall "significant improvements in emotional regulation, mindfulness, DBT skills use and dysfunctional coping" (p. 7). Reading these results, it is clear that the skills training of DBT can be used as an effective intervention.

In a different study done with participants diagnosed with co-occurring eating disorders and SUD, DBT was found to have decreased rates of alcohol and substance use, which was related to perceived ability to cope with negative emotions (Courbasson et al., 2012). It is believed that DBT had such a high retention rate, as compared to treatment as usual, because it "[enhanced] patient and therapist motivation and therapeutic alliance and [incorporated] mindfulness to assist in managing maladaptive behaviors" (p. 444) and participants commented on how they felt validated and had their needs addressed (2012). These studies focused on the overall use of DBT with substance use; however, there were some studies found that highlighted specific DBT skills through a database search.

Mindfulness. Unfortunately, there were no resources to be found that focused on the impact DBT has on mindfulness in substance users. However, in a study done with participants diagnosed with BPD, after 20 weeks of DBT-ST, increased mindfulness was found, as well as lower levels of general psychopathology (Zeifman et al., 2019).

Emotion Regulation. A study that tested the use of DBT with women diagnosed with co-occurring SUD and BPD found that emotion regulation was improved (Axelrod et al., 2011). "Improved emotion regulation accounted for decreased frequency of substance use, suggesting

that developing effective emotion regulation skills may have allowed study participants to cease other less effective emotion regulation behaviors" (p. 40).

In Italy, a 3-month DBT-ST program was found to have increased the number of consecutive days of abstinence and decrease difficulties in emotion regulation (DER), which included difficulties in non-acceptance, goals, impulse, awareness, strategies, and clarity (Maffei et al., 2018). It was also found that the setting of treatment, in- or outpatient, and the use of pharmacotherapy did not impact results (2018). A similar Italian study found DBT-ST improved emotion regulation among people diagnosed with AUD and co-occurring substance use disorders (CO-SUDs, Cavicchioli et al., 2019). "The key role of DER in the treatment of AUD and CO-SUDs was also confirmed by the associations between changes in DER and improvements in severity of SUDs" (p. 7). Similar to Maffei et al. (2018), there was an increase in the mean number of consecutive days of abstinence post treatment, which was a promising finding (Cavicchioli et al., 2019).

Interpersonal Effectiveness. No resources were found that focused on interpersonal effectiveness when using DBT with substance use or when using DBT in general through a database search.

Distress Tolerance. As with mindfulness, there were no resources that focused on distress tolerance when using DBT with substance use. However, Zeifman et al.'s (2019) article also highlighted distress tolerance, which was found to have increased, while overall levels of psychopathology decreased. Zeifman et al. (2019) stated that "improvements in distress tolerance may reduce the extent to which individuals with BPD engage in maladaptive efforts to minimize

their emotional distress, and may, thereby, lead to improvements in general psychopathology" (p. 6), noting the relationship between distress tolerance and mindfulness.

Dance/Movement Therapy and Dialectical Behavior Therapy

So far, this literature review has focused on the separate use of DMT and DBT with substance use. Both have been shown to be effective individually. However, there is no research regarding the combined use of DMT and DBT with substance use. Fortunately, there has been some discussion about combining the two treatment modalities.

There have been two webinars published through the ADTA that focus on the combined use of DMT and DBT. The first, *The Foundation: The Dialectics of Dance—Building a Dance/Movement Therapy Program Into Dialectical Behavior Therapy Treatment* (Johnston, 2018), discussed "foundational education about the Dialectical Behavioral Therapy (DBT) model as developed by Marsha M. Linehan, PhD, for those who are interested in learning more about the model and how Dance/Movement Therapy can be an adjunctive component of a DBT program" (para. 1). Johnston's (2018) webinar also listed learning objectives that included gaining an understanding of DBT, learning interventions that work with the model, and discussing the needed skills to develop an outpatient program.

Integrating Dance Movement Therapy and Dialectical Behavior Therapy Skills (Potter, 2018), the other webinar, discussed "how DMT interventions such as focusing, movement sequencing, the intervention from the moving cycle, and empathetic attunement can be utilized with the DBT modules of mindfulness, emotion regulation, and interpersonal effectiveness" (para. 1). Potter (2018) listed objectives of the webinar as learning how to incorporate DMT into

the DBT modules to encourage awareness, an understanding of boundaries, and facilitation of self-regulation, to name a few.

Both of these webinars provide the groundwork for continued exploration and understanding of how to combine DMT and DBT. This is a necessary first step towards the integration of DMT and other modalities. Because DMT is becoming more well-known and widespread, DMT may find its way into more treatment programs and facilities, which may utilize particular modalities, including DBT. By reviewing these webinars, dance/movement therapists have the foundational information to present to these sites and to guide them through this process.

DBT and Other Expressive Therapies

While this critical review of the literature is not focused on the other expressive therapies, it is important to be aware of what other modalities have incorporated DBT in their work. Art therapy had the most literature discussing its combination with DBT. The majority of the resources are journal articles (Drass, 2015; Heckwolf et al., 2014; Huckvale & Learmonth, 2009). However, there are also some graduate theses that have worked to bridge these two modalities (Jette, 2019; Mancuso, 2019; Williams, 2018). Additionally, there is an entire book dedicated to the combined use of art therapy and DBT (Clark, 2016). Music therapy had some resources, but they were all limited to journal articles (Chwalek & McKinney, 2015; Plener et al., 2010). There was nothing to be found through a database search regarding the use of drama therapy, poetry therapy, expressive art therapy, expressive therapy, or creative art therapy and DBT.

Discussion

This critical review of the literature provided a much deeper understanding of not only how DMT and DBT can work together, but simply how to better understand the use of DMT with substance use. While there has previously been no direct research that connects DMT and DBT, there is a foundation that has been recently laid to bridge the two. This thesis also helps to strengthen that link.

Something I found quite interesting while I read various articles and chapters is that many dance/movement therapists were unintentionally including DBT skills within their groups. Table 1 helps to organize the different DBT skills found in different resources from the preceding literature review. In Barton's (2011) article, she discussed the benefits of a combined DMT and yoga therapy approach, which could be paralleled to the DBT skills. Mindfulness could be seen in improved stress management, understanding of self and others, and awareness of thoughts and feelings; emotion regulation connects to improved awareness of thoughts and feelings; distress tolerance relates to improved stress management and relaxation and decreased anxiety; and, interpersonal effectiveness links to improved understanding of self and others.

Barton's ADTA (2014) video clearly discussed mindfulness, but it also acknowledged components of emotion regulation and interpersonal effectiveness in regards to increasing the ability to understand one's emotion and forming relationships with others. Similarly, Young's ADTA (2018) video brought up themes of mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness in her discussion of using movement as a way to understand feelings, thoughts, and relationships. B. Fisher's (1990) discussion of improving bodily awareness to improve expression of emotion connects to emotion regulation and spontaneous interaction as a way to improve responsiveness relates to interpersonal effectiveness. Brown

Table 1
DBT Skills Found in DMT

	Mindfulness	Emotion Regulation	Distress Tolerance	Interpersonal Effectiveness
Barton (2011)	✓	✓	✓	✓
Barton (2014)	✓	✓		✓
Brown (2009)		✓		✓
Dempsey (2009)	✓	✓		✓
B. Fisher (1990)		✓		✓
P. Fisher (2017)		✓		
Milliken (1990)	✓			
Milliken (2008)		✓	✓	✓
Sanchez (2012)	✓			
Thomson (1997)	✓	✓	✓	✓
Young (2018)	✓	✓	✓	✓

(2009) also represented emotion regulation and interpersonal effectiveness through goes to improve experiencing emotions and connecting with others.

Milliken (2008) showed an emphasis on mindfulness through the discussion of learning to tune into oneself and understanding one's bodily experience. Milliken's (1990) goals when working in a short-term setting included themes of emotion regulation, distress tolerance, and interpersonal effectiveness when learning to identify and tolerate feelings and trust others. Dempsey (2009) used mindfulness through guided imagery and emotion regulation and interpersonal effectiveness through other DMT interventions. Similarly, Sanchez (2012) connected to mindfulness through guided meditation. Thomson's (2007) emphasis on identifying and expressing feelings for self-awareness connects to mindfulness, tolerating and transforming stressful feeling states relates to distress tolerance, increasing trust and decreasing isolation parallel interpersonal effectiveness, and learning how to meet emotional needs ties into emotion regulation. Finally, P. Fisher (2017) focused on learning how to manage emotions, which goes along with emotion regulation.

I came into this literature review with the belief that clients diagnosed with an SUD may find it easier to have a more concrete idea to work off when participating in DMT, such as relating it to AA or including functional movements instead of expressive, and that was a recurring theme I found within the work. This included the use of other movement and mindfulness practices (Barton, 2011; Barton, 2014; Dempsey, 2009; Sanchez, 2012); relating groups to other familiar models (Brown, 2009; B. Fisher, 1990); and an emphasis on warm-ups as a way to reconnect with the body (B. Fisher, 2017, Milliken, 2008; Thomson, 1997). These can all help make DMT feel less threatening to clients who are disembodied.

Unsurprisingly, almost all of the literature brought up similar challenges when working with this population. Working with embodiment difficulties was the primary challenge I knew of when I began my research, based on my experiences at my internship, and it was brought up by some dance/movement therapists (Barton, 2011; Dempsey, 2009; Sanchez, 2012); difficulties with expressive movement were also considered (Barton, 2011). However, a challenge I did not expect to see written about so often was the use of defense mechanisms by clients, including projection, regression, and denial (Brown, 2009; B. Fisher, 1990; P. Fisher, 2017; Milliken, 1990; Milliken, 2008; Thomson, 1997). However, as time progressed at my internship, I did encounter defense mechanisms a number of times, especially projection and regression. Another point I did not expect to find, but felt validating to see was how difficult it can be for a dance/movement therapist to work with this population, as it can bring up feelings of not being good enough and of not having control (Milliken, 1990; Thomson, 1997). One DMT even shared leaving a group “with a general feeling of emptiness,” which was incredibly poignant to read (Dempsey, 2009, p. 163). I had encountered those feelings while at my internship and often

questioned my abilities. To see it written by an experienced dance/movement therapist helped me realize that is a general difficulty with this population.

To help understand my own internal process during this journey, I decided to use some dance and movement. As a way to explore my relationship to this topic, I challenged myself to use the four DBT skills as inspiration for my movement. Using them as my guides, I did some improvisational dance to discover how I moved when thinking about each skill. In Appendix B are the eight photos I took of myself, two for each skill, done in one of the Lesley University studios. I chose to not use music, as I did not want it to possibly affect my movement because I know I have a tendency to focus more on it than on my own internal experience. I also made the decision to take two pictures of each skill as opposed to one as I felt it could provide a deeper, more informed understanding.

The first set, Figure 1 and Figure 2, is the mindfulness photos. My movement appeared to have a sense of groundedness, with movements that began close to my body and then moved away distally. I appeared to have found a sense of peace in myself, and even seemed to offer it to anyone who wanted it. There was also an introspective and contemplative appearance to my movement. The second set, Figure 3 and Figure 4, was distress tolerance, which seemed to be on the opposite end of the spectrum. While there, I tested my balance, working to push against my comfort zone. This related to the idea of distress tolerance, which emphasizes the ability to tolerate and survive crises. It was an experience in learning to deal with discomfort and learning to push up against my comfort zone.

The third set, Figure 5 and Figure 6, was emotion regulation, and I encouraged myself to use my full range of motion and explore different movement. While moving, I thought of how managing extreme emotions is a part of emotion regulation, and I decided to try what felt like

extreme movement. That included reaching backwards, a space I usually do not utilize when moving. The final set, Figure 7 and Figure 8, was interpersonal effectiveness. During this improvisation, I thought about the difficulties of reaching out to others and maintaining relationships. There were times I was literally reaching out, hoping to find anyone. Other times I turned inwards, scared of rejection or unable to make contact with others. This experience helped me more fully process what it feels like to embody the DBT skills through movement.

This experience has helped increase my understanding of working with substance use, of how to combine different therapeutic modalities, and of how to help promote awareness of DMT to the rest of the mental health field. From here, I hope to continue exploring the combined use of DMT and DBT, including the development of session plans. This could possibly lead to the development of programs where dance/movement therapists and mental health professionals trained in DBT could work in tandem, which could lead to further work testing the effectiveness of a multimodal treatment plan. It provides more pathways into finding novel ways to use DMT in different treatment programs and with different populations.

References

Aitken, T. (2019). *Method development: Dance/movement psychotherapy to address substance use disorder in cultural Appalachia* [Master's thesis, Lesley University]. Expressive Therapies Capstone Theses. https://digitalcommons.lesley.edu/expressive_theses/144

American Dance Therapy Association. (n.d.). https://www.adta.org

American Dance Therapy Association. (2014, April 29). *Dance/movement therapy, mindfulness & substance use recovery* [Video]. YouTube. https://www.youtube.com/watch?v=b1YryiseVWY&t=1s

American Dance Therapy Association. (2018, July 8). *Dancing with recovery: Dance/movement therapy and addiction* [Video]. YouTube. https://www.youtube.com/watch?v=b6Rl1faGz7c

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th edition). American Psychiatric Association.

Asana Recovery. (2018). https://www.asanarecovery.com/

Axelrod, S. R., Perepletchikova, F., Hotzman, K., & Sinha, R. (2011). Emotion regulation and substance use frequency in women with substance dependence and borderline personality disorder receiving dialectical behavior therapy. *The American Journal of Drug and Alcohol Use*, *37*(1), 37–42. https://doi.org/10.3109/00952990.2010.535582

Barton, E. J. (n.d.). *Use the body's subtle movements to understand the mind*. Addiction Hope. https://www.addictionhope.com/blog/using-the-body-as-a-tool-to-understand-the-mind/

Barton, E. J. (2011). Movement and mindfulness: A formative evaluation of a dance/movement and yoga therapy program with participants experiencing severe mental illness. *American*

Journal of Dance Therapy, *33*(2), 157–181. https://doi-org.ezproxyles.flo.org/10.1007/s10465-011-9121-7

Barton, E. J. (2016, January 21). *Mindfulness: Feeling safe within your mind and overcoming addiction*. Addiction Hope. https://www.addictionhope.com/blog/mindfulness-feeling-safe-within-your-mind-and-overcoming-addiction/

Behavioral Tech. (2019). https://www.behavioraltech.org/

Bhagabati, D., Kumar, A., Borbora, S. A., Bora, U., & Sharma, H. (2017). Assessment of the effectiveness of yoga therapy as an adjunct in patients with alcohol dependence syndrome. *Open Journal of Psychiatry & Allied Sciences*, *8*(1), 40.

Brown, C. (2009). Moving into action: A case study of dance/movement therapy with the dually diagnosed in a methadone treatment program. In S. L. Brooke (Eds.), *The use of the creative therapies with chemical dependency issues* (187-203). Charles C. Thomas Publisher, LTD.

Carey, B. (2011, June 2013). *Expert on mental illness reveals her own fight*. The New York Times. https://www.nytimes.com/2011/06/23/health/23lives.html

Cavey, C. (2019). *Using body oriented interventions for impulse control in individuals struggling with addiction: A literature review* [Master's thesis, Lesley University]. Expressive Therapies Capstone Theses. https://digitalcommons.lesley.edu/expressive_theses/177

Cavicchioli, M., Movalli, M., Vassena, G., Ramella, P., Prudenziati, F., & Maffei, C. (2019). The therapeutic role of emotion regulation and coping strategies during a stand-alone DBT skills training program for alcohol use disorder and concurrent substance use disorders.

Addictive Behaviors, *98*. https://doi-org.ezproxyles.flo.org/10.1016/j.addbeh.2019.106035

Centers for Disease Control and Prevention. (2019). *Drug overdose mortality by state*. https://www.cdc.gov/nchs/pressroom/sosmap/drug_poisoning_mortality/drug_poisoning.htm

Chwalek, C. M., & McKinney, C. H. (2015). The use of dialectical behavior therapy (DBT) in music therapy: A sequential explanatory study. *Journal of Music Therapy*, *52*(2), 282–318. https://doi-org.ezproxyles.flo.org/10.1093/jmt/thv002

Clark, S. M. (2016). *DBT-informed art therapy: Mindfulness, cognitive behavior therapy, and the creative process*. Jessica Kingsley Publishers.

Courbasson, C., Nishikawa, Y., & Dixon, L. (2012). Outcome of dialectical behaviour therapy for concurrent eating and substance use disorders. *Clinical Psychology & Psychotherapy*, *19*(5), 434–449. https://doi-org.ezproxyles.flo.org/10.1002/cpp.748

Daly, L. (2002). *Discovering the self: Connections between dance/movement therapy and hatha yoga* [Master's thesis, Pratt Institute]. Theses. http://cat.pratt.edu/record=b1144631

Dempsey, M. (2009). Dance/movement therapy as an effective clinical intervention to decrease anxiety and support the recovery process. In S. L. Brooke (Eds.), *The use of the creative therapies with chemical dependency issues* (162-174). Charles C. Thomas Publisher, LTD.

DiBacco, N. (2010). *The emotional road to recovery: Tracking the mind and body experience of shame in women recovering from drugs and alcohol* [Master's thesis, Columbia College Chicago]. Creative Arts Therapies Theses. https://digitalcommons.colum.edu/theses_dmt/24

Doyle, D. B. (2004). *Using dance/movement therapy to help meet the daily needs of persons living with HIV and substance dependence* [Master's thesis, Columbia College Chicago]. Creative Arts Therapies Theses. https://vufind.carli.illinois.edu/vf-col/Record/col_258709

Drass, J. M. (2015). Art therapy for individuals with borderline personality: Using a dialectical behavior therapy framework. *Art Therapy*, *32*(4), 168–176. https://doi-org.ezproxyles.flo.org/10.1080/07421656.2015.1092716

Fairfax, A. M. T. (2003). *Dance/movement therapy impact on quality of life in clients with co-occurring HIV, addiction, and mood disorders* [Master's thesis, Drexel University]. Theses, Dissertations, and Projects. http://hdl.handle.net/1860/2709

Ferris, C. D. (2008). *Listening to movement: The use of dance movement therapy in groups to reduce anxiety in males struggling with addiction* [Master's thesis, The College at Brockport, State University of New York]. Counselor Education Master's Theses. https://digitalcommons.brockport.edu/edc_theses/30/

Fisher, B. (1990). Dance/movement therapy: Its use in a 28-day substance abuse program. *The Arts in Psychotherapy*, *17*(4), 325–331. https://doi-org.ezproxyles.flo.org/10.1016/0197-4556(90)90052-R

Fisher, P. (2017). The recovery journey: The place and value of dance movement psychotherapy with clients with alcohol or substance misuse. In H. Payne (Ed.), *Essentials of dance movement psychotherapy: International perspectives on theory, research, and practice* (pp. 223–236). Routledge/Taylor & Francis Group.

Flynn, D., Joyce, M., Spillane, A., Wrigley, C., Corcoran, P., Hayes, A., Flynn, M., Wyse, D., Corkery, B., Mooney, B. (2019). Does an adapted Dialectical Behaviour Therapy skills

training programme result in positive outcomes for participants with a dual diagnosis? A mixed methods study. *Addiction Science & Clinical Practice*, *14*(28), 1-10. https://doi-org.ezproxyles.flo.org/10.1186/s13722-019-0156-2

Gordon, J. (n.d.). *Moving toward recovery: Dance/movement therapy*. All Treatment. https://www.alltreatment.com/dance-movement-therapy/

Heckwolf, J. I., Bergland, M. C., & Mouratidis, M. (2014). Coordinating principles of art therapy and DBT. *The Arts in Psychotherapy*, *41*(4), 329–335. https://doi-org.ezproxyles.flo.org/10.1016/j.aip.2014.03.006

Hedegaard, H., Miniño, A. M., & Warner, M. (2018). *Drug overdose deaths in the United States, 1999-2017*. Centers for Disease Control and Prevention. https://www.cdc.gov/nchs/data/databriefs/db329-h.pdf

Honey Lake Clinic. (2019). https://www.honeylake.clinic/

Huckvale, K., & Learmonth, M. (2009). A case example of art therapy in relation to Dialectical Behaviour Therapy. *International Journal of Art Therapy: Inscape*, *14*(2), 52.

Jette, A. (2019). *The effect of art therapy and modified dialectical behavior therapy on emotional regulation and stress* [Master's thesis, Hofstra University]. ProQuest Dissertation Publishing.

Johnston, A. (2018, August 28). *The foundation: The dialectics of dance—building a dance/movement therapy program into dialectical behavior therapy treatment*. American Dance Therapy Association. https://beacon360.content.online/xbcs/S1642/catalog/product.xhtml?eid=9191

Kirane, K. (2018). Dance/movement therapy: A unique response to the opioid crisis. *American Journal of Dance Therapy*. https://doi-org.ezproxyles.flo.org/10.1007/s10465-018-9268-6

Linehan, M. M. (2015a). *DBT skills training handouts and worksheets* (2nd edition). The Guildford Press.

Linehan, M. M. (2015b). *DBT skills training manual* (2nd edition). The Guilford Press.

Maffei, C., Cavicchioli, M., Movalli, M., Cavallaro, R., & Fossati, A. (2018). Dialectical behavior therapy skills training in alcohol dependence treatment: Findings based on an open trial. *Substance Use & Misuse*, *53*(14), 2368–2385. https://doi-org.ezproxyles.flo.org/10.1080/10826084.2018.1480035

Mancuso, J. (2019). *Sometimes a crucible: Mindfulness art therapy experientials in a DBT-oriented residential partial hospitalization program for dually-diagnosed adults* [Master's thesis, Lesley University]. Expressive Therapies Capstone Theses. https://digitalcommons.lesley.edu/expressive_theses/115

McMain, S., Sayrs, J. H. R., Dimeff, L. A., & Linehan, M. M. (2007). Dialectical behavior therapy for individuals with borderline personality disorder and substance dependence. In L. A. Dimeff, & K. Koerner (Eds.), *Dialectical behavior therapy in clinical practice: Applications across disorders and settings* (pp. 145-173). The Guilford Press.

Milliken, R. (1990). Dance/movement therapy with the substance abuser. *The Arts in Psychotherapy*, *17*(4), 309–317. https://doi-org.ezproxyles.flo.org/10.1016/0197-4556(90)90050-Z

Milliken, R. (2008). Intervening in the cycle of addiction, violence, and shame: A dance/movement therapy group approach in a jail addictions program. *Journal of Groups*

in Addiction & Recovery, *3*(1–2), 5–22. https://doi-org.ezproxyles.flo.org/10.1080/15560350802157346

Murray-Lane, M. B. (1995). Walls of addiction. In F. J. Levy, J. P. Fried, & F. Leventhal (Eds.), *Dance and other expressive art therapies: When words are not enough* (pp. 93-100). Routledge.

National Alliance on Mental Illness. (2020). https://www.nami.org/

Paradigm Treatment Centers. (2020). https://www.paradigmtreatmentcenters.com/

Passages Malibu. (2020). https://www.passagesmalibu.com/

Plener, P. L., Sukale, T., Ludolph, A. G., & Stegemann, T. (2010). "Stop cutting-rock!"': A pilot study of a music therapeutic program for self-injuring adolescents. *Music and Medicine*, *2*(1), 59–65. https://doi-org.ezproxyles.flo.org/10.1177/1943862109356928

Potter, S. (2019, April 18*). Integrating dance movement therapy and dialectical behavior therapy skills*. American Dance Therapy Association. https://beacon360.content.online/xbcs/S1642/catalog/product.xhtml?eid=13070

Price, C. J., Wells, E. A., Donovan, D. M., & Rue, T. (2012). Mindful awareness in body-oriented therapy as an adjunct to women's substance use disorder treatment: A pilot feasibility study. *Journal of Substance Abuse Treatment*, *43*(1), 94–107. https://doi-org.ezproxyles.flo.org/10.1016/j.jsat.2011.09.016

Reddy, S., Dick, A. M., Gerber, M. R., & Mitchell, K. (2014). The effect of a yoga intervention on alcohol and drug abuse risk in veteran and civilian women with posttraumatic stress disorder. *The Journal of Alternative and Complementary Medicine*, *20*(10), 750–756. https://doi-org.ezproxyles.flo.org/10.1089/acm.2014.0014

Roos, C. R., Bowen, S., & Witkiewitz, K. (2017). Baseline patterns of substance use disorder severity and depression and anxiety symptoms moderate the efficacy of mindfulness-based relapse prevention. *Journal of Consulting and Clinical Psychology*, *85*(11), 1041–1051. https://doi.org/10.1037/ccp0000249

Rose, S. (1995). Movement as metaphor: Treating chemical addiction. In F. Levy, J. P. Fried, & F. Leventhal (Eds.), *Dance and other expressive arts therapies: When words are not enough* (pp. 101-108). Routledge.

Sanchez, M. A. (2012). *Mindful bodies: The use of guided meditation with dance/movement therapy in addiction treatment* [Master's thesis, Columbia College Chicago]. Creative Arts Therapies Theses. https://digitalcommons.colum.edu/theses_dmt/32

Sandel, S. L., Chaiklin, S., & Lohn, A. (Eds.) (1993). *Foundations of dance/movement therapy: The life and work of Marian Chace*. The Chace Memorial Fund of the American Dance Therapy Association.

Scott-Haines, E. K. (2008). *Getting high: Using dance/movement therapy to increase self-esteem in adolescent addicts* [Master's thesis, Columbia College Chicago]. Creative Arts Therapies Theses. https://vufind.carli.illinois.edu/vf-col/Record/col_370455

Searidge Foundation. (2016). https://www.searidgedrugrehab.com/

Sharma, N. (2018). Assessment and management of negative mood states among males with substance dependence. *Indian Journal of Health & Wellbeing*, *9*(4), 642–647.

Silvermist Recovery Center. (2020). https://www.silvermistrecovery.com/

Smith, E. (2000). *Characteristics of codependency: A dance/movement therapy group case study of women with substance abuse disorders* [Master's thesis, Columbia College Chicago].

Creative Arts Therapies Theses. https://vufind.carli.illinois.edu/vf-col/Record/col_565238

Steinberg, C. (2015, April 10). *Movement therapy for addiction*. The Orchid Recovery Center. http://www.orchidrecoverycenter.com/blog/movement-therapy-for-addiction/

Thomson, D. M. (1997). Dance/movement therapy with the dual-diagnosed: A vehicle to the self in the service of recovery. *American Journal of Dance Therapy*, *19*(1), 63–79. https://doi-org.ezproxyles.flo.org/10.1023/A:1022375418060

Tillotson, K. (2007). *An examination of dance/movement therapists' approaches to the treatment of substance abuse/alcoholic population* [Master's thesis, Drexel University]. Theses, Dissertations, and Projects. http://hdl.handle.net/1860/2891

Timberline Knolls Residential Treatment Center. (2020). https://www.timberlineknolls.com/

Williams, L. (2018). *Exploring the use of altered books as a tool for self-care with adolescent girls diagnosed with eating disorders in a residential treatment facility* [Master's thesis, Lesley University]. Expressive Therapies Capstone Theses. https://digitalcommons.lesley.edu/expressive_theses/60

Zeifman, R. J., Boritz, T., Barnhart, R., Labrish, C., & McMain, S. F. (2019). The independent roles of mindfulness and distress tolerance in treatment outcomes in dialectical behavior therapy skills training. *Personality Disorders: Theory, Research, and Treatment*. https://doi-org.ezproxyles.flo.org/10.1037/per0000368

Appendix A

Diagnostic criteria for alcohol use disorder (AUD):

1. There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.
2. A great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects.
3. Craving, or a strong desire or urge to use alcohol.
4. Recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home.
5. Continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol.
6. Important social, occupational, or recreational activities are given up or reduced because of alcohol use.
7. Recurrent alcohol use in situations in which it is physically hazardous.
8. Alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.
9. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of alcohol to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of alcohol.
10. Withdrawal, as manifested by either of the following:
    a. The characteristic withdrawal syndrome for alcohol.
    b. Alcohol is taken to relieve or avoid withdrawal symptoms. (American Psychiatric Association, 2013, p. 490-491)

Appendix B

Figure 1

Mindfulness Photo 1

Figure 2

Mindfulness Photo 2

Figure 3

Distress Tolerance Photo 1

Figure 4

Distress Tolerance Photo 2

Photo 5

Emotion Regulation Photo 1

Figure 6

Emotion Regulation Photo 2

Figure 7

Interpersonal Effectiveness Photo 1

Figure 8

Interpersonal Effectiveness Photo 2

THESIS APPROVAL FORM

Lesley University
Graduate School of Arts & Social Sciences
Expressive Therapies Division
Master of Arts in Clinical Mental Health Counseling: Dance/Movement Therapy, MA

Student's Name: Elizabeth Shillington

Type of Project: Thesis

Title: Dance/Movement-Dialectical Behavior Therapy: Combining Modalities in the Treatment of Substance Use: A Literature Review

Date of Graduation: May 8, 2020
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