

Caregiver Resilience and Dance/Movement Therapy: A Theoretical Review and Conceptual Model

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Abstract

With the population aging, more people are living with neurodegenerative conditions, leading to an influx of informal family caregivers, who often experience negative health outcomes. Few caregiver interventions have successfully adopted a holistic, strengths-based approach to fostering resilience. This article examines existing literature on caregiver resilience factors, which include self-efficacy, flexibility, cultivating positive emotions, and drawing on spiritual and social supports. Despite how dance/movement therapy (DMT) has been shown to foster psychological and physiological benefits, it remains underexplored for caregivers. Therapeutic mechanisms of DMT are expounded for their innate correspondence to resilience factors, and a new comprehensive model of DMT for caregiver resilience is presented, with implications for future intervention design and measurement.

Keywords

caregiving, well-being, dance/movement therapy, resilience

What this paper adds

- Review of resilience factors for caregivers of an individual with a neurodegenerative condition.
- Emphasizes the need for adopting a holistic approach in caregiver interventions.
- A conceptual rationale for using dance/movement therapy to address the complex needs of caregivers.

Applications of study findings

- Dance/movement therapy should be further investigated for caregiver well-being and resilience.

Introduction

As the population ages, the number of adults living with neurodegenerative conditions will increase, resulting in a greater need for family caregivers. Understanding how living with a neurodegenerative condition (e.g., dementia) affects caregivers is of vital importance, as they are at risk for a variety of health challenges (e.g., Bom et al., 2019; Schulz et al., 2020). While much research has documented the negative impacts of caregiving, opportunities for growth and redefining meaning in life are also possible (Harmell et al., 2011; Palacio et al., 2020; Zhou et al., 2021). Most psychosocial interventions which have been examined for caregivers focus on reducing psychological dysfunction (depression, anxiety, stress) but there is a plea for interventions that consider other aspects which contribute to well-being such as personal growth and meaning-making (Palacio et al., 2020). Given that caregiving is multifaceted and complex, drawing on a variety of resilience resources is

essential. Which interventions may alleviate negative caregiving outcomes and foster strengths-based outcomes? Dance/movement therapy (DMT) innately taps into holistic domains of wellness, but very little work has drawn out the theoretical or empirical applications of DMT to caregiver well-being. The aim of this paper is to explore the conceptual intersections of caregiver resilience models with DMT outcomes and therapeutic mechanisms to articulate a rationale

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for further exploring DMT for caregivers. Implications for future intervention design and measurement are shared.

Literature Review

Caregiver Resilience

When someone is diagnosed with a chronic or acute health challenge, family members often step in to assist with care (Bailey & Harrist, 2018). Yet in the context of neurodegenerative conditions, such as dementia and Parkinson's disease, which are incurable and progress over time, family caregivers can become increasingly burdened (Schulz et al., 2020). With illness trajectories of 10–15 years (Harmell et al., 2011), caregivers must learn to cope with their loved one's illness as it progresses. As rates of dementia are expected to triple globally by 2050 (Cao et al., 2020), understanding how these caregivers can be optimally supported is important. It is proposed that caregivers can be resilient when they successfully draw on a variety of factors for support (e.g., Wister & Cosco, 2020).

Resilience is a multifaceted construct which has to do with having competence for, an outcome of, or a process of effective coping in response to adversity (Herrman et al., 2011; Mayordomo et al., 2016). To account for change over time, and contextual factors of experience, conceptualizing resilience as a process, or process-outcome is gaining traction. As a process, an individual's capacity to be resilient emerges and changes with each new challenge faced (Bonanno et al., 2015; Herrman et al., 2011). Among family caregivers, Palacio and colleagues (2021) describe resilience as a dynamic task which requires adaptation, and can lead to transcendent, positive growth experiences.

Existing Caregiver Resilience Models

Broadly, according to Bonanno et al. (2015), before one can consider how to promote resilience, one must begin with the question: "Resilience to what?" (Bonanno et al., 2015, p. 141). Their model of psychological resilience is comprised of four temporal elements: baseline or pre-adversity adjustment, the actual aversive circumstances (acute or chronic), post adversity resilient outcomes, and predictors of resilient outcomes measured over time. For example, among cancer caregivers, predictors of resilient outcomes included caregiver flexibility, positive attitude, and meaningful relationships (Opsomer et al., 2022).

More specifically, Zhou et al. (2021) propose a comprehensive model of resilience in dementia caregiving based on a scoping review of resilience literature among dementia caregivers in the past twenty years. The majority of the included articles (62%) defined resilience as a process-outcome, in which caregivers' self-perceived capacities or resources (e.g., coping strategies) to address challenges over time were measured. Their model posits that caregiving adversity influences the resilience process, as does personal

traits and environmental resources. The resilience process can then result in outcomes related to adversity, and/or personal growth outcomes (Zhou et al., 2021). In the following section, resilience resources or factors which have been identified as important for caregivers will be reviewed.

Caregiver Resilience Factors

Self-Efficacy

Self-efficacy or having a sense of mastery has been highlighted as a resilience domain by many gerontology researchers (e.g., Harmell et al., 2011; Kim & Knight, 2018; Resnick, 2020; Teahan et al., 2018). For example, when caregivers perceive greater self-efficacy to manage dementia symptoms, they may experience less burden and depression (Gallagher et al., 2011). While self-efficacy may be significantly improved by psychosocial interventions (e.g., cognitive behavioral therapy and mindfulness) for dementia caregivers (Tang et al., 2016), authors recommend that future interventions are more clearly developed based on theoretical structures (Tang et al., 2016). When one believes that they can cope with challenges, this has been positively associated with life satisfaction and health factors (e.g., lowered cardiovascular risk) for dementia caregivers (Harmell et al., 2011; Kim & Knight, 2018). Yet when caregiving demands pile up, mastery may decrease, leading to subsequent distress (Khalaila & Cohen, 2016). These findings suggest that interventions which aim to increase mastery and emphasize engaged coping strategies for caregivers should continue to be developed (Khalaila & Cohen, 2016).

Flexibility

Flexibility is related to creativity and being engaged in the present moment (Hayes et al., 2012). Specifically, flexibly adjusting one's preferences and readily negotiating a new equilibrium amidst loss are seen as positive coping strategies (Bonanno et al., 2015). While having more flexible thought patterns has been associated with less distress among dementia caregivers (Kishita et al., 2020; Lappalainen et al., 2021), rigid preservation is related to negative health outcomes (Bonanno et al., 2015). It remains unclear if/how flexibility could be enhanced in older adults in general, and for aging caregivers in particular. Researchers suggest that future resilience-building interventions should investigate this (Bonanno et al., 2012).

Cultivating Positive Emotions

Another important domain to consider for caregiver resilience is emotional regulation. The *broaden and build hypothesis* posits that positive affective states expand one's attention and cognitive operations, fostering resilience (Frederickson & Braingan, 2001; Ong et al., 2020). Drawing on positive

experiences amidst a present challenge may enable more positive outcomes for caregivers (Ong et al., 2020). Relatedly, *savoring*—consciously paying attention to positive aspects of experience—may meaningfully enhance resilience in older adults (Anderson & Heyne, 2012; Smith & Hanni, 2019). Humor and the creative arts may cultivate positive emotions in the present moment (Hayslip & Smith, 2012; Resnick, 2020; Walsh, 2012).

Spirituality

Spiritual resources are commonly drawn upon amidst adversity. Wong and colleagues (2018) state: “it is probable that the sacred is not the *only* answer to coping with challenges, but it is a good one... the sacred dimension is wholly relevant to resilience” (p. 193, 199). Spirituality provides avenues for caregivers to make sense of and accept the ambiguous loss which they face (Walsh, 2012). Relatedly, finding positive aspects of caring may reduce burden, and increase satisfaction with the process of caregiving (Heo, 2014; Palacio et al., 2020; Teahan et al., 2018). Specifically, positive religious coping significantly predicted more positive appraisals of the caregiving situation (Heo, 2014). Furthermore, while it is not always the case that spirituality leads to positive affect, *hope* represents an acceptance of the co-existence of joy and sorrow (Ramsey, 2012). With a progressive illness such as dementia, finding reasons to hope is essential. Hope is positively associated with engaged coping (Hellman et al., 2018), whereas the perpetual experience of losing hope is associated with rage and despair (Hellman et al., 2018). In a systematic review of family caregiving, Palacio et al. (2020) propose that more interventions which foster hope and spirituality are needed.

Social Support

Although considering all of the forms of social support is beyond the scope of this review, social support does consistently emerge as a central resilience factor (Clark et al., 2018). Social support can include the exchange of resources, as well as the benefits of belonging to certain social groups (Cohen et al., 2000). Interpersonal relationships and shared activities can help to buffer stress, and experiencing positive emotions with other individuals is important for late-life resilience (Bonanno et al., 2012). In general, caregivers with more developed social networks may be more likely to use positive coping strategies and have lower depression levels (Teahan et al., 2018). Dementia caregivers with higher family or friend support have been found to be more likely to experience high resilience, despite high stress (Wilks & Croom, 2008). Oftentimes, faith communities such as church provide important sources of support for older adults. For example, Pessotti et al. (2018) found that increased severity of dementia was associated with greater organized religiosity (e.g., attending church services) and subsequent resilience outcomes in caregivers. Reviewing these resilience

factors highlights a need for caregiver interventions which emphasize promoting self-efficacy, mastery, positive emotions, spirituality, and social support. Dance/movement therapy (DMT) is an optimal approach to meet these needs and will now be described.

Dance/Movement Therapy

The variety of resilience factors for caregivers reveals the complex nature of coping with the ongoing demands of caregiving. If drawing on personal, spiritual, and social supports is essential to caregiver well-being, then the way that interventions are designed should likewise be multifaceted. Importantly, dance/movement therapy (DMT) utilizes movement to promote the emotional, social, cognitive, physical, and spiritual integration of the individual (ADTA, 2022; EADMT, 2018). DMT, which prioritizes improvised and expressive movement (Dunphy et al., 2019), is distinct from other dance-based interventions such as *dance-exercise*, which emphasizes the aerobic qualities of dance, or *community dance/adapted-dance*, in which dance is taught to a particular population. DMT is a whole-person approach which can foster resilience through embodied opportunities to create, engage in coping skills, and connect with others (Serlin, 2020; Wengrower, 2015). A substantial body of research documents positive psychological and physiological outcomes of DMT, ranging from increased positive affect and stress management, to decreased depressive symptoms (e.g., Koch et al., 2019; Martin et al., 2018).

Broadly, the creative-arts therapies (CATs), including music therapy, art therapy, and dance/movement therapy, have been explored within older adults. Among people with dementia (PwD) and their caregivers, music and visual art interventions are the most common (Irons et al., 2020). Irons et al.'s (2020) systematic review found that barriers to participation (e.g., caregiver frustration at partner), belonging, acquiring new skills, meaning-making, and perceived caregiver growth (Irons et al., 2020) were themes. Importantly, Irons and colleagues (2020) emphasize that caregivers were implicitly considered “co-facilitators” in these interventions, supporting the PwD while also engaging in the activity themselves. This type of caregiver burden led to many dyads dropping out. This reflects a need for programs which relieve caregivers of their responsibilities (Irons et al., 2020). Additionally, no DMT studies met their inclusion criteria, and they suggest that more studies are needed to understand how DMT may benefit this population (Irons et al., 2020).

While minimal, some pilot studies have explored dance-based interventions for people living with neurodegenerative conditions and their caregivers, yet most of these interventions are not DMT. For example, Hill et al. (2018) designed a multi-modal program with some DMT techniques in which three couples explored their strength and resilience to navigate dementia (Hill et al., 2018). Additionally, Casey et al. (2020) examined a group movement program for couples

coping with dementia, which involved cognitive stimulation, body awareness, and social engagement. Caregivers reported personal improvements in mindfulness, enjoyment of movement techniques, and social support, but also that trying to adapt for their partner was challenging (Casey et al., 2020). Furthermore, community dance for PwD and their caregivers may provide psychological benefits including flow and social engagement (Petts & Urmston, 2022). Additionally, findings from some preliminary music therapy interventions for dementia caregivers indicate that CATs provide opportunities for self-care when one is meaningfully absorbed, can co-create with others, and express personal themes (e.g., caregiver identity) (García-Valverde et al., 2019, 2021). Ultimately, there is a paucity of research on dance-based interventions in which family caregivers are not expected to co-facilitate (Irons et al., 2020). Yet perhaps opportunities for caregivers to engage in DMT for their own sake could provide revitalization or self-care, but no empirical research has considered this. To illustrate how DMT could support caregiver well-being and provide a rationale for designing and evaluating DMT interventions for caregivers, the correspondence between resilience factors and therapeutic mechanisms of DMT will be drawn out.

Correspondence Between Caregiver Resilience and DMT

Conceptual and Empirical Overlap

Conceptually, the factors which were identified to promote resilience in the context of caregiving are holistic in nature, including cognitive (e.g., flexibility), emotional (e.g., cultivating positive emotions), spiritual (meaning-making), and social (interpersonal support) domains. It seems then that the nature of caregiver resilience is having the capacity to draw on a variety of meaningful resources (e.g., Palacio et al., 2020). Resilience aligns with a strengths-based approach which focuses on personal goals and aspirations, rather than on dysfunction (Anderson & Heyne, 2012). Accordingly, interventions which aim to elicit resilience should align with this approach. Yet most of interventions for caregivers which have been evaluated draw on stress-process models and aim to reduce caregiver psychopathology symptoms such as depression (Schulz et al., 2020). While some interventions of this type have shown benefits, results of efficacy are mixed (Gillhooly et al., 2016; Schulz et al., 2020). Schulz et al. (2020) argue that research which evaluates these approaches over time is needed, and that integrating physical activity into interventions is a promising next step. Mind-body approaches which integrate mental and physical health may be best suited for understanding older-adult resilience (Ong et al., 2010).

DMT is a single intervention which intrinsically offers the benefits of physical activity, while simultaneously engaging the emotional, cognitive, spiritual, and social systems (Bamstaple et al., 2020). Shreeves, a dance/movement therapist puts it this

way “dance is a unifying activity involving the whole self” (Shreeves, 2006, p. 232). DMT is thought to promote resilience on multiple levels simultaneously: physical (kinesthetic intelligence, non-verbal processing), psychological (self-regulation, emotional expression), social (forming and sustaining attachments with the group), and spiritual (authentic expression) (Serlin, 2020), yet DMT is currently underexplored for caregiver outcomes.

Empirically, researchers outside of the context of aging have explored DMT and resilience, such as Shim et al. (2017) who identified a model of DMT for resilience-building among individuals with chronic pain. Activating self-agency, connecting to others, enhanced emotional well-being, reframing, and connecting to the self in DMT facilitated resilience outcomes (Shim et al., 2017). Additionally, DMT has been explored for resilience enhancement among parental caregivers with a child on the autism spectrum (e.g., Aithal et al., 2020; Champagne & Macdonald, 2022). It is suggested that future research considers the utility of DMT for other types of caregivers (Aithal et al., 2020).

Theoretical Overlap

Broadly, CATs are proposed to “go beyond” traditional psychotherapies, because they emphasize the *unity* of body, mind, action, and perception (Martin et al., 2018). *Mechanisms of change* are theory-driven processes which explain *how* or *why* therapeutic change occurs (de Witte et al., 2021). In DMT specifically, synchrony, expression, rhythm, vitalization, integration, cohesion, education, and symbolism have been identified as central mechanisms in the therapeutic process (Schmais, 1985). More recently, Koch (2017) proposed a framework of embodied aesthetics with five mechanisms of CATs. Integrating Koch’s (2017) framework with the previously identified caregiver resilience factors provides a novel theoretical rationale for how DMT may enhance caregiver well-being. See Table 1 for a comprehensive model which exemplifies how DMT therapeutic mechanisms correspond to caregiver resilience factors, with examples of DMT techniques included. DMT can uniquely reinforce one’s kinesthetic sense of these factors.

In her model of embodied aesthetics, the first mechanism described by Koch (2017) is *hedonism: pleasure and play*. In DMT, movement improvisation and role-play (de Witte et al., 2021) can promote playfulness, cognitive flexibility, positive emotions, and feelings of belonging within the group (Koch, 2017), all of which were identified as central to caregiver resilience. This factor is related to vitalization (Schmais, 1985), which is of relevance for caregivers who feel physically fatigued or burdened. Additionally, DMT props such as an Octaband® (bright, stretchy fabric strips attached at the center) encourage participants to creatively engage with one another (Champagne & Macdonald, 2022).

Second, *aesthetics: art for beauty and authenticity*. Koch (2017) describes how CATs such as DMT facilitate opportunities to produce something perceived as beautiful, which in

Table 1. Comprehensive Model of Caregiver Resilience and DMT Mechanisms.

Embodied Aesthetics Domain (Koch, 2017)	Corresponding Caregiver Resilience Factors	Example DMT Techniques
Hedonism	Cultivating positive emotions (e.g., Wister & Cosco, 2020) Cognitive flexibility and present-moment engagement (e.g., Hayslip & Smith, 2012) Social support (e.g., Cohen et al., 2000)	Movement improvisation, use of DMT props
Aesthetics Symbolism: Cognitive, Affective, Transpersonal	Self-efficacy (e.g., Kim & Knight, 2018) Sense of mastery (e.g., Harmell et al., 2011) Meaning-making and spirituality (e.g., Ramsey, 2012) Social support	Authentic movement, co-creation Movement metaphors, mirrored movement
Enactive Transitional Support	Sense of mastery Creation and rehearsal of active coping behaviors (e.g., Khalaila & Cohen, 2016)	Rhythm and ritual
Generativity	Self-efficacy Spirituality Creativity (e.g., Goulding et al., 2018)	Embodying personal themes in movement

turn can reinforce self-efficacy beliefs. Self-efficacy was identified as a key resilience factor among caregivers (e.g., Tang et al., 2016). In DMT, co-creating movement phrases about personal themes or engaging in authentic movement could foster resilience on an embodied level (body self-efficacy) (Fuchs & Koch, 2014).

Third, three types of meaning-making, or *symbolizing* occur in DMT. *Cognitive symbolizing* represents how art helps to integrate and structure life events. In movement, reframing an ongoing challenge may bring about a renewed sense of mastery (Koch, 2017). *Affective symbolizing* has to do with the expression of identity and emotions, and *transpersonal symbolizing* occurs when art connects someone to something greater than themselves, such as community and/or spiritual beings/God (Koch, 2017). In DMT, movement metaphors might be created, in which embodied appraisal occurs (Martin et al., 2018), and movement dialogues can enforce feelings of being seen and supported by others (Koch, 2017). These three types of symbolizing intricately connect to important resilience factors identified for caregivers, such as sense of mastery, experiencing positive emotions, connecting to spirituality, and the need for caregivers to be in supportive social groups (e.g., Kim & Knight, 2018).

Fourth, *enactive transitional support: art for shelter and test-acting in times of change* (Koch, 2017). When life is in flux, artistic engagement can provide an avenue to regain a sense of control. In DMT, rhythmic synchrony with other individuals, as well as movement rituals can be catalysts of this type of support (Koch, 2017). Caregivers of a loved one with a neurodegenerative condition need to dynamically adapt, as the disease progresses (Bailey & Harrist, 2018; In Bailey & Harrist, 2018; Palacio et al., 2020). Thus, DMT may provide a multifaceted space for caregivers to find respite and stability amidst ongoing change. In this sense, engagement in the DMT group could facilitate the expansion of adaptive coping behaviors, which are important for caregiver resilience (Palacio et al., 2020).

Lastly, *generativity: art for creation, self-efficacy, and leaving something behind* (Koch, 2017). In creating, “the person experiences their own effectiveness” (Koch, 2017, p. 89), which can lead to reinforced self-efficacy beliefs and strengthened resilience resources (Goulding et al., 2018). Creative movement in particular is a powerful way to recognize the immanent abilities of the self (Sheets-Johnstone, 2010). In DMT, caregivers could create movement phrases inspired by personal themes. For caregivers, self-efficacy has been identified as an important contributor to resilience (e.g., Tang et al., 2016), and adopting Koch’s (2017) framework of embodied aesthetics provides a relevant theoretical structure of how it could be increased (Tang et al., 2016) in a holistic way.

Discussion and Conclusions

In this paper, a review of caregiver resilience models and resources highlighted the holistic nature of resilience, in which caregivers who can draw upon a variety of resources seem to fare better over time. These factors include self-efficacy, sense of mastery, flexibility, cultivating positive emotions, and engaging with spiritual and social supports. The correspondence between these factors, and the whole-person approach (Serlin, 2020) of DMT was then drawn out. Despite how DMT is proposed to build resilience, DMT remains underexplored for caregiver well-being. Most caregiver interventions which have been investigated focus on stress-process models (Schulz et al., 2020) and creative-arts therapies for this population typically include both the caregiver, alongside the person with the condition (Irons et al., 2020).

Implications for Intervention Design

To promote caregiver resilience in a more holistic fashion, interventions which utilize a mind-body approach, such as DMT warrant further exploration. Presently, there is a lack of research

on CATs in which family caregivers are not expected to co-facilitate the intervention (Irons et al., 2020). Thus, perhaps providing opportunities for caregivers to engage in DMT for their own sake would be beneficial. Before *pilot studies*, which focus on outcomes are conducted, *feasibility studies*, which focus on process (Orsmond & Cohn, 2015) should be run. Process aspects such as intervention accessibility and preliminary evaluation of participant responses are important to explore (Orsmond & Cohn, 2015). For example, finding ways to encourage caregivers to engage in respite may include coordinating a caregiver DMT group at the same time/location as a community program for the person with the neurodegenerative condition. This strategy has been found to be useful in a DMT group for parental caregivers (Champagne & Macdonald, 2022), as time and economic constraints can be alleviated. Additionally, considering differing needs of caregiver sub-types (e.g., partner vs. adult-child) is important due to the heterogenous nature of caregivers as a group (Pinquart & Sørensen, 2011). Future research could consider the appeal of DMT based on caregiver gender, age, relationship to care recipient, and interest in the creative arts.

Another type of consideration pertaining to intervention design is training of the intervention facilitator. Dunphy et al. (2019) reviewed CATs for older-adult depression and emphasize that none of the dance-based interventions which met the inclusion criteria had been facilitated by a trained dance/movement therapist, despite claiming to be a DMT intervention (Dunphy et al., 2019). Importantly, across all the CATs investigated, those which had been facilitated by certified creative-arts therapists had more significant and positive outcomes (Dunphy et al., 2019). Thus, to develop and offer the most high-quality interventions, it is crucial that the facilitators are trained within the therapeutic modalities that the intervention purports to be evaluating. While other forms of dance-based interventions could benefit caregivers, clinical practice research on DMT which clearly articulates and tests therapeutic mechanisms and is needed.

Implications for Intervention Measurement

Beyond intervention design, considering therapeutic mechanisms of DMT has implications for how future caregiver interventions are evaluated. Primarily, it is essential to utilize measurements beyond psychopathology as indicators of “resilience.” Resilience has commonly been operationalized as a lack of depressive symptoms among caregivers (e.g., Zhou et al., 2021). Yet resilience ought to be seen as much more than avoiding extreme negative outcomes (Bonanno et al., 2015). Trying to understand the mechanisms of interventions such as DMT is an opportune starting place. Specifically, quantitative measures have been developed for some of the proposed therapeutic mechanisms of DMT, including a body self-efficacy scale, a scale for active creativity, and a more general CAT therapeutic factors scale (Fuchs & Koch, 2014; Koch et al., 2016; Lange et al., 2018).

Additionally, the utilization of outcome measures which emphasize broader domains of well-being, such as spiritual well-being (Palacio et al., 2020), or psychological flourishing (e.g., Diener et al., 2010), would help to identify how CATs foster resilience. More longitudinal studies would also be optimal, in correspondence with the process-outcome conceptualization of resilience, which is context and time specific (Zhou et al., 2021).

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