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The Use of Dance and Movement for the Embodied Healing of Interpersonal Trauma in Women and Girls: A Systematic Review

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Abstract

Interpersonal trauma is a pervasive issue with devastating consequences for women and girls of diverse identities. Research has shown that there are many potential physiological consequences for experiencing trauma, and as such, treatment for trauma should incorporate the body. Dance/Movement Therapy (DMT) has been emerging in the current literature as one body-oriented treatment approach effective in helping women and girls heal from interpersonal trauma. This review uses textual narrative evidence synthesis to examine how practitioners are currently using DMT for this population, what treatment outcomes have been observed, and what the racial/ethnic identities and international contexts are for survivors who have benefited from DMT. Inclusion criteria for the present review included peer-reviewed studies published in English between the years 2000 to 2022, reporting data on the use of dance or movement to help women and/or adolescent girls aged 12 and older heal from interpersonal trauma. Studies were identified through electronic databases, and 16 total studies met criteria. This review found that the characteristics and structure of DMT vary greatly between different practitioners, the participants of DMT are very diverse, and there are many commonly observed outcomes such as increased physical ability, increased emotional capacity, mind-body integration, safety, aid with trauma processing, empowerment, social support, and fun. This review also gives recommendations for practitioners who wish to utilize dance and movement in treatment: offer group interventions; use the body to create metaphor, imagery, and symbolism; give survivors choices in how they participate; use music purposefully; and don't forget to cultivate joy.

Keywords

dance/movement therapy, expressive arts therapy, interpersonal trauma, women, girls

Interpersonal trauma remains one of the most pervasive problems that affect women and girls across the globe. According to the World Health Organization, one in three women worldwide have experienced physical or sexual violence by an intimate partner or sexual violence by a non-partner (WHO, 2017); and one in five women have been sexually abused as a child (WHO, 2020). In this review, interpersonal trauma is defined as the consequences following trauma that was caused by other people. Ford and Curtois (2020) highlighted the particularly complex and damaging impact of interpersonal trauma: when people harm other people, the rights and integrity of the victim is intentionally violated for the intent of meeting a particular need (e.g., domination, power, sex, etc.) of the perpetrator. These intentional, interpersonal acts are a willful disregard for the safety, dignity, integrity, and well-being of another human being, which can cause a survivor to question what made them the target of victim of the trauma (Ford & Curtois, 2020).

Unsurprisingly, experiencing interpersonal trauma can have life-long deleterious effects. Research has shown that exposure to interpersonal trauma can lead to consequences such as posttraumatic stress disorder (PTSD; Kessler, 2017), depression (Gradus et al., 2015; Vibhakar, 2019), anxiety (Briere & Elliott, 2003), substance abuse (Briere et al., 2010), subsequent victimization (Briere & Elliott, 2003), and suicidality (Briere et al., 2010; Gradus et al., 2010). Given the prevalence of interpersonal trauma and the devastating consequences that follow, it is important for both researchers and health care providers to examine the methods currently being used to help survivors heal. The present study examines the

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use of Dance/Movement Therapy (DMT) as a somatic approach to healing interpersonal trauma.

Researchers have developed many talk therapy interventions to help survivors of trauma process their experiences and heal. Currently, cognitive treatment approaches are considered in the field to be "gold standard" treatments for adults with PTSD (Gallagher et al., 2015). For instance, the American Psychological Association (APA, 2017) published a 139-page guideline that strongly recommends, for the treatment of PTSD in adults, the use of cognitive behavioral therapy (CBT), cognitive processing therapy (CPT), cognitive therapy, and prolonged exposure therapy (PE)—all of which are cognitive approaches. It has been acknowledged in the literature that this guideline makes a fundamental assumption that PTSD is a universal trauma response that is not affected by culture and that the interventions promoted by these guidelines largely ignore the sociocultural context of the individual (Bryant-Davis, 2019). In fact, this guideline explicitly states that "complementary or alternative" interventions such as yoga were excluded from their review and were not evaluated (APA, 2017). The arts are central to many Black, Indigenous, and People of Color cultures and should be considered part of culturally informed treatment (Drake-Burnette et al., 2016; Lee et al., 2023; Shapiro, 2020). Excluding "alternative" interventions such as yoga or art therapy excludes culturally diverse ways of healing. Effective treatments for ethnically diverse survivors, whose experiences of trauma are shaped by their experiences of cultural oppression, may need to include these "alternative" methods of treatment that the APA has sidelined (Bryant-Davis, 2019).

Cognitive therapies have also been shown in research to not be successful in decreasing PTSD symptoms for some people (Gallagher et al., 2015). Based on recent literature about the physiological effects of traumatic stress, researchers have called for treatments to go beyond talking and consider the neurobiological systems of the body (McFarlane, 2010). Brain scans have revealed that when reminded of their trauma, participants diagnosed with PTSD have increased activation of their amygdala, the part of the brain responsible for threat recognition, and decreased activation of the Broca's area, the part of the brain responsible for speech (Rauch et al., 1996). Furthermore, MRI scans have revealed that the volume of the hippocampus—the part of the brain responsible for memory consolidation and retrieval—in those diagnosed with PTSD is significantly smaller than those without a PTSD diagnosis (Karl et al., 2006; Logue et al., 2018; Nelson & Tumpap, 2017). These findings suggest that those who have experienced trauma may not be able to optimally engage in talk therapy approaches like CBT, wherein the method of healing relies completely on conscious cognition.

Additionally, traumatic memories are often recalled in a disorganized way; some details can be vivid while others are forgotten, making it difficult to recall the accurate sequence of events (van der Kolk, 2014). This is perhaps caused by impaired hippocampal functioning, as people diagnosed with PTSD are found to exhibit poor associative learning, a process that centrally involves the hippocampus (Lambert & McLaughlin, 2019). Another reason that could explain the disorganized nature of traumatic memories is that during a traumatic event, the integration of cognitive, emotional, physiological, and sensory information processing is often compromised (Ogden et al., 2006). Cognitive approaches may not be the best option for those seeking help with processing disorganized or confusing memories.

The emerging research on the neurobiology of trauma has called for more attention to body-oriented treatment approaches (Brown & Courtois, 2019). For example, yoga is now commonly used to treat mental health disorders such as PTSD (Jeter et al., 2015; Nguyen-Feng et al., 2019) and was found in a recent randomized clinical trial to be as effective in treating PTSD in veterans as CPT (Zaccari et al., 2023). Yoga promotes healing from traumatic experiences by cultivating arousal tolerance and regulation, improving emotional regulation, and helping survivors stay oriented in their present-moment experiences (Arch & Craske, 2006; Salmon et al., 2009). Another example of a body-oriented approach shown to improve psychological functioning is tai chi, a Chinese martial art comprised of several self-defense movements. Research (Niles et al., 2016) has demonstrated the effectiveness of tai chi with veterans diagnosed with PTSD by reducing physiological arousal, increasing awareness of body positions, and increasing positive associations with a warrior identity.

Dancing has been used as a healing practice in many cultures throughout history. As a formalized therapeutic intervention, however, its history begins in the 1940s as Dance/movement Therapy (DMT) (Payne, 2008, p. 11). DMT is an intervention that includes the body in mental health treatment. Although practitioners have used this treatment modality since the 1940s, there has been limited research on the effectiveness of this intervention (Payne, 2008, p. 11). One reason for the lack of empirical research on the use of DMT is that the intervention is not easily quantifiable (Berrol, 2000). There does not yet exist a set of objective tools to measure the intervention, and it is, therefore, difficult to evaluate its impact on participants. However, there has been an increasing number of research studies on the use of DMT in recent years, including many studies using a qualitative research methodology. This systematic review examined findings from recent literature on the use of DMT for female survivors of interpersonal trauma. This review aims to make recommendations for therapists who wish to use this modality and to inspire further research on the topic by answering these key questions:

- RQ1. What are the characteristics, qualities, and structure of DMT interventions for interpersonal trauma in women and girls?
- RQ2. In studies of DMT for female survivors of interpersonal trauma, what outcomes are observed or assessed?

- RQ3. How effective is DMT for female survivors of interpersonal trauma?
- RQ4. In studies of DMT for female survivors of interpersonal trauma, what is the racial/ethnic representation or international context of the participants?

Positionality

Dr. Catherine Liang identifies as a cis-gender, queer woman of color. She was born in China and is twice over as an immigrant to Canada and the United States of America. The researcher, along with having a doctorate in clinical psychology, has been a dancer almost her entire life. She currently teaches dance at local dance studios. Dr. Thema Bryant identifies as a cis-gender, straight, Black woman who lives with a chronic illness. She was born in the United States and spent her adolescence in West Africa and her adulthood in the U.S. In addition to being a licensed psychologist and director of a University research laboratory, she directs a community youth dance group. As survivors of interpersonal trauma, the researchers have found profound healing through dance. The researchers were raised with Traditional Chinese Medicine and womanist (Black women's) healing practices, so they have always known that the body and the mind are connected and important to healing and recovery. The researchers acknowledge that their personal experience with dance has motivated this project.

Methodology

A systematic review with narrative synthesis was conducted to assess the use of DMT for female survivors of physical and sexual trauma. The review included quantitative and qualitative studies to comprehensively examine DMT interventions, outcomes, and effectiveness in healing interpersonal trauma. It also considered the racial/ethnic representation and international context of participants.

The four primary search terms for this review were: (a) interpersonal trauma, (b) DMT, (c) women, and (d) adolescent. Synonyms and other appropriate terms were identified to maximize the productivity of each search. Studies were included if they were (a) written in English, (b) published between the years 2000 and 2022, and (c) collected data on the use of dance and movement for participants who identified as women or girls aged 12 and up who have survived interpersonal trauma. Studies were excluded if they used other mind-body interventions such as yoga, tai chi, or chi gong, (a) were theoretical studies, literature reviews, book reviews, opinion pieces, or conference reviews, (b) included only male participants or child participants aged 11 and under, or (c) if data about the target population could not be extracted.

Eligible studies were searched from the following electronic databases: PsychInfo and PILOTS/PTSDPubs. In addition to these large databases, the *American Journal of Dance Therapy* was also searched for relevant studies. The reference lists of existing systematic reviews on the same topic were reviewed for articles that fit the inclusion and exclusion criteria. The present study focused on the discipline of psychology, which was why other large electronic databases, such as ProQuest, were not searched. It is acknowledged that there may be articles published in journals in the arts and humanities field that were missed due to the disciplinary focus on psychology.

Titles and abstracts were screened for every result found with the specified search terms to verify that the study met inclusion and exclusion criteria. A full-text review was done for articles for which the inclusion and exclusion criteria could not be determined from the title or abstract. A full-text review was also done for all articles that seemed to meet the inclusion criteria at the title and abstract screening stage. After the completion of the screening and selection process, a modified PRISMA flow diagram (Figure 1) was created. This diagram summarizes the process of selecting the final sample for the current systematic review.

A set of studies making up 10% of the entire sample ($n=46$) were randomly selected to determine inter-rater reliability between the leading author and a second investigator, and this process yielded a 100% rate of reliability. This ensured that studies were reliably chosen and that there were little to no mistakes or biases included in the selection of studies.

The present systematic review included 16 total studies. A summary of the final sample of included studies is depicted in Table 1. Since only one study in this review contained quantitative data, a textual narrative synthesis was utilized to examine and synthesize the extracted data. A data collection and extraction form was utilized for each eligible study to document all essential information from the studies. This form recorded the following information:

(1) General information (title, authors, year published, publication source),
(2) Design and methodology,
(3) Data on research questions (RQ1: total number of DMT sessions, length and structure of each session, utilization of music, dance experience of therapist; RQ2: symptoms reduced, diagnoses treated, growth attributes found; RQ3: data from any measures given, qualitative reports from participants about the intervention, clinical judgment from therapists about the intervention; RQ4: participants' age, racial and ethnic identity, nationality or immigration status, the types of trauma survived),
(4) Research setting characteristics,
(5) Data analyses conducted,
(6) Key results found by researchers, and
(7) Key conclusions.

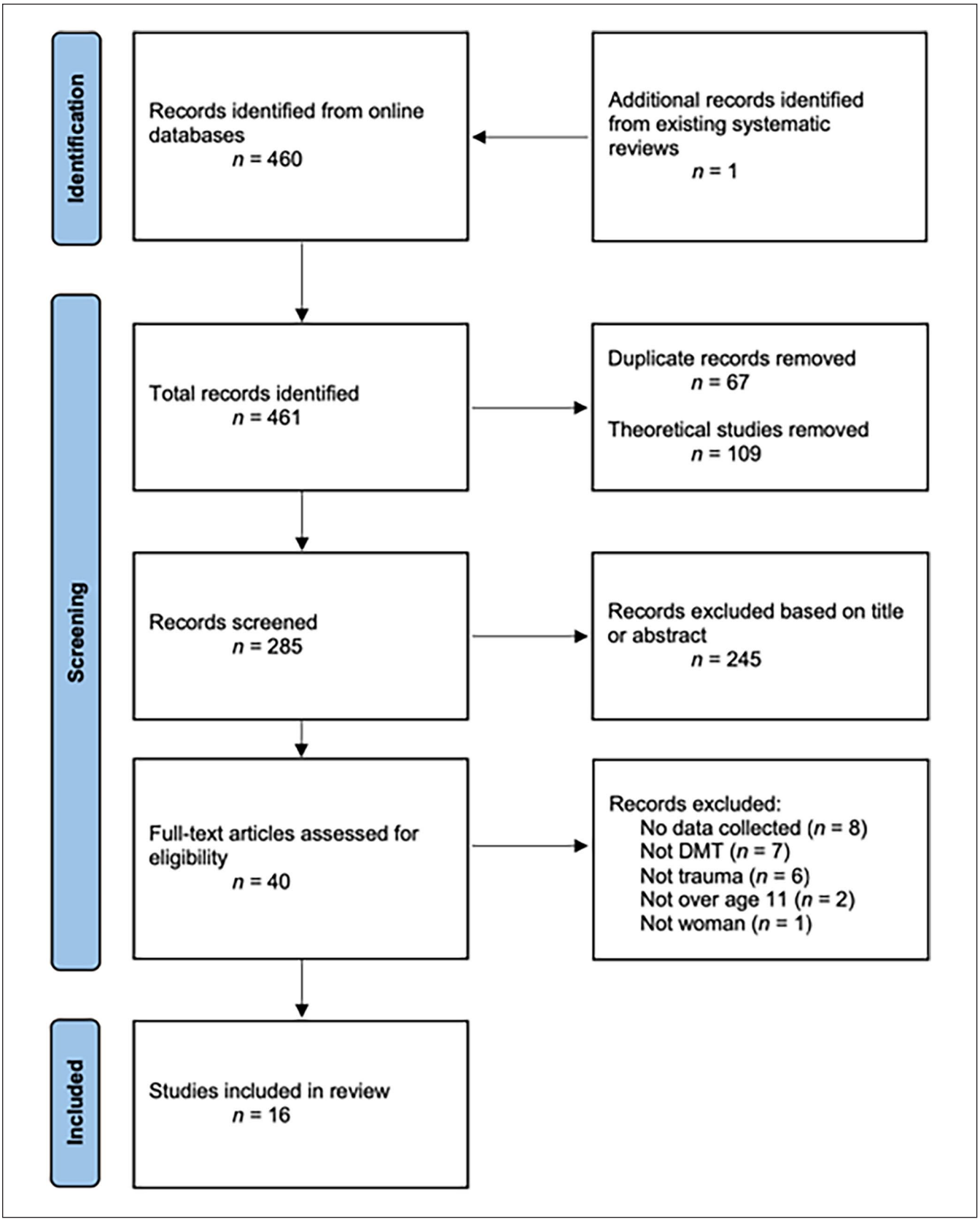


Figure 1. PRISMA flow diagram.

Table 1. Summary of Included Studies.

Study	Title	Journal	Research Method	Research Design	Sample Size
Bernstein (2019)	Empowerment-focused dance/movement therapy (DMT) for trauma recovery	American Journal of Dance Therapy	Qualitative	Phenomenological study	Not reported
Devereaux (2008)	Untying the knots: DMT with a family exposed to domestic violence	American Journal of Dance Therapy	Qualitative	Case study	1
Fargnoli (2017)	Maintaining stability in the face of adversity: self-care practices of human trafficking survivor-trainers in India	American Journal of Dance Therapy	Qualitative	Phenomenological study	6
Gray (2001)	The body remembers: DMT with an adult survivor of torture	American Journal of Dance Therapy	Qualitative	Case study	1
Harris (2019)	DMT in cross-cultural practice: fostering assertiveness with torture survivors	American Journal of Dance Therapy	Qualitative	Case study	2
Ho (2015)	A place and space to survive: A DMT program for childhood sexual abuse survivors	The Arts in Psychotherapy	Mixed Methods	Uncontrolled clinical trial	25
Koch (2008)	DMT with clergy in crisis: A (group) case study	American Journal of Dance Therapy	Qualitative	Case study	1
Koch and Weidinger-von der Recke (2009)	Traumatized refugees: An integrated dance and verbal therapy approach	The Arts in Psychotherapy	Qualitative	Case study	3
Leseho and Maxwell (2010)	Coming alive: creative movement as a personal coping strategy on the path to healing and growth	British Journal of Guidance & Counseling	Qualitative	Phenomenological study	29
Margolin (2019)	Breaking free: One adolescent woman's recovery from dating violence through creative dance	American Journal of Dance Therapy	Qualitative	Case study	1
Mills and Daniluk (2002)	Her body speaks: The experience of dance therapy for women survivors of child sexual abuse	Journal of Counseling & Development	Qualitative	Phenomenological study	5
Moe (2014)	Healing through movement: The benefits of belly dance for gendered victimization	Journal of Women and Social Work	Qualitative	Phenomenological study	20
Portokaloglou (2018)	Transplanting the soul-tree: an analytical perspective on how the Sesame approach and movement with touch and sound became the fertile soil for the psychological support and therapy for refugee women	Dramatherapy	Qualitative	Case study	Not reported
Stirling and Andrews (2022)	Somatic interventions therapists use when treating women presenting with sexual assault trauma involving tonic immobility	Body, Movement and Dance in Psychotherapy	Qualitative	Case study	1
Thomas (2015)	The dance of cultural identity: Exploring race and gender with adolescent girls	American Journal of Dance Therapy	Qualitative	Community-based participatory research	7
Verreault (2017)	DMT and resilience building with female asylum seekers and refugees: a phenomenological practice-based research	Intervention	Qualitative	Phenomenological study	8

Table 2. Participant Demographics.

Study	Age	Race/Ethnicity	International Context
Bernstein (2019)	NR	Asian	India
Devereaux (2008)	44	NR	NR
Fargnoli (2017)	22–30	Asian	India
Gray (2001)	38	African	Asylum seekers living in the U.S.
Harris (2019)	25, 39	African	Asylum seekers living in the U.S.
Ho (2015)	25–52	Asian	Hong Kong
Koch (2008)	NR	NR	Germany
Koch and Weidinger-von der Recke (2009)	NR	Various	Refugees living in the U.S. (Albania, Togo, Democratic Republic of Congo)
Leseho and Maxwell (2010)	16–67	Various	Canada, United States, New Zealand, Australia, South Africa, India, England, Brazil, Palestine, Germany, Japan
Margolin (2019)	"adolescent"	Caucasian	Canada
Mills and Daniluk (2002)	25–48	Caucasian	NR
Moe (2014)	22–68	Caucasian, Asian, Latina, Black, Native American	United States
Portokaloglou (2018)	"adults"	Various	Refugees in Greece (Syria, Iran, Afghanistan)
Stirling and Andrews (2022)	"middle aged" adult	Caucasian	Australia
Thomas (2015)	12–14	Caucasian, Asian American, Native American, African American	United States
Verreault (2017)	19–50	Various	Asylum seekers and refugees living in the Netherlands (Afghanistan, Armenia, Democratic Republic of Congo, Kosovo, Sierra Leone, Somalia, Togo)

Note. NR = not reported.

In order to examine the quality of the included studies, a quality appraisal process was used. This form was developed by the author's doctoral program and assessed the quality of the following domains: (a) strength of literature and rationale for the study, (b) clarity of research objectives, (c) quality of research design or methodological approach, (d) sample selection and characteristics, (e) measures and data tools, (f) data collection process, (g) analysis of data, (h) discussion of study limitations, (i) consideration of culture and diversity, and (j) an overall rating. Each domain received a rating of either strong (3 points), adequate (2 points), weak (1 point), or missing (0 points). The overall rating was the sum of the ratings on the 10 domains. The present author completed this form for each study in the final sample. The quality appraisal process occurred simultaneously with the data extraction process.

Results

Participants of DMT for Interpersonal Trauma

Of the included studies, the participants' age, racial and ethnic identities, and international context were incredibly diverse (Table 2). In this sample, the racial and ethnic representation spanned African, African American, Asian, Caucasian, Latina, Middle Eastern, and Native American. Five studies described the use of DMT with participants who were either refugees or asylum seekers. The majority of the studies were conducted internationally, with only two studies that were conducted in the United States with participants who did not report immigration issues.

Characteristics of DMT for Interpersonal Trauma

It was found that the characteristics of DMT varied greatly across the included studies (Table 3). The total number of DMT sessions ranged from 5 to 19. Some studies reported a warm-up at the beginning of each session, followed by some combination of movement exercises and discussions, and a cool-down at the end of each session. The use of music or silence also varied widely in the included studies; some studies used music to evoke emotions (Ho, 2015; Leseho & Maxwell, 2010; Thomas, 2015) while others used music as a tool for empowerment (Verreault, 2017) or cultural connection (Koch & Weidinger-von der Recke, 2009)

Outcomes of DMT for Interpersonal Trauma

Despite the fact that the DMT characteristics ranged widely in the included studies, the intervention outcomes that were observed had many commonalities (Table 4).

Table 3. Characteristics of DMT for Interpersonal Trauma.

Study	Total Amount of DMT	Structure of Each DMT Session	Use of Music
Bernstein (2019)	NR	1. Energizing dance warm-up 2. Discussion about theme 3. Dance about theme 4. Discussion to integrate material	Carefully selected music to help draw boundaries; Silence for open-ended movements
Devereaux (2008)	Weekly for several months	NR	NR
Fargnoli (2017)	NR	NR	Music used to let go
Gray (2001)	Weekly for 6 months; 19 sessions total	NR	NR
Harris (2019)	NR	NR	Music was used, unclear how
Ho (2015)	5 weekly sessions	20 min movement warm-up 25 min movement exercise 10 min break 25 min movement exercise 30 min discussion 10 min closing ritual	Fast music for vitality and joyful atmosphere; Steady beat for stability
Koch (2008)	NR	NR	Music was used, unclear how
Koch and Weidinger-von der Recke (2009)	NR	NR	Music from participants' home culture helped deepen therapeutic relationships and connect to participants' strengths and cultural identity
Leseho and Maxwell (2010)	NR	NR	Music and sound to connect dancer to life force and present moment
Margolin (2019)	Weekly for 3 months	NR	NR
Mills and Daniluk (2002)	At least six sessions	NR	NR
Moe (2014)	NR	NR	Music was used, unclear how
Portokaloglou (2018)	NR	NR	Music used for soothing, flow, and spontaneity
Stirling and Andrews (2022)	NR	NR	NR
Thomas (2015)	10 weeks	1. Movement warm-up 2. Discussion 3. Movement exercises to embody discussion themes	Music to evoke different emotions; also used silence
Verreault (2017)	four sessions	1. Checking in (verbal and movement) 2. Movement warm-up 3. Movement exercises about theme 4. Processing (verbal and nonverbal) 5. Closing ritual (verbal and nonverbal)	Music was used to offer choice to participants

Note. DMT = Dance/Movement Therapy; NR = not reported.

Increased Physical Awareness and Ability. Many studies reported that DMT increased participants' physical strength and range of movement (Bernstein, 2019), helped participants improve posture and confidence (Gray, 2001), and deepened participants' awareness of their bodies (Devereaux, 2008; Verreault, 2017). This is especially helpful because, commonly, survivors experience a body disconnection following the trauma, resulting in unwanted consequences.

Increased Emotional Capacity. Many studies report that engaging in movement can help increase participants' capacity for experiencing emotions. Bernstein (2019) noted that trauma responses often cause inhibition and restriction of expression, and DMT can expand participants' expressive vocabulary. For example, a dance in which the participant shakes her body can become "shaking off, shaking out or shaking free" (Bernstein, 2019, p. 199). In Devereaux (2008), participants were able to expand their "capacity for self-regulation" (p. 67) by using their own bodies in the movement process. DMT was also shown in the present review to help participants gain a greater awareness of their emotional states and abilities. For example, Fargnoli (2017) found that self-reflection was an essential theme that emerged from participants' descriptions of how DMT helped them. This reflection increased the participants' self-awareness, which increased their awareness of situations that could elicit a trauma response (Fargnoli, 2017).

Mind-Body Integration. Another finding that spans multiple studies in this review is that DMT seems to help participants with their mind-body connection. For instance, in Mills and Daniluk (2002), all of the participants reported feeling once

Table 4. Observed Outcomes of DMT with Survivors of Interpersonal Trauma.

Study	Physical Ability	Emotional Capacity	Mind-Body Integration	Safety	Trauma Processing	Empowerment	Social Support	Cultivating Joy
Bernstein (2019)	✓	✓		✓	✓	✓	✓	
Devereaux (2008)	✓	✓			✓			✓
Fargnoli (2017)		✓						
Gray (2001)	✓		✓					
Harris (2019)				✓		✓		
Ho (2015)	✓	✓					✓	
Koch (2008)							✓	✓
Koch and Weidinger-von der Recke (2009)							✓	
Leseho and Maxwell (2010)		✓	✓			✓		
Margolin (2019)					✓			
Mills and Daniluk (2002)			✓	✓	✓	✓	✓	✓
Moe (2014)				✓		✓	✓	✓
Portokaloglou (2018)		✓						
Stirling and Andrews (2022)	✓				✓			
Thomas (2015)							✓	
Verreault (2017)	✓			✓		✓	✓	

Note. DMT = Dance/Movement Therapy.

disconnected from their bodies due to their previous experiences of trauma and that DMT helped them re-establish their mind-body connection. After feeling more connected to their bodies, participants stated that they felt an increased sense of acceptance and care for their bodies (Mills & Daniluk, 2002).

Safety. DMT was found in multiple studies to help participants experience sense of safety. Bernstein (2019) notes that DMT prioritizes emotional safety to avoid possibly re-traumatizing participants during the therapy process. This is done by carefully titrating therapy issues and strengthening psycho-physical capacities in tandem with addressing the negative impact of trauma (Bernstein, 2019). Harris (2019) suggested that movement affords an enhanced sense of safety, thereby allowing survivors to move from a passive stance to an active stance.

Trauma Processing. Another main finding across multiple studies is that participants in DMT are uniquely able to process their traumatic memories because dancing allows them to feel safe in their bodies. DMT allowed survivors to feel grounded, thereby avoiding dissociation (Stirling & Andrews, 2022; Bernstein, 2019). The creative and symbolic nature of dance was additionally found to be helpful in facilitating trauma processing (Margolin, 2019).

Empowerment. Many authors in this review remarked that DMT helped participants experience psychological empowerment. DMT offered survivors a sense of agency (Bernstein, 2019; Mills & Daniluk, 2002), allowed survivors access their inner strength and resources (Leseho & Maxwell, 2010), and helped survivors build new and positive body experiences (Moe, 2014; Verreault, 2017).

Social Support and Healthier Relationships. Another significant outcome of DMT that was found across multiple studies in this review pertains to social support. Sharing within a group setting was found to help survivors find empathy and validation for others and for oneself (Koch, 2008; Thomas, 2015; Verreault, 2017). Further, the presence of others helped prevent dissociation and re-traumatization (Koch & Weidinger-von der Recke, 2009). The group setting also allowed survivors to find trust in others again and enabled survivors to have healthy relationships outside of therapy (Mills & Daniluk, 2002; Ho, 2015).

Cultivating Joy. Dance and movement were found in many studies in this review to increase the participant's capacity for playfulness, which is a welcome break from the usual heavy processes of trauma work (Devereaux, 2008). Fun and play also allowed survivors to find positive meaning, hope, and peace (Fargnoli, 2017; Ho, 2015; Mills & Daniluk, 2002).

Discussion

The present project aimed to systematically review studies in current literature that used dance or movement to help women and girls heal from interpersonal trauma. An electronic search in two online databases, as well as the reference list of a recently published systematic review on the same topic, was completed for peer-reviewed articles published in English between the years 2000 and 2022. Studies of all methodologies were included as long as a dance or movement intervention was used for the healing of interpersonal trauma (i.e., theoretical studies were excluded). Of the 460 articles identified from online databases, 39 articles were

Table 5. Implications for DMT with Women and Girl Survivors of Sexual Trauma.

Clinical implications	Utilize group therapy format
	Use the body to create metaphor, imagery, and symbolism
	Give choices
	Use music purposefully
	Value joy
Education and training	Integrate embodiment in trauma training
	Integrate trauma in dance/movement training
	Consider the context of identity, such as gender, race/ethnicity, sexuality
Research	Publish studies that provide detailed descriptions of dance/movement interventions and their results
Policy	Advocate for mental health care access to include embodied interventions with interpersonal trauma survivors

screened at the full-text level, and 15 studies were included. One additional study was identified from the existing published systematic review on the same topic. In total, 16 studies were included in this review. Of the included studies, 15 had a qualitative research design, and one had a mixed methods design. A narrative synthesis was completed on the final sample of studies. Results from the narrative synthesis revealed both commonalities and differences in the use of DMT, its observed outcomes, and its participants.

It is important to note that the field of DMT for survivors of interpersonal trauma is in need of further development. It was found that very few of the included studies provided sufficient information on the study methodology and results, which made it difficult to answer one of the present systematic review's research questions. For instance, only one of the studies gave participants pre- and post-treatment measures to assess the effectiveness of DMT (Ho, 2015). The rest of the included studies only reported the effects of DMT that the therapist had observed, with some studies also including participant reports of how DMT impacted them. Given the lack of data on treatment outcomes that were systematically collected and analyzed, research question 3 (How effective is DMT for female survivors of interpersonal trauma?) could not be answered.

In addition, upon conducting this review, the researchers found that many of the articles lacked sufficient reporting on research methodology. Many authors did not report how they recruited participants, how they collected and analyzed their data or even the limitations of their study. However, despite there being unclear or missing data, the extracted data sufficiently answered research questions 1, 2, and 4. Synthesizing the existing data yielded interesting results that could help practitioners of psychotherapy who wish to use dance and movement to help their female clients who have survived interpersonal trauma.

DMT has been found in the current review to be beneficial for female survivors of interpersonal trauma. The following are some recommendations, based on current literature, that practitioners should consider if they wish to utilize dance and movement to help women and girls heal from interpersonal trauma or refer their clients for DMT as an adjunctive treatment (Table 5).

1. Use groups. The group setting was found to be an important aspect of what helps survivors. The support given from a group of other survivors was the most commonly observed outcome in the set of included studies reviewed. Witnessing each other be vulnerable and share in both discussion and movement was found to engender safety, connection, and subsequent sharing (Koch, 2008; Mills & Daniluk, 2002). It was also found that being in a group setting may have helped participants avoid dissociative symptoms and re-traumatization (Koch & Weidinger-von der Recke, 2009). There is great benefit from conducting DMT in a group of multiple female survivors, as opposed to conducting DMT individually.
2. Use the body to create metaphor, imagery, and symbolism. The use of figurative expression, as created by the body during dance and movement, was found to help participants process difficult material in a safe way. For instance, "shaking dances can become shaking off, shaking out or shaking free" (Bernstein, 2019, p. 199); exploring the physical boundary of the environment can become a metaphor for re-establishing one's emotional boundaries with others (Devereaux, 2008; Ho, 2015); using the arms to create a pushing motion can symbolically "push" (Fargnoli, 2017, p. 39) away feelings of shame. Using figurative expression can offer survivors a way to bypass defense mechanisms such as intellectualization (Mills & Daniluk, 2002), thereby being an excellent tool to help survivors process traumatic memories.
3. Give choices. Many studies found that survivors found empowerment through making their own choices within DMT (Ho, 2015; Leseho & Maxwell, 2019; Moe, 2014). Some examples can be offering survivors the choice to "take the lead or not, to use music to not, to turn off the music, to rest or lie down, to inquire about their bodily needs during the sessions" (Verreault, 2017, p. 126) or simply giving the choice to "adjust their participation according to their own needs, agendas, and comfort levels" (Mills & Daniluk, 2002, p. 82). Consistent with the current literature on trauma-informed care (Reeves, 2015),

giving clients as much autonomy as possible seems to be an important aspect of treating survivors of interpersonal trauma.

4. Use music purposefully. Although many studies in the current review did not document their use of music, in the studies that did mention it, it was found that music can help evoke emotions (Thomas, 2015), create atmosphere/mood (Ho, 2015; Portokaloglou, 2018), and help connect a survivor to the present moment (Leseho & Maxwell, 2019). Music also has the potential to help connect a survivor to her cultural identity, and thereby helping the survivor access the strength she derives from her culture (Koch & Weidinger-von der Recke, 2009); however, this was notably a rare finding, unique to the circumstances of the participant in this case study, and it should be noted that not all survivors of interpersonal trauma will have a strong cultural identity from which to derive strength.
5. Don't forget the importance of joy. According to the studies in this review, DMT has the potential to infuse trauma recovery—a type of treatment that is typically heavy and difficult—with creativity, joy, and fun. Not only does this help with therapy retention rates because survivors feel more able to continue with the heavier aspects of treatment (Mills & Daniluk, 2002), having fun is healing for survivors who, because of the trauma they survived, have historically lived difficult and painful lives (Devereaux, 2008; Fargnoli, 2017; Ho, 2015; Mills & Daniluk, 2002; Moe, 2014). Therefore, it is important for practitioners of DMT to remember the importance for having fun.

Limitations

The current systematic review has two noteworthy limitations. Many included studies had a significant lack of sufficient data on study methodology, participant characteristics, and intervention characteristics. These low-quality studies were not excluded due to the fact that the present topic is still emerging in current literature and excluding these studies would result in excluding a significant portion of the data. However, including these studies could have potentially exaggerated the overall results of this study and led to incorrect inferences (Khan et al., 1996). The second limitation is that one investigator completed the data extraction process. To strengthen the study, a full research team would be involved in the extraction to minimize the possibility of overlooking significant studies. In the current study, the second investigator served as the auditor to review the extractions that the principal investigator completed.

Recommendations for Future Research

Results of this review seem to suggest that practitioners who wish to utilize DMT can be flexible in the way they implement the intervention; there is not one standardized way to conduct DMT. It might benefit the field of DMT for interpersonal trauma for future practitioners and researchers to create a standardized intervention. The advantages of a manualized intervention are great; it can elevate DMT to evidence-based practice, ensure that treatment outcomes are as successful as possible, and facilitate training for other practitioners (Mansfield & Addis, 2001). However, manual-based treatments are not without their potential disadvantages. A creative intervention such as DMT relies on imagination and flexibility. Since every client of DMT is unique, a one-size-fits-all intervention may not be effective for all clients, and a manual could restrict the full healing power of this artistic form of healing.

Additionally, the field of DMT for interpersonal trauma would greatly benefit from further research that is rigorous in its methodology. As previously mentioned, the majority of the studies in the current review had a lack of information on the research methodology. Without this information, it would be virtually impossible to replicate these studies and verify treatment validity. Future researchers in this field should consider implementing more rigorous methodology and documenting their research more thoroughly to increase the credibility of this intervention. DMT, being a more valid and credible intervention, will ultimately help survivors of interpersonal trauma find healing.

The current review focused on the racial/ethnic representation and international context of survivors of interpersonal trauma who identify as cis-gender women and girls. Gender identity and sexual orientation are missing dimensions of cultural identity from this review. Importantly, people of all gender identities are victimized by interpersonal trauma, and a survivor's gender identity could significantly affect their experience of trauma recovery. The studies in the present review only contained participants who were cis-gendered women because no studies of transgender individuals could be identified. It would be important for future research to examine how LGBTQIA+ individuals who have survived interpersonal trauma experience DMT and whether DMT is an effective intervention for them.

Finally, it was found that current literature on the use of DMT for interpersonal trauma in women and girls lacked quantitative research, and when quantitative data was reported, it was only secondary to the qualitative data. There are many advantages of qualitative research; qualitative data builds a "complex, holistic picture" (Creswell, 1998, p. 15) to describe the human experience, and the language nature of qualitative research allows for complex topics such as the one discussed in the present dissertation to be investigated without reducing its complexity to a set of numbers. However, given the complete lack of quantitative data, the field of DMT would benefit from future quantitative research to balance out the qualitative literature that already exists. Quantitative research has the potential to reduce bias by using more objective modes of data collection (Almalki, 2016). Future research that creates a manualized treatment

protocol, uses more rigorous research methodology, or uses quantitative approaches could all potentially further legitimize this intervention in the eyes of policymakers and health care providers.

Given that the topic of using dance and movement to help heal survivors of interpersonal trauma is still emerging in current literature, all future research on this topic would benefit this field. It was particularly important for the present paper to systematically review the existing literature. By summarizing the studies that have been conducted, ascertaining the parts of this intervention that seem to be effective, and identifying the gaps in current literature, the present paper bolsters the knowledge of this intervention, ultimately allowing survivors to further gain access to a treatment approach that could help them in their journey of trauma recovery.

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