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The Lived Experiences of Adult Male Trauma Survivors with Dance Movement Therapy

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This is to certify that the doctoral dissertation by

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Abstract

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by

Jeanne Merkle Langston

MFA, The New School University, 2002

BS, Arizona State University, 1983

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

In the United States, approximately 7.7 million individuals are affected by posttraumatic stress disorder (PTSD) at any given time. Though women are likelier to develop PTSD symptoms, men are exposed to more traumatic events in their lifetimes. Empirically-supported PTSD options exist, however clinical application of these treatments may not consistently culminate in beneficial outcomes. Dance Movement Therapy (DMT) has demonstrated positive treatment outcomes for a variety of mental and physical disorders. Nonetheless, there is a lack of robust research related to the treatment experiences of men who have participated in DMT for trauma-related symptoms. The purpose of this phenomenological study was to explore this research gap. Focusing on adult male trauma survivors, the research question addressed the lived experiences of participating in DMT and the meaning ascribed to this involvement. Eleven adult male participants were interviewed via audio-recorded telephone interviews consisting of semistructured interview questions. Through a constructivist lens, the modified Van Kaam method of analysis was implemented revealing 4 emergent themes. The findings of this explorative study suggested positive PTSD symptom outcomes for all 11 participants including improvements in social belongingness, social acceptance, quality of life, and a reduction in symptoms of anxiety and depression. Accordingly, the findings of this research may help to advance social change through broadening clinical awareness of the beneficial neurogenic treatment advantages of somatic and creative interventions such as DMT for PTSD. Moreover, these findings may augment existing research related to movement-based treatment options for individuals coping with PTSD and trauma-related symptoms.

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Dedication

For all those who have encountered trauma and danced among the waves towards health. May hope and resiliency inspire you onward.

Dance, when you're broken open.

Dance, if you've torn the bandage off.

Dance in the middle of the fighting.

Dance in your blood.

Dance when you're perfectly free.

— Rumi

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True creativity and innovation

Come from being able to stand at the intersection of

Art and Science.

—Walter Isaacson

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Chapter 1: Introduction to the Study

Introduction

Inquiry related to the negative consequences of experiencing a traumatic event is prolific within the sphere of social science research (Brewn, Andrews, & Valentin, 2000; Peirce, Brooner, King, & Kidorf, 2016; Rutkowski, Dembińska, & Walczewska, 2016). The impact of experiencing a traumatic event is often socially debilitating and may affect personality development and contribute unfavourably to daily functioning across the lifespan of an individual (Atwoli, Stein, Koenen, & McLaughlin, 2015; Ford, 2014; Hampson et al., 2016; Rutkowski et al., 2016). Additionally, adverse repercussions of an individual's experience of a traumatic event frequently reverberates to the broader global community. Despite the negative social consequences, it is arguable that articulate understanding related to posttraumatic stress disorder (PTSD) risk factors, the elements contributing to individual vulnerability for contracting PTSD, and assigning consistently effective treatment methods remain insufficient (American Psychological Association, Division 12, 2016; Brewin et al., 2000). In this chapter, I present an overview of the background of this study and highlight: the problem statement, purpose of the study, research questions, conceptual framework, definition of terms, assumptions, scope and delimitations, limitations, and the significance of the study, and then conclude with a chapter summary.

Background

The following section provides a brief overview of the creative processes related to trauma. An abbreviated discussion of dance movement therapy (DMT) is also

included. A comprehensive historical overview and description of DMT is subsequently presented in Chapter 2.

Various creative processes including theatrical, visual, dance, and musical expression are linked to brain neuroplasticity, reduced physiological stress, increased empathic understanding, and to beneficial treatment outcomes for individuals with trauma-related disorders (Amagdei, Baltes, Avram, & Miu, 2010; American Dance Therapy Association [ADTA], 2016; Bräuninger, 2012a; Christensen, Gomila, Gaigg, Sivarajah, & Calvo-Merino, 2016; Dayton, 2005; Herdener et al., 2010; Kaltsatou et al., 2015; McVea & Reekie, 2007; Pantev & Herholz, 2011; Ragert, Schmidt, Altenmüller, & Dinse, 2004; Singer, 2009). Despite the existence of field-tested support integrating creative arts and traditional trauma therapies, it seems the application of adjunct or somatic therapies continues to be a challenge for some mental health practitioners, as related to implementing an evidence-based integrated treatment model for survivors of trauma (American Psychological Association [APA], 2016; Degges-White & Davis, 2011; Levy, 2014b). Moreover, an opportunity exists for creating a standardized language within the DMT group process, furthering the possibility of gaining understanding into the specific mechanisms and processes that may contribute to a clinically effective treatment outcome for PTSD survivors (ADTA, 2016; Bräuninger, 2012a, 2102b, 2014).

Foa, Keane, Friedman, and Cohen (2012) expressed complemental therapies including imaginable exposure therapy and guided imagery as primary aspects for treating trauma-related disorders. Important components of current interventions for assisting individuals with PTSD include reframing, cognitive restructuring, and identifying distorted cognitions, which arguably may all be managed through

participation in DMT (ADTA, 2016; American Psychological Association, 2016). For example, via representational movement and expressive role playing, an individual may undergo a state of dual time, someplace during in vivo, in the moment, and in vitro of the central experience (Foa et al., 2012). Additionally, creative arts therapies often contain a fundamental component of expressively relating a traumatic experience through a specific artistic medium, for example movement-based expression within the context of DMT. Thus, the movement characteristic inherent in DMT may partially explain the interconnectedness to beneficial treatment outcomes with some trauma survivors (Bräuninger, 2012a, 2102b, 2014, Harris, 2007).

DMT may take the form of either an individual or group somatic therapy process combining elements of psychotherapy and dance (ADTA, 2016; Bräuninger, 2012a, 2012b, 2014; Lee, Crawford, & Hickey, 2014). The beneficial therapeutic effect of DMT has been documented via a wide assortment of applications and for various multicultural populations (ADTA, 2016; Bräuninger, 2014; Degges-White & Davis, 2011; Harris, 2007; Koch et al., 2014). For instance, DMT has demonstrated a positive therapeutic outcome for an array of mental and physical health challenges including: addiction, anxiety, attention deficit disorder, breast cancer survivors, eating disorders, depression, individual sense of well-being, Parkinson's disease, reduction of pain, trauma, and improved quality of life (ADTA, 2016; Bearss, McDonald, Bar & DeSouza, 2017; Bräuninger, 2012b, Koch et al., 2014; Leseho & Maxwell, 2010; Miliken, 2008; Nauert & Johnson, 2011; Shim et al., 2017).

However, empirical evidence associated with DMT is periodically controversial and often lacks adequate peer-reviewed support for the somatic therapeutic process as it

relates to beneficial treatment outcomes for trauma-related disorders (Bräuninger, 2012a, 2012b; Koch et al., 2014; Smyth & Nobel, 2012). The ADTA (2016) asserted that effective PTSD treatment necessitates linking the mind and body processes. Though DMT may be poised for a considerable growth opportunity and deliver a cogent, somatic means towards healing trauma; nevertheless, additional empirical support is required to further elucidate the beneficial therapeutic effects of DMT (ADTA, 2016; Bradt, Shim & Goodill, 2015; Bräuninger, 2014).

Additionally, an inequitable understanding related to variations in gender experience and participation in DMT prevails (ADTA, 2016, Capello, 2011). Further, compared to women, it is more likely that males will be exposed to a traumatic event during their lifetime (NIMH, 2015). Nonetheless, empirical evidence is broadly lacking distinctly linking males with DMT participation (ADTA, 2016; Bräuninger, 2012a, 2012b; Capello, 2011; Harris, 2007; Koch et al., 2014; NIMH, 2015).

Capello (2011) investigated several obstacles that males may experience when participating in DMT. For instance, access and awareness of opportunities to participate in DMT may be limited for men (Capello, 2011). Further, Capello (2011) considered the possibility of gender stereotypes associated with DMT that may exist for some men. Obtaining distinct meaning and awareness of the lived experience of males diagnosed with PTSD, who have participated in a DMT group, offers insight into the lack of knowledge in this area. Additionally, this knowledge may foster an integral step towards unravelling additional understanding for males coping with PTSD and the related social issues often linked to trauma related disorders (American Psychological Association, 2016; Degges-White & Davis, 2011, Koch et al., 2014).

Problem Statement

The National Institute of Mental Health (NIMH) reported that 3.5% of Americans over the age of 18 receive a diagnosis of PTSD in any given year (NIMH, 2015). It is estimated that currently 7.7 million individuals residing in the United States are thought to be coping with PTSD related symptoms (National Institute of Health, 2013). The Veteran's Health Administration (VHA) estimated in 2010 that approximately 2 billion dollars was spent treating veterans returning from overseas contingency operations (OCO) who were subsequently diagnosed with PTSD (Congress of the United States Congressional Budget Office, 2012). Additionally, individuals who have experienced a traumatic event and who subsequently develop symptoms of PTSD are often faced with difficulties related to managing interpersonal relationships (American Psychiatric Association, 2013; NIMH, 2015). Moreover, these individuals may struggle with employment stability, routine home-related activities, and with effectively functioning within the broader community (American Psychiatric Association, 2013; Sayer et al., 2010; Schottenbauer, Glass, Arnkoff, & Gray, 2010; Westphal et al., 2011).

While females are more likely than males to develop symptoms of PTSD, as previously mentioned, males bear a higher probability of exposure to the experience of traumatic events during their lifetimes (NIMH, 2015). Considerable empirical inquiry exists supporting individual treatment approaches for mitigating PTSD symptoms, for example cognitive processing, present centered, and prolonged exposure therapy (American Psychological Association, Division 12, 2016; Chard, 2005; Classen et al., 2011; Foa et al., 2012; NIMH, 2015). However, a lack of empirical research persists in

support of integrative or somatic treatment choices for PTSD survivors (American Psychological Association, Division 12, 2016; Röhricht, 2009).

As mentioned, participating in DMT has confirmed beneficial treatment results for a broad range of psychological and physical challenges such as improved coping techniques, quality of life, resiliency, and mood states (ADTA, 2016; Barnett, Shale, Elkins & Fisher, 2014; Bräuninger, 2012a, 2012b; Dasgupta, 2013; Foa et al., 2012; Harris, 2007; Koch, Kunz, Leseho & Maxwell, 2010; Lykou, & Cruz, 2014). However, limited research is available specifically related to males diagnosed with PTSD who have participated in DMT (ADTA, 2016; Capello, 2011; Degges-White & Davis, 2011; Harris, 2007; Winkler, 2013). Though specific comprehensive statistics are insufficient in the literature related to the percentage of DMT study participants who are male versus female, based on the review of the literature in Chapter 2, it is reasonable to infer that a larger percentage of DMT participants are primarily female (ADTA, 2016; Capello, 2011; Quiroga Murcia, Kreutz, Clift & Bongard, 2010; Winkler, 2013). Gaining in-depth understanding of the lived experiences of adult males diagnosed with PTSD who participated in DMT, offers a fundamental step towards closing this research gap and may help to further clinical awareness of DMT as a perceivably beneficial treatment choice for PTSD.

Purpose of the Study

The purpose of this phenomenological study was to address this research gap by focusing on understanding the attitudes, beliefs, and meaning of the lived experiences of adult males diagnosed with PTSD who shared the phenomenon of participating in a DMT group for treatment of trauma. Increasing in-depth understanding through first-hand,

detailed viewpoints from individuals living with PTSD is generally not addressed in quantitative research methods (Archer et al., 2015; Bräuninger, 2012; Koch et al., 2014). Accordingly, this investigation was designed to advance understanding into baseline themes reflecting the individual perspectives of study participants as well as to link study results to existing literature on this topic.

Research Questions

A central research question was necessary to guide the exploratory nature of this study, which was aimed at gaining understanding into the lived experiences of adult males diagnosed with PTSD who have participated in a DMT group. The subquestions were designed to provide further meaning related to the lived experiences of the participant's elemental decision to participate in DMT. Further, the subquestions assisted in reflecting the meaning associated with the impact of participation in DMT on the participant's lives. The main research questions were crafted broadly initially and then became more specific to assist in gathering understanding related to the feeling and underlying meaning of the phenomenon (see Creswell, 2013; Patton, 2002).

Central Research Question

How do adult male trauma survivors diagnosed with PTSD describe the lived experiences of their participation in a DMT group, and what meanings do they ascribe to this participation?

Subquestions

RQ1 – Qualitative: What meaning do adult male trauma survivors diagnosed with PTSD ascribe to their lived experiences with the decision to enter a DMT group?

RQ2 – Qualitative: How do adult male trauma survivors diagnosed with PTSD describe their experience in participating in a DMT group?

RQ3 – Qualitative: What meaning do adult male trauma survivors diagnosed with PTSD attribute to their individual lives as related to participating in a DMT group?

Conceptual Framework

This section highlights the conceptual framework selected for this study, a more detailed analysis and explanation of the key elements of the framework is provided in Chapter 2.

Working through the lens of a conceptual framework is generally suggested when little is known about a research topic (Patton, 2002). The foundational conceptual framework for this study was the paradigm of constructivism (see Denzin & Lincoln, 2005). The worldview of constructivism considers the pattern of subjective meaning created by multiple realities gathered from each individual (Lincoln & Guba, 2005; Patton, 2002). The roots of constructivism are found in the classical Socratic learning concept with more recent historical development influenced by the thoughts of Dewey, James, and Piaget (Yilmaz, 2008). Constructivism embraces the idea that new knowledge is constructed based on what is already known by an individual (Mahoney, 2004). Additionally, constructivism posits that individual, unique experiences, cultural factors, and an individual's personal view of their world are cognitively processed and reflected in individual meaning making (McLeod, 2001, Patton, 2002).

As described by Crotty (1998), though there is some overlap between constructivism and social constructionism the distinction between the two paradigms is

important. Where constructivism is distinctly that which focuses on the unique *meaning-making* of individual minds, social constructionism is that which reflects a generation of c*ollective* meaning with an emphasis on how the experience of culture may shape an individual's view of the world (Crotty, 1998). Further, the framework of constructivism primarily reflects a focus on unique cognitive processes in the creation of meaning within an individual's reality (Patton, 2002). On the other hand, social constructionism includes the characteristic of an outside interdependent relationship element that may be "socially-mediated", for example through conversation (McLeod, 2001, p. 52).

A constructivist conceptual framework can provide a valid foundational structure from which to seek an in-depth rich, textural understanding of the participant's unique experiences, and personal perspectives (Patton, 2002). Additionally, the use of constructivist paradigm provides a supportive structure in which to construct common themes from participant's individual experiences within a DMT group (see Creswell, 2013). In summary, this study was framed through a constructivist paradigm to provide a lens from which to advance understanding into the subjective meaning making of the uniquely particular experiences of the participants.

Nature of the Study

This study was a phenomenological qualitative study. Typically, experimental studies evaluate quantifiable data, accumulated from existing published instruments, which then are applied to statistical analysis methods (Gravetter & Wallnau, 2010). Qualitative research often employs multiple textually based data collection tools, including interviews, focus groups, observation, questionnaires, and documents (Creswell 2013; Patton, 2002). While both methods include the acquisition of knowledge, the intent

varies between the two methods of inquiry. Where quantitative research is generally designed to compare, measure, and address research questions using statistics, qualitative method of inquiry often aligns best when a researcher intends to explore an early stage of a topic and compose a rich textural and detailed description of the lived experiences of the participants (Patton, 2002). The primary focus of this study was aimed to unearth the lived experiences of the participants surrounding participation in DMT (see Moustakas, 1994; Patton, 2002). A qualitative research focus was therefore compatible with the focus of this study which examined how male trauma survivors move toward and describe (a) their decision to participate in DMT, (b) their unique lived experiences within the process of DMT, and (c) the impact on their lives when choosing to participate in DMT.

A fundamental aspect of phenomenological inquiry is to gain understanding into an individual's unique experiences and to assimilate how these experiences relate to the subjective interpretation of his or her world (Christensen, Johnson, Turner, 2010; Moustakas, 1994; Patton, 2002, 2015). As Patton (2002) cautioned however, phenomenological philosophy should not be confused with designing phenomenological methodology structured for qualitative inquiry. Phenomenological inquiry is rooted in gaining understanding, direction, focus to meaning, and may produce further interest and concern with the common phenomenon (Patton, 2002; Schram, 2005). Additionally, a phenomenological research design can provide a tested structural framework in which to study a relatively small number of participants with an in-depth, detail-rich method of inquiry (Schram, 2005). Further details examining the choice of method for this study are presented in Chapter 3.

Definition of Terms

The following key terms and concepts have been used throughout this study.

Board Certified Dance Movement Therapist (BC-DMT): An individual who is a practicing dance movement therapist as defined by the ADTA (2016) that has also met specified credentialing set from an organization at the national level. A designation of BC-DMT conveys that a high standard of excellence has been achieved by the individual through the National Commission for Certifying Agencies and that the therapist completed an additional 3,640 hours of supervised clinical work, passing a certification exam.

Dance Movement Therapy (DMT): DMT is based on the interconnectedness of the mind and body. The ADTA defined DMT as "the psychotherapeutic use of movement to promote emotional, social, cognitive and physical integration of the individual" (ADTA, 2016, "General Questions", para. 1).

Empirically Supported Treatment: Intervention therapies applied for individuals with mental health disorders that demonstrate strong and moderate research support as defined by Division 12, Society for Clinical Psychology, of the American Psychological Association (2016).

Somatic Therapy: A holistic form of psychotherapy, emphasizing engagement of both the mind and the body to promote individual wellness (Lee, Crawford, & Hickey, 2014).

Traumatic event: As defined in the DSM-V, 309.81, an event an individual has been exposed to that may include actual or threatened death, serious injury, or actual or threatened sexual violence (American Psychiatric Association, 2013).

Assumptions

This study was subject to several assumptions. First, it was assumed that the participants were honest in meeting the study criteria consisting of (a) adult males over the age of 18 who have; (b) participated in DMT for at least six sessions; (c) received a diagnosis of PTSD; and (d) who were not currently in an in-patient treatment status. Second, the participants' answers to the semistructured interview questions were assumed to be an honest representation of his experience and without bias. A third assumption existed as the interviews were conducted by telephone and there was not a method in which to visually verify gender or age of the participants.

Further, vulnerable populations include those individuals who may have experienced trauma. Meeting the study criterion of experiencing trauma was assumed and not actually verified. Accepting these assumptions provided the opportunity to apply purposeful, criterion-based sampling to this study. Additionally, assumptions were a necessary protective component of this study and assisted in preserving the welfare of the study participants. The safety measures of the study are also discussed in Chapter 3 and include the participant informed consent form, confidentiality agreement, participant-chosen pseudonyms, and securing the storage of all research data.

Scope and Delimitations

The scope and delimitation of this study included the experiences of 11 adult male participants who had received a PTSD diagnosis. The individuals who participated were not currently in an in-patient status and had participated in DMT for at least six sessions. The six sessions of participation in DMT did not need to occur consecutively. As such, the results may not be representative of individuals who have variations in the specifics

of the selection criteria. For example, individuals who have participated in DMT for more than six sessions also qualified for participation in this study. Additionally, variations in the length of time the individuals have participated in DMT may have influenced the participant's respective lived experiences of the phenomenon. Further, the experiences of the participants may have reflected differently with interviewees who participated in DMT more than 2 years prior to his respective interview session.

Additionally, this study did not include those individuals who were currently in an in-patient treatment status and thus, may have included individuals who already had benefitted from alternate forms of therapy for trauma treatment. Further, this study did not address individuals under 18 years of age and hence the findings are not applicable to children. The age of the participants covered a wide range with no upper age limit set in the selection criteria. As this study did not have an upper age limit, it may be difficult to determine generational outcomes consistent within specific generational categories. For example, differences that may exist between: Generation X, Generation Y, and the Baby Boomer Generation.

The six semistructured interview questions used in this study were constructed to gain meaning into the experiences of males who have participated in DMT from their individual perspectives (see Appendix D). The questions did not include queries related to any details of the trauma(s) that the participants had experienced. As Creswell (2013) discussed, the specifics of a certain population studied may affect the generalizability of the results of the study. For example, DMT is not considered a resolute manualized therapy and different dance movement therapists may conduct sessions in a variety of methods; as such, the results may not accurately represent all individuals who have

participated in DMT. Another aspect is that this study did not take into consideration comorbidity of disorders (ADTA, 2016; Bradt et al., 2015; Gonzalez, Novaco, Reger, & Gahm, 2015). As detailed in Chapter 2, the conceptual framework of constructivism was used for this study to help provide understanding to how individual meaning is acquired and unique knowledge is formed. In sum, the scope and delimitations of this study may affect the potential transferability to all individuals who have participated or will participate in DMT.

Limitations

Limitations were present in this study and included the possibility for personal bias. For example, Chapter 3 describes the role of the researcher in phenomenological inquiry and the steps taken to control for the limitations of researcher bias. These steps included reflexive journaling during the data collection process. As discussed in Chapter 3, I have received a PTSD diagnosis and may hold assumptions related to other individuals who have received a diagnosis of PTSD. To control for this limitation, I maintained a reflexive journal to reflect on my personal feelings and to assist in separating my views from the objective data collected.

Further, as I selected the participants based on a response to the recruitment flyer (see Appendix C), the selection process may or may not have reflected the entire population of adult male trauma survivors, diagnosed with PTSD. Additionally, the sample may not have accurately demonstrated individuals actively coping with PTSD symptoms. Arriving at the sample in this way may limit the transferability of the results of the study.

Significance

PTSD is a serious public health issue with increases in prevalence rates expected to continue (Hermes, Rosenheck, Desai, & Fontana, 2012; Iribarren, Prolo, Neagos, & Chiappelli, 2005; National Academy of Sciences, 2014; NIMH, 2015; U.S. Department of Veteran Affairs, 2015). Variations in estimates of prevalence rates prevail, however Hermes et al., (2012) explained that among veterans who have returned from conflicts since 2005, a higher incident of PTSD occurred compared to other mental health disorders. Further, The National Academy of Sciences (2014) reported that PTSD cases are rising in addition to Iraq and Afghanistan War veterans with 34% of newly diagnosed cases stemming from Vietnam War veterans. Though these individuals may have struggled with PTSD for decades, due to a recent increase in outreach and support from the VHA they may be beginning to receive the necessary treatment support. The VHA nonetheless recommended a current and future need for additional, effective treatment interventions for individuals coping with PTSD related symptoms (Congress of the United States Congressional Budget Office, 2012).

In a meta-analysis of 55 empirically supported treatment interventions for PTSD dropout rates as high as 50% were common (Schottenbauer et al., 2008). Conversely, in a meta-analysis of 669 studies with a diverse range of mental health disorders only one in every five clients was found to drop out of treatment (Swift and Greenburg, 2012). Additionally, prevailing empirically supported therapies may not sufficiently provide long-term beneficial treatment outcomes nor support the expanse of symptoms frequently associated with trauma-related disorders (American Psychological Association, Division 12, 2016; NIMH, 2015; Schottenbauer et al., 2008; U.S. Department of Veteran Affairs,

2015). For example, Schottenbauer et al., (2008) contended that some empirically supported therapies such as cognitive behavioral therapy (CBT) and eye movement desensitization and reprocessing (EMDR) might not effectively address PTSD symptoms, as individuals did not demonstrate improvement of symptoms even with treatment. Additionally, the author recommended a need for additional interventions for PTSD. In addition to fragmentary treatment success, Kip et al. (2013) noted some of the factors that may influence high dropout rates for current experimentally supported PTSD treatments, including inconsistent success rates of recovery and lengthy duration of treatment plans.

Increasing scientific understanding surrounding the lived experiences of male trauma survivors who participate in DMT may help advance research towards a broader range of empirically supported beneficial treatment options for individuals coping with PTSD. This study was distinct and may fill a current research gap on this topic as it focused on an under researched population and their unique lived experiences relating to participation in DMT (ADTA, 2016; Oktay, 2010). Further, gaining in-depth understanding related to alternative or adjunct choices in treatment such as DMT, may offer useful developments towards the identification of additional beneficial treatment methods for persons coping with the often-deleterious social issues associated with trauma-related disorders (Bräuninger, 2012; Iribarren et al., 2005; Koch et al., 2014; Levine & Levine, 2011; Schneiderman, Ironson, & Siegel, 2005).

Future investigations related to DMT, such as those focusing on biomedical or biopsychosocial models for stress management, as well as research related to selecting DMT as an intervention for comorbid disorders in conjunction with PTSD, may also offer new and promising effective treatment options for PTSD (Schneiderman et al., 2005).

Advancing knowledge related to integrative treatment choices coupled with the American Psychological Association, Division 12 (2016) empirically supported treatment modalities, may also strengthen holistically based therapeutic options for treating PTSD related symptoms. Additionally, gaining new understanding related to the meaning of the extant experiences of adult males, diagnosed with PTSD, who share the experience of participation in a DMT group may contribute additional clinical insights offering hope for a more culturally diverse group of individuals. For example, those individuals who may be less open to partaking in traditional verbal therapeutic approaches to treatment or who may eschew a psychopharmacological approach to treatment.

Moreover, as DMT is generally a less vocally centered therapeutic platform than traditional clinical approaches, this research may support certain populations of individuals who find that communicating their challenges through motion provides a more comfortable treatment environment. For example, rather than communication through verbal expression of sensitive or traumatic events, DMT could potentially reduce the therapeutic dropout rates for these verbally sensitive individuals. Further, this research may support mental health clinical practices by affording beneficial treatment options for a more culturally diverse group of individuals, such as those individuals who may speak English as a second language or who may not have access to effective, culturally advantageous treatment options.

Additionally, individuals who have medical conditions that may limit speech, for example, after a stroke or traumatic brain injury (TBI) where speech may have been impacted, may also benefit from DMT. Moreover, exploratory qualitative research may serve as a basis for subsequent quantitative research, advancing understanding on this

topic. In summary, the findings of this study may provide positive social change through broadening awareness of beneficial clinical insights and by furthering scientific knowledge related to additional integrative, somatic treatment choices for individuals suffering from trauma related disorders.

Summary

Experiencing a traumatic event affects each individual differently. Following a PTSD diagnosis some individuals may fail to function, leading to deleterious individual life circumstances and broader negative social implications. A distinct understanding of the relevant risk factors for PTSD and why some individuals contract PTSD and others do not is still unclear. Additionally, effective treatment methods remain inadequate for all individuals who suffer from PTSD. The integration of existing empirically supported treatment methods for PTSD as well as creative-arts therapies is also not adequately studied or understood. Though DMT has been researched related to treatment outcomes for trauma, further details are presented in Chapter 2 to illustrate that research specifically driven to understand the experiences related to males with trauma-related symptoms who have participated in DMT is scant. This phenomenological study sought to understand the experience of adult males, diagnosed with PTSD, who participated in DMT. The findings of this research may be relevant for the development of additional treatment options for PTSD as well as advance empirical understanding related to the experiences of males who have participated in DMT.

In this chapter, I provided an introduction to the social issues related to trauma and presented the problem statement, purposes of the study, and research questions. Additionally, the nature of the study, definition of terms used in the study, along with the

assumptions, scope and delimitations, and the significance of the study were also presented.

In Chapter 2, the literature related to the human stress response and describe the literature search strategy is explored. I also discuss the conceptual framework of the study and examine the physiological and biological aspects of stress. Further, I outline the DSM-V criteria for PTSD, highlight the concepts of neuroplasticity and neurogenesis as related to PTSD and provide an overview of creative and somatic treatment methods for trauma. Additionally, I present a historical overview of DMT, the process of group DMT, and the multicultural aspects of DMT. I conclude Chapter 2 with a review of the literature related to the treatment of trauma and DMT and provide a chapter summary.

In Chapter 3, the research design of this study and the rationality for choosing a qualitative approach as opposed to a quantitative approach for this research is discussed. The research questions are restated and an explanation of the role of the researcher is explored in-depth. Further, the methodology as it relates to participant recruitment, instrumentation, data management and organization is also presented. Finally, issues of trustworthiness and ethical considerations in qualitative research are addressed.

In Chapter 4, I report the results of the study, including the study setting, participant demographics, data collection process, and data management procedures. The analysis of data and evidence of trustworthiness are also discussed. Four major themes, eight subthemes, and eight-sub-subthemes arose from the analysis and are also presented. Discrepant findings, along with quotations from the participant's responses are incorporated into the results.

In Chapter 5, a summary of the results is presented. An interpretation of the

findings based on the themes, the limitations of the study, the implications for social change, and recommendations for future research is included in the chapter. I conclude the chapter with a summary and final thoughts.

Chapter 2: Literature Review

Introduction

PTSD is a significant public health concern with future prevalence rates expected to increase (Hermes et al., 2012; Iribarren et al., 2005; National Academy of Sciences, 2014; NIMH, 2015; U.S. Department of Veterans Affairs, 2015). NIMH (2015) estimated that approximately 7.7 million individuals residing in the United States are coping with PTSD related symptoms. These individuals may experience difficulties with interpersonal relationships, dissociation, maintaining employment responsibilities, and effectively functioning within the community (American Psychiatric Association, 2013; Dorahy et al., 2013; NIMH, 2015; Sayer et. al., 2010; Westphal et al., 2011).

The current empirically supported single treatment methods for PTSD, recommended by the Society of Clinical Psychology of the American Psychological Association (APA) include prolonged exposure therapy, present centered therapy, cognitive processing therapy, seeking safety for PTSD, and eye movement desensitization and reprocessing (American Psychological Association Division 12; 2016; Chard, 2005; Classen et al., 2011; NIMH, 2015). However, there is a lack of empirical research supporting the application of somatic PTSD treatment choices for trauma survivors (American Psychological Association, 2016, U.S. Department of Veterans Affairs, 2015). The VHA advocated for additional, effective treatment interventions for the treatment of PTSD and trauma related symptoms (Congress of the United States Congressional Budget Office, 2012).

DMT has confirmed beneficial treatment outcomes for a broad range of psychological and physical challenges such as improved coping techniques, quality of

life, resiliency, and mood states (ADTA, 2016; Barnett et al., 2014; Bräuninger, 2012a; 2012b, 2014; Dasgupta, 2013; Foa et al., 2009; Hackney & Bennett, 2014; Harris, 2007a, 2007b; Koch et al., 2014; Leseho & Maxwell, 2010; Lykou, & Cruz, 2014). The purpose of this study was to gain an understanding into the baseline themes reflecting the unique perspectives of adult male trauma survivors, diagnosed with PTSD, who have participated in DMT for a trauma-related disorder. Achieving in-depth understanding relevant to the treatment experiences of adult males diagnosed with PTSD who participate in DMT, could further clinical awareness of additional potentially effective treatment choices for trauma related disorders.

This chapter provides an explanation of the literature review search strategy as well as an overview of the conceptual framework of constructivism. The history of stress research is discussed as well as the related physiological and biological concepts associated with the human stress response including allostatic load, stress and immunity, appraisal, and coping mechanisms. Next, the Diagnostic and Statistical Manual for Mental Disorders (DSM-V) criteria for PTSD is summarized. A discussion follows highlighting PTSD risk factors, prevalence rates, and quality of life challenges for individuals diagnosed with PTSD. Subsequently, the current empirically supported treatment options for PTSD recommended by the Society for Clinical Psychology, Division 12 of the American Psychological Association are reviewed along with additional PTSD treatment options. The interrelation between PTSD and neuroplasticity, neurogenesis, and the creative process is briefly reviewed.

Subsequently, a concise history of DMT, the therapeutic group process, and the broad application of DMT for psychological and health disorders is examined. An

overview of the value of social support as well as the gender variations in seeking social support for healing trauma is also reviewed. Next, the available literature related to DMT in the treatment of trauma followed by the specific application of DMT for male trauma survivors is highlighted. Finally, a review of the methodology related to the literature available for DMT and male participants is considered. The chapter closes with a chapter summary.

Literature Search Strategy

The goal of this review was to remain focused on current peer-reviewed literature from 2012 forward. However, the date restriction in the literature search was expanded to locate additional topic-relevant research when the initial search provided restricted content. The literature was sourced through several databases and search engines including: CINAHL & MEDLINE Simultaneous Search, Expanded Academic ASAP, PsycARTICLES, PsycBooks, PsycINFO, Sage Premier, SocINDEX, ProQuest Central, and Science Direct. Additional search databases included ProQuest Dissertations & Theses Global and Google Scholar. Literature was also sourced directly from physical journals of two divisions of the American Psychological Association: (a) Division 10: Society for the Psychology of Aesthetics, Creativity and the Arts, *Psychology of Aesthetics, Creativity, and the Arts;* and (b) Division 56: Division of Trauma Psychology, *Psychological Trauma: Theory Research, Practice, and Policy*.

Combinations of the following keywords and search terms were used in the formal literature search.: *coping, creative arts therapy, dance movement therapy, dance therapy, diagnostic criteria, DMT, effect*, *efficacy, empirically supported, gender, males,*

men, mind-body, multicultural, posttraumatic stress disorder, post-traumatic stress disorder, PTSD, social support, somatic, stress, trauma, and *treatment*.

The list of references in the relevant articles was also reviewed, providing additional sources for peer-reviewed journal articles and books. Supplemental search terms were used that relate to the biological mechanisms associated with the physical aspects of stress, economic effects of PTSD, prevalence rates of PTSD, and to help support the application of the conceptual framework of constructivism including: *allostatic load, appraisal, constructivism history, coping, effect, economic burden, epidemiology, hypothalamic pituitary adrenal axis, HPA, immunity, neuroplasticity, neurogenesis, psychoneuroimmunology, prevalence, prevalence rates*, *social cost, worldwide*, and *statistics*.

Subsequently, literature searches were conducted periodically during my research period using the original search terms. Additional terms were searched during the completion of Chapters 4 and 5 and throughout the completion of the final study. To overlap and bridge the gap from the initial literature search, the additional literature searches were limited to literature from 2013 to 2018. Searches were conducted for each theme and subtheme as discovered through the study results and as presented in Chapter 4. Sections of the literature review in Chapter 2 were subsequently appended to provide supplemental support for the initial literature review. Additionally, Chapter 5 integrates the supplementary literature to support the interpretation of the study findings, recommendations, and conclusions of the study. Table 1 quantifies the literature review by topic and source.

Table 1

Review of the Literature by Source

Topic	Peer-Reviewed	Books	Other
PTSD and Prevalence	49	6	9
Biopsychosocial, Biomedical Aspects of Stress	54	4	2
Neuroplasticity, Neurogenesis, Somatic, and Creative Arts Therapies	65	3	1
Empirically Supported and Pharmacological PTSD Treatment	27	0	3
Dance Movement Therapy	61	7	7
Constructivism	12	4	0
Methodology	18	9	4
Other	11	0	3
Total Sources = 359	297	33	29

Conceptual Framework

The conceptual framework of constructivism was used to guide my research, analyze the data, and interpret the findings. Constructivism theorists posit that an individual's meaning making is constructed from the multiple unique realities that are experienced by each individual (Denzin & Lincoln, 2005; Lee, 2012; Lincoln & Guba, 1985; Patton, 2015). This study identified emergent themes from the study participants. The study also expanded on the existing research related to DMT and the use of DMT for trauma treatment with males by examining adult male trauma survivors diagnosed with

PTSD who have shared the experience of participation in DMT. During my research, no published studies indicated prior research from a constructivist phenomenological framework on this specific topic.

Constructivism

A fundamental concept in constructivism is that knowledge is not passively accepted through exposure to existing facts but rather that individuals construct meaning of their world based on active participation in their own unique reality (Lincoln & Guba, 1985; Riegler, 2012; Toomey & Ecker, 2007). Constructivism theorists posit that an individual's meaning is actively acquired and creates a unique knowledge forming a singular subjective reality (Lincoln & Guba, 1985; Riegler, 2012; Von Glaserfeld, 1984). From an epistemological viewpoint, the conceptual framework of constructivism explains how individuals know what they know, with each individual constructing a world of meaning that is accepted as his or her own unique reality (Toomey & Ecker, 2007; Riegler, 2012; Von Glasersfeld, 1984).

Often there is confusion with the meaning of constructivism as terms are sometimes used interchangeably such as cognitive constructivism, social constructionism, constructivism, and radical constructivism (Liu & Chen, 2010; 1995; Raskin, 2002; Reigler, 2012; Von Glaserfseld, 1984). For example, Crotty (1998) explained differences between the term *constructivism* as a focus on the "activity of the individual mind" whereas social *constructionism* meant a "collective generation [and transmission] of meaning" (p. 58). The conceptual framework for this study was focused on individual constructivism in that the unique experiences of each individual is considered worthy in itself independent of an individual's specific cultural influences.

The origination of the historical underpinnings of constructivist ideology is broad and spans the premodern, modern, and postmodernistic eras (Raskin, 2002). The genealogy may be traced back to the classical Greek western philosophical assumptions of Socrates (470 BC), the Socratic method of critical thinking, and the eastern philosophies of Lao Tzu Taoism as well as Buddhism (Boghossian, 2006; Golding, 2011; Mahoney, 2004). For example, Kant (1724 – 1804) maintained that the view of an individual is through a construction of organizational patterns and schemata (Toomey & Ecker, 2007; Mohoney, 2004; Ültanir, 2012). Further, Kantian philosophy posited that when an individual constructs his or her experiences, he or she develops an organization of patterns and meaning and therefore shapes their own unique knowledge (Mahoney, 2004; Phillips, 1995). The historical foundation of constructivist ideology provides a broad understanding towards individual meaning making and worldviews.

Though these historical philosophers may not have specifically defined themselves as constructivists, their ideas nonetheless align with the constructivist belief that the unique connection of an individual's learning through experience, his or her resulting knowledge, and adaptive understanding is the manner in which individual meaning is created (Lincoln & Guba, 1985; Golding, 2011; Yilmaz, 2008). Additional philosophers and researchers who furthered the philosophical development of constructivism include James, John, Piaget, Vygotsky (social constructivism), and Von Glasersfeld, who is also known for radical constructivism (Le Moigne, 2011; Liu & Chen, 2010; Mahoney, 2004; Phillips, 1995).

Radical constructivism posits that a human being uses the meanings he or she creates from the individual's own private subjective experiences and that this meaning

fosters an individual's coping and adaptive processes (Phillips, 1995; Raskin, 2002). Le Moigne (2011) contended that both Piaget's concepts of accommodation and assimilation and Von Glasersfeld's radical constructivism share a similar collective vision of constructivism. For example, an individual's unique view highlights both his or her active experiences and the successive development of the individual and acts as the catalyst for generating personal knowledge and understanding.

The conceptual framework of constructivism is often applied in qualitative research methods (Creswell, 2007; Denzin & Lincoln, 2005; Lee, 2012; Patton, 2015). The individualistic and adaptive lens of constructivism aligns closely with the texturally rich nature of qualitative inquiry (Creswell, 2007, 2013). For example, an individual participating in a therapeutic intervention may construct his or her own unique meaning from that experience based on his or her distinct experiences in life. As such, capturing the lived experiences of the individual through the worldview of constructivism allows for a reflection of each unique story to unfold.

Further, understanding broad variations in meaning between individuals may affect the choice of treatment and the clinical outcome of specific interventions. For example, examining individual variations in meaning and perspective through a constructivist lens may elicit insight into the unique personal responses to treatment thus positively influencing the lives of individuals who exhibit similar therapeutic circumstances. Lee (2012) cautioned, however, that though a multiple of voices may be rich in detail, they nonetheless must be examined critically for positive social outcomes to occur. In this way, the worldview of constructivism focuses on the subjective meaning

of the individual, such that the themes extracted from the individual may be critically analyzed.

Ritchie, Lewis, Nicholls, and Ormston (2013) noted the potential for generalizability in qualitative social research, offering support for representational generalizations, derived from the emerging categorical themes of the research to individuals with similar realities. Further, understanding broad variations in meaning between individuals may affect the choice of treatment and the clinical outcome of specific interventions. In summary, by examining individual variations in meaning through a constructivist lens a unique view into individual perspectives of treatment options for PTSD may be obtained.

Physiological and Biological Aspects of Stress

The term stress signifies an individual's cognitive and emotional considerations, pertaining to an appraisal of a threat and the individual's perceived ability to cope (Monat et al., 2007). However, psychological stress also encompasses several physiological processes (Monat et al., 2007; Sjörs, Jansson, Eriksson, & Jonsdottir, 2013). The fundamentals of the biological aspects of stress were important considerations for this research as they may affect individual functioning and conceivably influence an individual's choice in treatment. The following section provides a broad overview of the origin of the meaning of stress and highlights the biological components of stress related to individual functioning.

Discrimination Between Load, Stress, and Strain

According to Monat et al., (2007) the origins of the terms load, stress, and strain were originally derived from the works of Hooke. The definitions of these initial terms

correlate somewhat to the current understanding of what constitutes psychological stress (Monat et al., 2007; Sjörs, Jansson, Eriksson, & Jonsdottir, 2013). For example, the term *load* refers to external forces that may negatively influence a person's social, physiological, and psychological balance (Monat et al., 2007). In summary, when the focus of stress relates to an individual's personal experience of load, it may influence a person's social, physiological, and psychological balance.

Further, Monat et al., (2007) described that over time the terms stress and strain became more commonly used to describe stress than did load. The authors explained the term strain is used similarly to stress to describe either an overtasking of an individual or of the social system. For example, social science researchers may describe a stress response in an individual who is a part of a strained social system (Monat et al., 2007). To summarize, the authors described the general concept of stress and strain as referring to the existence of an identifying external stimulus a stressor and the resulting individual response to that stimulus. As previously discussed, an individual's unique response to stress or strain could influence his or her level of functioning and impact decisions connected to treatment choices.

Stress Conceptualizations: Cannon and Selye

Physiologist Cannon (1935) endorsed the idea that psychologically stressful events could contribute to changes in an individual's physiological processes (Monat et al., 2007). Cannon was at the forefront of the concepts surrounding the effect that stress has on the physiology of an individual and the resulting strain, physically, and psychologically deleterious consequences stress may have for the individual (Monat et al., 2007). Cannon's work introduced the term homeostasis, shedding light on the health

and survival benefits of maintaining a stable personal environment. Additionally, Cannon coined the term *fight-or-flight* to describe the behavior associated with an individual's instinctual reaction that occurs during the avoidance of predators. Further, Cannon proposed that emotional stimuli, such as fear and anger provoked from a perceived stressor, were influential components of an organism's physical survival responses.

Later, Selye (1946; 1973; 1974; 1976) made significant contributions to the field of psychological stress research. For example, Selye originated the terms *distress* and *eustress*, referring to both a destructive type of stress response and a constructive stress response respectively (Monat et al., 2007; Selye, 1973). Further, Selye contended that the characteristics of eustress included empathy for another, affecting a positive outcome for society, and promoting improved health; whereas distress comprised reactions of aggression and anger resulting in poorer overall health for the individual (Monat et al., 2007; Selye, 1974; Szabo, Tache, & Somogyi, 2012).

The validity of Selye's original research methods, theory of non-specificity, and definitions of constructive and destructive stress responses is not without controversy (Goldstein, 2010; Nageishi, 2015). For example, Nageishi (2015) argued that Selye's own data failed to support his theory of nonspecificity, asserting that the body reacts with a nonspecific response to a variety of "noxious agents" (p. 1787). The author concluded after a review of Selye's research that Selye's research data may more appropriately support Mason's (1971) argument linking emotional reactions to the stress response (Nageishi, 2015). This view is more congruent with the current empirical understanding, which associates stress to reactive emotional behaviours (American Psychiatric Association, 2013).

Nonetheless Selye's (1946) contribution to stress theory remains significant, as in 1936 Selye introduced the concept of the General Adaptation Syndrome (GAS). The GAS response articulates the process an individual will experience when exposed to threats, potentially harmful situations, or to physical stress (Selye, 1946; 1973; 2013). The GAS activates the pituitary gland after exposure to a stressor and assigns three separate phases of the response (a) the alarm reaction, initially set into motion to help defend an organism; (b) resistance, to initiate the defense of the body, resulting in tissue inflammation, and the; (c) exhaustion phase, occurring when the situation is considered continual, lengthy, or severe. Selye's theory posits that an individual typically does not pass through the final stages of GAS, for if the stressor continues for too long, death of the organism may result (Monat et al., 2007).

Selye's introduction of the GAS was instrumental in affecting the medical model of the relationship with stress, the biological symptoms resulting from stress, and stress management (Goldstein, 2010; Monat, et al, 2007; Rosch, 1979; Szabo et al. 2012). Prior to Selye's research on stress, a single disease was often linked by a specific pathogen and thought to initiate the stress response. For example, it was thought that tubercle bacillus virus caused tuberculosis (Monat et al., 2007). However, the introduction of Selye's GAS brought a new understanding to the process of disease and the traditional medical model of stress (American Institute of Stress, 2012; Monat et al., 2007; Rosch, 1979).

Following Selye's GAS research the medical community generally accepted that a variety of different noxious external stimuli or psychological stressors could be linked to a pathogenic disease (Selye, 2013; Monat et al., 2007). Nonetheless the medical community may choose to focus on the biological treatment of stress symptoms such as

pharmacological treatment methods, rather than focusing on cognitive or holistic factors that may contribute to stress. Diagnostic and treatment decisions of men with PTSD accentuate the importance of underscoring the physiological aspects associated with the stress response.

Allostatic Load Scenarios

The term allostasis refers to an energy consuming physiological reaction within a human body fuelled by a response to stress (Goldstein & McEwen, 2002; McEwen & Karatsoreos, 2015; Monat et al., 2007). Allostasis is the physiological process that initiates a return to homeostasis or baseline in an organism (McEwen, 2005; Smith & Vale, 2006). If an allostatic response is activated repeatedly over time it is termed *allostatic load.* Allostatic load may result in long-term damaging physiological changes in the body (Logan & Barksdale, 2008; McEwen & Karatsoreos, 2015; Upchurch et al., 2015; Monat et al., 2007). A full examination of the physiology of the human stress response was beyond the scope of this study. Notwithstanding, a brief overview of the four different allostatic load conditions follows as the foundation of this research rests within the biological, somatic, treatment intervention of DMT.

Unremitting stress. An organism's exposure to continual and unremitting stress results in a repeated physiological stress response, which weakens the individual's ability to recover (Monat et al., 2007; Schneiderman et al., 2005; Upchurch et al., 2015). For example, the stress hormones adrenaline and cortisol released during mental stress and the fight-or-flight response, may contribute to damaging effects on blood vessels and coronary arteries (Lazzarino, Hamer, Gaze, Collinson, & Steptoe, 2013; Monat et al.,

2007). Thus, an individual who is exposed to excessive, incessant stress may be at increased risk of developing atherosclerosis and cardiovascular disease (Dimsdale, 2008).

One example of a civilian population experiencing unremitting stress can be illustrated by the 1967 British Civil Service privatization endeavour led by Margaret Thatcher (Marmot et al., 1991; Monat et al., 2007). This cohort consisted of over 28,000 civil servants who were adjusting to privatization. Many of these individuals experienced unremitting stress resulting in negative health effects including an increase in illnesses such as coronary heart disease. For example, the Whitehall Studies I and II surveyed British civil servants and linked an individual's biological, social and demographic factors to an increase in cardiovascular disease (Lazzarino et al., 2013; Lewthwaite, Owen, Coates, Henderson, & Steptoe, 2002; Marmot & Bruner, 2005).

Another illustration of unremitting stress may be seen in the individuals living in East Germany both before and after the removal of the Berlin wall (Bauer, Priebe, Kürten, Gräf, & Baumgartner, 1994). East German refugees in these environmental conditions experienced a sharp shift in social and economic transitions after the fall of Communism that significantly affected their physical and mental well-being (Bauer et al., 1994; Notzon et al., 1998; Monat et al., 2007). For example, men residing in the former Soviet Union demonstrated a decrease in life-expectancy of 5 years, from sixty-four years to fifty-nine years within 4 years after the political restructuring (Notzon et al., 1998; Monat et al., 2007).

Moreover, the rates for suicide, homicide, alcoholism, high blood pressure, and cardiovascular disease for this population significantly increased during this time period. Notzon et al., (1998) concluded that specific causes of the rapid rise in mortality could

not be determined. However, the authors contended that an increase in social and economic uncertainty in combination with several factors occurring concurrently including a deterioration of the health care system, higher rates of substance abuse, increase levels of depression, and poorer nutrition, may have contributed to an increase in stress related responses among the population and to the significant increase in Russian mortality rates exceeding typical peacetime levels of other industrialized countries. As such, exposure to unremitting stress that negatively influencing an individual's health, may also hinder an individual's decision-making process towards seeking suitable treatment options.

Inability to adjust and return to baseline. An inability to habituate occurs when the stress experiences are not chronic, but an individual is responding as if there is a chronic threat and fails to return to baseline after the flight-or-flight sequence is activated (Gianferante et al., 2014). The inability for an individual to habituate to a stressful experience may form as a result of ruminating following the distress (Gianferante et al., 2014; Kuehner, Huffziger, & Liebsch, 2009; Monat et al., 2007; Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). Rumination is one possible response to stress and includes, "repetitively and passively focusing on symptoms of distress and on the possible causes and consequences of these symptoms" (Nolen-Hoeksema et al., 2008, p. 400). Rumination may lead to cognitive fixation instead of active problem solving and may contribute to a higher than normal exposure to stress hormones and place the individual at increased risk for health-related challenges such as depression (Gianferante et al., 2014; Kuehner, Huffziger, & Liebsch, 2009; Monat et al., 2007; Nolan, Roberts, & Gotlib, 1998; Nolen-Hoeksema et al., 2008). For example, an increase in the stress

hormone cortisol may result in frequent spikes in blood pressure, a response which is known to increase risk for cardiovascular disease (Dimsdale, 2008; Kuehner et al., 2009; Lazzarino et al., 2013).

Insufficient stress response. The third allostatic load condition occurs when an individual's system fails to produce a sufficient stress response (Monat et al., 2007). This allostatic response may involve producing a lower that necessary production of the stress hormones such as cortisol. Cortisol, though normally considered harmful, can sometimes work as an equalizer during the stress response and act to assist in a reduction of the harmful biological stress responses such as inflammation and swelling (Chrousos, 2009; Dimsdale, 2008; Kuehner et al., 2009; Lazzarino et al., 2013; Monat et al., 2007; Smith & Vale, 2006). For example, cortisol is necessary for slowing down the hypothalamic-pituitary-adrenal axis (HPA) response as it inhibits the corticotrophin-releasing factor (CRF) and adrenocorticotropic hormone (ACTH) which reduces an individual's ability to maintain homeostasis (Smith & Vale, 2006). Monat et al., (2007) described one common effect of an underproduction of cortisol is an over-stimulated immune system, which may result in inflammatory diseases such as allergies or asthma. Other health conditions that have been linked to an insufficient stress response are seasonal affective disorder, fibromyalgia, chronic fatigue syndrome, and rheumatoid arthritis (Monat et al., 2007; NIMH, 2015).

Cortisol and the HPA influence on allostasis. The final allostatic load condition is failure to effectively shut down the sympathetic nervous system response and the HPA axis when exposed to a stressful situation (Logan & Barkdale, 2008; McEwen & Karatsoreos, 2015; Monat et al., 2007). Three situations may occur resulting in the

inability to shut down the stress response and an over exposure to cortisol and adrenaline including: 1) the stress response continues for too long; 2) the individual's system is not able to properly interpret the situation as no longer stressful; and 3) the biological cessation of the stress response does not function properly.

A variety of negative health effects associated with each of the allostatic load conditions exist and may include cardiovascular decline, interference with bone development, higher insulin secretion, cognitive impairment and decline, and fatigued or dysfunctional HPA axis response (Chrousos, 2009; Logan & Barksdale, 2008; McEwen, 2005; McEwen & Karatsoreos, 2015; Monat et al., 2007; Sjörs et al., 2013; Stewart, 2006; Upchurch et al., 2015). Additionally, stress-related exhaustion often associated with allostatic load scenarios may cause damage to brain structures such as the hippocampus and amygdala, inducing stress related illness and weakening overall health (McEwen, 2005). Though genetic factors may influence allostatic load vulnerability, succumbing to one or more allostatic load scenarios can either be exacerbated or avoided depending on the individual's chosen mechanism for coping (Monat et al., 2007). For example, individuals who choose to cope with stress conditions such as PTSD by participating in a physiological somatic process such as DMT may demonstrate a reduction in accumulation of allostatic load (Gay et al., 2015).

Stress and Immunity

The science of Psychoneuroimmunology (PNI) focuses on the relationship between emotional response, neuroendocrine function, and the resulting immune system response (Agarwal & Marchall, 2001; Bellinger et al., 2008; Gianferante et al., 2014; Groer, Kane, Williams, & Duffy, 2015; Heath et al., 2013; Segerstrom, 2010). The field

of PNI is progressing in understanding related to how stressor-induced immune reactions may be altered and treated (Christian, 2015; Gianferante et al., 2014; Pariante, 2015). As discussed, when an individual perceives a stressor, the human immune response is activated via the HPA axis and the sympathetic nervous system (Gianferante et al., 2014; Lane, 2014; Monat et al., 2007). Occasional acute and minor levels of stress are not always harmful and may be beneficial to the immune system, however stress experienced over a long period of time can be harmful as it may suppress other bodily systems the body determines as unneeded for immediate fight-or-flight of survival (Monat et al., 2007; NIMH, 2015; William & Duffy, 2015).

The NIMH (2015) described how a chronic a stress response may result in harmful and weakening effects to the body's immunological functioning including: disruptions in the digestive system, disparate reproductive challenges, and increased occurrences of diabetes, depression, viral infections, and high blood pressure. In the short-term the hormones released during the stress response may be beneficial to the health and immunity of the individual, however an individual confronted with chronic stress may experience deleterious effects to health similar to age-related changes and inflammation in human immune system functioning (Groer et al., 2015; Michaud, 2013; Monat et al., 2007). Further, the activation of the HPA response may contribute to a dysregulation of type-1 and type-2 cytokine molecules (Heath et al., 2013; Lucey, Clerici & Shearer, 1996). Examples of health concerns associated with immune-based conditions include increase tumour growth, cardiovascular disease, and obesity (Heath et al., 2013; Lucey et al., 1996; Monet et al., 2007).

In addition, when an individual's immune response is suppressed by heightened levels of cortisol it may further increase susceptibility to pathogens and viruses (NIMH, 2015; Monat et al., 2007). Kronfol and Remick (2014) reviewed literature over 15 years related to cytokines, the central nervous systems, and mental health disorders. The authors cited limitations in their review of the literature as it included primarily animal studies with noted methodological flaws suggested in the human studies. Nonetheless, the authors argued for the significant role that cytokines play in signalling the production of several processes including neuroimmune, disease, and behavioural changes possibly leading to pathology. An understanding of these processes imparts tenable support for somatic treatment interventions such as DMT for PTSD. For example, Schmidt et al., (2015) researched obese individuals (n = 117) concluding that partaking in physical activity played an important role in reducing allostatic overload and the pro-inflammatory effects of cytokines.

Blending Stress, Emotion, and Coping

Coping refers to an individual's specific efforts to manage the adverse effects or threats caused by stressors in an individual's life (Bae, Hyun, & Ra, 2015; Monat et al., 2007; Kiliç, Erol & Kiliç, 2011). Following a stress response, the method of coping an individual chooses often involves previously developed patterns and appraisals that incorporate both stress and emotions (Connor-Smith & Compas, 2004; Lazarus, 1998, 2006). Stress, emotion, and an individual's unique coping response or his or her involuntary stress-reactivity may contribute to either positive or negative mental and physical health outcomes (Connor-Smith & Compas, 2004; Monat et al., 2007).

Additionally, an individual's chosen coping mechanism may serve as a component of unique meaning-making related to his or her specific life experiences (Lazarus, 2006; Monat et al., 2007). For example, a chosen coping method may pertain to an individual's level of self-esteem or to an emotionally specific response such as anger or anxiety. Monat et al., (2007) explained that the manner in which an individual appraises a situation may also affect his or her stress response and choice of coping strategy.

Further, Lazarus (2006) contended that emotion may play a key overseeing role within the triad of stress and coping. For example, an individual's beliefs about an experience may alter his or her cognitive process of appraisal and diminish or in some cases eliminate the resulting stress response to a specific stimulus, (Bae et al., 2015; Lazarus, Opton Jr., Nomikos, & Rankin, 1965; Monat et al., 2007). Additionally, Lazarus et al., (1965) described a situation when an event is appraised as non-threatening by the individual that the resulting stress response may be wholly halted. Moreover, in a meta-analysis (n = 76), Byron, Khazanchi, and Nazarian (2010) related that an individual's unique appraisal of his or her level of stress may significantly influence cognitive performance, either negatively or positively.

Coping is a process that involves balancing disproportionate demands and may include behavioural and psychological actions in attempt to preserve a person's quality of life (Boyraz, Waits, Felix, & Wynes, 2016; Connor-Smith & Compas, 2004; Kilic et al., 2011; Monat et al., 2007). For example, an individual may seek a coping response if excessive demands arise that exceed his or her capacity to navigate following a stress response. Kilic et al., (2011) discussed how the coping process may involve both aspects

of cognitive problem solving and behavioural actions, such as the choice to seek out a specific therapeutic intervention. A condensed discussion of primary and secondary appraisal processes and problem-focused, emotion-focused coping styles follows. This discussion is included in anticipation of a thematic relationship to the research question that posits the meaning a participant ascribes to his decision to enter a DMT treatment group.

Primary and secondary appraisal. An individual's unique assessment of a stressful event equates to his or her appraisal of the event (Lazarus, 1998, 2006; Lazarus et al., 1965; Monat et al., 2007). Monat et al., (2007) described how a person's appraisal results in a unique judgment of the specific situation, influencing the resulting reaction to the stress. Initially an individual generates a *primary appraisal*, which informs via cognitive processes, to what level or degree an event is stressful (Monat et al., 2007). The authors further outlined that following the primary analysis of the event, a *secondary appraisal* of the event occurs. In the secondary appraisal process, an individual evaluates to what extent he or she is able to cope with the situation and the event (Folkman & Lazarus, 1985; Lazarus, 1998, 2006; Lazarus et al., 1965; Monat et al., 2007).

The individual's primary and secondary appraisals affect both the perception of the intensity of the situation and his or her eventual reaction to it (Folkman & Lazarus, 1985; Krumrei, Mahoney, and Pargament, 2011; Lazarus, 1998, 2006; Monat et al., 2007). For example, Krumrei et al., (2011) conducted a longitudinal study on the stressfulness of divorce. The researchers maintained that individuals who cognitively appraised the event of divorce as a *sacred loss* or as *degrading* demonstrated significantly more depressive symptoms one year later than individuals who navigated the divorce

through a positive religious coping method. Those individuals who appraised their situation as positive, sought adequate therapeutic support and social coping techniques, and subsequently demonstrated a higher degree of posttraumatic growth (Krumrei et al., 2011).

Problem-focused and emotion-focused coping. An individual's coping reaction may be categorized into two general types of responses including (a) problem-focused coping, and (b) emotion-focused coping (Bogic, Njoku, & Priebe, 2015; Folkman & Lazarus, 1980; 1985; Monat et al., 2007). Problem-focused coping is centered on the effort to solve the problem itself (Folkman & Lazarus, 1980; 1985; Monat et al., 2007). Problem-focused coping may be attempted through a variety of behaviours including information gathering about the problem, devising a plan of action, or by confrontation with the perceived problem face-to-face (Monat et al., 2007). Whereas emotion-focused coping hinges on controlling the emotional impact of the stressful circumstances (Folkman & Lazarus, 1980; 1985; Lazarus, 1998, 2006; Monat et al., 2007). Methods of emotion-focused coping may include meditation and relaxation techniques, the use of alcohol, discussing the issue with a friend or confidant, or paradoxically, avoidance (Monat et al., 2007). In either case the outcome of the coping process may be positive or negative for the individual.

Classifying the Coping Response. The COPE Questionnaire is an instrument often implemented to help classify an individual's specific coping response (Monat et al., 2007; Pang, Strodl, & Oei, 2013). The COPE Questionnaire outlines fourteen different coping styles. The fourteen styles are assembled based on results from personality tests and describe ways in which individuals typically handle stress (Carver, Scheier, &

Weintraub,1989; Monat et al., 2007). The fourteen coping styles are: active coping, planning, suppression, restraint, social support for either instrumental or emotional reasons, positive reinterpretation, acceptance, religion, venting, denial, behavioural and mental disengagement, and alcohol or drugs (Carver et al., 1989; Monat et al., 2007).

In addition to the COPE scale an alternate stress assessment tool is the Perceived Stress Reactivity Scale (PSRS). The PRS is considered a reliable measurement across cultures to assess stress reactivity differences and the risk of acquiring a stress-related disease (Schlotz, Jansen, Schulz, Yim, & Zoccola, 2011). The PSRS scale consists of 23 questions, 5 subscales, and 1 broad scale (Schlotz et al., 2011). As previously mentioned, the discussion on coping responses is considered important as it is may be associated with the meaning of the participant's decision to enter a DMT treatment group. Additionally, the way an individual reacts to and creates meaning of stressors may be a relevant consideration for clinicians during diagnosis and may influence clinical recommendations and treatment planning for individuals presenting with posttraumatic stress disorder (PTSD).

Posttraumatic Stress Disorder

Posttraumatic stress disorder (PTSD) is a broadly researched area of study traversing and interconnecting multiple scientific disciplines (American Psychiatric Association, 2013; Berger et al., 2012; Bogic et al., 2015; NIMH, 2015, US Department of Veteran Affairs, 2015). According to Hermes et al., (2012) the number of veterans treated for PTSD increased by 117.6% between 1997 and 2010. The trauma-related symptoms associated with PTSD such as hyper arousal and avoidance may significantly strain interpersonal relationships (American Psychiatric Association, 2013; NIMH,

2015). The effect of PTSD related symptoms may also interrupt usual activities and lead to further challenges such as socioeconomic hardships (NIMH, 2015). For example, when an individual with PTSD is triggered into a memory of the traumatic event he or she may react with anger or tension and experience a general feeling of uneasiness. These behavioural responses often result in a lack of sleep, lowered ability to focus or concentrate on important tasks, and a loss of interest in once enjoyable activities (American Psychiatric Association, 2013; NIMH, 2015; Picket, Barbaro, & Mello, 2015).

There are varying levels of stress analysis among the scientific disciplines pertaining to psychological stress. For example, though there is overlap between fields, sociology and anthropology generally place the focus of stress analysis on the social structures and value systems that the individual resides and believes in, whereas psychology generally emphasizes the individual's state of mind as it occurs within his or her culture (Monat et al., 2007). Another primary difference between levels of stress analysis among disciplines is that the question of coping may occur either collectively or individually (Hallman & Wandersman, 1992). Additionally, stress assessment may occur either on a physiological level, for example the GAS response as previously discussed by Selye (1946; 1973; 2013) or on a sociocultural level. However, assessing what creates a psychological event that may or may not produce a specific stress reaction can be a challenging exercise (American Psychiatric Association, 2013). The DSM-V assessment criteria outlining the diagnosis of PTSD was used in this research.

DSM-V Criteria for PTSD

Posttraumatic stress disorder (PTSD) has evolved since the original introduction in the Diagnostic and Statistical Manual of Mental Disorders (DMS-III) in 1980

(American Psychiatric Association, 1980, 2013; Levin, Kleinman, & Adler, 2014). In the current Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) diagnostic code 309.81, PTSD falls under the category of *Trauma and Stress-Related Disorders* (American Psychiatric Association, 2013). The criteria necessary for a PTSD diagnosis applies to adults, adolescents, and children over the age of six (American Psychiatric Association, 2013; Levin et al., 2014). The focus of the diagnosis is on the behavioural symptoms that arise following an exposure to a traumatic or stressful event(s).

Criterion A defines how the exposure to the event(s) must occur (a) by directly experiencing the event, (b) witnessing the event, (c) learning of the event, or (d) through exposure to the details of the event (American Psychiatric Association, 2013). For example, as in the exposure often experienced by first responders such as paramedics or police officers. Individuals with PTSD may have experienced events such as physical abuse, military combat situations, terrorist incidents, serious accidents, or violent assaults such as rape (American Psychiatric Association, 2013; Iribarren et al., 2005; US Department of Veteran Affairs, 2015).

If Criterion A of the diagnosis is satisfied there are seven additional criteria (B-H) necessary to be met before an individual receives a PTSD diagnosis (American Psychiatric Association, 2013). The necessary secondary criteria for a PTSD diagnosis according to the DSM-V include (a) persistently re-experiencing the event(s), (b) avoidance of the stimuli associated with the event(s), (c) a negative alteration in cognition and mood, (d) a marked change in arousal and reactivity or hypervigilance, (e) the associated symptoms lasting for more than one month, (f) significant impairment of

functioning or significant distress, and the presenting symptoms, (g) may not be attributed to substance use or another mental disorder (American Psychiatric Association, 2013).

Differentiating symptoms of stress disorders. PTSD shares symptoms with several other disorders, including major depressive disorder, anxiety disorders, and dissociative disorders (American Psychiatric Association, 2013). A diagnosis of PTSD differs primarily in that PTSD is linked specifically to a traumatic event(s). As discussed, the characteristic behavioural symptoms associated with PTSD must prevail for at least one month (American Psychiatric Association, 2013). Though acute stress disorder (ASD) shares homogeneous symptoms with PTSD, the distinguishing element between ASD and PTSD is that with ADS the duration of the symptoms is shorter, lasting from 3 days to 1 month (American Psychiatric Association, 2013; Friedman, 2015).

Adjustment disorders (AD) also share similar symptoms with PTSD (American Psychiatric Association, 2013). However, with AD it is not necessary for the stressor situation to meet the severity and specific type of stressor associated with Criterion A in a PTSD diagnosis. Further, with AD the stressor may meet Criterion A, but does not meet the additional criteria B-H as outlined in the DSM-V for PTSD (American Psychiatric Association, 2013).

PTSD Risk Factors and The Diathesis-Stress Model of Mental Illness

The diathesis-stress model of mental illness posits that a combination of one's genetic predisposition, biological markers, and life experiences may increase an individual's chances of developing mental health disorders or other diseases (Eberhart, Auerbach, Bigda-Peyton, & Abela, 2011; Monroe & Simons, 1991; Monat et al., 2007;

Zuckerman, 1999). Further, the diathesis-stress model infers that an individual's life experiences as well as his or her genetic predisposition contribute to the chance of an individual developing pathology or a mental health challenge (Monroe & Simons, 1991; Eberhart et al., 2011). For example, individuals may vary broadly in the resulting behavioural and coping mechanisms when exposed to traumatic event(s) and may or may not go on to develop PTSD symptoms (American Psychiatric Association, 2013; Brewin et al., 2000). The likelihood of developing PTSD may depend on several factors including an individual's unique perceptions, gender role, socio-economic standing, acculturation, as well as his or her unique response and appraisal of the traumatic event (American Psychiatric Association, 2013; Cantor, 2009; Monat et al., 2007).

As previously discussed, the DSM-V, 309.81 defines a traumatic event as an exposure an individual may experience that may include actual or threatened death, serious injury, or actual or threatened sexual violence (American Psychiatric Association, 2013). A review of every potential traumatic event that may be associated with a PTSD diagnosis was beyond the scope of this study. However, it is reasonable to consider that an experience of a traumatic event may include the often-unreported types of trauma occurring to a larger extent in women, including rape, sexual abuse, and intimate partner violence. In light of this consideration, research notwithstanding posits that women experience less exposure to traumatic events than men, while reporting a higher incidence of both the physical and psychological symptoms related to stress (Atwoli et al., 2015; Kessler, et al., 1994; Kessler, Petukhova, Sampson, Zaslavsky, & Wittchen, 2012; Levine & Land, 2014; NIMH, 2015; Reevy, 2007).

Additionally, susceptibility to the harmful effects of stress can depend on several individual factors including the physiological, psychological, personality, social, and individual predisposition to stress and disease (American Psychiatric Association, 2013; Brewin et al., 2000; Eberhart et al., 2011; Monat et al., 2007). For example, those individuals with characteristic Type A personality, negative self-concept, or pessimistic explanatory style seem to demonstrate a higher incidence of stress and disease in general than those without these traits (Monat et al., 2007; Peterson, Seligman, & Vaillant, 1988). Moreover, individuals may be more prone to stress related diseases as a result of unique cultural factors or personality traits. Examples of these characteristics and qualities include lower socio-economic standing, education level, adversity in childhood, traits such as neuroticism, or having previously experienced a traumatic event (American Psychiatric Association, 2013; Brewin et al., 2000; Monat et al., 2007). As such, the diathesis-stress model of mental illness is an important consideration in understanding PTSD diagnoses as not all individuals will develop psychopathy after exposure to a traumatic event (American Psychiatric Association, 2013; Benight, 2012). Additionally, an individual's unique personal qualities and environmental factors may alter the meaning attached to an event and could therefore affect treatment decisions for individuals diagnosed with PTSD.

Prevalence of PTSD

Estimating prevalence rates for PTSD is a complicated process as rates are constantly fluctuating and vary substantially among nations and between cultures (Atwoli et al., 2015; Berger et al., 2012; Kilpatrick, Resnick, Milanak, Miller, Keyes, & Friedman, 2013; Norris & Slone, 2013). The NIMH (2015) and the American

Psychological Association (2016) estimated that in any given year, PTSD affects approximately 3.5 million Americans. Kessler et al., (2012) reported that the lifetime risk for developing PTSD is 5.7% with a 12-month prevalence rate of 3.7%.

Another contributing factor in the variation in PTSD prevalence rates is the evolution of the diagnostic criteria of PTSD (American Psychiatric Association, 1980, 1994; 2013, Kessler et al., 1994; Kessler et al., 2012). For example, the changes in diagnostic criteria from the DSM-III, the DSM-IV, and the DSM-V affect the prevalence rates in epidemiology of PTSD (American Psychiatric Association, 1980, 1994, 2013; Kilpatrick et al., 2013). Applying the criteria associated with the DSM-IV, the American Psychiatric Association (2013) estimated the lifetime risk in the United States of developing PTSD to be 8.7% at age 75.

The highest rates of PTSD were associated with individuals who were survivors of "rape, military combat and captivity, and ethnically or politically motivated internment and genocide" (American Psychiatric Association, 2013, p. 276). In these circumstances the prevalence rate ranged from one-third to more than one-half of the population. Further, research has demonstrated that inner city youth populations with a history of childhood trauma may demonstrate a significantly higher lifetime prevalence for PTSD than the prevalence rates experienced by war veterans (Gillespie et al, 2009; Gillikin, Habib, Evces, Bradley, Ressler, & Sanders, 2016; Löfving–Gupta, Lindblad, Stickley, Schwab-Stone, & Ruchkin, 2015).

Notwithstanding the broad variation in prevalence estimates, as previously discussed it is generally agreed that after exposure to a traumatic event, women are more likely than men to develop PTSD (American Psychiatric Association, 2013; Crevier,

Marchand, Nachar, & Guay, 2014; Kessler et al., 1994; Kessler et al., 2012; US Department of Veteran Affairs, 2015; NIMH, 2015). However, in most populations, the likelihood of exposure to a defined traumatic event is more likely to occur with men during their lifetimes as opposed to women (Kessler et al., 1994; NIMH, 2015). The US Department of Veteran Affairs Congress of the United States (2015) estimated that 8% of men exposed to a traumatic event could develop PTSD related symptoms during their lifetime.

Further, Neria, Digrande, and Adams (2011) submitted that the perceived threat of terrorist events and unrest in the global socio-political climate may place a broader civilian population at risk of developing PTSD. For example, individuals who resided in close proximity to the events of September 11, 2001. Forecasts indicate a continual and significant increase in both prevalence rates and associated costs (Iribarren et al., 2005; Ivanova et al., 2010, US Department of Veteran Affairs, 2015). In addition to increased civilian exposure, it is suggested that a heightened incidence of future PTSD prevalence is related to an increase in participation and length of military operations (US Department of Veterans Affairs, 2015).

Impact of PTSD on Quality of Life

Posttraumatic stress disorder (PTSD) symptoms negatively affect an individual's psychological, social, and physiological well-being (American Psychiatric Association, 2013; Bogic et al., 2015; Iribarren et al., 2005; Monat et al., 2007; NIMH, 2015; Pickett et al., 2015; Selye, 2013; US Department of Veteran Affairs, 2015). Individuals coping with PTSD may experience symptoms including inability to articulate emotions, emotional detachment, heightened arousal, hypervigilance, and expressions of anger,

reoccurring nightmares, and sleeping difficulties (American Psychiatric Association, 2013; Pickett et al., 2015). Additionally, the symptoms of PTSD may contribute to difficulties with inter-personal relationships and create further issues with employment stability (American Psychiatric Association, 2013; Bogic et al., 2015; NIMH, 2015, Taft, Watkins, Stafford, Street, & Monson, 2011).

For example, behavioural differences and cognitive decline including memory and attention difficulties may lead to a decrease in every-day functioning, detachment, or to a deterioration of social structures (American Psychiatric Association, 2013; NIMH, 2015; Sirri, Magelli, & Grandi, 2011). The resulting occupational difficulties may further erode an individual's socioeconomic foundation (American Psychiatric Association, 2013; Iribarren et al., 2005; NIMH, 2015; Renshaw & Campbell, 2011; Sirri et al., 2011). Further, the symptoms of PTSD often linger after the initial exposure to the trauma for years (American Psychiatric Association, 2013; Bogic et al., 2015). In some cases, the psychological, biological, and social effects of PTSD and the resulting impact on a person's daily functioning may become crucial to the point of threatening the life of the individual (American Psychiatric Association, 2013; Iribarren et al., 2005; Kessler et al., 2012; NIMH, 2015).

Inadequate social support has been linked to an inability to effectively cope and a decrease in positive treatment outcome for PTSD survivors (Crevier et al., 2014; NIMH, 2015, Taft et al., 2011; US Department of Veterans Affairs, 2015). Additionally, research has linked stress responses to negative effects on cognition such as: reduced attention on challenging cognitive tasks, a decline in both verbal and visual memory, and a decrease in mental processing speeds (Samuelson et al., 2006; Sliwinski, Smyth, Hofer, &

Stawski, 2006). For example, Hoffman and Harrison (2009) described how the prefrontal cortex may change structure in individuals coping with PTSD. Additionally, the researchers explained that individuals diagnosed with PTSD are often diagnosed with comorbid traumatic brain injury (TBI). Further, persons with TBI demonstrate damage to the prefrontal cortex which may contribute to mechanisms in the brain that help to regulate fear and anxiety (Congress of the United States Congressional Budget Office, 2015; Hoffman & Harrison, 2009). Moreover, changes in the structure of the prefrontal cortex may affect a person's ability to adequately regulate inhibitions, specifically for appropriately controlling feelings of anxiety, fearfulness, and apprehension (Hoffman & Harrison, 2009).

Cantor (2009) argued that fear is an underlying evolutionary component of the foundation of PTSD. The author described the components and the early origin of fear as it relates to the drive for survival which may spark individual defensive survival behaviours. Further, Cantor (2009) explained that this instinctual drive may offer support of one of the positive benefits of PTSD. Nonetheless, as previously discussed, a chronic biological fear response can lead to allostatic load, triggering the release of harmful stress hormones such as cortisol and norepinephrine (Cantor, 2009; Lazarus et al., 1965; Monat et al., 2007).

Walsh and Bruce (2014) examined individuals who had experienced trauma from an unwanted sexual assault. The study focused on emotional disorders and the cognitive effect on an individual's choices after the traumatic event. The researchers gathered data from 834 individuals, female (n = 668) and male (n = 166). Several measurement instruments were used in this study including the PTSD checklist (PCL) a 17-item self-

report instrument (Walsh & Bruce, 2014; Weathers, Litz, Herman, Huska, & Keane, 1993). The authors concluded that a significant variance existed in event reporting behaviours for individuals who exhibited symptoms of PTSD (Walsh & Bruce, 2014). For example, the researchers reported that in cases where the symptoms included hyperarousal, the likelihood of reporting the event to authorities increased. However, in individuals with a higher level of PTSD avoidance symptoms the probability of reporting significantly decreased (Walsh & Bruce, 2014). Further, the researchers contended that an individual's perceived level of immediate stress may negatively hinder helpful decision-making, thus increasing the likelihood for creating errors in critical reasoning and personal decision-making.

Current Empirically Supported PTSD Treatment

According to the Society of Clinical Psychology, Division 12 of the American Psychological Association (APA), the current empirically supported treatment methods for adults with PTSD can be divided into two groups: 1) therapies that demonstrate strong empirical research support; and 2) therapies with modest research support (American Psychological Association Society of Clinical Psychology, 2016). Though other treatment methods for PTSD exist, the following recommended treatments have been rigorously evaluated to meet empirical standards of Division 12, the Society of Clinical Psychology. An abbreviated description of the currently recommended treatment methods for PTSD demonstrating strong research support follows. This discussion is relevant to underscore awareness that the currently supported treatment interventions for PTSD may limit effective treatment options and potentially reduce beneficial treatment outcomes for some individuals diagnosed with PTSD (American Psychiatric Association, 2013;

Congress of the United States Congressional Budget Office, 2015). Further, though research supports the concept that physicality may reduce allostatic load and assist in beneficially regulating the HPA response, generally somatic treatment interventions for trauma survivors are not substantially supported (American Psychological Association Society of Clinical Psychology, 2016; Gay et al., 2015; McEwen & Karatsoreos, 2015; Sjörs et al., 2013; Upchurch et al., 2015).

Prolonged exposure therapy. Prolonged Exposure Therapy is a manualized therapy with strong research support that lasts from 8 to 15 sessions (American Psychological Association Society of Clinical Psychology, 2016; US Department of Veteran Affairs, 2015). Treatment with Prolonged Exposure Therapy involves exposing the client to the memories, thoughts, and feelings associated with the traumatic event(s). The premise of this intervention is that if an individual repeatedly revisits the traumatic situation, via an imagined re-exposure to the event, a reduction in associated symptomology from the event will follow.

Present centered therapy. Present Centered Therapy differs from prolonged exposure therapy as it does not re-expose the individual to the trauma (Classen et al., 2011). This therapy is classified as an efficacious, non-trauma-focused therapy for individuals presenting with PTSD symptoms and has strong research support (American Psychological Association Society of Clinical Psychology, 2016; Frost, Laska, & Wampold, 2014). The basic premise of Present Centered Therapy is to focus on altering the maladaptive behaviours currently in the individual's life. The intervention focuses on helping the individual to understand the traumatic reaction associated with the PTSD symptoms. Further, the therapy consists of psycho-educational strategies related to

beneficial problem solving in the present and to assist an individual in coping with his or her current life challenges (Classen et al., 2001; Frost et al., 2014).

Cognitive processing therapy. Cognitive Processing Therapy (CPT) involves gaining an understanding about why the individual initially suffered from the traumatic event and why the recovery may be difficult for the individual (American Psychological Association Society of Clinical Psychology, 2016; US Department of Veteran Affairs, 2015). CPT is a manualized therapy, which includes worksheets and lasts approximately 12 weeks in duration. In CPT the basic concept is that if beliefs and cognitions surrounding the content of the trauma can change then the behavioural responses to the trauma may also change (Chard, 2005). The US Department of Veteran Affairs (2015) defined four underlying components of CPT: (a) instruction about PTSD specific symptoms and a review of the overall treatment objective; (b) instruction to help individuals become aware of their unique thoughts and feelings; (c) learning additional skills that challenge the current maladaptive thoughts; and (d) gaining an understanding of the changes in belief systems that may occur after experiencing a trauma, such as changes in trust and safety.

Seeking safety for PTSD. Seeking Safety for PTSD has demonstrated strong research support for individuals with PTSD and comorbid Substance Use Disorder (American Psychological Association Society of Clinical Psychology, 2016). It consists of a present-focused manualized, flexible approach that aims to help individuals feel safe from both PTSD trauma and substance abuse. The Seeking Safety intervention may be conducted in a number of settings including groups, inpatient, outpatient, or in residential treatment facilities. In this treatment the main focus is to help individual's feel safety

with their unique emotions, behaviours, thoughts, and within their interpersonal relationships.

Eye movement desensitization and reprocessing. The theoretical foundation of Eye Movement Desensitization Reprocessing (EMDR) is that the individual may not have adequately processed the traumatic memory and thus PTSD symptoms continue to present (American Psychological Association Society of Clinical Psychology, 2016). EMDR combines initial relaxation techniques along with cognitive reprocessing and eye movement. Generally, the eye movement component is thought to help process and integrate the traumatic memories. Though EMDR has strong empirical research supporting its efficacy, the effectiveness of EMDR for trauma-related symptoms is not without controversy (American Psychological Association Society of Clinical Psychology, 2016; Davidson & Parker, 2001; Devilly & Spence, 1999).

Division 12 of the American Psychological Association (2016) explained that though research indicated EMDR reduces PTSD related symptoms the methodology is often considered faulty. For example, when comparing prolonged exposure therapy without eye movements to EMDR there is no significant difference in the outcome of the two treatment methods. It is argued that the exposure treatment actually contributed to the positive treatment outcome and that any eye movements are unnecessary, supplemental movements that possibly have no effect towards a beneficial treatment outcome (American Psychological Association Society of Clinical Psychology, 2016; Davidson & Parker, 2001; Herbert et al., 2000). Nonetheless EMDR is still considered an empirically supported treatment for PTSD with strong, though controversial research support (American Psychological Association Society of Clinical Psychology, 2016).

Additional PTSD Treatment Considerations

The American Psychological Association, Division 12 (2016) also included in the listings of supported PTSD treatments two additional therapies. One therapy, Stress Inoculation Therapy demonstrated modest research support (American Psychological Association Society of Clinical Psychology, 2016). Stress Inoculation Therapy is usually combined with and in addition to other PTSD treatment methods. The therapy involves teaching the individual various beneficial coping skills intended to assist in managing his or her anxiety related symptoms of PTSD. The skills include suggestions such as breathing exercises, muscle relaxation, and guided self-talk (American Psychological Association Society of Clinical Psychology, 2016).

Psychological debriefing or crisis intervention is a process takes place immediately following the traumatic event (American Psychological Association Society of Clinical Psychology, 2016). Psychological debriefing typically is offered within a single session. The sessions may occur individually or in groups and generally lasts 3 hours or less. Psychological debriefing was once thought to inhibit the development of PTSD related symptoms (American Psychological Association Society of Clinical Psychology, 2016). Although Horn, Charney, & Feder (2016) presented evidence that psychological debriefing may have recently regained favour in the trauma field, for example with survivors of sexual assault and rape, nonetheless the process of early intervention after trauma currently does not have adequate rigorous research support to be considered a valid treatment method for PTSD. Additionally, research exists suggesting that this therapy may actually be harmful (American Psychological Association Society of Clinical Psychology, 2016; Van Emmerik, Kamphuls, Hulsbosch, & Emmelkamp,

2002). For example, a meta-analysis conducted by Van Emmerick et al., (2002) indicated that psychological debriefing may actually inhibit an individual's ability to recover naturally following a traumatic event.

However, early treatment interventions longer than a single session, may be beneficial to individuals coping with PTSD symptoms and may confer positive long-term treatment outcomes (Monat et al., 2007; NIMH, 2015; Shalev, 2009; US Department of Veteran Affairs, 2015). For example, research suggests that inefficacious treatment outcomes for individuals diagnosed with PTSD may result if the chosen treatment is delayed after the occurrence of traumatic event (Kim, Schneider, Kravits, Mermier, & Burge, 2013; Shalev, 2009; US Department of Veteran Affairs, 2015). Additionally, Rothbaum et al., (2014) conducted a study examining inner city emergency room patients (n = 65) in Atlanta, Georgia. The study participants met the DSM-IV criterion A for PTSD and received either (a) an assessment only or; (b) 3 sessions of prolonged exposure (PE) therapy soon after the trauma incident (mean = 11.8 hours, median = 6.92). Subsequently, PTSD symptoms were assessed at 4 and 12 weeks. The authors concluded that participants who did not receive the PE therapy developed elevated PTSD symptoms. Further, at a 12-week follow-up assessment, the results indicated that early intervention following trauma in the emergency room, may diminish the genetic risk factors for developing PTSD symptoms (Rothbaum et al., 2014).

Furthermore, straightforward, self-administered screening tools, such as the Primary Care PTSD (PC-PTSD) may also be a beneficial early treatment tool for PTSD (Cameron & Gusman, 2003; Reese et al., 2012). For example, Reese et al., (2012) concluded that patients in an outpatient clinical setting and their families who received

the PC-PTSD may report a higher rate of PTSD symptoms. Thus, screening tools such as the PC-PTSD may also help to identify imperceptible cases of PTSD and encourage individuals to seek beneficial interventions. As such, some research indicates that early diagnosis and treatment of PTSD symptoms, shortly after an exposure to a traumatic event, may discourage the subsequent development of PTSD related symptoms (Kim et al., 2013; Monat et al., 2007; NIMH, 2015; Rothbaum et al., 2014; Resse et al., 2012; Shalev, 2009; US Department of Veteran Affairs, 2015).

Kip et al., (2013) conducted a randomized controlled trial (RCT) of Accelerated Resolution Therapy (ART) with members and veterans of the U.S. military (n = 57) 81% males, with a mean age of 41 years (SD = 13). This study implemented self-report methods of PTSD symptoms and other mental health disorders. The ART intervention (Kip et al., 2013) demonstrated a 94% completion rate with a significant ($p < 0.001$) reduction in combat-related trauma symptoms after 3 months. The authors argued for the efficiency over other Department of Defense and Veterans Administration recommended treatments in that the intervention is succinct and delivered entirely in 3.7 sessions.

Though several empirically supported treatment methods exist demonstrating positive treatment outcomes for PTSD, nonetheless, the literature also supports that single treatment methods, which consistently provide a rapid path of recovery for individuals following a trauma related event are often unsuccessful (American Psychological Association Society of Clinical Psychology, 2016; National Academy of Sciences, 2014; NIMH, 2015; US Department of Veteran Affairs, 2015). Additionally, Kip et al., (2013) contended that the therapies recommended for PTSD by the Department of Defense and Veterans Administration are often costly and provide

inconsistent results. Factors contributing to unsuccessful treatment outcomes include lack of full participation in treatment, early termination of treatment, and failure to complete the recommended course of treatment (Barrett, Chua, Crits-Christoph, Gibbons, & Thompson, 2008; Gutner, Gallagher, Baker, Sloan, & Resick, 2016; Kehle-Forbes, Meis, Spoont, & Polusny, 2015; Kip et al., 2013). Moreover, with PTSD diagnoses it is often difficult to obtain a predictable prognosis (Bisson, 2007).

Additionally, positive treatment outcomes become increasingly difficult if comorbid disorders exist, such as substance use disorder or major depressive disorder (Gonzalez et al., 2015; Najavits, Norman, Kivlahan, & Kosten, 2010). Further, the current empirically supported treatment options may not adequately address the diverse demographic population and situations for all individuals suffering with trauma related symptoms (Kehle-Forbes et al., 2015; Society of Clinical Psychology, Division 12, American Psychological Association, 2016)). Moreover, generalized clinical assessment instruments may lead to difficulties in determining which treatment methods for each unique individual could contribute to the most beneficial outcome. Though the currently available treatment options for PTSD are numerous, nonetheless treatment challenges remain. As previously discussed, the way an individual perceives and chooses to cope with stress may be a factor that influences his or her treatment outcome. Gaining understanding into the meaning by which male trauma survivors choose to participate and react to DMT may broaden clinical understanding into potentially beneficial treatment options for PTSD survivors.

Neuroplasticity, Neurogenesis, and PTSD

Research supports a relationship between brain neuroplasticity and the biological processes of PTSD (Gaffney, 2013; Hoffman & Harris, 2009; Knoblauch, Palm, & Sommer, 2010; Simpkins & Simpkins, 2013). For example, the neurogenetic changes that occur after a traumatic event may act an instrumental component in the process of recovery. Knoblauch, et al., (2010) described how brain neuroplasticity acts as a reorganization of the neural connections and may occur in one of two ways. The brain may reorganize the neural connections either by: a) *synaptic* plasticity that changes the effectiveness of the existing brain synapses, or through b) *structural* plasticity, which blocks or prunes out specific synapses followed by the regrowth of alternate synapses (Knoblauch et al., 2010). Further, as discussed previously, the inflammation process associated with the fight-or-flight response may impede the neurogenetic healing process (Cannon, 1935; Hoffman & Harrison, 2009; Simpkins & Simpkins, 2013).

Neurogenesis and Creativity

Abundant research exists demonstrating a significant reduction in the physiological stress response and an increase in the neurogenic reparative processes for individuals who participate in various creative activities (Amagdei et al., 2010; Miu, 2010; Berrol, 2006; Coubard, Duretz, Lefebvre, Lapalus, & Ferrufino, 2011; Dayton, 2005; Fukui & Toyoshima, 2008; Herdener et al., 2010; Kshtriya, Barnstaple, Rabinovich, & DeSouza, 2015; Kaufman, Kornilov, Bristol, Tan, & Grigorenko, 2010; Pantev & Herholz, 2011; Petzinger, Fisher, McEwen, Beeler, Walsh, & Jakowee, 2013; Ragert et al., 2004; Rossi & Rossi, 2014; Simpkins & Simpkins, 2013; Zolyniak & Schulte-Göcking, 2014*)*. A variety of creative activities may affect a reparative response

included visual, musical, theatrical, and expressive movement. There is also indication that some instances of stress such as social rejection may enhance creativity and improve cognition rather than lead to a direct, destructive stress response (Akinola & Mendes, 2008; Byron et al., 2010).

In a comparative study conducted by Amagdei et al., (2010) the authors contended that exposure to musical sounds provided a safeguard from the imposed traumatic effects and hippocampal neurogenesis transpired. Further, Herdener et al., (2010) conducted two separate experiments measuring human auditory processes of professional and non-professional musicians. The researchers used functional magnetic resonance imagining (fMRI) and discovered an increase in neural responses in the left hippocampus of the professional musicians. In another study, Kraus and Chandrasekaran (2010) examined children with language-based learning disorders and concluded that proficiency with musical expression altered the individual nervous system inducing neuroplasticity in the brain, creating improvements in linguistic abilities and speech recognition.

As previously discussed, neuroplasticity represents the brain's ability to reorganize neurons with newly created structural connections (Mark et al., 2014; Petzinger et al., 2013). Neurogenesis is the process of regenerating new neural connections throughout the organism's lifespan (Amagdei et al., 2010; Gaffney, 2013; Hoffman & Harris, 2009; Knoblauch et al., 2010; Simpkins & Simpkins, 2013; Wilson-Mau, 2010). The likelihood of a reparative neurogenic process and resulting protection from degrading neuroplasticity via participation in both physical and creative-arts processes was supported by the review of the literature (Berrol, 2006; Herdener et al.,

2010; Fukui & Toyoshima, 2008; Kshtriya et al., 2015; Meekums, 2002; Speisman, Kumar, Rani, Foster, & Ormerod, 2013).

Further, an individual's empathetic response may increase through mirror neurons (Berrol, 2006). For example, Berrol (2006) discussed the importance of empathy within the psychotherapeutic healing processes. The author contended that mirror neurons may be activated during the process of Dance Movement Therapy (DMT). Additionally, Berrol (2006) put forward that the capacity for the response of empathy may be related to the mirroring that occurs in the interactive process of individuals who are witnessing the event of another, such as with the movements that occur in a DMT group. Further, the author suggested that a somatic, holistic process, such as DMT has additional unknown beneficial mechanisms at play in behaviour, health, and in the treatment of traumatic brain injury. Meekums (2002) also contended that the act of expressive movement, such as contained in the DMT process, stimulates the central nervous system (CNS) via kinesthetic and sensory impulses.

The literature review supported the healing process described in creative therapeutic intervention. Additionally, the reparative healing process through neuroplasticity and neurogenesis is also supported. A broad overview of neurogenesis and neuroplasticity was salient to this research as DMT is a somatic therapy with an inherent characteristic of the intervention comprising action and physical movement (ADTA, 2016; Meekums, 2002; Speisman et al., 2013).

Historical Overview of Dance Movement Therapy

Dance as a ritualistic, spiritual happening and a communicative art form has existed for several thousand years (Axandrakis, 2006; Cruz, 2001; Ritter & Low, 1996).

Cruz (2001) described that the early twentieth century brought changes in artistic dance forms. For example, classical ballet evolved to more modern dance forms, such as that innovated by Martha Graham (Graham, 1992). The evolution helped to advanced dance from solely an expressive form of art to one that could be applied to a therapeutic method of communication (Chaiklin & Wengrower, 2015). In the early 1940's DMT began to emerge as a product of these changes (Chace, 1953; ADTA, 2016; Levy, 2014a; Strassel, Cherkin, Steuten, Sherman, & Vrijhoef, 2011).

According to the ADTA (2016) Marian Chace (1896 – 1970) holds the pioneering position in DMT. Chace, originally a visual artist, was introduced to dance on the recommendation of a physician following a personal back injury (ADTA, 2016; Sandel, Chaiklin, & Lohn, 1993). Subsequently, Chace developed a passion for modern dance and progressed to the level of a professional vaudeville dancer, choreographer, and dance instructor (ADTA, 2016; Levy, 2014a; Ritter & Low, 1996).

In 1942 Chace began working with World War II veterans returning from war with trauma-related symptoms (ADTA, 2016). According to the ADTA (2016) Chace held a position at St. Elizabeth's Hospital, a federal psychiatric hospital located in Washington, D.C., where she conducted the first therapeutic group classes that she termed *Dance for Communication.* Chace had previously studied psychodrama at the Washington School of Psychiatry, with a focus on providing healing movement for schizophrenia patients (ADTA, 2016; Chase, 1953). As Cruz (2001) explained, abnormal movement patterns, associated with mental illness, were often visible in individuals diagnosed with schizophrenia.

Chace worked alongside staff psychiatrists to help treat a diverse range of mental disorders, bringing her interdisciplinary experiences to dance therapy with an improvisational style of expressive movement (ADTA, 2016; Strassel et al., 2011). In 1947, she became the first professional dance therapist and introduced the first clinical use for somatic movement therapy (ADTA, 2016). In 1966 the ADTA was formed as the professional organization and regulating body for DMT, with Marion Chace acting as its first president through 1968 (ADTA, 2016; Cruz, 2001). The foundational history of DMT is necessary to understand as the origination of DMT was primarily related to the treatment of trauma, though empirical studies substantiating the beneficial outcomes of DMT for trauma-related disorders remain minimal

The ADTA subscribes to an expressive mind and body process of healing through movement intended to "promote the emotional, social, cognitive, and physical integration of the individual, for the purpose of improving health and well-being" (ADTA, "What is Dance Movement Therapy, para. 1, 2016). As opposed to traditional therapeutic processes with a focus on verbal expression, DMT focuses on immersion in the therapeutic process via the language of the body's motions (ADTA, 2016; Leseho & Maxwell; 2010; Levy, 2014a). The ADTA (2016) described DMT assisting individuals in achieving improved self-expression for a broad number of psychological disorders, identifying DMT as a somatic restorative healing process.

DMT has often been referred to as an alternative therapy; however, its genesis originated from a traditional psychodynamic theoretical orientation (ADTA, 2016; Blooj, 2006; Dosamantes, 1990; Dosamantes-Beaudry, 2007; Meekums, 2002; Pronk et al., 2011; Vulcan, 2009). The conceptual orientation of DMT aligns with psychodynamic

therapy in that DMT blends an individual's hidden unconscious psyche with a healing expressive movement process (ADTA, 2016; Berrol, 2006; Dosamantes-Beaudry, 2007; Meekums, 2002). Additionally, the intervention of DMT supports that via movement and action traumatic memories are triggered (ADTA, 2016; Levine & Land, 2016). In this state of tribulation, DMT may then verbally or non-verbally encourage the expression that may follow (ADTA, 2016; Meekums, 2002).

In addition to a psychodynamic therapeutic orientation, registered and board-certified dance movement therapists may approach DMT from a variety of traditional theoretical orientations such as cognitive behavioral therapy, dialectical behavior therapy, humanistic, and rational emotive behavioral therapy (ADTA, 2016; Foa et al., 2009; Martinec, 2013). During the course of this research, over forty countries contained professional dance therapy associations (ADTA, 2016; Dulicai & Berger, 2005).

Dulicai and Berger (2005) reported on the personal experiences of dance movement therapists surveyed from 37 countries. The authors noted global similarities in the practitioner's motivations, healing processes, as well as a uniform desire to help individuals in distress. Though the international presence of DMT is strong, DMT nonetheless remains arguably less recognized in comparison to traditional empirically supported therapeutic interventions, for example those previously discussed and supported by the Society of Clinical Psychology (ADTA, 2016; Society of Clinical Psychology, Division 12, American Psychological Association, 2016).

The Dance Movement Therapy Certification Board (DMTCB, 2015) is an affiliate of the ADTA. The DMTCB acts as the governing body that recognizes qualified DMT therapists (ADTA, 2016; DMTCB, 2015). Two levels of DMT therapists are recognized:

(a) Registered Dance Movement Therapist (R-DMT); and, (b) Board Certified Dance Movement Therapist (BC-DMT). Seven universities are accredited to meet the educational standards set by the ADTA (2016) involving extensive coursework and a minimum of 700 hours of supervised fieldwork.

For example, DMT practitioners must complete a rigorous curriculum established by the ADTA and also have trained as dancers themselves (ADTA, 2016; Cruz, 2001). Though it is not necessary to be a professional dancer to become a dance movement therapist, nonetheless, a strong foundation in dance and movement is required. There are two paths towards becoming an entry level Registered DMT: 1) attending an ADTA approved graduate program from one of seven nationally approved institutions, or following an alternate route including; 2) receiving a master's degree or higher from an accredited program, which includes graduate level psychology coursework, and completing additional specific training in DMT as outlined by the ADTA (2016). As mentioned, both paths require a minimum of 700 hours of supervised clinical fieldwork for the basic requirement of becoming a registered dance movement therapist (ADTA, 2016).

Dance Movement Therapy and Group Psychotherapeutic Process

DMT has been describe as a therapy process combining dance and psychiatry with suitability for both individuals and groups (ADTA, 2016; Berrol, 2006; Bräuninger, 2012; Capello, 2011; Meekums, 2002). The traditional group therapy process includes specific stages sharing certain similarities to the stages in a DMT process (ADTA, 2016; American Group Psychotherapy Association, 2105; Corey, 2012; MacKenzie, 1997; Meekums, 2002). For example, the American Group Psychotherapy Association (AGPA)

described the group process as involving an initial engagement, building of the group cohesion, understanding group differences, a working stage, and an ending stage (AGPA, 2015).

The group process in DMT is similar to that of group therapeutic stages including steps of affiliation, responsibility, openness, and separation (ADTA, 2016; Bräuninger, 2012). In the early stages of traditional group development, there is a focus on relationship building and group cohesion which is also a primary goal of DMT (ADTA, 2016; AGPA, 2015; Cruz, 2001). Meekums (2002) compared the stages of the DMT with the traditional group process outlining the following steps: (a) the preparation and incubation stages, (b) illumination stage, (c) relaxed stage, and the (d) final evaluation stage. Additionally, traditional group processes involve an assimilation of social role-theory which is also included innately in the framework of group DMT (ADTA, 2016; AGPA, 2015; Corey, 2012).

However, though DMT may be conducted in a group setting it differs from traditional group therapy in that DMT is focused primarily on expression through non-verbal movement (ADTA, 2016; Bräuninger, 2012; Cruz, 2001; Foa et al., 2009; Levy, 2014a). Additionally, in the DMT process, the group leader may focus the group behaviour as it relates to expressive movement as opposed to verbal expression (ADTA, 2016; Cruz, 2001). For example, Cruz (2001) explained that a relationship between the self and other group members, within a DMT experience may develop, even when verbal expression may be difficult for some individuals.

Further, the assessment process in a DMT group may begin with the DMT professional leader's observation of an individual's movement acting as a reflection of

their emotional state (ADTA, 2016; Chailkin & Wengrower, 2009; Levy, 2014a; Payne, 2003). The central conceptual framework of DMT posits that through the process of change in an individual's expressive movement within a safe environment, beneficial cognitive change will follow (ADTA, 2016, Chailkin & Wengrower, 2009; Koch et al., 2014; Payne, 2003). The ADTA (2016) explained how the pleasurable release of in-the-moment feelings and emotions in the here-and-now may result from movement within a group. This concept shares similarities to mindfulness-based training, where research employing fMRI scans have demonstrated beneficial neuroplastic brain transformations and a reduction in physiological stress responses (Taren et al., 2015). Thus, it is within the group process of DMT and through observation of expression through movement that the practitioner conducts the clinical assessment and determines an appropriate treatment intervention for the individual (ADTA, 2016; Payne, 2003).

Though DMT sessions may unfold in a variety of ways and may be fluid in nature, the general process of a group DMT therapists' assessment procedure may follow a structure such as (a) warming up to achieve relaxation through movement, (b) releasing control or restraint; self- judgment may occur, (c) expressing emotions and feelings through movement in the present moment; releasing of self-judgement may occur, and; (d) therapeutic assessing or distinguishing isolated feelings or emotions for further exploration (ADTA, 2016; Berrol, 2006; Levy 2014a; Meekums, 2010). During the DMT process, the dance movement therapist may demonstrate elements of traditional group therapy such as empathetic listening, strengthening rapport, questioning, reflection, confrontation, and summarizing (ADTA; 2016; AGPA, 2015; Levy, 2014a).

Payne (2004) contended that for successful counseling in DMT to take place it is necessary for DMT leaders to train and immerse themselves in continuing professional development training programs. As discussed, the certification process of dance movement therapists is regulated by the ADTA (2016) to ensure homogeneity in therapeutic practice and beneficial treatment outcomes. However, Bräuninger (2012) argued for a standardized group dynamic language, specifically designed for DMT treatment groups, that may assist in improving the process of the therapy outcome as well as the validity in DMT research.

Similarities with other group therapy approaches such as Adlerian theory, are also present in DMT (Carlson, Watts, & Maniacci, 2006; Corey, 2012; Dinkmeyer 1986). For example, with DMT as with Adlerian groups human behaviour is considered socially purposeful, moving towards connectedness, and a sense of belonging. Within DMT groups, interaction occurs with relational interaction and with feedback from the facilitator as well as the members. In summary, DMT contains similarities and parallels to traditional and efficacious group psychotherapeutic processes.

Dance Movement Therapy in Multicultural and Diverse Therapeutic Settings

Dance movement therapists may practice in various multicultural settings such as mental health care facilities, rehabilitation locations, medical centers, and educational settings (ADTA, 2016; Chaiklin & Wengrower, 2015; Strassel et al., 2011; Levy, 2014a). Harris (2007a; 2007b) asserted that DMT is a universal process and offers the ideal structure for use in diverse social cultures and contexts. Additionally, persons dealing with a range of mental and physical health challenges have received beneficial treatment outcomes with DMT and other dance related therapies (ADTA, 2016; Bräuninger, 2012;

Ho, Lo, & Luk, 2015; Ho, Fong, Cheung, Yip, & Luk, 2016, Levy 2014a; Selman, Williams & Simms, 2012). For example, DMT has been used for myriad physical and psychological challenges including: Alzheimer's disease, anxiety related symptoms, attention deficit disorder, autism spectrum disorder, trauma associated with breast cancer, eating disorders, dementia, depression, hyperactivity disorder, Parkinson's disease, improvement of quality of life, schizophrenia, self-esteem issues, substance abuse disorder, palliative care, trauma, and others (ADTA, 2016; Bearss, McDonald, Bar, & DeSouza, 2017; Bräuninger, 2012; Guzmán-García, Hughes, James, & Rochester, 2013; Leseho & Maxwell, 2010; Hildebrandt, Koch, & Fuchs, 2016; Hokkanen, Rantala, Remes, Hackney, & Bennett, 2008; Erwin-Grabner, Goodill, Hill, & Von Neida, 1999; Jeong, Hong, Lee, Park, Kim, & Suh, 2005; Kaltsatou et al., 2015; Kiepe, Stöckigt, & Keil, 2012; Koch, Mehl, Sobanski, Sieber, & Fuchs, 2015a; Krantz, 1999; Meekums et al., 2012; Punkanen, Saarikallio, & Luck, 2014;Redman, 2007; Vaverniece, Majore-Dusele, & Rasnacs, 2012; Woolf & Fisher, 2015).

Additionally, DMT seems to bridge international boundaries and beneficial treatment outcomes have been reported with culturally diverse populations. For example, DMT has been applied in treatment interventions with: adolescent and adult torture victims, children to help promote better group cohesion, geriatric populations, individuals with Parkinson's disease, male inmates in an addiction treatment program, sexual abuse survivors, and trauma survivors (Capello, 2011; Erfer & Ziv, 2006; Guzmán-García et al., 2013; Hackney & Bennett, 2014; Harris, 2007a, 2007b; Leseho & Maxwell, 2010; Mills & Daniluk, 2002; Miliken, 2008; Selman et al., 2012). Though ample literature exists supporting the application of DMT for a diverse range of health challenges; nonetheless,

a meta-analysis by Strassel et al., (2011) argued for the need for improved methodology in the discipline. The authors examined 8 reviews and 18 random controlled trials (RCT's) investigating the effects of DMT associated with a variety of health challenges. The study authors cautioned that though DMT conferred positive therapeutic outcomes in some instances many of the studies lacked adequate methodology, describing the quality of the methodology as ranging from poor to good.

Further, Strassel et al., (2011) recommended that until additional empirically supported studies are completed, DMT should be reserved for individuals either not amenable to traditionally supported treatments or considered as a supplemental method of treatment and applied primarily to support quality of life (QOL) improvements. However, proponents of DMT argue that DMT is a valid restorative and preventative process that assists in beneficial treatment outcomes for a diverse range of physical and psychological challenges (ADTA, 2016; Amenious & Saengear, 2013; Barnett et al., 2014, Bräuninger, 2012; 2014; Berrol, 2006; Chaiklin & Wengrower, 2015; Cruz, 2001; Elkins & Fisher, 2014; Erfer & Ziv, 2006; Kshtriya et al., 2015; Koch et al., 2014; Levy, 2014a; Martinec, 2013; Meekums et al., 2012; Winkler, 2013). In summary, the beneficial therapeutic aspects of DMT seems to bridge multicultural and diverse therapeutic settings for many individuals. Additionally, participation in DMT offers the inherent characteristic of interweaving social support within the group process. A discussion of social support, stress, and quality of life follows as gender and cultural variations may exist in an individual's choice when seeking social support.

Social Support, Stress, and Quality of Life

Social support has been considered a beneficial aspect to healing when an individual experience a stress response (Lam & Rosenheck, 2014; Monat et al., 2007; Mendlowicz & Stein, 2014; Olatunji, Cisler, & Tolin, 2007). Research supports the likelihood that an individual will accept a social support structure in healing depending on the context of the individual's early gender socialization and what was or was not considered to be acceptable in their unique environment (Reevy & Maslach, 2001). Research suggests social support may occur tangibly, be based in emotion, or may be information based (Monat et al., 2007). Positively perceived social support has been correlated to better general health, quality of life, and increased longevity (Lam & Rosenheck, 2014; Monat et al., 2007; Reevy & Maslach, 2001). Additionally, social support may be achieved from a variety of ways including personal relationships with friends or family, supportive animals, interaction with health professionals, and through a therapeutic intervention such as DMT (ADTA, 2016; Monat et al., 2007; Mendlowicz & Stein, 2014; Reevy & Maslach, 2001).

Perceived Versus Enacted Social Support

An individual may experience *perceived* or *enacted* social support (Barrera, Sandler & Ramsay, 1981; Barera, 1986; Monat et al., 2007). Perceived support contains an expected positive outcome and relates to the social support an individual believes will be provided when a need occurs (Monat et al., 2007). For example, support received from family and friends. On the other hand, enacted social support is equivalent to the actual support that is received during the stressful occurrence (Monat et al., 2007; Reevy & Maslach, 2001. When the level of enacted support fails to match an individual's

expectations of perceived support it is often troublesome and creates additional stress for the individual (Monat et al., 2007). However, according to Sirri, et al., (2011) the symptoms of a disorder, such as PTSD, may decrease the perceived satisfaction of interpersonal support structures. Nonetheless, the health benefits related to social support are germane to healing and should be continued despite an individual's current clinical status (Barera, 1986, Monat et al., 2007; Reevy & Maslach, 2001).

Gender Differences in Seeking Social Support

Variations exist between male and female genders as related to the quantity of perceived and enacted social support (Monat et al., 2007; Reevy & Maslach, 2001; Thoits, 1995). For example, where women may initially seek more social support from close friends than men do, men generally seek social support primarily from their spouse or significant other (Reevy & Maslach, 2001). According to Monat et al., (2007) women also may perceive easier access to and more availability of social support as well as receive a greater amount of enacted social support. Additionally, women may achieve a greater level of social support due to gender socialization and the comfort with a state of vulnerability women often exhibit within interpersonal relationships (Monat et al., 2007; Reevy, 2007; Reevy & Maslach, 2001; Thoits, 1995).

Reevy and Maslach (2001) maintained gender socialization factors and personality traits may influence the differences in comfort level that one individual may have over another in seeking social support when experiencing a stress reaction. For example, a person's characteristic traits such as degree of self-confidence, masculinity or femininity may contribute to who may seek out social support as a method of coping with a stress response (Reevy & Maslach, 2001). Further, Reevy and Maslach (2001)

examined male and female adults who sought social support on a variety of traits including degrees of femininity, masculinity, nurturance, and autonomy. The authors determined that among the primarily Caucasian participants, gender as opposed to sex created the difference in seeking and receiving social support. Further, the trait of femininity was associated with seeking and receiving support while the trait of masculinity was linked with only receiving tangible support (Reevy & Maslach, 2001). In summary, the authors contended the traits of masculinity and femininity were not dependent on the sex of the individual but on the adopted gender roles the individuals held. In relationship to social support, DMT is sought more often by women, this underscores the importance of gaining understanding into the meaning of what may or may not influence a males' decisions to participate in DMT.

Somatic Treatment and Trauma

A mind-body treatment method of healing differs from the biomedical model of health. For example, the biomedical model of treating trauma and stress generally will assess individuals pathologically via a measurement of cortisol levels and may provide pharmacological treatment, such as with benzodiazepines (Monat et al., 2007). However, proponents of somatic processes for psychotherapeutic treatment interventions posit that the mind and body are not separate entities but rather function holistically and act within a continuum (ADTA, 2016; Bräuninger, 2012a; Bloom, 2006; Danielsson & Rosberg, 2015; Lane, 2014; Levin & Land, 2015; Tollefson & Phillips, 2015; Vulcan, 2009).

Those who consider somatic treatments as beneficial are often in line with a biopsychosocial method of holistic human functioning (Kent, Rivers & Wrenn, 2015, Lane, 2014; Monat et al., 2007). Lane (2014) argued for closing the gap between the

biopsychosocial and biomedical models of health treatment. For example, the author maintained that by expanding empirical knowledge of the role the brain may hold within the mind-body processes, communication barriers between clinicians who hold a biopsychosocial or somatic approach and the traditional medical disciplines may diminish; leading to beneficial policy change further supporting holistic health care.

A review of the literature indicated that somatic, mind-body therapeutic processes including physical exercise programs, such as yoga, and mindfulness-based cognitive therapy (MBCT) may provide beneficial physiological and psychological outcomes for illness and stress reduction (Avery, Blasey, Rosen, & Bayley, 2018; Barton, 2011; Christian, 2015; Crane-Okada et al., 2012; Gordon, Staples, Blyta, & Bytyqi, 2004; Kim et al., 2013; Hurst et al., 2018; King et al., 2013; Leseho & Maxwell, 2010; Mark et al., 2014; Monat et al., 2007; Pronk et al., 2011; Sciarrino, DeLucia, O'Brien, & McAdams, 2017; Tollefson & Phillips, 2015; Wolever et al., 2012; Younge, Gotink, Baena, Roos-Heselink, & Hunink, 2014). As previously addressed, reducing the release of stress hormones during the HPA-axis response creates an improved anti-inflammatory biological environment for the individual (Bower & Irwin, 2016, Monat et al., 2007). The review of the literature supported the beneficial physiological somatic response that occurs through somatic therapeutic processes as it relates to the autonomic nervous symptom and a reduction in the HPA-axis response.

For example, Pronk et al., (2011) examined the relationship between four lifestyle choices and the positive contribution to one’s physical and emotional health including (a) partaking in weekly physical activity for 150 minutes; (b) absence of tobacco use; (c) moderate alcohol use; and (d) consumption of five servings of fruits and vegetables each

day. The researchers assessed individuals (N = 34,603), through a self-report inventory, and reported a significant relationship existed between lifestyle choices and beneficial mental health states including a reduction in the risk for stress. This study suggested the role that body movements may play towards a reduction in the biological stress response and stress-related disease (Pronk et al., 2001).

Additionally, Kim et al., (2013) surveyed 92 articles in a literature search associated with mind-body interventions and PTSD treatment. The author's intent was to examine the effectiveness of adjunct therapeutic mind-body interventions for the treatment of PTSD. The researchers specifically reviewed 16 peer-reviewed journal articles that were associated with the application of mind-body interventions for PTSD symptoms. The authors concluded that significant positive outcomes were associated with mind-body practices including a reduction in anger, anxiety, and depression, as well as increases in self-esteem and ability to cope (Kim et al., 2013). In summary, mind-body therapies have demonstrated beneficial treatment outcomes for a variety of health concerns including trauma-related symptoms.

Creative Processes and Trauma

As previously discussed, the creative processes may provide preventative measures and coping methods for stress and trauma disorders as well as contribute to healing through neuroplasticity and neurogenetic processes (Akinola & Mendes, 2008; Archer, Buxton, & Sheffield, 2015; Byron et al., 2010; Dayton, 2005; Foa et al., 2009; Kaufman et al., 2010). For example, Foa et al., (2009) discussed the connection between creativity, exposure therapy, cognitive restructuring, imaginal exposure, and guided imagery as salient components in the successful treatment of PTSD. Further, expressive

role-playing and representational movement may assist individuals who are experiencing a dual time reality, someplace within in vivo, in the moment, and in vitro of the primary experience (Foa et al., 2009). Through the experience of a variety of creative processes individuals have experienced a beneficial reduction of trauma related symptoms and increases in cognitive function (Carr, d'Ardenne, Sloboda, Scott, Wang, & Priebe, 2012; Frydman, 2016; Huss, Sarid, & Cwikel, 2010; Levin & Levine, 2011; Schouten, Gerrit, Knipscheer, Kleber, & Hutschemaekers, 2015; Van Westrhenen & Fritz, 2014; Zwerling, 1979).

For example, psychodrama a creative therapy, founded in the 1930's by Jacob L. Moreno, M.D. has demonstrated beneficial neurogenetic outcomes for the treatment of trauma (Blatner, 2007; Foa et al., 2009; McVea, & Reekie, 2007). Noice, Noice, and Staines (2004) examined the declining cognitive abilities in a geriatric population. Using theatrical dramatic techniques, the authors reported significant improvements in cognitive capacity including enhanced memory and problem-solving abilities. Additionally, psychodramatic therapy practices may merge therapy interventions with other creative therapies, action-based therapies, visual arts therapies, and traditional therapies such as CBT (Dayton, 2005; Moreno, 2005).

In further research, Huss et al., (2010) proposed a visual arts group intervention model for social workers in the Negev region of Israel. The researchers noted that social workers are often a marginalized group and have increased proximity to environmental hostility often located in war zones. This study (Huss et al., 2010) implemented a lecture on the expression of stress during crisis and transformation possible through visual arts. The participants (n = 22) were instructed to identify the sources of their stress and to adapt

their artwork to reflect stressors, factors of resilience, their individual strengths, and perceived coping options. The researchers examined 22 individuals and concluded that when social workers are offered an aspect of control over altering their creative process, the participant's anxiety levels were significantly reduced (Husset al., 2010).

Further, Henderson, Rosen, and Mascaro (2007) conducted an empirical mixed-method study applying the creative Jungian technique of drawing mandalas for PTSD symptoms. Mandalas are colorful representations of emotions held inside the perimeter of the circle. The study (n = 19) found a significant decrease in PTSD symptom severity. The authors argued that individuals could improve trauma symptoms through creating mandalas.

Moreover, in a mixed method randomized controlled trial, the feasibility of applying group musical therapy to treat PTSD symptoms and depression was investigated (Carr, d'Ardenne, Sloboda, Scott, Wang, & Priebe, 2012). The participants (n = 17) each exhibited PTSD symptoms but had not responded well after completing a trauma-focused CBT intervention. The study concluded that the musical therapy group participants demonstrated a significant reduction in PTSD symptoms, most notably the reduction in avoidance symptoms. In summary, the literature reviewed in this study supported the beneficial healing components of creative arts therapies, including DMT, which integrate traumatic experience(s) and cathartic expression through an artistic medium.

Dance Movement Therapy and Trauma

Although DMT originated with Marian Chace as a treatment for World War II veterans (ADTA, 2016) with trauma-related symptoms, nonetheless cogent empirical literature supporting the DMT therapeutic process and significantly effective PTSD

treatment is nonetheless sparse. However, abundant literature exists asserting beneficial outcomes with DMT and dance related therapies for individuals coping with trauma-related symptoms (ADTA, 2016; Bräuninger, 2012; 2014; Dault & Dugas, 2002; Gray, 2001; Harris 2007a; 2007b, Koch, 2009; Lee, Lin, Chiang, & Wu, 2013; Leseho & Maxwell, 2010; Levin & Land, 2015; Miliken, 2008; Pierce, 2014). For example, Lee et al., (2013) applied a two-day intervention with DMT and children (n = 15) at risk from PTSD, following the September 21, 1999 earthquake in Taiwan. Additionally, Levin & Land (2015) conducted a meta-analysis, synthesizing nine qualitative DMT studies related to the treatment of trauma. In other research, the literature supported the application of DMT in the reduction of the state of hyper-arousal, dissociation, uncovering and processing difficult memories, and for substituting possible destructive coping behaviours with beneficial behaviours (ADTA, 2016; Bräuninger, 2012; Koch, 2009; Lee et al., 2013; Leseho & Maxwell, 2010; Levin & Land, 2015; Miliken, 2008; Pierce, 2014).

As mentioned previously, treating individuals with PTSD related trauma symptoms often includes components of reframing, cognitive restructuring, and identifying distorted cognitions, which arguably may be managed via the somatic experience in a DMT treatment group (ADTA, 2016; Foa et al., 2009; Chaiklin & Wengrower, 2015). The literature reviewed indicated that effective PTSD treatments include somatic mind-body activities and group DMT aligns with somatic therapeutic processes (ADTA, 2016; Foa et al., 2009; Koch 2009; Levy, 2014a; Tollefson & Phillips, 2015; Vulcan, 2009). Further, the research reviewed supported the application of DMT as an adjunct therapy along with traditional therapeutic methods or combined with other

creative methods for healing trauma-related disorders (Barnett et al., 2014; Chace, 1953; Kim et al., 2013; Strassel et al., 2011).

Nonetheless, there remains a lack of cogent empirical research linking specific therapeutic outcomes of DMT and PTSD symptoms (Archer et al., 2015; Bräuninger, 2012; Koch et al., 2014). Additionally, although valid RCT's exist (Bräuninger, 2012; 2014) these studies are generally the exception in the realm of trauma therapy and DMT. Further, according to some researchers, the studies specifically related to DMT and trauma symptoms results, may lack adequate methodological mechanisms encompassing both qualitative and quantitative studies (Archer et al., 2015; Koch et al, 2014; Meekums, 2010; Meekums, Karkou, & Nelson; 2015; Strassel et al., 2011). Moreover, insufficient empirical research exists supporting the application of DMT as an individual, stand-alone therapy for PTSD or trauma related symptoms.

Dance Movement Therapy with Male Trauma Survivors

Limited research exists related to the use of DMT with male trauma survivors (Capello, 2011). In 2010 at the 16th International Panel of the ADTA, Capello (2011) described DMT as thriving in what is generally considered a feminine field. The international panel comprised of professional male DMT therapists from ten countries was formed to explore issues related to male practitioners of DMT and clients. This review exposed how gender socialization roles and stigma may play a role in preventing males from seeking to participate in DMT, social support, or socially associated mental health therapies (Capello 2011; Reevy, 2007; Reevy & Maslach, 2001).

For example, generally in individualized cultures, it may be considered more acceptable for men to deemphasize their expression of feelings and remain independently

capable of handling issues (Reevy, 2007). Though seeking social support may be more acceptable in collectivist cultures, nonetheless the male gender seems to be less accepting of both seeking or receiving social support in these cultures as well (Monat et la., 2007; Reevy, 2007; Reevy & Maslach, 2001; Thoits, 1995). However, as previously discussed the literature revealed that social support is beneficial in treatment outcomes for individuals with PTSD and trauma-related symptoms (Monat et al., 2007; Reevy, 2007).

As the process of DMT is generally less vocal than traditional client therapist interventions, it is arguable that males may conclude it easier to express challenges through action or motion, rather than to unmask sensitive traumatic experiences or emotional situations verbally (ADTA, 2016, Capello, 2011). Nonetheless, a gap in the literature exists isolating males who participate as clients in DMT. This study helped to illuminate explorative aspects of the male participant's coping and appraisal processes, unique lived experiences encompassing the DMT intervention, and individual decision-making processes related to choosing to participate in a DMT group.

Review of Literature Related to Methodology

As discussed, the literature reviewed on DMT based on empirical quantitative and qualitative research is limited related specifically to the application of DMT as an intervention for PTSD symptoms. Empirical research is considerably more limited pertaining to adult male participants of DMT with PTSD symptoms. For example, a search conducted for peer-reviewed literature within Academic Search Premier, during the research period of this study, and with the search terms *Dance Movement Therapy, PTSD,* and *men*, returned only four results. The sole relevant article (Koch et al., 2015b) was a study conducted in Germany with male prison inmates (n = 47). The focus of this

study was on the relationship between movement and drama therapy and anti-violence (Koch et al., 2015b).

Peer-reviewed literature on the topic of DMT with men and trauma within the last five years is also sparse. As such the search parameters for a methodology review was broadened to include literature from 2000 to the present. Two qualitative studies (Harris (2007a, 2007b; Miliken, 2008) were discovered that met the criteria within the date limiter. As the literature is scant a qualitative study (Harris, 2007a) was included which examined participants who were adolescent males age 18 and under. Additionally, one quantitative study conducted on *stress* not *trauma* with male participants is included in this discussion (Bräuninger, 2012b). Bräuninger (2012a) conducted a mixed-methods RCT study comparing a group DMT intervention on stress management and stress reduction. However, solely the quantitative portion of the study is discussed in this section as the qualitative component of the study examined DMT and *quality of life* not *stress or trauma* (Bräuninger, 2012b). An overview of the methodology is presented related to these three studies.

Qualitative

In a qualitative study, Harris (2007a; 2007b) worked with groups of traumatized boys and adolescents combining DMT with other somatic and creative processes including mindfulness-based techniques and drama techniques such as role play. His study, conducted in Sierra Leone, Kailahun District in West Africa, looked at the experiences demonstrated from a group DMT intervention (Harris, 2007a). The participants consisted of adolescent males (n = 12) eight of whom were age 18; all former soldiers having been active in warfare since the age of 13. The adolescents were

assessed with symptoms of PTSD within two months of the intervention by local therapists. The intervention was conducted in two phases with a 12-week break between the first and the second phase. The framework of the study included structured DMT exercises as well as improvisatory movement based on the original Marian Chace model. The sessions were often conducted with local music from Sierra Leone. Through personal interaction and researcher observation the author noted "by fostering conditions for a much-needed synthesis of acceptance and accountability . . . DMT created a pathway for a unique passage toward recovery and reconciliation in the aftermath of torture and war" (p. 154). Further, though the study was qualitative, the researcher concluded that a quantified reduction in trauma symptoms could be noted, based on a repeated evaluation using the Minneapolis, Minnesota based Center for Victims of Torture (CVT) program assessment tool. For example, the author reported self-reported trauma related symptoms were reduced including: "anxiety, depression, intrusive recollection, elevated arousal, and aggression" (Harris, 2007a, p. 153).

Miliken (2008) conducted an exploratory study within a co-ed jail treatment addictions program for a period of two years. The method followed several conventional aspects of the qualitative method of inquiry. The researcher indicated that the size of the initial group of participants fluctuated from 15 to 20 and that the majority of the participants were male. The duration of the sessions lasted 45 minutes. Miliken (2008) noted that in an effort to increase trust and unity, the intervention contained a verbal component at the close of each session with the participants. Further, in line with qualitative research methodology, the researcher recorded post session texturally rich participant and therapist notes in select cases. However, the interviews were conducted

solely with the female participants as the program eventually evolved to include only females. The author concluded that DMT may assist in a reduction of recidivism and trauma symptoms associated with incarceration. During the literature review process in this study, no specifically constructivist, phenomenological studies addressing males, diagnosed with PTSD, who had participated in a DMT group were recorded.

Quantitative

Bräuninger (2012a) conducted a study with participants (n = 162) including both females (n = 147) and males (n = 15). The study was conducted in 11 different cities in Germany; using 17 professional Dance Movement Therapists in private practice. Eleven DMT therapists participated in the study including one male DMT therapist. The participants were self-selected, as suffering with stress. A DMT intervention consisting of 10 sessions, once per week, for 90 minutes was implemented. Results of the study reflected a significant reduction in multiple stress markers, both short-term, after 10 weeks; and long-term; at a six-month follow-up. For example, implementing the scales from the Brief Symptom Inventory (BSI) a significant ($p <. 05$) reduction in psychological distress was observed including: (a) anxiety, (b) obsessive-compulsive, and (c) psychoticism (Bräuninger, 2012a). Bräuninger (2012a) described how long-term results were similar reflecting a significant reduction ($p < .05$) in stress markers including: (a) phobic anxiety, (b) paranoid thinking, and (c) psychoticism. In this quantitative study, the researcher concluded that over-time DMT is significantly more effective than non-treatment for the reductions of stress related symptoms (Bräuninger (2012a).

Summary

The existing theoretical and empirical literature broadly associated with the research topic was presented in this chapter. The literature search strategy applied during this research was also described, along with a general overview of the biological aspects associated with the HPA stress response. A synopsis of the literature related to PTSD was also presented. Additionally, the DSM-V PTSD diagnostic criteria were outlined and the recommendations for current empirically supported treatment methods proposed by the Society of Clinical Psychology, Division 12 of the American Psychological Association were also discussed. Further, an overview of the history of DMT as a therapeutic process was provided, followed by a comparison with traditional group therapy processes. The fundamental structure of social support, quality of life, and gender variations related to seeking social support were also addressed.

Individuals coping with trauma-related symptoms often go undiagnosed. This is particularly a challenging issue for male trauma survivors who are often culturally sensitized to attempt to cope with issues individually on their own and who may feel uncomfortable seeking out social support. DMT remains a therapeutic intervention without sufficient efficacy studies or an adequately devised standardized language suitable for cogent empirical research for treating trauma related disorders (Bräuninger, 2012a, 2012b, 2014; Levine & Land, 2016). For example, Levine and Land (2016) contended a "disproportionate amount of qualitative literature" related to movement therapy and trauma may exist (p. 2).

This study explored the lived experiences of adult male participants diagnosed with PTSD who have participated in DMT. As such, a basis for subsequent qualitative

efficacy studies openly associated with this topic may evolve. Further, this study elucidated texturally-rich insights into the experiences of adult male trauma survivors with PTSD, which could begin to contribute to an eventual development of a more standardized, clearer language suitable for supporting future quantitative research.

Further, the findings in this study built on the limited research related to the male gender and participation in DMT for trauma-related treatment. A constructivist, phenomenological approach was implemented in this study as it assisted in gleaning understanding into the subjective experiences of the participants who experienced the phenomenon of participation in DMT. In summary, to contribute to the understanding of these phenomena, their causes and potential solutions, the lived experiences of adult male trauma survivors, diagnosed with PTSD, who have shared the experience of participation in a DMT group were explored in this study. The details of the methodological approach used in this study are outlined in Chapter 3.

Chapter 3: Research Method

Introduction

Though PTSD is more prevalent among males than females, the review of literature indicated empirical research related specifically to the experiences of adult male trauma survivor's participation in DMT is lacking (American Psychological Association, Division 12, 2016; ADTA, 2016; Bräuninger, 2012a, 2012b; Capello, 2011; Degges-White & Davis, 2011; Levine & Land, 2016; NIMH; 2015; Winkler, 2013). This study expanded upon the limited existing research related to the experiences of men and their participation in DMT for trauma-related symptoms. The purpose of this study was to address this research gap with a focus on understanding the attitudes, beliefs, and context of the lived experiences of adult male trauma survivors, diagnosed with PTSD, who share a similar phenomenon of attending a DMT group. An in-depth understanding with authentic, first-hand accounts from individuals living with PTSD could not be adequately addressed with a quantitative research method of inquiry. This study was designed to achieve rich, broad, textural understanding into the baseline themes reflecting individual perspectives of male DMT participants and to append existing literature on this topic.

This chapter contains a detailed explanation of the design and rationale of the research; the research questions; commentary on my role as the researcher; the research methodology including the participant selection process, instrumentation, and the data analysis plan. A discussion of trustworthiness in qualitative research, ethical considerations, and the protection of research participants are also discussed. The chapter closes with a chapter summary.

Research Design and Rationale

Research Questions

The central research question and subquestions guiding this study are reiterated below. As stated previously, the central research question guided the exploratory nature of this study and was aimed at gaining understanding into the lived experiences of adult males diagnosed with PTSD as they participated in a DMT group. The following subquestions were designed to help glean additional meaning associated to the actual experiences of the participant's decision to participate in DMT. Further, the subquestions helped describe the meaning related to the influence a DMT group may have imparted on the lives of the participants. The main research questions were crafted broadly initially and subsequently became more specific to assist in gathering understanding related to the feeling and underlying meaning of the phenomenon (Creswell, 2013; Patton, 2015).

Central research question. How do adult male trauma survivors, diagnosed with PTSD, describe the lived experiences of their participation in a DMT group, and what meanings do they ascribe to this participation?

Subquestions

RQ1 – Qualitative: What meaning do adult male trauma survivors diagnosed with PTSD ascribe to their lived experiences with the decision to enter a DMT group?

RQ2 – Qualitative: How do adult male trauma survivors diagnosed with PTSD describe their experience in participating in a DMT group?

RQ3 – Qualitative: What meaning do adult male trauma survivors diagnosed with PTSD attribute to their individual lives as related to participating in a DMT group?

Research Design

Generally, experimental studies support quantifiable data accumulated from established and dependable instruments, which are subsequently analyzed statistically (Gravetter & Wallnau, 2010). Conversely, qualitative research may employ multiple textually-rich methods of data collection including detailed interviews, focus groups, and observation, all with participant specific details (Creswell 2013; Patton, 2015). While both methods include the acquisition of knowledge, the intent varies between the two methods of inquiry. Where quantitative research is typically designed to compare, measure, and address research questions applying statistics, qualitative method of inquiry often aligns best when a researcher intends to explore an early stage of a topic and compose a rich textural and detailed description of the lived experiences of the participants (Gravetter & Wallnau, 2010; Patton, 2015).

Rationale for Approach

The primary focus of this study was exploratory and aimed at unearthing the lived experiences of the participants surrounding engagement in a DMT group. Accordingly, a qualitative research paradigm was compatible with the emphasis of this study which focused on examining how male trauma survivors, diagnosed with PTSD, move toward and describe (a) their decision to participate in DMT, (b) their unique lived experiences while participating in DMT, and (b) the impact on their lives when choosing to participate in DMT. Chapter 2 addressed the sparse literature specifically related to the

experiences of males participating in DMT who have been diagnosed with PTSD. Scholarly qualitative research is also scarce distinctly related to this topic, suggesting a gap in research exists surrounding the lived experiences of males, diagnosed with PTSD who have participated in DMT.

Creswell (2013) asserted the importance of choosing a specific qualitative approach in the process of scholarly research inquiry. Creswell explained the benefits of following a single, clearly identified approach for both for the researcher, the audience, and the reviewers of any study. Further, the author stressed the importance of selecting a single qualitative method as opposed to combining methods to assist in simplifying the process of research for the novice qualitative researcher. A brief presentation of the five main qualitative research approaches follows. Creswell outlined five conventional qualitative methods of inquiry: (a) case study, (b) narrative, (c) ethnography, (d) grounded theory, and (e) phenomenology.

Case Study. Applying a case study method of qualitative research involves exploring the subject in-depth, typically with extensive approaches to sources and data collection methods (Creswell, 2013). In case study, though data collection details may be comparable to other qualitative methods of inquiry, the key defining trait of case study is the characteristic of a bounded structure of time and space (Creswell, 2013; Yin, 2013). As such, the data collection generally takes place over a sustained period and may be best suited to add strength to previous research that corresponds to a complex issue. Applying case study to this research was not appropriate, as the purpose was to gain in-depth understanding, in an exploratory nature, with individuals who do not share a common boundary in time and space.

Narrative. Narrative inquiry originated from various sources including literature, education, history, and sociology (Creswell, 2013). The basic understanding of narrative research is that it assumes a storytelling nature. Narrative inquiry is also collaborative approach and offers the chance to glean understanding into the chronology of the individual's world through storytelling (Creswell, 2013). The goal of narrative inquiry is then to extract accounts of individual's lives, identities, and experiences through detailed accounts and a collection of storytelling.

Additionally, narrative research offers the opportunity for collaboration with the researcher and for reflecting meaning of the experiences through an analysis of the chronological structure (Creswell, 2013). It accomplishes this task by re-storying individual stories into a logical framework. Creswell, (2013) described the logical framework may originate from literary structures, the researcher, or the participant(s). The collaborative nature of a narrative research style provides for a contextually and culturally rich understanding with respect to the participant's stories. However, the storytelling process of narrative inquiry was not appropriate for this study aimed at acquiring the lived experiences of a greater number of adult males who have participated in DMT.

Ethnography. Traditionally, ethnographic research focuses on the immersion of the researcher into the specific cultural environment of the participants (Creswell, 2013). In ethnography, Creswell (2013) explained the examination often occurs to understand the learned and shared patterns of a specific cultural group. As the participants may originate from diverse geographic locations and from a variety of cultures, the opportunity to immerse as a researcher into a single culture did not exist for this research.

Additionally, the intention of this study was to collect in depth information surrounding the lived experiences from individuals in DMT and not to collect general information on a specific culture. Therefore, the parameters of this study did not fit those of ethnographic inquiry.

Grounded theory. The focus of grounded theory research is to discover or uncover a theoretical explanation, which is generated from the data of the study (Creswell, 2013). Social processes, movement, and action are each important aspects of grounded theory as the researcher seeks to ultimately develop a theory related to the action that is observed in the study (Creswell, 2013). The researcher as Creswell described (2013) gathers data related to a process or action, generally with participant interviews of between 20-30 cases, and subsequently generates a theory based on the data from the field. As the development of a theory was not a goal of this study, applying a grounded theory method of inquiry was not appropriate.

Phenomenology. A fundamental aspect of phenomenological inquiry is to gain understanding into an individual's unique experiences and to assimilate how these experiences relate to the subjective interpretation of their world (Christensen, Johnson, & Turner, 2010; Moustakas, 1994; Patton, 2002, 2015). One goal of a phenomenological method of inquiry is to extract a universal meaning of the lived experiences of the individuals involved (Moustakas, 1994; Patton, 2015). Phenomenological research methods derive meaning from individuals who have experienced the same phenomenon (Christensen et al., 2010; Moustakas, 1994; Patton, 2015). Moustakas (1994) explained how a phenomenological approach to research affords a thorough examination of the meaning of the experience of the participants as well as a rich textural description of this

meaning. In this manner of thinking, the reality of the experience of the participants is then discovered through gathering texturally rich data related to the meaning each individual may assign to the phenomenon.

Additionally, a phenomenological research design can provide a tested structural framework in which to study a relatively small number of participants with an in-depth, detail-rich method of inquiry (Schram, 2005). Patton (2015) warned however, phenomenological philosophy should not be confused with designing phenomenological methodology structured for qualitative inquiry. Phenomenological inquiry is rooted in gaining understanding, direction, focus to meaning, and may yield further research interest and concern with the common phenomenon (Patton, 2015; Schram, 2005). Though each of the methods of qualitative inquiry offers an in-depth focus on the individual experience, phenomenological inquiry is specific to participants who have experienced a particular and similar phenomenon. With these understandings in mind, the design of this study took the form of a phenomenological qualitative study.

Role of the Researcher

Quantitative studies are often conducted via written self-reported questionnaires or instruments without the involvement of the researcher; however qualitative researchers often interact personally with the participants to collect data (Creswell, 2013). The researcher plays a dynamic role in data collection and analysis in qualitative research processes and due to this active function may unknowingly influence the quality of the data collected and the research findings (Creswell, 2013; Patton, 2015). Patton (2015) described that the researcher acts as a fundamental scientific instrument in qualitative

inquiry. Consequently, it is important to identify aspects of oneself that may influence or bias the data collection and analysis process.

During this study, I filled the role of participant recruiter, interviewer, observer, data collector, data analyzer, and reporter of the results. It was therefore necessary to reflect on how personal biases may affect various research stages such as, structuring the interview questions, notating observations, choices related to coding the data, and theme structure. In consideration of how my personal and professional experiences may have influenced the study and to acknowledge possible researcher bias, an identification through self-examination was conducted (Creswell, 2013; Patton, 2015; Yin, 2015). Identifying myself culturally and recognizing how I may relate to both the phenomenon and the research participants was a step towards diminishing potential researcher bias.

Moustakas (1994) depicted the phenomenological research design process as one in which the researcher may hold a distinct personal or intimate interest in the phenomenon under study. The Greek term *epoche* meaning the "freedom of suppositions" or judgements was directly associated with phenomenology by the early twentieth century philosopher, Husserl (Moustakas, 1994, p. 85; Husserl, 2012). Applying the concept of epoche in qualitative research allows for bracketing or putting aside a researcher's personal biases; thus, providing the possibility for a clear, objective, and emergent point of view.

In reflection of these concepts, my personal interest in the phenomenon arose from the angle of civilian proximity. However, my experience as a former city police officer also provided an anecdotal awareness of the effect that physically active therapeutic methods may have on first responders exposed to repeated trauma situations.

Additionally, in February 1997, I was a civilian bystander of a shooting on the observation deck of the Empire State Building where, 15 feet from my family and I, a gunman injured several people and killed one before committing suicide (see Goshko, 1997; Purdy, 1997).

During this event, no armed security personnel or methods for egress on the building's observation deck were available. Subsequently, my family received counseling for trauma-related symptoms. My observations, during my personal treatment for trauma, reflected an understanding that somatically based mind, body processes seemed to produce a more beneficial outcome than my experience with more verbally-based therapeutic interventions. The previous exposures and experiences may bring a heightened awareness, empathy, and compassion to those who have suffered traumatic events, however they may also present an element of researcher bias.

Further, I noted my educational background in marketing as a potential influence or bias related to this phenomenon. I held an untested view as to why DMT may not attract men to the therapy as often as it may women. As such, I did not desire my assumptions to create bias or influence the data collection process or emerging analysis. For example, I have held an assumption that the nomenclature or terminology of dance in the description of DMT therapy may inhibit certain males to initially consider the therapy as a potentially robust or valid therapeutic process. As such, to me the image that the designation DMT may create, seems imprecisely positioned or marketed as a specific target population for most males.

Additionally, it is my opinion that DMT may open therapeutic possibilities to more individuals if perhaps the nomenclature broadly evoked initial interest for both

genders. For example, if DMT were to be depicted as an action-based movement therapy or expressive movement therapy. However, empirical research and analysis remains scant in relation to these conceptualizations. Notwithstanding, the ADTA (2016) contended that men who have engaged in a DMT group have ascertained the therapeutic process to be different and more beneficial than they originally may have believed the experience would be.

In further consideration of my experiences, the study participants were adult male trauma survivors, diagnosed with PTSD, of any ethnicity or nationality, who had participated in a DMT group. I am an adult, Caucasian female, American citizen, and have not personally participated in a DMT group. However, I am a trauma survivor and have received a diagnosis of PTSD on two separate occasions.

Along with having been an eye-witness to the event on the Empire State Building as described, I was also an eye-witness of the destruction of the Twin Towers during the events of September 11, 2001. This event resulted in a subsequent diagnosis of PTSD. At the time of the occurrence, I was completing a Master of Fine Arts degree in acting at The New School University in New York City, located approximately 2 miles from the Twin Towers, my residence was within four miles.

Direct observation of this event and the subsequent health impact the event seemed to have on the faculty and student cohort were powerful factors that led to my interest in mind, body interventions for trauma related disorders. Through these two incidents I became aware of how PTSD may negatively affect routine daily functioning of individuals. These occurrences also gave me an awareness of how a single individual's perceived life events, for example either an alleged loss of the life savings of the gunman

on the Empire State Building or perhaps deep-seated political motivations, may significantly impact the greater, collective whole (Goshko, 1997; Purdy, 1997).

In further personal reflection and bracketing of my experiences, though I have not participated in a formally led DMT group, I have performed in New York City as an Actors Equity Association (AEA) actor, studied modern dance at Alvin Ailey American Dance Theater, and danced competitively. Perhaps also influencing my researcher role are my positive personal experiences with healing trauma related symptoms through performance and dance movement. Reflecting on these additional experiences allowed for bracketing of potential influential biases. Finally, I identified that my role as a doctoral candidate in counseling psychology, familiarity with the empirically supported clinical treatment modalities of the Society of Clinical Psychology, Division 12 of the American Psychological Association (2016), a personal research interest in neurogenesis, and the benefits of somatic treatment methods, such as yoga for PTSD survivors also needed to be addressed in terms of bracketing.

In isolating my experiences and preconceived beliefs I hoped to have been more impartially aligned and to have more clearly understood the worldviews and truthful meaning of the participants. Further, to lend scholarly credibility to the study, I included member checking, reflexive journaling, and triangulation. Additionally, I maintained a personal reflexive journal where I recorded my thoughts on the interview experience and any bias, I may have identified following each interview.

Later in this chapter, I describe the specific steps I took to limit researcher bias, maintain objectivity, and protect trustworthiness. No conflicts of interests with this study existed as this study was self-funded. Moreover, to confirm my professional or personal

associations did not influence data collection or analysis no previous relationship with the registered dance movement therapists (R-DMT's), BC-DMT's, or the study participants existed, nor did I have a supervisory or instructor relationship with any of the any of the research participants.

Participant Recruitment and Sampling Strategy

Participant Recruitment

The initial stage of the sampling criteria involved a recruitment effort to locate participant members via contacting BC-DMT's within the state of California (Dance Movement Therapy Certification Board, 2015). An introductory recruitment email was sent to each of the 87 BC-DMTs in the state of California as identified by the ADTA website. The email sent to the BC-DMT's detailed the purpose and parameters of the study.

The email sent to the BC-DMT's outlined the criteria necessary for participation in the study (see Appendix A). A study recruitment flyer (see Appendix C) was attached to the email. The recruitment flyer instructed any interested participants to reply via my Walden University email address. The email advised the BC-DMT's that the recruitment flyer could be printed for display or forwarded electronically to potential participants who may meet the criteria of the study. I was the only person to recruit or interact with the BC-DMTs and the study participants. The participants were selected in the order in which the e-mail responses were received. All participants were informed that they had right to leave the study at any time for any reason, without explanation. The only requirement requested of the BC-DMT partners who received the recruitment flyer was to distribute the flyers on my behalf.

As the originally proposed recruitment strategy resulted in too few participants, the initial recruitment methodology was expanded. The additional steps in recruitment included (a) sending follow-up emails to the original BC-DMT's; (b) expanding the geographic region of the recruitment emails to include all national and international ADTA registered Dance Movement Therapists; and (c) establishing and implementing an online recruitment plan. The subsequent recruitment strategies were each approved by the University's Institutional Review Board (IRB). The revised study recruitment plan is detailed under the section on sample size below.

Participant Selection Criteria. The criteria for the study was operationally defined as: (a) adult males over the age of 18; who had, (b) received a PTSD diagnosis; who, (c) were not currently in an in-patient status; and, (c) who had participated in a DMT group for at least 6 sessions. It was not necessary that the session participation weeks occurred consecutively. A minimum of 6 sessions of participation in a DMT group was recommended to garner dependable data from individuals who have gained a sufficient understanding of the process of DMT and an explicit ability to reflect on their experiences.

The participants were asked the following study participation criteria questions at the beginning of each interview (see Appendix D): (a) Are you an adult male over the age of 18? (b) Have you participated in a Dance Movement Therapy Group for at least 6 weeks? (c) Have you received a diagnosed of PTSD?, and (d) Are you currently in an in-patient treatment status for PTSD?

Strategy: Purposeful Sampling - Criterion Based Sampling

Individuals were the focused unit of analysis for this research. The intent of this study was to gain detailed awareness and understanding of the lived experiences of adult males, with a diagnosis of PTSD, who decided to participate in DMT. As such, a comprehensive process of data collection was an integral part of the research design. The goal was to obtain an in-depth understanding directed at effectively illuminating "the [specific] questions under study" (Patton, 2015, p. 230). This was best achieved through purposefully selecting specific individuals capable of generating information rich details (Patton, 2002, 2015).

Patton (2015) explained how criterion-based sampling functions appropriately when attempting to gather rich, textural understanding from participants who meet specific predesigned criterion. Additionally, a criterion-based sampling strategy affords a useful approach when each participant for the study have experienced a specific and similar phenomenon (Creswell, 2013). Accordingly, this study used purposeful, criterion-based sampling. Purposeful criterion-based sampling aligned favourably with the intent of this qualitative research plan, with a focus on gaining understanding into the meaning of the lived experiences of adult male trauma survivors, diagnosed with PTSD, who have also participated in a DMT group.

Sample Size. When deciding on a strategy for sampling for qualitative research, the researcher will contemplate assimilating a unit of analysis hinged on the researcher's aim for the purpose of the study (Patton, 2015). Patton (2015) asserted there are no specific rules related to the choice of sample size in qualitative research. Nonetheless, attention towards formulating the parameters are essential including attention to (a) the

inherent purpose of the study, (b) the resources that are available for the study; and identifying (c) the choices that will best support study quality and credibility (Creswell, 2013; Patton, 2015). A credible sample size in qualitative research is often achieved by continuing with sampling until the moment of redundancy is met (Patton, 2015). The point of redundancy is described by Lincoln and Guba (1985) as the point when no new or unique information can be detected as materializing during the data collection process. For this study, data was collected until data saturation was reached. Data saturation was determined by the point when no new themes or concepts emerged from the data collected (Glaser & Strauss, 2009).

Altering the sample size to reach data saturation did not occur (Glaser & Strauss, 2009; Guest, Bunce & Johnson, 2006; Mason, 2010). Guest et al., (2006) contended saturation in qualitative research is generally met with 12 research participants. Considering these factors, the suggested initial minimum sample size for this study was 10 - 15 individuals. A sample size of between 10 - 15 participants was the initial design for this study to impart favourable circumstances to achieve necessary in-depth details from the participants, offer a reasonable comprehensive analysis for the phenomenon, and to deliver intrinsic flexibility for adjustment to the sample size as the research process progressed.

As mentioned, the initially proposed recruitment strategy resulted in too few participants and a secondary recruitment strategy was designed. The strategy involved sending additional follow-up emails (see Appendix B). The follow-up emails were sent to any previously contacted BC-DMT's who had not already responded after one month from the initial mailing. Further, the geographic location and required DMT credentials

were expanded to include all national and international registered Dance Movement Therapists as listed by the ADTA. The additional emails were sent with the recruitment flyer attached (see Appendix C).

The secondary proposed recruitment strategy also resulted in too few research participants. Subsequently, a Facebook® page and an online recruitment page at *callforparticipants.com* were created to broaden the recruitment effort (Choi, Milne, Glozier, Peters, Harvey & Calvo, 2017; Facebook, 2017; Kosinski, Matz, Gosling, Popov, & Stillwell, 2015). The Facebook® page title: *Men • Call for Participants • Dance Movement Therapy* was introduced. The recruitment page included a visual posting of the study recruitment flyer (see Appendix C). Additionally, participant relevant study information from the two study recruitment emails was included on the Facebook® page (see Appendix A and B). The recruitment textual information from the Facebook® page was utilized similarly for the *callforparticipants.com* page. The Walden University IRB approval number and expiration date were noted on each of the online recruitment pages.

To assist in protecting the participant's confidentiality, no Facebook® social media user data was collected or stored by the researcher (Kosinski et al., 2105). Interested participants could access the researcher's university e-mail from the link included on the Facebook® website page or through the callforpaticipants.com website page. Additionally, any correspondence from the participants was password protected and visible only to the researcher.

It was anticipated the telephone interviews would last approximately 30 – 50 minutes in duration and would be conducted by a pre-arranged appointment time

convenient for the participant. The results of the participant interview procedure are detailed in Chapter 4. A single telephone interview was suggested for the following advantages it might offer including (a) providing the participant a sense of anonymity; therefore allowing for more disclosure and forthcoming responses, (b) allowing for a broader participant geographic coverage; while ensuring economic efficiency, (c) respecting the time of the participants, and (d) the potential for minimizing researcher bias due to the absence of participant facial and other non-verbal behaviours (Musselwhite, Cuff, McGregor & King, 2006; Knox & Burkard, 2009).

All interviews were audio-recorded using TapeACall® smartphone software. The interviews closed by thanking the participant for their time (see Appendix D). A debriefing process included explaining to the participants the option to review a synopsis of the description of their story via the formulated textural descriptions of the meanings of the experiences after the themes were analyzed. Additionally, it was explained that the research findings would be available for dissemination to any study participant who conveyed an interest in receiving them, via a 1 to 2-page summary of the results of the study, provided in non-technical language.

Instrumentation Sources of Data

The purpose of this study involved exploring the essence of the lived experiences of adult male trauma survivors, diagnosed with PTSD, who shared the phenomenon of participating in DMT. The data collection procedures consisted of audio-recorded, in-depth, semistructured interviews and reflexive journaling. The details of the study instrumentation and sources of data are discussed below.

In-depth Interviews

One of the most common methods to address phenomenological methods of inquiry is via in-depth interviews (Moustakas, 1994). Gergen (2014) contended that qualitative interviewers who cultivate flexibility, openness, and sensitivity to the interview process may gain a "far richer and more illuminating view" than could be possible with other methods of data collection (p. 50). In-depth interviews offer the advantage of gathering texturally rich descriptions from the participant's unique lived experiences and may contribute to lucidity related to the meaning of the participant's unique perceptions and extant experiences (Ashworth, 2016; Creswell, 2013; Moustakas, 1994). This study consisted of a single in-depth interview with the research participants. During the interviews, the participants were offered the opportunity to follow-up with the researcher with additional concerns or questions related to the interview.

Interview Questions

Interviewing involves the pursuit of a thorough in-depth understanding of the intentions, feelings, and meaning of the lived experiences of the study participants (Janesick, 2011; Patton, 2015). Effective interviewing often calls for follow-up and probing questions in order to bring out deeper meaning into the experience of a particular phenomenon (Patton, 2015). The interview questions in this study consisted of semistructured questions cultivated with the intent to elicit increased understanding into the participant's experience with DMT.

Three examples of the in-depth interview questions in this study are: (a) How do you describe the factors that led you to choose participating in a DMT group? (b) In your own way, how would you describe your experience with participating in your DMT

group? and (d) How do you describe the feelings that might come up for you when you think about participation in your DMT group? The semistructured interview questions were constructed with understanding based from my professional experiences with marketing research and as a counsellor with clinical experience applying motivational interviewing techniques (Rollnick and Miller, 1995). Additionally, the interview questions were reviewed by my dissertation chair, second committee member, and the University research reviewer. The interview questions used in this study are outlined in Appendix D.

Reflexive Journaling

Researcher reflexive journaling is a practice often applied in the process of qualitative data collection (Creswell, 2013; Janesick, 2011). As Janesick (2011) elucidated, journaling may provide a uniquely distinct method for reflecting on the data collection process and may also help to eliminate researcher bias through a reflective evaluation of personal experiences. Additionally, reflexive journaling immediately following an interview may offer a beneficial method to note nuances that could have been overlooked in the interview process. Immediately following each participant interview, a descriptive journal entry was written in a secured Microsoft Word document, identified by the participants' pseudonym.

Examples of the content of the reflexive journaling that were collected after the telephone audio interviews were notations on what I experienced, felt, or sensed through my interaction with the participant. These included behavioural observations based on the nature of the vocal tone, pauses, speed of the participant's reactions to the questions, or other sounds such as laughter, weeping, and general subjective responses to what was

observed during the interview experience (Mack, Woodsong, MacQueen, Guest & Namey, 2005).

Reflexive journaling was continued during data analysis and throughout the conclusion of the study. The journaling at this point focused on exploring my feelings related to the way the themes were evolving from the data. Additionally, journaling reflected my point of view elucidating possible researcher bias, thoughts related to the differences between my own and the participants' experiences, and general thoughts related to the overall progression of the process. The following section contains information related to the management and organization of data.

Data Management and Organization of Data

The interview data in combination with the reflexive journaling was digitally collected and stored. The security of the audiotaped interviews, participant transcripts, and reflexive journaling notes was provided via the following methods. Nvivo® qualitative data software was utilized to upload the digital audio files and interview transcripts (QSR International, 2014). The data was password protected. Any physical paper documents associated to the study and all electronic data and back-ups collected were protected and stored on a password secured, separate study-designated external hard drive. Additionally, the data back-up files were uploaded to an internet back-up website Backblaze© via back-up software; which was also password protected (Backblaze, 2015). All collected and subsequent data related to this study will be stored and password protected for 5 years following the completion of the study. All data for the study will be destroyed after this time.

Data Organization and Analysis

As mentioned previously, I used Nvivo® qualitative data analysis software for the analysis portion of this study. Nvivo® software assisted in the organization of the data collection process, coding the data, refinement of the emerging themes (nodes) and the storage of data (QSR International, 2014). Nvivo® was also used for the analysis of emergent themes of the in-depth interviews. The modified Van Kaam method of analysis of data as described by Moustakas (1994) was used for organizing, coding, and analyzing the data.

The steps of the modified Van Kaam method included (a) coding each transcription relevant to the experience, (b) reducing and eliminating any overlapping or vague language and determining the invariant constituents, (c) clustering the invariant constituents into labelled themes, (d) validating the invariant constituents against the participant's data to determine if they are explicitly expressed and if not if they are compatible, (d) formulating a textural-structural description for each participant of the meanings of the experience with consideration for the themes, and (e) developing a composite description of the meanings of the experience that appropriately represented all of the participants (Moustakas, 1994). As qualitative research may result in discrepant cases, divergent expressions of the themes of these cases are specifically addressed in the results section (Chapter 4).

Trustworthiness in Qualitative Research

Ensuring trustworthiness in research was a fundamental aspect of this study. Integrity in the study process was necessary to demonstrate the value of the findings to the broader research community and to encourage positive social change. For example,

the validity of qualitative or quantitative methods of inquiry requires the researcher to include reasonable findings that will further the knowledge and understanding on the topic under investigation within the broader research community.

Quantitative research paradigms traditionally implement four constructs to substantiate trustworthiness: (a) internal validity, (b) external validity, (c) reliability, and (d) objectivity (Creswell, 2013; Guba & Lincoln, 1994). Guba (1981) suggested four alternative methods directly associated with each of the individual quantitative approaches to ensure rigor and trustworthiness in qualitative inquiry: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability. A discussion of these qualitative suggestions for trustworthiness follows as appropriate to this study.

Credibility

According to Guba (1981) ensuring credibility of the findings in qualitative research is similar to internal validity in quantitative research and necessitates that an accurate account of the phenomenon is captured. Establishing internal validity in qualitative research requires an unbiased appraisal of the phenomenon under investigation to ensure the study findings can be appraised as credible (Creswell, 2013; Guba & Lincoln, 1994; Polkinghorne, 2005; Shenton, 2004). One method to establish credibility in research is to reduce the likelihood of researcher bias. Credibility in this study was addressed primarily in the previous section *The Role of the Researcher*, where consideration is given to bracketing or epoche of the researcher's own personal and professional experiences that may influence objectivity.

Transferability

Qualitative research paradigms can mimic models of external validity through transferability (Lincoln & Guba, 1985). Further, transferability is linked to aspects of generalizing the findings to other populations in quantitative inquiry (Guba, 1981). For transferability to be effective, it is necessary for the researcher to include clear and specific details of the factors related to the phenomenon and the context of the setting (Guba, 1981; Denzin & Lincoln, 2005; Lincoln & Guba, 1985). In this way, the research community may interpret if the study situation is perhaps homogeneous to another setting and can be applied accordingly (Creswell, 2013; Shenton, 2004). To include the potential for transferability in this study, details of the specific phenomenon, the criteria for study participation, and the setting were detailed in the previous section *Participant Recruitment and Sampling Strategy*.

Dependability

Though assuring the reliability of repeatability is often considered problematic in qualitative research, one method in which reliability can be established in qualitative research is for the researcher to include aspects of dependability in the methodology (Creswell, 2013; Guba, 1981; Shenton, 2004). Using Nvivo® qualitative data analysis software afforded me an opportunity to repeat the precise audio content of the interview data. Additionally, by providing sufficient details related to the methodology of this study, theoretically future researchers may replicate these parameters and conduct further related investigations. Moreover, by furnishing the specific descriptive characteristics of the study methodology, I hoped to attain feasible repeatability and to confer study dependability.

Confirmability

Further, to establish objectivity in qualitative research it is necessary to take steps to avoid researcher bias (Creswell, 2013). The researcher may demonstrate confirmability by ensuring the themes emerge objectively from the data collected and not due to researcher judgments or biases. As discussed previously in the section entitled *Role of the Researcher* bracketing or epoche can help to eliminate this bias. Another method which can help substantiate confirmability is member checking. Member checking involves testing the research analysis of the data by the study participants. This study included bracketing and member checking of the themes extracted by the researcher. To accomplish confirmability, after the analysis of the data, the participants were offered the option to view a concise textural-structural description of the participant interview to help ensure the researcher reflected the experience accurately. The participants were instructed to respond with any discrepancies they noted to confirm the accuracy of the researcher derived data.

Additional factors, such as combining observational inferences, maintaining consistency during the intracoding of the data, along with digitally collected and stored audio data from the in-depth interviews served as methods of triangulation. The combination of these elements assisted in strengthening the quality of the study (Patton, 2015). Finally, as mentioned previously reflexive journaling was a follow-up component taking place after the in-depth interviews and for the duration of the study, further strengthening the confirmability of the research.

Ethical Considerations

Procedures to ensure the ethical treatment of the research participants comprised several steps in this study. Initially, an application to the Walden University Institutional Review Board (IRB) was submitted to confirm the study parameters met the ethical requirements of the University. An IRB approval from the University was a necessary step prior to the collection of any study data, the assigned IRB approval number was 02-17-17-0163229 with an expiration date of February 16, 2018. During this study, all IRB study parameters and ethical requirements were followed.

Once the interested study participants were identified, a signed informed consent form was obtained from each participant. The informed consent forms were sent to each interested participant via email. The informed consent forms were attached to my email response to each participant's initial expression of interest in the study. The initial email included instructions to review the informed consent form and to reply via return email to request a convenient time for an interview to take place. Additionally, the informed consent form instructed the participant to select a pseudonym of their choosing to be used for the duration of the study.

The participants were also informed that their email reply constituted implied consent to the study. The participants' understanding of the signed informed consent form was addressed and reverified at the beginning of the audio recorded in-depth interview. The informed consent form described that each participant had the right to withdraw from the study at any time. Further, the informed consent form contained a statement indicating that contact information for community counseling centres as well as available 24-hour hotlines offering free or low fee mental health services would be

provided upon the participant's request. The informed consent form included instructions for each participant to use a secure, password protected location for all study-related documents and correspondence.

In addition to explaining the study criteria via the disseminated information in the recruitment flyer (see Appendix C) each interested participant also completed a verbal follow-up eligibility interview. The follow-up eligibility interview took place at the beginning of each participant interview (see Appendix D). A verbal review of the study criteria was also conducted to confirm that all study criteria were met by each participant. To protect the identities of the participants, pseudonyms were self-selected by each participant. The individually chosen pseudonyms were confirmed via email reply to the participants' informed consent response, in the order they were received. The pseudonyms were used to protect the confidentiality of the participants and to help identify which individuals aligned with specific themes and subthemes extracted from the data.

The questions asked of the study participants (see Appendix D) were all exploratory in nature. The questions related only to the experiences of the participants in relationship to DMT. The interview questions were not constructed with an intention to generate any information related to personal traumas that may have been experienced by the participants.

After completion of all the participant interviews and following the data analysis process, a copy of the textural-structural depiction of the interview was emailed to each study participant (see Appendix E). Each interview depiction was sent via a secure, password protected computer and server. Each participant was instructed to verify the

researcher derived data accurately reflected his individual story. The participants were directed to return his approval, or any requested changes of the interview depiction as represented in the textural-structural depiction to the researcher's University email. No changes to the textural-structural descriptions were requested by the participants.

I was the only person with access to the interview data or participant correspondence. As described previously, the raw data storage will be secured with password protection on my personal computer in Nvivo® qualitative data software for a period of 5 years following the completion of the study. After this point the data will be destroyed.

The research findings will first be disseminated to any study participants who convey an interest. The findings will be represented via a 1 to 2-page summary of the results of the study. Additionally, I may choose to publish a condensed form of the study in a professional journal such as the American Psychological Association Division 10 Journal *Psychology of Aesthetics, Creativity, and the Arts*. Finally, I may decide at a later date to present the study at relevant professional research conferences, such as a conference for the ADTA.

Summary

In this chapter, I outlined the specific design of this qualitative, phenomenological study exploring the lived experiences of men diagnosed with PTSD. The study was conducted as a basis for understanding the study participants' experiences related to engaging in a DMT group. The rationale for choosing a phenomenological method of inquiry was discussed and the role of the researcher was also addressed.

The recruitment and sampling strategy were discussed along with an explanation of the criteria necessary to participate in the study. Additionally, the components of the data collection process were addressed including in-depth interviews, interview questions, and researcher reflexive journaling.

To ensure the trustworthiness of the results credibility, transferability, dependability, and confirmability in qualitative research were considered. Common themes among the participants were identified and coded according to the modified Van Kaam method of analysis of data as described by Moustakas (1994). Finally, comments on the ethical aspects of this study and the IRB requirements and approval were also discussed, including elements of informed consent, confidentiality, and dissemination of the research results.

The results of this phenomenological study are presented in Chapter 4.

Chapter 4: Results

Introduction

The purpose of this study builds on the limited empirical research related to understanding the beliefs, attitudes, and meaning of the lived experiences of adult male trauma survivors who have participated in a DMT group. A phenomenological study approach was implemented in this research. The study was designed to achieve a broad, texturally rich understanding into the baseline themes, reflecting the individual perspectives of male DMT participants, and to append existing literature on this topic.

The data in this study was analyzed through the conceptual framework of constructivism to answer the central research question: "How do adult male trauma survivors, diagnosed with PTSD, describe the lived experiences of their participation in a Dance Movement Therapy (DMT) group, and what meanings do they ascribe to this participation?" The results of the data analysis of this study are presented in this Chapter. Details are provided which describe the study setting, participant demographics, data collection procedures, and data management. The analysis of data and evidence of trustworthiness are also discussed. Further, the four major themes, eight subthemes, and eight sub-subthemes that arose from the analysis are examined. Discrepant findings, which emerged from the data are also explored.

Participant Interview Setting

Data were collected from 11 men via individual digitally-recorded telephone interviews. The interviews were arranged through email correspondence with the participants. A convenient interview time was selected by each participant. At the beginning of each interview, the participant study criteria and informed consent form were reviewed. Additionally, the participants were reminded that they could discontinue

the interview at any time if they felt uncomfortable. Prior to proceeding with the interview questions, the participants were asked if they had any concerns or questions related to the study. Any questions raised by the participants were answered. All 11 of the participants attended and completed their scheduled interviews without interruption.

Participant Demographics

The participants were all volunteers who met the criteria of the study. The participants were: (a) adult males over the age of 18, who had (b) received a diagnosis of PTSD, and (c) were not in an in-patient treatment status, and who had (d) participated in a DMT group for at least six sessions. It was not necessary for the DMT sessions to occur consecutively. The participants were asked the study participation criteria questions as noted in Appendix D, prior to the beginning of the interview. The questions asked of the participants were: (a) Are you an adult male over the age of 18? (b) Have you participated in a Dance Movement Therapy Group for at least 6 weeks? (c) Have you received a diagnosed of PTSD? and (d) Are you currently in an in-patient treatment status for PTSD?

To protect the anonymity of the participants a pseudonym was chosen by each participant. The participants were addressed by their chosen pseudonyms throughout any email correspondence and during the telephone interviews. Each participant continued to be identified by his chosen pseudonym for the duration and through the conclusion of the study.

As the study participants belong to the identified vulnerable population of trauma survivors, additional safeguards were provided during the study. For example, precise identifiable demographic data related to the age and educational level of the participants

were not collected. Instead, an age range for each participant was estimated within a 10-year span based on inferences from the participant responses, characteristic verbal usage, vocal intonations, and context of the interviews. One participant, Allen, reported his actual age during the context of the interview. The youngest participant's age range was estimated to be in his early-twenties and the eldest to be in his mid-fifties.

Of the 11 study participants, eight identified as Caucasian American, one participant identified as Mexican-American, one interviewee identified as African-American, and one respondent identified as English, United Kingdom. To further protect this vulnerable population of trauma survivors, a specific geographic location of the participants was not requested. The regional area listed in Table 2, is the area in which the participant's interview telephone area code or country code was associated. Ten of the participants were positioned in regions throughout the United States and one participant was located in the United Kingdom. The demographic data for each participant is presented in Table 2.

Table 2

Participant Demographics

Participant	**Gender**	**Ethnicity**	**Geographic Region****	**Age*****
Andrew	Male	Caucasian	US S. California	47-57
Babe Ruthan	Male	African-American	US Midwest	43-53
Allen	Male	Caucasian	US East South Central	33
Randy	Male	Caucasian	US Midwest	38-48
JR	Male	Mexican-American	US Texas	40-50
Jerlapty*	Male	Caucasian	US N. California	23-33
Peat	Male	Caucasian	US N. California	25-35
Willem Hoefstra	Male	Caucasian	US N. California	22-32
Carl Bonobo Weathers	Male	Caucasian	US N. California	24-34
Jim Ricks	Male	Caucasian	US Southwest	41-51
Basheer	Male	Caucasian English	United Kingdom	22-32

Note: *Participant full pseudonym: Jerlapty Martflopper Hendricks-Scottington; **Geographic region derived from participant telephone number area or country code; ***Estimated age range based on interview context, one participant (Allen) provided his exact age.

Data Collection and Management

In this study, 11 voluntary participant interviews were conducted. Each interviewee scheduled for a meeting, successfully completed his interview. The interview data were collected using digital audio-recordings from in-depth semistructured interview questions. The interview questions are included in Appendix D. TapeACall® smartphone software was used to record the participant interviews. During each interview, I wore a noise-cancelling headset to improve audio clarity. The audio digital data were collected, then downloaded from TapeACall® and stored on a password protected smartphone and computer hard drive.

The audio files were then uploaded into Nvivo® qualitative data software. During the analysis, the audio interview data was listened to at a reduced speed within Nvivo® and hand-transcribed verbatim into Nvivo® qualitative software. Following the transcription of the audio data, I listened to the data several times, eventually at normal speed, to ensure the accuracy of each transcript. The data was then coded into themes, subthemes, and sub-subthemes. All the data was stored on a password protected smartphone and laptop.

The interviews occurred over an approximate 5-month period. The mean duration of the 11 interviews was 22 minutes. The shortest interview was 7 minutes in length and the longest interview was 49 minutes. The participants were afforded an opportunity to express as much or as little information as was comfortable following each open-ended interview question. Follow-up and probing questions were used occasionally when further clarification of the interview question was deemed necessary. During the interviews, no unexpected occurrences took place that may have influenced the data

analysis or interpretation. The data collection procedures occurred directly as outlined in Chapter 3.

Additionally, reflexive journaling was used during the data collection process. Journaling provided a method to reflect on the data collection procedure from the point of view of the researcher. Reflexive journaling also helped to support the elimination of researcher bias and to aid in noting slight nuances that may have been overlooked during the interviews (Creswell, 2013; Janesick, 2011). Directly, following each participant interview, a descriptive journal entry was noted in a secured Microsoft Word document and identified by the participants' pseudonym. The journal entries included my experience of observations, thoughts, and feelings directly after interacting with each participant. The observations were based on the intonation and fluctuation of the participant's voice, speed of the dialogue, pauses in speech, hesitations to respond to the interview questions, and other casual sounds such as laughter, sighs, or clearing of the voice.

As discussed in Chapter 3, reflexive journaling was continued during data analysis and throughout the conclusion of the study. The journaling focused on exploring my thoughts related to the evolution of the themes, subthemes, and sub-subthemes. Additionally, journaling reflected my point of view elucidating possible researcher bias, thoughts related to the differences between my own and the participants' experiences, and general considerations related to the overall progression of the study. The following section contains details related to the data analysis.

Data Analysis

The modified Van Kaam method of analysis as described by Moustakas (1994) was applied for organizing, coding, and analyzing the data. The analysis steps taken in the modified Van Kaam method included (a) coding each transcription relevant to the participant-expressed experience, (b) reducing and eliminating any overlapping or vague language and determining the invariant constituents, (c) clustering the invariant constituents into identified themes and subthemes, (d) validating the invariant constituents against the participant's data to determine if they were explicitly expressed and if not if they were compatible, (d) formulating a textural-structural description for each participant of the meanings of the experience; with consideration given to each theme, and (e) developing a composite description of the meanings of the experience that relevantly represented all participants (Moustakas, 1994).

First, each audio interview recording was listened to at normal speed, one time through to acquire an overall sense of the participant's experiences. After repeated listening of the interviews at reduced speeds and following transcription of the data the modified Van Kaam method of analysis steps followed (Moustakas, 1994). The steps were adhered to in both a systematic and cyclical pattern and included (a) coding each transcription, (b) reducing overlapping or vague language, (c) filtering out irrelevant occurrences and keeping identified relevant instances; determining the meaning units or invariant constituents, (d) clustering the invariant constituents into themes and subthemes while comparing and validating the meaning units to the audio data, (e) formulating the textural-structural descriptions for each participant, and (d) developing a composite description of the meaning for all the study participants (Moustakas, 1994).

Significant statements were identified as invariant constituents. As the invariant constitutes were identified they were highlighted and then coded into nodes within the Nvivo® qualitative analysis software. During the coding process, the meaning units were synthesized into core main themes, subthemes, and sub-subthemes. I explored the themes circuitously, identifying interrelations between the themes and regularly edited the theme structure throughout the data analysis stage. The analysis process entailed continual reflection, iteration, and adjustment of the themes to attain the finalized thematic results. A textural-structural description was created for each participant (see Appendix E). After reflecting intuitively on all participant's textural-structural descriptions, a composite description was written encompassing a synthesis of the essence of all the participant experiences.

Evidence of Trustworthiness

Ensuring trustworthiness in qualitative research was a fundamental consideration for this study. Integrity in the data analysis process was necessary to confirm the value of the findings to the broader research community and to promote positive social change. As discussed in Chapter 3, four methods of trustworthiness are typically employed in quantitative research to provide for a robust examination process (a) internal validity, (b) external validity, (c) reliability, and (d) objectivity (Creswell, 2013; Denzin & Lincoln, 2005; Guba & Lincoln, 1994). Correspondingly, Guba (1981) outlined four methods to substantiate diligence and trustworthiness in qualitative inquiry: (a) credibility; (b) transferability; (c) dependability; and (d) confirmability. A description of the methods of trustworthiness applied in this study follows.

Establishing credibility of the findings in qualitative research requires an accurate account of the explored phenomenon is captured (Guba, 1981). Additionally, creating internal validity in qualitative research requires an unbiased assessment of the phenomenon to ensure the study findings can be appraised as credible (Creswell, 2013; Guba & Lincoln, 1994; Polkinghorne, 2005; Shenton, 2004). As detailed in Chapters 2 and 3, bracketing of my personal and professional experiences that may have influenced objectivity was considered during the data analysis. Moreover, member checking, reflexive journaling, and triangulation were included in this study. These steps were incorporated in effort to align more clearly and objectively with the worldviews and truthful meaning of the participants unique lived experiences and to reduce potential researcher bias.

External validity may be integrated within qualitative research through transferability (Lincoln & Guba, 1985). Transferability can be linked to aspects of generalizing the findings to other populations in quantitative inquiry (Guba, 1981). As previously stated, for transferability to be effective and generate evidence of robust trustworthiness, it is necessary for the researcher to include clear and specific details of the factors related to the research phenomenon and to detail the context of the setting (Guba, 1981; Denzin & Lincoln, 2005; Lincoln & Guba, 1985). In this way, the community may interpret if the study situation is perhaps homogeneous to another setting and may be applied accordingly (Creswell, 2013; Shenton, 2004). To ensure trustworthiness of transferability in this study, comprehensive details of the specific research phenomenon, criteria for participation, and the research setting were outlined and detailed in Chapter 3.

In this study, the methodological details as described in Chapter 3 were precisely followed. The methodology allowed for potential repeatability, consistency of data, and dependability. The focus on details and application of external auditing throughout the research process was included to theoretically afford future researchers the ability to replicate the framework of this study (Cope, 2014). Accordingly, by including elements of dependability further investigations on this topic with comparable participants and research conditions are viable (Creswell, 2013; Guba, 1981; Shenton, 2004).

Further, to establish objectivity in qualitative research the researcher may demonstrate confirmability by ensuring the themes emerge objectively from the data collected and not from researcher judgments or biases (Creswell, 2013; Denzin & Lincoln; 205; Guba & Lincoln, 1994). As previously discussed, bracketing of one's personal experiences may help to eliminate potential researcher bias (Creswell, 2013; Patton, 2002, 2015; Yin, 2015). The role of the researcher was explored in-depth in Chapter 3, where reflection was given to bracketing or epoche of my personal and professional experiences that may have influenced objectivity.

Another method which can contribute to confirmability is member checking via testing the research analysis of the data by the study participants (Creswell, 2013). I employed member checking of the themes extracted from the interviews. Following the completion of the interviews and data analysis, the participants were offered a brief textural-structural description of their interview to confirm the data. The participants were afforded the opportunity to review the textural-structural description and to respond with any comments or note any discrepancies in the descriptions. No requested changes in the textural-structural descriptions arose during this process.

In this study, I used a combination of observational inferences through reflexive journaling, consistent intracoding of the data from in-depth interviews, member-checking, and external audits to strengthen dependability. The external audits occurred periodically throughout the study by means of the guidance and suggestions of my dissertation chair and committee members. In summary, specific methodological details to establish diligence and trustworthiness were incorporated into this study including: (a) credibility, (b) transferability, (c) dependability, and (d) confirmability.

Study Results

In this study I explored the lived experiences of adult male trauma survivors' participation in a DMT group. Six semistructured interview questions (see Appendix D) were created to answer one central research question: "How do adult male trauma survivors, diagnosed with PTSD, describe the lived experiences of their participation in a Dance Movement Therapy (DMT) group, and what meanings do they ascribe to this participation?" Three subquestions were designed to further reflect on the participant's experiences:

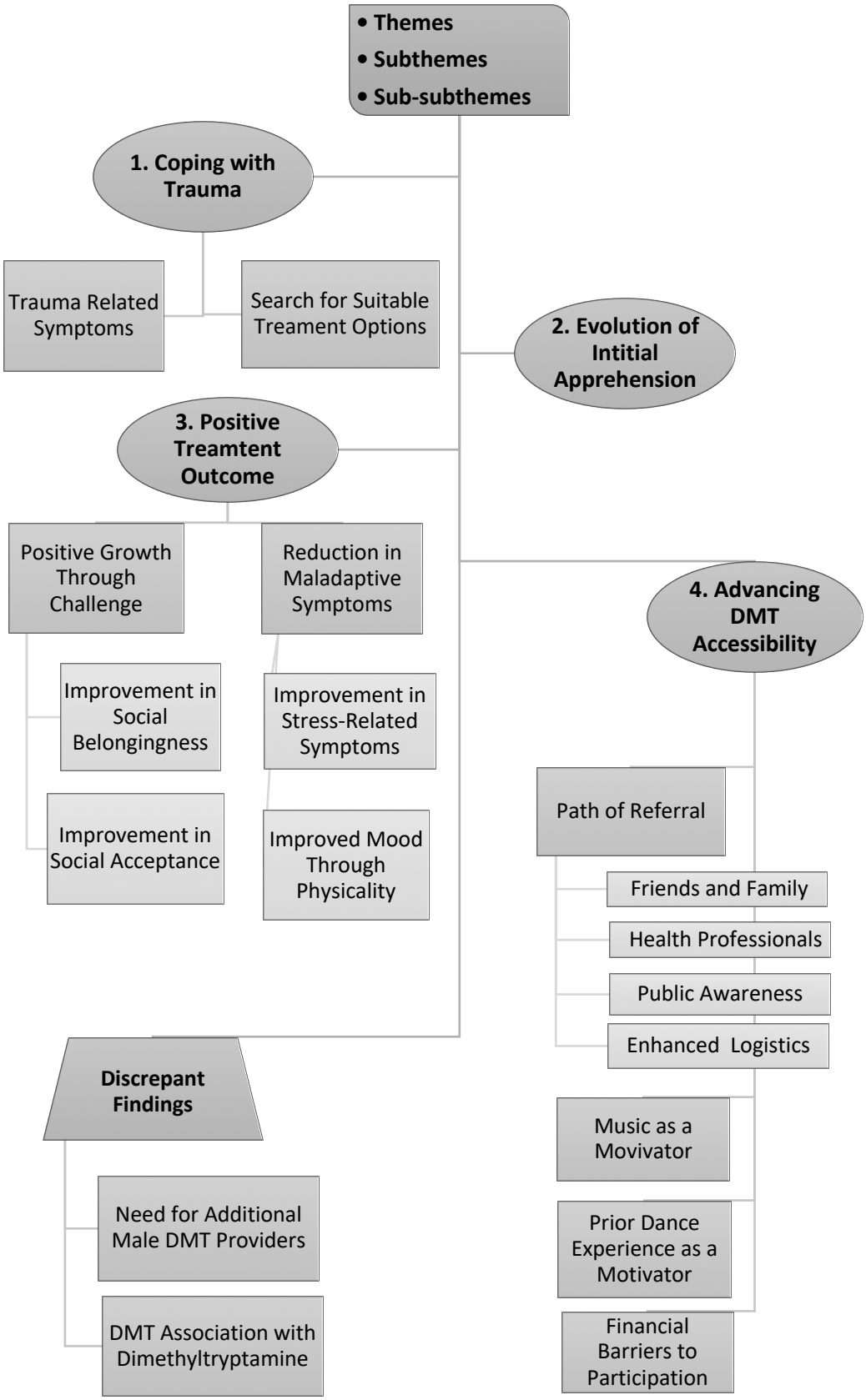
1. What meaning do adult male trauma survivors diagnosed with PTSD ascribe to their lived experiences with the decision to enter a DMT group?
2. How do adult male trauma survivors diagnosed with PTSD describe their experience in participating in a DMT group?
3. What meaning do adult male trauma survivors diagnosed with PTSD attribute to their individual lives as related to participating in a DMT group?

A variety of characteristics affected the participant's experiences with DMT. For example, the approximate age range, demographics, trauma related incidences, and

family experiences, of the adult participants was widely varied. All the participants expressed experiences relating to aspects of positive treatment outcome after participating in DMT.

The participants' narratives also provided a detailed portrait of a range of feelings that emerged prior to considering participation in DMT. A textural-structural summary description for each participant is provided in Appendix E. An overview of the themes, subthemes, sub-subthemes, and discrepant findings are detailed in Figure 1. In the subsequent section, the four themes, eight subthemes, eight sub-subthemes, and discrepant findings are presented and discussed with specific quotations reflecting the unique experiences of the participants.

Figure 1. Themes, subthemes, and sub-subthemes • Discrepant Findings



Theme 1: Coping with Trauma

At the start of each interview, each participant was asked to describe what led to his choice to participate in a DMT group. The specifics of any trauma(s) were not addressed with the participants. Nonetheless, five participants recounted information during the interview related to their trauma experience or experiences (Andrew, Babe, Randy, JR, Willem). The participant's responses identified lived experiences surrounding their initial choice to participate in DMT, including feelings of isolation and a search for suitable treatment options for PTSD symptoms.

Subtheme 1: Trauma-related symptoms. Eight of the 11 respondents described experiencing symptoms related to trauma including: anxiety, depression, social isolation, addiction, and low-self-esteem prior to locating a DMT group (Andrew, Randy, JR, Peat, Willem, Carl, Jim, Basheer). For example, Peat plainly expressed, "Okay, definitely so there is some depression and anxiety, umm addiction to coffee and cigarettes." Carl also explained, "I've, gone through, struggled a lot with social anxiety and depression, especially in situations where you're maybe in a group setting and you have to talk to strangers."

Subtheme 2: Search for suitable alternative treatment options. The search for suitable treatment options for trauma-related symptoms was also a shared experience among four participants (Andrew, Babe, Allen, Randy). Babe, Allen, and Randy specifically expressed a desire to seek treatment options for PTSD without the inclusion of a pharmaceutical application. For example, Babe shared:

> I was diagnosed with AIDS in '84 [pause] and I then had neuropathy as a side effect of the medication, so it was extremely painful . . . and so I thought, I said

> well, I don't want to take pain medication, I don't want to take Neurontin or anything.

Allen also described his search for alternative treatment options in the absence of pharmaceuticals by expressing passionately:

> Man, we need more research studies than in . . . different fields of just prescribing prescriptions, say when something [medication] was available, I always got to test the water, so I figured I'd try it out, if you got the time to sit at home, doped up your head because you [was] prescribed so much medication, your mind wanders, that's a dangerous thing, uh I'm not your average participant, I'm not the one that the doctors just give prescriptions 'here take this sit at home, see if it works for you.' [Emphatic] No! No, I've been taught there's more options out there than just what you've been told.

Theme 2: Evolution of Initial Treatment Apprehension

Symptoms associated with PTSD may contribute to an individual's hesitancy or apprehension to seek suitable treatment options. In pursing the meaning of the lived experience of the participants, seven respondents identified with initial feelings of apprehension or encountering a sense of challenge when thinking about participating in DMT (Andrew, Allen, Randy, Willem, Jerlapty, Peat, Basheer).

For example, Allen light-heartedly expressed his initial apprehension and feelings of uneasiness stating:

> Ahh, well like anything else, it's uhh nervousness, it's I mean you're [gonna] go look like an [expletive] you're [gonna] look like a joke, you [gotta, gotta]

> anticipate that you got to feel comfortable with yourself looking like a fool in front of strangers, you really do.

Six out of 11 respondents described an eventual evolution to comfort from an initial sense of apprehension with participation in DMT. The men described the meaning of their transformation evolving from feelings of challenge into experiences such as "comforting", "fun", "rewarding", "cuddly", and "warm" (Andrew, Randy, Jerlapty, Peat, Jim, Basheer). For example, Jim expressed his initial hesitation and offered his advice for anyone considering participation in DMT emphatically asserting:

> Just to, just to do it. I mean, I was hesitant about going into [DMT] and now, I regretted not doing it sooner, so because, it's a lot of fun . . . if I had any advice to offer anybody that wanted to do something like [DMT] it's just don't think about it, don't think about 'now it's kind of silly or anything', you'll enjoy it, just get out there and do it.

Theme 3: Positive Treatment Outcomes

The participants were asked to describe their experiences before, during, and after participating in a DMT group. All 11 participants described various experiences associated with a positive treatment outcome during and after participating in DMT. Two subthemes emerged from the data, including a feeling of positive growth through challenge and a reduction in typical stress-related symptoms.

Subtheme 1: Positive growth through challenge. Several men described the meaningfulness of their perceived positive growth experiences by recognizing an improvement in sense of belongingness and improvements in overall self-esteem (Andrew, Jerlapty, Peat, Willem). Frequently, the terms "challenge" or "challenging"

were mentioned as an aspect of positive growth. For example, Andrew recounted his positive feelings in his experience with DMT this way:

> It just made me, you know, it makes me feel good, made me feel like I was doing something positive, positive goal orientated just like going to the gym, you're doing something that's healthy and everything . . . and when you leave the place it's great, it's challenging to me, I enjoy it, so that's it.

Peat also thoughtfully recalled the positive feelings he experienced through challenge as he reflected:

> [Long pause] it's challenging, sometimes . . . but I think, especially with certain people that I really get along with . . . umm it's really wonderful . . . and umm rewarding and fun and I like the cuddly aspects of it, it makes me feel accepted and warm, hmm mmm.

Sub-subtheme 1: Improved social belongingness. Nine out of 11 participants expressed an improved sense of belonging, well-being, social connectedness, and breakthroughs in non-verbal means of communication through DMT participation (Andrew, Babe, Allen, Randy, JR, Jerlapty, Peat, Willem, Carl). Descriptors such as: "motivating", "refreshing", "pleasant", "positive", "human connection", and "take your mind of your problems" were frequently encountered. Babe conveyed an element of forgiveness in his personal experience with DMT by asserting:

> I think it helped, it's more holistic [than traditional treatment methods] it's you know, it's not necessarily about the pain . . . because it causes you to get in touch with your [pause, drops off] . . . it's a wonderful experience, it's something that parlayed into every aspect of my life . . . people get so caught up in emotions and

> let emotions build up that you regret it and it teaches you forgiveness, not for the other person before, but for yourself.

Carl voiced his views by sharing his experience of the importance of social support and connectivity with people through DMT stating:

> [I]t focuses on like human connection and a non-verbal communication through dance, and I found that incredibly refreshing and you know sort of my first time going there I felt super welcome, and it's this real community of support.

Sub-subtheme 2: Improvements in social acceptance. Along with experiencing a sense of forgiveness and belonging, five participants related an improvement in feelings of social acceptance, sense of bonding, and self-esteem (Babe, Allen, Randy, Jim, Basheer). Allen embraced a coach-like quality in his voice stating: “I believe in [gettin' 'em] out [gettin' em] in groups, [gettin' 'em] as if they're back on a team, [lettin 'em] know their self-worth better.” Randy related his experience of connectedness and bonding aspects through participation in DMT stating: “[I]t's really a very focused kind of group of people that's kind of rare . . . and we're males, we can be pretty stubborn about it.”

Subtheme 2: Reduction in maladaptive symptoms. The respondent data overwhelmingly exposed a reoccurring expression related to a reduction of general maladaptive symptoms. A reduction in anxiety and depression symptoms was frequently expressed. All 11 participants shared some aspect of improvement in trauma-related symptoms and an improved sense of well-being.

Sub-subtheme 1: Improvement in stress-related symptoms. Eight of the 11 respondents mentioned a relaxation effect that occurred through their experience with DMT suggesting an improvement in anxiety, depression, and other stress-related

symptoms often associated with trauma (Andrew, Babe, JR, Jerlapty, Peat, Willem, Jim, Basheer). JR expressed his account relating a reduction in his depressive symptoms this way:

> Okay, before . . . I was really depressed and, as I started, I went on and I started participating, it made my life a little bit easier, after participating, it makes me evaluate my life as a whole . . . I think [DMT] takes everybody's mind to another level and it changes your life, it lets you be free for the time that you're doing it and after.

Basheer described a transformation from his initial feelings of stress to an eventual feeling of relaxation, increase in social involvement, and acceptance after participation in DMT stating:

> I was feeling isolated and nervous and felt stress in my life and didn't like to get out at all, after the [traumatic] event . . . but the group is fun and makes me feel relaxed . . . I like the group feeling now, and I was worried before and felt you know anxious, but when I'm in the group and feeling a part of something . . . it really has helped me with my stress, I guess I feel acceptance, and it [has] helped me in the other parts of my life now.

Sub-subtheme 2: Improved mood through physicality. Five participants recounted a perceived correlation between the physical aspects of their experiences with DMT and a positive effect on their overall mood (Andrew, Babe, Allen, Peat, Jim). Andrew related a comparison of his experiences with the gym to DMT participation, noting a reduction of anxiety symptoms expressing:

> I've, always gone to the gym my whole life, I've always enjoyed going to the gym, it's something positive that was a positive in my life. It made me feel better, besides drinking [alcohol] or whatever, and now doing this, it's another challenge and it was right in the same boat-as going to the gym as far as burning, you know, basically burning anxiety and all that. I felt great. I was involved I was into it, I wasn't thinking about anything that gave me anxiety or anything like that, it was just working on getting better in the moment at when I was doing it and enjoying dancing and feeling movement and you know, and trying to get better . . . and that's what I would . . . get out of doing this, it challenges me and takes away the anxiety I have during the day and I, don't think about stuff like that, I just go out and try and be in something new.

Peat conveyed his experiences with human touch while participating in DMT, as an aspect he perceived as beneficial to his health and well-being voicing:

> I think that one of the most important things, is to be able to touch other people and be touched, and umm, [long pause] yeah, I think that for a lot of people who don't get touched or the contact or connection with other people, they don't really know where to find it and . . . for me, I probably thought that, like the only way I can think of, was like trying to find a sexual partner. I think it's like, not to roll that out, but I think that getting a little bit more . . . [questioning] what am I trying to say, less intense touch [during the DMT group] but just like gentle and playful and stuff is really, helpful and important.

Theme 4: Advancing DMT Accessibility

All 11 participants reflected statements related to advancing the ease of accessibility of DMT. The respondents shared their suggestions towards facilitating DMT access for a broader population of individuals and for more men experiencing trauma-related symptoms. The manner in which the participants were referred to a DMT group was a meaningful theme that arose from the participant's lived experiences.

Subtheme 1: Path of referral. All 11 interviewees related how their awareness of DMT initially stemmed from friends, family, or a current health professional. Ten of the 11 study participants expressed a need for an increase in general public awareness (Andrew, Babe, Allen, Randy, JR, Jerlapty, Peat, Willem, Carl, Jim, Basheer). Four sub-subthemes associated with the path of initial referral to DMT were identified including (a) friends and family, (b) health professional, (c) strengthening public awareness, and (d) enhanced logistics.

Sub-subtheme 1: Friends and family. Andrew described his initial referral to DMT through a friend, subsequently expressing his views related to a need for an increase in universal public awareness for DMT with:

> A friend of mine told me about this [DMT group] and [sigh] . . . I tried it out and I enjoyed it [long pause] you know, I was lucky I had a friend that was doing that and they kind of hooked me up on it . . . and I never really realized it was out there or never really paid attention to it as far as that . . . or other dancing or anything like that . . . you know. So, I was fortunate because I had a friend that was doing it, so I started doing it. I think there should be more advertising or something you know, I think people would love to do it if they had the

> opportunity and stuff like that . . . [‘cause] it's challenging, like I said over and over again . . . I think maybe something more on social media or anything like that where people can see if they can get involved.

Jerlapty presented his experience by intently recounting his introduction to DMT through his friend this way:

> I suppose the way I find most things, is that a friend recommended it to me . . . ‘would you like to come to this group in two hours?’ . . . and I said I have no idea what this is, but he is the sort of friend that whenever he suggests something, I am happy to oblige . . . so ultimately, I stuck with it.

Sub-subtheme 2: Health professionals. Babe and Basheer described their experiences with referral to DMT as occurring via an independent health professional. Babe related his introduction to DMT via his personal acquaintance, a professional [DMT] health provider with:

> I used to be, okay, a concert dancer, for years, so I have a friend who I used to dance with who started . . . this, this Dance Therapy [Group] well, the only way I knew about it was through this [professional] friend who lived in another city . . . I didn’t know about it in this area. Now, it is a distance from me, it’s in another suburb, which is about 36 miles [but] . . . word of mouth is how I found out about it.

Basheer subtly explained his introduction to DMT as initially occurring through his behavioural health professional with his mother’s support:

> My [behavioural health] counsellor is the one that first suggested the [DMT] group and I was hesitant . . . also, really my Mum thought it would be a good idea . . . and she supported me going into the group for therapy. So, my counsellor

> suggested Dance Therapy would help . . . you know, I wouldn't have known anything about it if my counsellor hadn't told me.

Sub-subtheme 3: Strengthening public awareness. Allen emphasized how his initial search for suitable treatment options occurred only as a result of his personal online research efforts. Further Allen reiterated his criticism of pharmacological treatment methods for PTSD and a universal need for additional, viable PTSD treatment options:

> Google® is one of the smartest research institutions in the world right now and they offer many different aspects to look up other things. I always . . . self-researched myself to see what's out there and then, from where I'm at the closest [DMT] group was 45 minutes away, but it was close enough for me. Hey, there's a lot of doctors out there [who's got ads] . . . that will help you with PTSD with medication, but as far as trying to find out if there's something else, besides medication, that's a hard push. [T]hey . . . can do [a lot better things] they really can, you just name it . . . there's just plenty of people in need, there really are especially in the PTSD community. I got other people who are interested, it's just not me, because when you find out you're diagnosed [with PTSD] there's more than [you] there's other people and those people usually come together in groups. So, if you have information to share with them it will help them out tremendously.

Further, Allen emphatically went on expressing his suggestion for improving marketing exposure and geographic accessibility of DMT with:

> There's man, so much ways to improve that, if it was not for me doing my own research and it wasn't the first topic that popped up on Google®, I had to dig

> through some pages to find this option . . . the people don't know if you don't tell them [passionately] and it's hard, it's [sigh] you just [gotta] get the word out there, you really do. Especially, you don't [gotta] go faster to town ['cause] that's what you don't need, but you can pick select spots to plant seeds, such as clinics and . . . doctor's places.

Randy also expressed his conviction for the importance of a broader general public awareness of DMT asserting:

> I had family members [kinda] pushed me to keep with it and see if it helps and see if it works and, and I'm glad they did, so *awareness* . . . just one-word awareness ['cause] just many people don't even know it's a thing, they don't know anything about it, they don't know it exists. I mean if people have PTSD or some kind of trauma, you know everybody just, take medication for it, you know that's just the way . . . so people don't really realize that there are alternatives that can help people. So, awareness.

Sub-subtheme 4: Enhanced Logistics. Ten of the 11 respondents' experiences reflected recommended methods to enhance DMT accessibility (Andrew, Babe, Allen, Randy, Jerlapty, Peat, Willem, Carl, Jim, Basheer). The participant suggestions included various logistical aspects that could broaden the availability of DMT for more individuals. For example, Babe exuberantly suggested his recommendation for an increase in certified Dance Movement Therapists for PTSD survivors this way:

> So, if hospitals could catch on you know with rehabilitation therapy that would be great. What I would like to mention is, it would be great if someone from your organization, who are connecting with people, could start certifying people,

> because it's so, so much . . . it’s so refreshing I mean, especially for people in my community . . . the HIV AIDs community . . . so it's important to train more people [in DMT] so that it becomes standard care for people that are experiencing this [PTSD].

Jerlapty discussed the importance of accessibility of DMT groups in terms of logistics, including a suggestion to extend the availability of DMT sessions during the day, he offered:

> Yeah, I mean, so logistics, I guess for me logistics . . . are somewhat of a relevant. [I]t tends to be this specific group that I like is 7:00 to 9:00 pm and that's uhh, I like to be asleep by 10:30 pm and usually [the group will] run until like 10:00 or 10:30 p.m. So, I guess that is one aspect that [is] kind of tough for me, in terms of finding [a DMT group] in the first place.

Further, Jerlapty suggested an improvement in the dissemination of DMT program information, specifically relating to the structure within particular DMT groups:

> [O]h, this is a great one, there are . . . different groups that are very similar, but yet have like [gradular] differences based on their terminology, and everybody's very particular . . . I have some experience with Buddhism and it's kind of like the different separation between the sects of Buddhism. So, it would be much easier [laughter] if they were . . . much clearer about what it is that they do, that they focus on, and what it is that they specialize in, and also how that separates them from [other DMT groups].

Jerlapty also detailed what he believed could be beneficial to individuals when deciding to participate in one DMT group as opposed to another:

> So, well, one thing there is each [DMT group] has a set of goals that they are attempting to have their participants experience, or you know to achieve, but those are generally not as upfront and straightforward as I would . . . I guess as I would like. For example, some [DMT groups] are more spiritual in nature, and then some of them are more, you know even just play different types of music, and those sorts of things just would be helpful to know from the outset, because I kind of know . . . [what] I'm looking for . . . even if I wouldn't be able to describe it in words . . . if I saw [a] list of different traits that they had I could probably say that is for me or is not.

Subtheme 2: Music as a motivator. Two participants reflected experiences relating how music served as a motivational instrument and likely encouraged their initial participation in DMT (Willem, Carl). For example, Willem recounted:

> Well, it's curious . . . I enjoyed, before I started in my group . . . free movement groups while there was music playing, to help with stress I was feeling, you know in my life [muffled] you know music playing, and there was one occasion . . . that the drummer said that I had very good, the drummer, what did he say [?] . . . the drummer said I had good rhythm, and so I took that as a sign that I might be able to do something more [long pause followed by slight laughter] and so I looked for a [DMT] program and started then.

Carl also shared how music had been an important aspect of his life prior to seeking out a DMT group. He explained how his DMT group offered him an outlet to experience music without the inclusion of alcohol this way:

> Well . . . I'm someone who loves music and dancing, just in my own regular, as they say life . . . and I found that most of the actual like venues that, you know, cater towards the dancing crowd, tended to be also coupled with a lot of alcohol consumption, and that's been something that, I've been trying to avoid lately.

Subtheme 3: Prior dance experience as a motivator. Four participants related prior dance experience as a motivator to participation (Babe, Jerlapty, Peat, Willem). Peat and Willem explained their experiences related to prior dancing in their lives, ultimately as leading them to participate in DMT. Peat described it with this example:

> I actually . . . I used to dance as a child, a lot kind of just by myself. No one really . . . else wanted to dance in my family and I would have dance contests, but I would be the only one that would join them [laughter] . . . then, as I got older, from what I can recall, there's kind of a big gap in, well I always was into dancing at parties and stuff, but . . . and I got into Acroyoga and that was like one of the first things that I was into that had like contact between people . . . in a playful way and-umm, and I think before that there wasn't very much of that at least not in a systematic way of meeting every week . . . and then I started to go to contact dance, because some of the people in the Acro community were into that. I think the kind of dance that I got into the last few years . . . there's more, umm, contact and interaction with other people . . . umm, personally though I just found out about [DMT] through word-of-mouth, through my friends.

Willem also expressed his previous dance experience as an influential component to his initial participation with DMT stating:

> Hmmm, well, it's curious . . . I enjoyed, before I started in my [DMT] group, I

> enjoyed free movement groups while there was music playing, to help with stress I was feeling . . . so I looked for a program and started then.

Willem also suggested seeking out community dance groups as a possible method to reach more individuals who may benefit from DMT with:

> I was, for example at our church, I was you know very surprised to find [laughter] that . . . quite a number of people, and I think more than my fingers uhh could count were part of the local fantastic dance community that I didn't know of, but now I do, so that's very motivating to continue that [long pause]. I'm trying to think about my own experience . . . I think . . . trying to locate people through music too, because I started umm you know just dancing for fun ['cause] I'd go in and see fun jazz around town and I'd stumble into a place to find music, yeah so that's what I think led me to it . . . it was me looking for it, rather than some kind of marketing or outreach that came to me.

Subtheme 4: Financial barriers to participation. Three participants expressed suggestions surrounding the financial affordability aspects related to participation in DMT (Babe, Peat, Carl). In response to the query what might make DMT more accessible for individuals with laughter Babe jested: “Yeah, if my insurance would pay for it!” Peat also expressed how easing the potential financial burden of DMT could improve accessibility for some individuals stating, “I think that . . . like having a sliding scale or where it was relatively inexpensive or even the option of being free, I think is nice.”

Discrepant Findings

The results of this study exposed a predominant homogeneity of themes among the majority of the participants. However, discrepant findings also arose during the course of the analysis that were unrelated to the research questions. The discrepant findings reflected the experiences of the study phenomenon from these individuals. One participant related his recommendation for an increase in the number of male DMT providers. Additionally, an incorrect presumption frequently occurred during the data collection stage. Dance Movement Therapy (DMT) was recurrently linked to the serotonergic hallucinogen Dimethyltryptamine (Halberstadt, 2015).

Need for additional male DMT providers. Basheer was the sole participant who expressed a desire and recommendation for an increased number of male Dance Movement Therapists. He also shared his suggestion for increasing public awareness of the suitability of male participation in DMT. Basheer's experience seemed to confer a correlation between the comfort level of males who may participate in DMT and the inclusion of more male DMT therapist stating:

> So, I guess some type of advertising maybe, somehow that [DMT] could be better suited for men would have made me more aware that it was an option for me. [M]ostly . . . if there were more men that were [DMT] counsellors, and that having men counsellors, I think that would make it easier for more men to be more comfortable with going and participating. Yes, I think that if more men were therapists, that's it. Also, I think if there was more awareness for men that men could be a part of [DMT], that would help too.

DMT Association with Dimethyltryptamine. During the online recruitment process, over 50 brief study-relevant inquiries were composed by individuals via the Facebook® recruitment page. These individuals had incorrectly assumed the acronym for Dance Movement Therapy (DMT) referred to the drug Dimethyltryptamine a serotonergic hallucinogen. For example, one individual stated, "[Y'all] are dumb as [expletive] talking about the drug like they are going to openly admit it over Facebook®."

Four additional brief examples demonstrating the confusion with the DMT acronym posted on the Facebook® site include: (a) "Is this really about dancing or [dimethyltryptaline]?", (b) "Lol, I'd be down for testing DMT . . . I don't know about dance though", (c) "I've never experimented with [DMT]", and (d) "I love DMT especially with LSD".

In attempt to clarify confusion surrounding the DMT acronym, the following statement was posted on the Facebook® page recruitment site:

> I understand there may be some confusion surrounding the acronym DMT, as the acronym for Di-Methyl Tryptamine is also DMT. I apologize for this confusion. In this study, DMT stands for Dance Movement Therapy. If you are a male over 18 and have participated in Dance Movement for a trauma related issue, then you may qualify to participate in this study. Thank you for your interest in this study.

Nature of the DMT Experience for Adult Males Trauma Survivors

The emergent themes from the participant interviews answered one central research question: "How do adult male trauma survivors, diagnosed with PTSD, describe

the lived experiences of their participation in a Dance Movement Therapy (DMT) group, and what meanings do they ascribe to this participation?" Three subquestions were designed to further reflect on the participant's experiences:

1. What meaning do adult male trauma survivors diagnosed with PTSD ascribe to their lived experiences with the decision to enter a DMT group?
2. How do adult male trauma survivors diagnosed with PTSD describe their experience in participating in a DMT group?
3. What meaning do adult male trauma survivors diagnosed with PTSD attribute to their individual lives as related to participating in a DMT group?

Each of the adult male trauma survivors in this study expressed the importance of seeking an avenue to assist with the effects of his trauma related symptoms. In this study, all 11 men, described positive benefits associated to aspects of his improvement in trauma symptoms or to improvement his personal life after participation in DMT. The positive benefits expressed in the data for the study participants included: (a) reduction in symptoms associated with anxiety, (b) reduction in symptoms associated with depression, (c) improved intrapersonal and interpersonal relationships, (d) improvement in frequency of social activity, (e) improvement in self-esteem, (f) improved sense of social belongingness, (g) improved mental clarity, and (h) improvement in feelings of motivation. Some of the words used to express the positive benefits were: "euphoric", "motivating", "bonding", "challenging", "relaxing", "warm", "bliss", "accepted", "belong", and "childlike".

Additionally, the majority of the research participants mentioned feeling an initial apprehension to participating in DMT. The majority of the participants also expressed an

eventual evolution into an experience of positive feelings participating in DMT after their initial uneasiness. Further, most of the participants recounted some level of positive feelings related to a sense of belonginess, connectedness, or improvement in social interaction as a beneficial aspect of DMT participation.

Nearly all of the study participants voiced the struggles they experienced locating a DMT group. The participants explained the DMT referral method as occurring through word-of-mouth via friends, family, or through referrals from separate professional health providers. Additionally, the study respondents perceived a need for increasing universal availability of DMT. Further, the participants expressed the necessity for an increased number of DMT providers. Finally, the respondents expressed a need for facilitating an ease of accessibility with additional DMT locations, extended group hours, and a broader public awareness through more extensive promotion and specifically-targeted marketing campaigns.

Summary

The findings of this phenomenological study relating the lived experiences of adult male trauma survivors who participated in a DMT group were presented in this Chapter. The collection of the data and data analysis, originated from semistructured interview questions with 11 participants, via digitally recorded telephone interviews. Four major themes arose including: (a) coping with trauma, (b) evolution of initial apprehension, (c) positive treatment outcome, and (d) advancing DMT accessibility. Two discrepant finding were also discussed including: (a) a need for additional male DMT providers, and (c) an incorrect frequent association of the DMT acronym for Dance Movement Therapy with the serotonergic hallucinogen Dimethyltryptamine. An

interpretation of the findings, limitations of the study, implications for social change, and recommendations for future research are discussed in Chapter 5.

Chapter 5: Summary, Recommendations, Implications

Introduction

According to the NIMH 3.5% of Americans over the age of 18 receive a diagnosis of PTSD in any given year (NIMH, 2015). Considerable empirical inquiry exists in support of individual treatment approaches for mitigating PTSD symptoms (American Psychological Association, Division 12, 2016; Chard, 2005; Classen et al., 2011; Foa et al., 2012; NIMH, 2015). However, there remains a lack of robust empirical research in support of beneficial therapeutic outcomes for integrative or somatic treatment choices for PTSD survivors (American Psychological Association, Division 12, 2016; Congress of the United States Congressional Budget Office, 2012; Lane, 2014; Röhricht, 2009; Sciarrino et al., 2017; Wahbeh, Senders, Neuendorf, & Cayton, 2018).

The objective of this chapter was to interpret the findings of this study as presented in Chapter 4 and to elucidate the meaning of the lived experiences of adult male trauma survivors as they described their participation in a DMT group. Abundant research associated with the application of DMT for the treatment of a diverse group of health concerns exists and is chronicled in Chapter 2. Notwithstanding, there was a gap in understanding regarding the lived experiences of adult male trauma survivors who have participated in DMT. This study provides explorative insights into the views of this population.

An in-depth phenomenological approach was applied throughout the research process and during the analysis of this study. The theoretical framework was directed through the lens of constructivism. In this way, the unique experiences of each participant were considered worthy as little was known about this topic (see Denzin & Lincoln,

2005; Guba & Lincoln, 1994; Patton, 2002, 2015). In this phenomenological qualitative study, 11 study participants' experiences were depicted through in-depth telephone interviews conducted over an approximate 5-month period. The mean duration of all 11 interviews was 22 minutes.

The study participants offered unique textural expressions of their distinctive meanings, thoughts, and experiences associated with (a) what led to their participation in a DMT group, and (b) their experiences surrounding participation in DMT. The participants clearly voiced experiences portraying the difficulties of coping with trauma-related symptoms in their lives. Additionally, the respondents unanimously related perceptions of positive treatment outcomes connected to their individual experiences with participation in DMT.

The analysis of the participant's textural-structural descriptions revealed the following four primary themes: (a) coping with trauma, (b) evolution of initial treatment apprehension, (c) positive growth through challenge, and (d) advancing DMT accessibility. Eight subthemes and eight sub-subthemes. Two discrepant findings were also identified. The thematic structure of this study is illustrated in Figure 1.

As discussed, each theme, subtheme, and sub-subtheme will be considered through the lens of the conceptual framework of constructivism, the discrepant findings will also be discussed. The study limitations, implications for social change, recommendations for future research, and concluding thoughts are also presented in this chapter. Interpretations of the findings related to each of the four themes, eight subthemes, and eight sub-subthemes follow.

Interpretation of Findings

DMT researchers have demonstrated efficacious treatment outcomes over a broad range of health concerns (ADTA, 2016, 2018; Barnett et al., 2014; Bräuninger, 2012a; 2012b, 2014; Capello, 2011; Dasgupta, 2013; Foa et al., 2009; Hackney & Bennett, 2014; Harris, 2007a, 2007b; Koch et al., 2014; Leseho & Maxwell, 2010; Lykou, & Cruz, 2014). Nonetheless, a gap in the literature existed in understanding the unique meanings of the lived experiences of adult males diagnosed with PTSD, who have participated in DMT. The 11 participants interviewed for this study provided texturally-rich information helping to elucidate further understanding into the meaning and experiences of adult male trauma survivors sharing the phenomenon of participation in DMT.

It is noted that variations in demographic information as shown in Table 2 may have influenced the experiences of each participant's interaction with DMT. The participants were volunteers meeting the following criteria: (a) adult males over the age of 18, who had (b) received a diagnosis of PTSD, and (c) were not currently in an in-patient treatment status, and who had (d) participated in a DMT group for at least six sessions. The textural-structural descriptions of each of the 11 adult males with PTSD symptoms are exhibited in Appendix E. As stated, the textural-structural descriptions provided a rich lens in which to explore and gain further understanding of the experiences of adult male trauma survivors who have participated in a DMT group.

Each of the study participants interviewed expressed experiences relating positive treatment outcomes for their trauma-related symptoms through participation in DMT. A predominant revelation arising from the analysis of the data in this study also suggested: (a) an overall initial apprehension of DMT, followed by (b) an evolution to eventual

acceptance, and (c) an eventual ensuing integration, and a comprehensive (d) positive embracement of DMT and the DMT group process. Additionally, the men conveyed a variety of positive growth aspects via their participation in DMT. Further, the participants asserted a conviction for a need to (a) generate a broader public awareness of DMT, and to (b) increase ease of accessibility of DMT to reach more individuals who may benefit from this treatment method. The following presentation of the themes, subthemes, sub-subthemes, and discrepant findings emerging from the data are discussed through the lens of constructivism.

Theme 1: Coping with Trauma

As described in Chapter 3, the study interview questions were structured to gain meaning into the experiences of adult males with trauma-related symptoms that have participated in a DMT group. To help protect the vulnerability of the participants, the specifics of the participant's trauma event(s) were not addressed during the interviews. Nonetheless, the theme of coping with trauma often surfaced throughout the interview dialogue. Two subthemes, (a) trauma-related symptoms, and the (b) search for suitable treatment options, were also identified through the participant's shared lived experiences.

Subtheme 1: Trauma-related symptoms. Individuals diagnosed with PTSD may experience a variety of trauma-related symptoms (American Psychiatric Association, 2013). PTSD symptoms may include (a) a negative alteration in cognition and mood including anhedonia, (b) avoidance behaviours, (d) a marked change in arousal and reactivity or hypervigilance, and symptoms may also (e) contribute to impairment of functioning or significant distress (American Psychiatric Association, 2013; Groer et al., 2015; Pietrzak, Tsai, Armour, Mota, Harpaz-Rotem & Southwick, 2015). Further,

individuals who cope with symptoms of PTSD are often faced with difficulties related to managing interpersonal relationships, employment stability, and may struggle with routine day-to-day activities (American Psychiatric Association, 2013; NIMH, 2015; Sayer et al., 2010; Schottenbauer et al., 2010; Westphal et al., 2011).

Constructivism theorists posit that individual meaning is acquired actively through exposure to an individual's own unique reality (Toomey & Ecker, 2007; Riegler, 2012; Von Glasersfeld, 1984). Most of the study participants expressed active lived experience related to coping with trauma-related symptoms. For example, Jim Ricks and Basheer described their trauma-related symptoms as feelings of depression and low self-esteem.

Randy explained, "you know, anxiety and stuff goes along with [PTSD] too." Further Randy described aspects of his trauma symptoms as compelling him towards his participation in DMT with "before [DMT] group my life was great, but the events that caused me to go to dance group umm were not so great." Similarly, JR expressed his experience of coping with symptoms of trauma after encountering a severe vehicle accident "[the accident] was really traumatic and it affected my life . . . I was really depressed." The shared experiences of coping with trauma-related symptoms seemed to stimulate an ensuing search for suitable treatment options for the study participants.

Subtheme 2: Search for suitable treatment options. Andrew conveyed his need to find suitable treatment options. For example, when asked about describing his personal life before participating in DMT he related the importance of finding an appropriate physical solution for the symptoms he perceived as disrupting his life. First, he expressed his love for the gym and then added "[DMT] was right in the same boat-as going to the

gym as far as . . . basically burning anxiety and all that." Andrew's statement conveyed his feelings of necessity to search for a treatment option to help cope with his self-described symptoms of anxiety.

Researchers support the assertion that an abundance of available treatment options for individuals with a PTSD diagnosis may be burdensome and stressful to navigate (Bentkover et al., 2015; Hundt et al., 2017). The data obtained from this study supported these findings suggesting that seeking treatment for trauma survivors is often puzzling and may result in low treatment participation rates or even in avoiding treatment altogether. Ultimately, the difficulty in identifying suitable treatment options and subsequently following through with recommended treatment plans could place an additional level of stress on an already vulnerable group of individuals.

In this study, several participants related a desire to seek treatment options for their PTSD symptoms that excluded prescription pharmaceuticals, for example Randy expressed a need to find a suitable treatment that would help him regain normalcy:

> Because some medicine it just doesn't agree with me. I can't take pain medicine and [other medication] it can make me feel sad, it literally makes me feel sad. So, I looked into alternatives . . . really just to help me kind of get back to umm quote unquote normality, like everybody else.

In support of searching for alternatives to pharmacological treatment for PTSD, Sonne, Carlsson, Bech and Mortense (2017) conducted a meta-analysis examining 15 studies among refugees. The researchers concluded a need for further research contending that pharmacological treatment could not be recommended with this specific PTSD population of refugees (Sonne et al., 2017).

Theme 2: Evolution of Initial Apprehension

As presented in Chapter 4, the results of this study suggested that individuals coping with PTSD symptoms may exhibit apprehension, fear, or hesitation when seeking suitable treatment options. Often, stigma is also associated with seeking suitable treatment options for male trauma survivors (Capello 2011; DeViva, 2016; Hundt et al., 2017; Reevy, 2007; Reevy & Maslach, 2001; Sharp et al., 2015; Wahlbeck, 2015). In an international panel exploring issues related to male DMT practitioners and DMT clients Capello (2011) described how fear, reluctance, and general stigma towards seeking PTSD treatment options may exist which seemed to reflect the findings in this study. For example, in considering the lived experiences as presented in the study interview data, seven respondents expressed on-going challenges or feelings of apprehension prior to participating in DMT. For example, Randy expressed an off-and-on concern and his evolution to comfort with DMT with:

> At first, I didn't want to, I wasn't interested . . . wasn't really enthused about [DMT] . . . I had family members [who] kinda pushed me to keep with it and see if it helps and see if it works and . . . I'm glad they did . . . [Y]ou know, at first, I was apprehensive and at the end, I was glad I did it . . . 'cause like I said, at the beginning I was kind of put off towards it in my mind.

In a meta-analysis examining 20 papers, Sharp et al. (2015) discussed how stigma related to mental health care may be one factor influencing behaviours towards seeking mental health treatment among military personnel. The researchers noted that approximately 60% of military personal who may benefit from treatment do not seek help for their PTSD symptoms. Further, the study suggested the need for additional research to

assist in isolating the specific factors that may contribute to the stigma and apprehension towards seeking treatment for PTSD (Sharp et al., 2015).

In this study, six of the respondents detailed how initial feelings of apprehension, discomfort, and scepticism evolved into feelings of comfort and acceptance after participation in DMT. For example, Jerlapty expressed "it was somewhat uncomfortable at the beginning because it was a new culture . . . [I] had to get over that initial hump." Babe Ruthan as a former professional concert dancer described it this way:

> When I first started, I was met with resistance, I was like [scoff] you know this is some bull [expletive] quite frankly you know, this is fluff, this is not working, but at one point a light flipped on and I reverted back to how you express yourself through movement.

Stigma and fear surrounding participation in mental health treatment may be a factor limiting treatment participation among some individuals (Sharp et al., 2015; Hurst et al., 2018; Kracen, Mastnak, Loaiza & Matthieu, 2013; Wahlbeck, 2015). Further, an initial apprehension towards seeking treatment from individuals coping with PTSD symptoms seems to mirror many of the underlying symptoms this trauma disorder exhibits (American Psychiatric Association, 2013; Kracen et al., 2013).

For example, Kracen et al., (2013) conducted a study examining the experiences of Caucasian, non-Hispanic male combat veterans who participated in Operation Enduring Freedom (OEF) and Operation Iraq Freedom (OIF). The researchers were specifically interested in examining barriers to group therapy for PTSD and concluded that individual therapy was the preferred treatment method over group therapy for these individuals (Kracen et al., 2013). Moreover, Kracen et al., (2013) contended that feelings

of apprehension related to taking part in group therapy for OEF/OIF veterans may preclude involvement from those who could benefit from group treatment and thus may act as a barrier to treatment.

Notwithstanding, it seems once an initial exposure to a somatic group treatment experience such as DMT is traversed, early feelings of apprehension may begin to dissolve. The findings in this study supported the awareness that once initial apprehension is traversed most individuals eventually experience a variety of positive treatment outcomes (ADTA, 2016). Theme 3 addresses the positive treatment outcomes of DMT revealed from the participants in this study.

Theme 3: Positive Treatment Outcomes

All 11 study participants related their experiences with DMT as positive and beneficial. Specifically, the respondents noted a variety of positive treatment outcomes for their trauma-related symptoms through participation in DMT. The men provided texturally rich insights into the perceived advantages they experienced with DMT. Theme 3 revealed two subthemes (see Figure 1): (a) positive growth through challenge, and (b) reduction in maladaptive symptoms. Additionally, four sub-subthemes were identified: (a) improved sense of social belongingness, (b) improvement in social acceptance, (c) improvement in stress-related symptoms, and (d) improvement in mood through physicality. The following section details these subthemes and sub-subthemes.

Subtheme 1: Positive growth through challenge. Participation in a DMT experience seemed to offer a sense of positive challenge to the men in this study and was often expressed as a motivator to participation. A sense of social belongingness and an

improvement in self-esteem were also expressed by the majority of the participants. For example, Willem described his growth through challenge as:

> [Y]our'e trying to pull yourself up to a place you haven't been . . . you know that challenge [inaudible] it can be daunting. So, that's part of the feeling then, another thing is that you look forward to it, because it's a challenge and it's motivating . . . you know being challenged and learning, going to group can be very humbling, it can be a humbling experience yeah.

The findings in this study seemed to support the notion that involvement in a general group therapy processes may pose additional challenges for men who are experiencing symptoms related to trauma such as anxiety or depression symptoms.

As discussed, it seems the effort required to be open to the idea of a group process could further task individuals already facing turmoil and disorder in their lives. Research exists related to adapting group therapeutic processes to provide for optimal positive growth (Haynes et al., 2016). For example, according to Haynes et al. (2016) one aspect of treating men with comorbid PTSD symptoms and major depressive order may relate to providing increased structure and routine. The researchers suggested that by reducing chaos in an individual's everyday living situation an improvement in treatment outcome for this population is possible (Haynes et al., 2016).

Additionally, in a pilot study, Haynes et al., (2016) discussed applications and outcomes of a 12-week cognitive behavioural social rhythm therapy group, with a focus on improving sleep and mood for veterans with PTSD. The study noted a significant reduction in symptoms as measured by both the clinician-administered PTSD scale and the Hamilton Depression Rating scale for Major Depressive Disorder (Haynes et al.,

2106). Further, Levine and Land (2016) explored the opportunity for positive growth within a DMT group setting as afforded through a socially safe therapeutic process. Though initiation and preliminary participation experiences with DMT may pose added challenges for individuals already encountering day-to-day difficulties and coping with trauma-related symptoms, nonetheless it seems positive growth may also occur.

As an illustration, positive growth through challenge, learning, and improved motivation within a safe DMT environment resonated with four of the participants in this study. Andrew ardently shared his experience with DMT:

> To learn new things, and learn how to be involved with the group you know, it's giving me goals to learn something and to be productive in life . . . I just think it's a positive thing in your life . . . it's a good experience to get involved [with the group] its challenging and it motivates you as far as learning, learning new things, I guess that's part of life is learning new things.

Andrew's expression seemed to mirror extant research asserting the positive aspects of challenge, social support, and posttraumatic growth (PTG) which may occur after trauma for certain individuals (Calhoun & Tedeschi, 2014; Canevello, Michels & Hilaire, 2016; Chan, Young & Sharif, 2016; Collier, 2016; Jayawickreme & Blackie, 2014; University of North Carolina at Charlotte, 2014; Tedeschi & Blevins, 2015). For example, PTG has been associated with the way an individual may appraise and reflect on a traumatic experience (Tedeschi & Blevins, 2015; Chan et al., 2016). Correspondingly, the findings of this study indicated a similar link between positive coping methods, social connectedness, and PTG.

Sub-subtheme 1: Improvement in social belongingness. An improved sense of social belonging was expressed by nine out of 11 participants via their experience with participation in DMT. Basheer conveyed his sense of social belongingness through participation in DMT. For example, he reflected his improvements in feelings of stress and previous self-esteem challenges related to his PTSD symptoms by:

> [W]ell let's see really, I'm thinking it is helpful for me . . . and it makes me feel like I belong more. I experienced self-esteem problems, I always have, and I didn't feel like I was normal or like others and after [DMT], I feel better afterwards like I have a group. I have fun and I feel stronger and more self-confident since I've gone to the [DMT] group . . . and feeling a part of something and that [DMT] really has helped me with my stress, I guess I feel acceptance.

Literature is scant relating the experiences of men with trauma symptoms and improvement in social belongness specifically through participation in DMT. For example, a review conducted by Bradt, Shim and Goodill (2015) included randomized and quasi-randomized controlled trials of DMT with cancer patients. The authors examined improvement in psychological and physical outcomes in patients with cancer, concluding that an insufficient number of studies existed, and therefore no robust conclusions could be drawn.

Nonetheless, the textural data surfacing from the study participants seemed to support an improvement in a sense of social belongingness and an evident increase in friendships after participation in DMT. For example, Jerlapty, related his struggle with an underlying initial apprehension to participation in DMT that seemed to be replaced with a

positive sense of belongingness and expanded friendships after participation in DMT with:

> I don't have a particular set of feelings towards the idea of participating . . . and I know that is sort of weird thing to sort of parse, but maybe a good example of this is that . . . I'm very good friends with many of them now . . . on this most recent Monday, I woke up in the in the morning, really excited to go . . . and then, as it became closer and closer to the time, I became more and more nervous and unsatisfied and you know disinterested in going. Which is unusual, because I always enjoy myself when I'm there, and so I think that would be a good way parsing, kind of my feelings towards [DMT]. [Emphatically] . . . but when I'm there I always love it! Even when I'm not enjoying it, I love it! [Laughter] . . . I made friends, after group, afterward, you know people hang out afterwards and talk, so I was able to make friends then, and then [I kinda] felt a lot more comfortable with it . . . Yeah, so, now I have good friends from this group.

Sub-subtheme 2: Improvements in social acceptance. An improved sense of social association and acceptance was shared by 45% of the study participants. Research is lacking specifically on improvement in social acceptance with adult males and participation in DMT. However, to the extent that the definition of quality of life may incorporate aspects of social acceptance and complete social well-being, existing research does seem to support the positive effects DMT may exhibit on improvement in social acceptance. (Bradt et al., 2015; Bräuninger, 2012b; Hackney et al., 2014; Kaltsatou et al., 2015; Koch et al., 2014). This study reflected improvements in feelings of social acceptance for example, Carl asserted that his experiences with DMT contributed to

improved friendships and a joyful social experience expressing:

> [T]his group that more focuses on like human connection and a non-verbal communication through dance . . . I found that incredibly refreshing and you know sort of my first time going there I felt super welcome, and it's this real community of support. So, I found it great to be in a place where the communication is just based on body movements and there is no real right or wrong way to do things and everyone is just very embracing of whatever you happen to be emulating . . . the feelings I would say, are feelings of a mild euphoria and just a joy of participating . . . I mean, I guess I really appreciate how a lot of the relationships that I've formed in the group have . . . carried over into [different settings] like I've met people there that I actually enjoy hanging out with. So, you know especially for someone like me, it's a great way of [pause] going through that social introduction in a . . . way in which you actually see the whole passionate side of someone, expressed through dance.

Willem with modest reticence, thoroughly detailed his beneficially restorative involvement with DMT and how his experience aided him in advancing beyond a previous traumatic social event. He also shared his appreciation for the collaborative experience of DMT explaining (a) a restorative effect to his sense of self, an (b) increased sense of community, (c) improvements in personal motivation, and an (d) improved ability to interact with the opposite gender:

> “[A] few years ago . . . I had a number of, uhh experiences with being falsely accused by women . . . for you know, so and so [pause] incidents, even stuff for, [pause] you know I was . . . friendly, and I was incredibly shy, but it was

misinterpreted as being flirtatious . . . but in the context it . . . was a professional college site so it was a professional response, umm that occurred because of my friends . . . [pause] so my . . . relationship with women has always . . . I think been shaped by that, to be on guard and to be cautious, but then starting with [DMT] you know the ratio is . . . very, very heavily women weighted.

[Y]eah, but then during my [DMT] experiences, you know there was, I think I broke through those umm presumptions that I've had . . . because of the collaborative and, almost it's a . . . the family nature of the group . . . really helped, me, it helped reconcile . . . how I think about uhh woman and you know my sisters and life you know, because we'd interact . . . and talk and hang out . . . and in normal society you know it often feels like there is a pretext between the sexes . . . but in a [DMT] group that . . . to my surprise . . . that bar was severely dropped, and you know being able to interact . . . with everybody in the group in a very open and honest way. . . where you appreciate each other for . . . who you are . . . that was very restorative to . . . my sense of self and sense of relationship with other people. Well, I think being around other people who are a part of the activity is very [pause] motivating . . . you know the sense of community is [pause] you know, really great.

Subtheme 2: Reduction in maladaptive symptoms. The findings of this study supported that participation in DMT may provide a beneficial coping mechanism for individuals adjusting or adapting to trauma-related symptoms. As detailed in the results in Chapter 4, each of the 11 respondents conveyed an improvement in maladaptive symptoms associated with PTSD. Symptom improvements included (a) a reduction in

anxiety symptoms, (b) reduced symptoms of depression, and (c) a general sense of overall improvement in quality of life. For example, Jim Ricks succinctly expressed his experience with improvements in anxiety symptoms after participating in DMT stating: "I would just say, it would be just the feeling of . . . being able to do more things, to do more things."

Baby Ruthan also conveyed his experience by indicating improved quality of life and a feeling of purification through his participation in DMT expressing: "The feelings that come up are that I have some baggage and I'm ready to release it. I'm ready to leave it where it is. It's a cleansing." Reduction in maladaptive symptoms related to trauma via the application of DMT is supported by DMT researchers (Koch et al. 2014; Pierce, 2014). For example, Pierce (2014) suggested a model application of DMT for the relief of PTSD symptoms in adults who sometimes present with dissociative symptoms. The author contended that aspects of DMT such as kinaesthetic mirroring and self-awareness may be useful integrative approaches to treatment for adult clients with symptoms of trauma. Additionally, in a meta-analysis including 23 primary trials (N=1078) Koch et al., (2014) contended that DMT demonstrated positive effects on reducing maladaptive symptoms including depression and anxiety. In this study, two sub-subthemes related to a reduction in maladaptive symptoms arose through the data including an, (a) improvement in stress-related symptoms, and (b) improved mood through physicality, these sub-subthemes are detailed below.

Sub-subtheme 1: Improvement in stress-related symptoms. The results of this study supported a reduction in stress-related symptoms from 72.7% of the respondents. Most all of the participants recounted experiences of feelings of relaxation after

participating in DMT. For example, Jerlapty reflectively observed: ". . . Oh, it's cleansing and [pause] relaxing and pleasing and comforting, you know I think those would be good words [to describe my experience after participating in DMT]. Jim Ricks noted how his experience after participation in DMT afforded a reduction in his perceived stress level and imparted additional improvements in his home life:

> . . . afterwards [after participating in DMT] mmm, having actually more energy and not being so uhh [pause] it helped me with stress relieving . . . it helped at home too, because I wasn't so quick to get upset about things, because . . . I was able to relieve a lot of stress during the dance.

Sub-subtheme 2: Improved mood through physicality. Five of the 11 participants expressed a connection between the active, physical, and somatic aspects of DMT and a positive improvement on (a) perceived mood, (b) mental acuteness, and (c) awareness. The participants shared insights into the benefits they felt simply by the act of movement and the exercise aspects of dance. Willem shared his experience this way:

> . . . [S]o, it's a little bit of the physical aspects that are there also . . . the attention and focus are certainly very strongly exercised in the group and that is [pause] calming to me.

Similarly, Carl revealed:

> It's definitely made me a lot more [pause] sharper, more active . . . I'm someone who really sees dance and music as this healing force. I definitely feel lively and focused, in the moment, and I'm much more aware of the position of my body and all its twist and turns, way more than when I'm just at work or anywhere else.

As detailed in Chapter 2, abundant research exists in support of the general health benefits of somatic therapies related to improvements in mood and trauma symptomology. For example, physical action experienced in yoga, dance, and in general physical activity which may exert influence towards an elevated heart rate has confirmed a variety of positive health benefits (Avery, et al., 2018; Hurst et al., 2018; Sciarrino, et al., 2017). However, as also related in Chapter 2, research specifically related to DMT as an isolated, stand-alone therapy for male trauma survivors and the resulting physical and health benefits from the action aspects of DMT on mood is to a greater extent limited. Evidence does exist supporting applications of DMT and improvements in mood through physicality (Koch, 2009; Koch et al., 2014, 2015b; Meekums et al., 2015). Nonetheless, the application of DMT seems to be poised for gaining a broader therapeutic recognition as both a stand-alone and adjunct physically expressive, somatic therapy that may bestow treatment benefits directly associated to mood improvement (ADTA, 2018; Cruz & Berrol, 2018; Koch et al., 2014).

Theme 4: Advancing DMT Accessibility

Theme 4: advancing DMT accessibility revealed four subthemes: (a) path of referral, (b) music as a motivator, (c) prior dance experience as a motivator, and (d) financial barriers to participation. The findings in this study strongly supported a need for increased public awareness for the availability and universal accessibility of DMT. Additionally, the findings suggested a need for extending the benefits of DMT to a broader treatment population. For example, towards a diverse group of individuals who may be coping with trauma-related disorders.

Research examining the need for increasing public awareness and broadening accessibility of DMT is currently limited. However, current literature supports the findings in this study as related to difficulties an individual may face when seeking suitable treatment options. For example, difficulties associated with seeking treatment for individuals who are coping with mental health issues, specifically trauma-related disorders (Mittal, Drummond, Blevins, Curran, Corrigan & Sullivan, 2013; Stecker, Shiner, Watts, Jones & Conner, 2013). The study findings also illuminated potential barriers to seeking and participating in DMT treatment such as (a) stigma associated with seeking treatment, (b) general public awareness of DMT, and (c) logistical issues associated with participation.

Four sub-subthemes arose from subtheme 1: path of referral (see Figure 1). The sub-subthemes highlighted the participant's shared insights to actual and perceived methods of broadening DMT accessibility: (a) friends and family, (b) health professionals, (c) strengthening public awareness, and (d) enhanced logistics. The following sections describe the subthemes and sub-subthemes emerging from the data as associated with DMT accessibility.

Subtheme 1: Path of Referral. The data suggested a compelling need for improvements in marketing and general increased public awareness for DMT. Additionally, the findings indicated that perhaps via increasing public awareness of DMT a broader population of individuals may benefit from the therapy. Further, the study findings indicated by advancing dissemination of DMT-related treatment information, for example pertaining to the wide range of diverse treatment situations suitable for the application of DMT, perhaps DMT accessibility may reach a broader population.

Of the 11 study respondents 91% shared how their experience with locating a DMT group presented difficulties. Andrew directly asserted: “I think there should be more advertising or something . . . you know I think people would love to do it if they had the opportunity and stuff like that.” All of the 11 respondents also shared that they felt “lucky” to have been introduced to DMT by the referral of an acquaintance, friend, or health professional. Four sub-subthemes as related to the path of referral are discussed below.

Sub-subtheme 1: Friends and family. When asked what led the interviewees to participate in DMT, often informal pathways to treatment such as friends and family were mentioned as the referral method. As previously mentioned, this study seems to support the difficulty that PTSD survivors often experience when seeking appropriate treatment methods. For example, PTSD researchers seem to support the difficulties that OEF and OIF Veterans often experience when seeking treatment for PTSD (Mittal, Drummond, Blevins, Curran, Corrigan & Sullivan, 2013; Stecker, et al., 2013). Referrals to DMT treatment originating from either friends or family seem to alleviate at least some of the barriers to seeking treatment for PTSD.

Few studies exist examining specific referral methods for PTSD. However, in a study conducted with adolescents (N=30,939) Rickwood, Mazzer and Telford (2015) concluded that although self-referral through online sources may occur, that in-person informal social influences specifically through family for this particular population, often have a greater influence towards seeking mental health treatment. Randy echoed the importance of his family’s referral to treatment by: “I had family members, [who] kinda pushed me . . . [to] see if it helps and see if it works and, and I'm glad they did.”

Similarly, Peat expressed his referral to DMT occurring informally via friends with: "Umm, personally I just found out through word-of-mouth, through my friends." The findings of this study supported the strength of informal pathways of referral to DMT through family or friends.

Sub-subtheme 2: Health professionals. As discussed in Chapter 4, two of the respondent's referrals to DMT occurred through health professionals. For example, Babe mentioned his professional friend who established a DMT group in a different locality. Further, he expressed his gratitude towards this professional as the source of his referral. Comparably Basheer shared: "my [behavioural health] counsellor is the one that first suggested the [DMT] group . . . my counsellor suggested Dance [Movement] Therapy would be helpful." Professional referral services to other appropriate health providers, depending on the recommended treatment planning is often a commonly accepted practice, particularly in clinical settings where applicable treatment-specific interventions or services may be lacking (Clement et al., 2015; Fortney et al., 2015).

Sub-subtheme 3: Strengthening public awareness. As previously explored, stigmatization and symptoms of avoidance may be associated with individuals seeking suitable treatment options for PTSD (Clement et al., 2015; Mittal et al., 2013; Sharp, 2015). In addition to these barriers, the findings in this study indicated there is a lack of general public awareness related to DMT as an appropriate potential intervention for PTSD**.** For example, ten of the 11 study participants mentioned a need for increased public awareness for DMT as a potential treatment option for PTSD. Peat and Basheer clearly expressed a need for broadening public awareness. Peat noting: "So, it wasn't really like out there for you, you just kind of found out about it through word of mouth."

As mentioned, Basheer offered gratitude to his health professional and shared his suggestion for advertising specifically to men with:

> [Y]ou know, I wouldn't have known anything about it if my counsellor hadn't told me. So, I guess some type of advertising maybe, somehow that it could be better suited for men would have made me more aware that it was an option.

Sub-subtheme 4: Enhanced logistics. Specific populations may be unnecessarily hindered from participation in DMT. For example, the barriers to treatment may be in part due to residing in geographic locations without sufficient access to Dance Movement Therapists such as certain rural communities. Additionally, other demographic factors such as socio-economic status, educational level, physical disability, or advanced age may create disproportionate logistical or cultural barriers to mental health treatment (Brenes, Danhauer, Lyles, Hogan & Miller, 2015; Mittal et al., 2013; Stecker et al., 2013).

In addition to increasing general public awareness of DMT, improving logistical obstacles may help advance DMT accessibility towards a broader and more diverse group of individuals. All but one study participant mentioned how improvements in organization, accessibility, and overall logistics could help broaden treatment accessibility. Several suggestions were made including disseminating information such as what to expect in terms of structure during participation in a DMT group. Additionally, the participants shared advice related to specific locations where they likely would be exposed to the availability, schedules, and cost structures of DMT. For example, hospitals, mental health clinics, and Walmart® were all suggested. Allen's advice

included aspects of improving public awareness through logistics with an emphasized reiteration that DMT was an alternative to pharmaceutical treatment:

> [P]lant seeds, such as clinics, and, and doctor's places and . . . pamphlets and brochures, and maybe even a little sign. I think I'd [gotta] put sign in front of Walmart®, but places where PTSD people go, need to be advertised . . . to let them know there's other options [besides pharmacological treatment] . . . and 'I hope you like to be a vegetable' [referencing the feeling one may experience from certain pharmacological treatment experiences].

Jim shared his wish for expansion and growth of DMT offering suggestions for more location options with:

> [Y]ou know location is always a big issue for me. You know having to travel from . . . where I live to, to where I was doing [DMT] was kind of, what do you call it . . . kind of a pain for lack of a better word. So, location, and more places open for DMT and stuff like that would benefit me.

Subtheme 2: Music as a motivator. Two participants shared that music was a pivotal motivator initially encouraging their participation in DMT (Willem, Carl). Both participants explained a personal enjoyment for and a love of music prior to their involvement with DMT. Additionally, the participants indicated that music venues were an important part of their culture. The unique cultural histories of these individuals seemed to significantly influence their choice to participate.

The beneficial physical and psychological therapeutic effects of music therapy are well documented in the literature (Amagdei et al., 2010; Carr et al., 2012; Clements-Cortés, 2016; Gabrielsson, Whaley & Sloboda, 2016; Mofredj, Alaya, Tassaioust,

Bahloul & Mrabet, 2016). Additionally, as detailed in Chapter 2 music may encourage psychological healing for PTSD survivors through the neurogenetic process (Fukui & Toyoshima, 2008; Ragert et al., 2004; Simpkins & Simpkins, 2013). Further, a substantial body of interdisciplinary research supports the assertion that music incorporated into DMT, may encourage certain individuals to participate and may be one pivotal variable related to culminating in a positive treatment outcome for a variety of health concerns (Amagdei et al., 2010; ADTA, 2016, 2018; Carr et al., 2012; Clements-Cortés, 2016; Mofredj et al., 2016).

Subtheme 3: Prior dance experience as a motivator. Four participants, 36% of the respondents connected their prior knowledge and experience with dance as a motivator to participate in DMT. Babe Ruthan humbly shared: "I used to be [pause] okay, a concert dancer, for years." In addition to his referral by a friend, Jerlapty related his positive experiences with both meditation and dance as characteristic motivators to his initial involvement with DMT expressing: "[I had] found that dance and movement have a similar effect to meditating every morning."

Participation in DMT requires no prerequisite of prior dance experience (ADTA, 2016, 2018). However, this study seems to support that previous dance training or prior exposure and enjoyment of dance, may provide an initial comfort level for some men and therefore may encourage their continued participation in DMT. The literature review, subsequent to the data analysis stage of this study, did not identify specific research reflecting the influence that previous dance experience may have on an individual's likelihood to engage in DMT. Although the findings of this study clearly indicate individuals previously exposed to dance may be more likely to participate.

Subtheme 4: Financial barriers to participation. The affordability of DMT treatment was a shared concern for three of 11 respondents. The participants also shared concerns that health insurance was not an available option to assist with covering the treatment expenses of DMT. Additionally, sliding fee scales were suggested as a possible solution to the perceived financial barrier to DMT participation. Carl voiced his concerns related to potential financial hardships faced by some individuals seeking DMT treatment. He thoughtfully recounted the difficulties that may occur due to a weekly DMT participation fee. He also shared a recommendation to make DMT sessions accessible without associated fees, possibly suggesting a philanthropic patron or grant-type funding source for DMT groups:

> Well, so . . . one kind of I guess you could call it a slight barrier, or stop gap, is . . . the dance movement group that I take place in does have a . . . weekly fee attached, so [pause] that could be I understand a prohibitive expenditure for some people, where they think ‘I mean I don't really know if I can make this a regular part of my week, if it's going to cost me . . . each time.' So . . . ideally, this would be the kind of place where it's just an open environment and there is no real exchange of funds required. But, uhh I do appreciate the effort that the organizers put into it and I do understand that uhh, my money does go somewhere.

Discrepant Findings

As discussed in Chapter 4, discrepant findings were revealed during the data analysis stage of this study. The discrepant findings were unrelated to the original research questions. Nonetheless, consideration is given to these findings as they reflected the personal views and experiences of specific individuals perhaps based on their

distinctive worldviews, experiences, or unique cultural factors. Two discrepant findings emerged during this study including: (a) the need for additional male DMT providers, and (b) DMT association with Dimethyltryptamine. The findings are briefly highlighted below.

Need for additional male DMT providers. This study focused on the limited research related to men who have participated in DMT for PTSD. In this study, through the context of the interview data it was inferred that all of the participant's DMT providers were female. In mental health clinical treatment an understanding of the cultural context of the client, including gender specific considerations from the therapists may be linked to more beneficial treatment outcomes (Owen, Tao, Drinane, Hook, Davis & Kune, 2016; Tao, Owen, Pace & Imel, 2015). For example, the ability for a therapist to relate to a client's gender considerations, culture, and unique worldviews are arguably important factors when a provider attempts to develop cogent rapport with a client.

Perhaps one deterrent for males choosing to participate in DMT is the feasibly more limited availability of male DMT providers than female DMT providers. For example, prior to experiencing the DMT process, some men may believe it to be uncomfortable to openly share vulnerable experiences with trauma or freely move their bodies while in the presence of a female DMT therapist. However, it is noted in this study that only one in 11 participants recommended the need for additional male DMT providers (Basheer). As presented in Chapter 4, Basheer expressed: "[I]f there were more men that were counsellors . . . I think that would make it easier for more men to be more comfortable with going and participating." Basheer also offered a suggestion for increasing male participation in DMT stating: "I think if there was more awareness for

men that men could be a part of [DMT] that would help [more men to become involved with DMT]."

DMT Association with Dimethyltryptamine. As described in Chapter 4, during the recruitment phase of this study, over 50 questions associated with the serotonergic hallucinogen Dimethyltryptamine were posted on the Facebook® recruitment page (Halberstadt, 2015). The individual inquiries incorrectly presumed Dance Movement Therapy (DMT) was synonymous with Dimethyltryptamine. A statement was subsequently posted on the Facebook® page recruitment site to clarify the confusion (see Chapter 4). As such, a suggestion is offered in the recommendations section of this Chapter to clarify and differentiate the designation of the therapy or the acronym associated with Dance Movement Therapy (DMT) from Dimethyltryptamine.

Limitations of the Study

Acquiring understanding via the experiences of the participants in this study will contribute to a niche in the literature related to adult male trauma survivor's experiences with DMT. However, limitations existed in this study. The study limitations are discussed in this segment.

The study design comprised a phenomenological qualitative approach to inquiry, as such the sample size of 11 participants may not accurately reflect all populations of individuals diagnosed with PTSD. Therefore, the generalizability of the results of this research is limited. Additionally, it would be inappropriate to apply the transferability of the study results to variations in contexts or settings.

Criterion-based sampling was used for this study and therefore the sample was limited to adult males, diagnosed with PTSD, who had participated in DMT. Further, this

study did not include individuals in an in-patient treatment status. Therefore, the study may have included participants who had previously benefitted from other forms of therapy for trauma-related symptoms.

This study was conducted with men over 18 years of age, the oldest participant was estimated to be in his mid-50's. Therefore, the findings are not applicable to either children or adults over age 60. As such, the data collected may not accurately be reflected by all individuals actively coping with PTSD symptoms. This may further limit the transferability of the results of this study to heterogenous populations.

As described in Chapter 3, steps were taken such as bracketing and triangulation to ensure objectivity and to control for researcher bias. However, a limitation of this study remains in that my personal feelings and unique experiences may have influenced the objectivity of the data. For example, as an individual who has studied and participated in various forms of dance, performed professionally in theatre, and who has received a PTSD diagnosis, the analysis of this study may have been subjectively influenced by my personal biases.

Further, the participants were selected based on a response to the recruitment flyer (see Appendix C), the Facebook® website page titled: *Men • Call for Participants • Dance Movement Therapy*, and the *callforpaticipants.com* website. This method of recruitment may or may not have reflected the entire population of adult male trauma survivors, diagnosed with PTSD. For example, since Facebook® is a computer based or smartphone-based phenomenon, the participants possessed sufficient computer literacy to use Facebook® to locate this study. Thus, this study is limited to those with sufficient computer skills and computer access to participate and may not reflect the general

population of individuals with trauma-related symptoms.

Each participant provided a self-reported account of their live-experienced related to participation in DMT. The data were collected via an anonymous, private, audio-recorded telephone interview. The interviews were assumed truthful. Therefore, biases of each participant and relevant truthfulness of the data is difficult to authenticate.

Additionally, each of the study participants chose to partake in this study and therefore may not exhibit the experiences of those individuals who did not choose to participate. Further, three individuals expressed an interest in the study subsequent to the Institutional Review Board (IRB) recruitment deadline. Therefore, these individuals lived experiences were not considered in the data analysis and thus may have altered the themes or results of this study.

Every participant was screened at the beginning of each interview to determine if he had participated in a DMT group and all respondents answered “yes”. Nonetheless, the DMT therapy modality the participants experienced may not have been conducted by an ADTA Registered or Board-Certified Dance Movement Therapist. Accordingly, the therapy may have been directed with variations, altered structure, flow, and organization from what is considered an acceptable, recognized, therapeutic treatment process by the ADTA.

Further, the participants may not have been able to express a range of full feelings relating their experiences within a single verbal interview. This limitation could be due to for example uncomfortableness with the interview process, unfamiliarity with the interviewer, or feelings of vulnerability. Notwithstanding, gaining insight into the unique lived experiences of the participants was a principal objective of the data collection and

analysis. Limitations in this study exist, nonetheless the results suggested a level of significance within this niche topic to validate further research.

Recommendations

A wealth of research opportunities associated with advancing the quantity and breadth of qualitative and quantitative research relevant to the field of DMT exist. Though not exhaustive, the analysis of the data from this qualitative phenomenological study revealed several specific possibilities for future research. The following recommendations are primary, data-driven recommendations, emerging from the findings in this study and include: (a) participant recommendations to improve DMT accessibility, (b) optimal referral strategies for DMT, (c) approaches to minimize stigma when seeking PTSD treatment, (d) further randomized controlled trials examining relationships between DMT and PTSD symptom and neurogenetic outcomes, and research supporting (e) branding, marketing, and DMT product positioning. The opportunities suggested for further examination are summarized below. A section providing recommendations for additional research is also provided.

Participant Recommendations to Improve DMT Accessibility

The interview questions in this study as outlined in Appendix D, focused on the lived immediate and past experiences of adult male trauma survivors as related to participation in DMT. Moreover, the sub-questions were not future or theoretically oriented. However, many of responses to the interview questions were future oriented towards the accessibility of DMT and often proposed suggestions for improvement for ease of access. For example, Theme 4: *advancing DMT* was entirely future oriented. The

respondents often answered present-centered questions with suggestions for general changes they hoped for DMT and often answers were stated in the future.

Thus, research focusing on recommendations from the point of view of the end consumer and the DMT experience is suggested. Including examinations related to organization, accessibility, and processes of DMT. As discussed, this study also revealed data suggesting methods to minimize potential barriers to DMT treatment. Furthering a concentrated understanding in the area of potential barriers to DMT treatment may provide insight related to accessibility and advantageous logistical recommendations for DMT. This awareness may also help extend the DMT experience to additional individuals and diverse population groups who may experience a variety of health benefits from DMT.

Optimal referral strategies for DMT

The path of referral to DMT was a topic that frequently came up during the interviews. The following interview question seemed to inspire responses related to the participant's referral method: "What led to your choice to participate in a DMT group?" (see Appendix D). This interview question was constructed prior to conducting the participant interviews. The question was initially created with an anticipation towards evoking responses related to the lived experiences of effectively coping with and seeking treatment for trauma-related symptoms. However, the participant's answers to the question generated two unexpected sub-subthemes related to referral methods to DMT: (a) friends and family, and (b) health professionals. Additional research on the methods of referral to DMT is recommended. Further investigation into the path of referral, may

provide understanding into optimal methods of conveying the availability of DMT and further extend the treatment benefits of the therapy to a broader range of individuals.

Approaches to Minimize Stigma when Seeking Treatment for PTSD

As previously discussed, feelings of stigma and an individual's unique coping strategy may contribute to adverse avoidance actions when seeking and participating in treatment for individuals with PTSD symptoms (Clement et al., 2015; Kracen et al., 2013; Mittal et al., 2013; Sharp, 2015; Wahlbeck, 2015). Feelings of apprehension, avoidance, and fear among the study participants related to treatment seeking and participation in treatment were evidenced throughout the findings in this study. Thus, further research aimed at investigating relationships between various biopsychosocial aspects as they may relate to feelings of stigma, apprehension, and avoidance to seeking treatment could be advantageous. It seems a reduction in general stigma surrounding seeking and participating in mental health treatment continues. Nonetheless, increased awareness in the identification of stigma-creating variables with diverse populations could translate to a reduction in the identified stigma-creating variables and afford more individuals the opportunity to benefit from the positive therapeutic outcomes of DMT.

Further RCTs Testing DMT, PTSD Symptom Outcome, and Neurogenesis

As noted in Chapter 2, there is a lack of robust empirical research linking the therapeutic treatment outcomes of participation in DMT specifically to males with trauma-related symptoms (Archer et al., 2015; Bräuninger, 2012; Capello, 2011; Cruz & Hervey, 2001; Koch et al., 2014; Meekums, 2010; Meekums, et al., 2015; Strassel et al., 2011). Though a number of cogent RCT exist (Bräuninger, 2012; 2014) these studies are arguably rare in the arena of DMT and trauma-related symptomatic treatment outcome,

specifically when isolating the male gender. Additionally, a need for further empirical quantifiable research supporting the application of DMT as an isolated therapy for treating PTSD or trauma-related symptoms exists. Future RCT studies investigating correlational relationships between participation in DMT and treatment outcomes for specifically males with trauma-related disorders are therefore suggested. Further exploration is also suggested that may advance understanding and awareness of relationships that may exist between reparative neurogenetic processes, DMT, somatic therapies, and other creative arts therapies.

Branding, Marketing, and DMT Product Positioning

Seven participants described feelings of uncomfortableness and awkwardness when relating their initial introduction to and participation in DMT. As discussed in Theme 2: evolution of initial treatment apprehension, the majority of the respondents expressed an initial apprehension towards a "body-movement" form of treatment. Additionally, the nomenclature of the word "dance" within DMT often resulted in apparent humour-driven-embarrassed-type responses from some of the participants. Though several of the participants related previous professional or recreational dance experiences, these individuals nonetheless shared an apprehension towards initially participating in a dance-type therapy. In the literature search subsequent to the data analysis stage of the study, robust research reflecting the influence that previous dance experience may or may not have on an individual's likelihood to participate in DMT seemed lacking. Thus, further research focused on isolating the possible variables that may influence participation in DMT is also suggested.

Additionally, as discussed in the discrepant findings section under sub-theme 2: DMT association with Dimethyltryptamine, during this study recruitment phase there was an incorrect association of Dance Movement Therapy (DMT) with the serotonergic hallucinogen Dimethyltryptamine. Exploration related to improving the distinction of DMT from Dimethyltryptamine and enhancing general public awareness of the acronym DMT is also suggested. For example, focusing on aspects that may improve universal understanding in defining, clarifying, and differentiating DMT as an appropriate therapeutic intervention for a broad range of culturally diverse individuals with a variety of health issues is proposed.

Further research associated to characteristics of nomenclature or labelling of DMT that may appeal to a larger segment of the male population is also recommended. For example, research including future branding and marketing strategies for DMT, including surveying referring clinicians, religious organizations, or members of the ADTA. Research related to optimal branding, product positioning, and targeting DMT could be examined to extend public accessibility and improve awareness. For instance, additional research may offer insights related to the helpfulness of identifying parenthetical nomenclature used in association with DMT in public awareness material. Investigations such as this, could also offer greater appeal to broader culturally or gender-diverse population and may motivate more individuals to consider DMT as a viable treatment option. Research into the feasibility of supplemental nomenclature associated with DMT could include auxiliary identifiers such as: Action Therapy, Action-Based Movement Therapy, Energy Motion Therapy, Performance Movement Therapy,

Expressive Movement Therapy, or Motion Method Therapy. Research is suggested to determine the efficacy of these suggestions.

Additional Recommendations

In addition to the study-derived recommendations discussed previously, further research opportunities could focus on optimizing applications of DMT for specific populations. For example, RCTs comparing gender specific treatment outcomes. Future investigations related to DMT, focusing on biomedical or biopsychosocial models for coping with stress and explorations related to the application of DMT as an intervention for comorbid disorders are also recommended (Schneiderman et al., 2005). Further, RCTs comparing pharmacological treatment outcomes for trauma-related disorders and stand-alone DMT treatment outcomes are also recommended.

Delays were encountered during the recruitment process of this study. The recruitment delays presented challenges with locating male participants who met the study criteria and who also wished to share their experiences with DMT. All of the participants in this study confirmed they had participated in DMT for at least six sessions. Future qualitative research could explore the experiences of males, diagnosed with PTSD, who have engaged with an extended involvement in DMT of more than six sessions. Exploring the treatment outcomes of males diagnosed with PTSD who have extended involvement in DMT may elucidate additional awareness into the potentially beneficial health effects of DMT.

In summary, this section highlighted two additional research recommendations. Exploration including RCTs comparing pharmacological treatment outcomes with males diagnosed with PTSD and their participation in DMT is warranted. Additionally, inquiry

related to males, diagnosed with PTSD who have participated in DMT for more than six sessions is also suggested. Implications for social change are explored in the following section.

Implications for Social Change

This study focused on an under-researched population of adult male trauma survivors who had participated in DMT. As presented in Chapter 1, PTSD is a serious public health issue with increases in prevalence rates expected to continue (Hermes, et al., 2012; Iribarren et al., 2005; Prolo, Neagos, & Chiappelli, 2005; National Academy of Sciences, 2014; NIMH, 2015; US Department of Veteran Affairs, 2015). Though treatment advances for PTSD continue with ongoing research, nonetheless the Veteran's health Administration (VHA) recommended a need for further beneficial treatment options for individuals diagnosed with PTSD (Congress of the United States Congressional Budget Office, 2012).

The results of this research contribute to positive social change through gaining additional insight into the lived experienced of adult male trauma survivors and their participation with DMT. Associations between PTSD and detrimental health conditions are broadly recognized in the literature (Boyraz et al., 2016; Groer et al., 205; Michaud, 2013; NIMH, 2015; Norris & Slone, 2013). Subsequent to a traumatic event, the coping strategy an individual adopts may generate a variety of clinical considerations throughout the course of case conceptualization. For example, modifications in assessment, choice of intervention, and treatment planning possibilities may appropriately ensue.

Thomson and Jaque (2016) observed improvements in self-efficacy, meaning in life, and overall pleasure for individuals coping with trauma via adult forms of play,

including favoured physical activities. Similarly, Leseho and Maxwell (2010) asserted that resiliency and eventually healing may occur for individuals coping with trauma via participation in activities such as yoga, dance, music, and other forms of creative expression. Accordingly, individuals coping with trauma, who uniquely enjoy participating in creative or somatic activities, may exhibit positive treatment outcomes through participation in DMT. The findings in this study may help to broaden the application of DMT to groups of trauma survivors who may distinctly enjoy and experience benefits from participating in somatic, expressive therapies such as DMT.

As discussed, individuals coping with trauma often experience difficulties with seeking PTSD treatment and with following through to completion of treatment. Thus, identifying additional effective treatment methods for PTSD is essential to support broader-reaching health benefits for more diverse group of individuals coping with trauma-related symptoms. For example, Wahlbeck (2015) recommended the need for improvements in interdisciplinary actions related to mental health treatment. Further, Boyraz et al., (2013) contended that negative coping strategies often applied by individuals with trauma-related symptoms may contribute to further physical health concerns for these individuals. The authors argued for alternate interventions, with a focus on reducing maladaptive coping choices. The findings in this study support a beneficial social change implication in that DMT may furnish an effective alternative stand-alone or integrative somatic therapy, for males coping with trauma-related symptoms.

Additionally, Wahlbeck (2015) argued for the reduction of often-associated stigma and barriers when seeking mental health treatment. The findings in this research

support the importance of inter-disciplinary integration with other health professionals in the role of referral to appropriate-treatment aligned somatic therapies such as DMT. Further, integrating somatic treatment methods, such as DMT, with traditional methods of treatment may reach a broader segment of individuals coping with PTSD symptoms.

As mentioned, the findings in this study may append treatment considerations for mental health professionals. For example, in the context of case conceptualization, clinical assessment, intervention, and treatment planning choices for clients presenting with trauma-related symptoms. The results in this study reflected trauma-related symptom improvement for all 11 research participants. By considering integrative interventions such as DMT for PTSD symptoms, individuals who may not otherwise benefit from currently recommended empirically supported treatments could see symptom improvement through participation in DMT.

Various researchers hold that posttraumatic growth (PTG) may occur for individuals who have experienced trauma and who also demonstrate the traits of extroversion and an openness to new experiences (Calhoun & Tedeschi, 2014; Collier, 2016; Tedeschi, 2004). As presented in Chapter 4, the findings in this research supported occurrences of PTG with DMT participation. Accordingly, persons with trauma-related symptoms who exhibit the personality traits of openness and extroversion may experience treatment benefits, such as PTG, from an innately active, socially infused therapy such as DMT.

Further, the findings of this study may offer social change contributions to the existing literature related to improving scientific understanding of DMT as a beneficial treatment option for the treatment of PTSD symptoms. By gaining an in-depth

understanding of the experiences of the 11 study participants, additional investigational insights into the positive treatment outcomes of DMT for adult males coping with trauma-related symptoms is underscored. Moreover, the findings in this exploratory qualitative research study may serve as an intrinsic basis for subsequent quantitative research.

As such, the study findings may contribute to further clinical research which strengthen the existing empirical support for the positive treatment outcomes of DMT, thus offering hope to a broader diverse group of individuals who may not experience beneficial outcomes from currently empirically supported therapeutic methods. For example, in addition to the recommended American Psychological Association, Division 12 (2016) empirically supported treatment options for PTSD, somatic therapeutic options such as DMT and yoga may gain support as beneficial, evidenced-based treatment options for PTSD. Sciarrino et al., (2017) contended that integrative somatic treatment options for trauma-related symptoms are needed in that many individuals do not experience benefits from existing treatments. The findings of this study concur with this research as the majority of the participants reflected their determination to search for a treatment options where other trauma treatment methods had failed.

Further, therapies such as DMT may be helpful for those who are uncomfortable with expression through voice of sensitive traumatic events. This research supported the importance that the act of expression through movement bestowed on the participant's improvement in trauma-related symptoms. This research may also advance recommendations for alternative treatment options for additional, culturally diverse groups of individuals. For example, those individuals who may speak English as a second

language, those who have health conditions that may affect or limit speech, such as due to a stroke or traumatic brain injury (TBI), or persons who may identify with the LGBTQ community. In summary, the findings of this study may contribute positive social change implications through furthering clinical insights and scientific knowledge related to additional integrative, somatic treatment choices for a diverse group of individuals coping with symptoms of trauma.

Conclusions

PTSD is a serious public health issue with increases in prevalence rates expected to continue (Hermes et al., 2012; Iribarren et al., 2005; National Academy of Sciences, 2014; NIMH, 2015; US Department of Veteran Affairs, 2015). The Veteran's Health Administration (VHA) estimated that approximately 2 billion dollars was spent treating veterans returning from overseas contingency operations (OCO) who were subsequently diagnosed with PTSD (Congress of the United States Congressional Budget Office, 2012). As detailed in Chapter 2, several empirically supported treatment options exist for PTSD (American Psychological Association, Division 12, 2016).

Nonetheless, robust empirical support to specifically support an evidenced-based application of DMT for trauma-related symptoms is minimal (American Psychological Association, Division 12, 2016; Archer et al., 2015; Capello, 2011; Koch et al, 2014; Meekums, 2010; Meekums, et al.; 2015; Strassel et al., 2011). This study built on the limited research particularly related to the male gender and participation in DMT for PTSD. A constructivist, phenomenological approach was implemented as it contributed to gleaning further understanding into the subjective experiences of the individuals who experienced the phenomenon of participation in DMT.

Eleven research participants were interviewed who met the following study criteria: (a) adult males over the age of 18, who had (b) participated in Dance Movement Therapy (DMT) for at least six sessions, (c) received a diagnosis of PTSD, and (d) who were not currently in an in-patient treatment status. The analysis of the participants' in-depth interviews resulted in the textural-structural descriptions exhibited in Appendix E. The following four main themes were identified: (a) coping with trauma, (b) evolution of initial treatment apprehension, (c) positive growth through challenge, and (d) advancing DMT accessibility. Eight subthemes, eight sub-subthemes, and two discrepant findings were also identified (see Figure 1).

This study was conducted with a vulnerable group of men reasonably expected to be coping with trauma-related symptoms. The participants represented several ethnicities and ranged in age from approximately 22-57 (see Table 2). The study findings evidenced that all 11 research participants expressed enthusiastic viewpoints towards their participation experiences with DMT. Additionally, each participant reported experiencing improvements in specific trauma-related symptoms during involvement with and following participation in DMT. The findings in this research support the recognition of DMT as a potentially beneficial stand-alone or integrative, somatic treatment option for adult males coping with trauma-related symptoms.

Following the experience of a traumatic event, individuals may experience deleterious symptoms leading to difficulties in day-to-day functioning. Inherent within the fabric of DMT is the act of expression through movement. This study substantiated the positive health benefits that creative movement may bestow for some individuals coping with trauma-related symptoms. Additionally, the study findings suggested that

DMT furnished a meaningful vehicle of hope for the male participants by (a) providing a beneficial coping strategy for existing trauma-related symptoms, and via (b) facilitating their personal navigation towards positive growth.

The findings of this research indicated a reduction in trauma-related symptoms as expressed by each of the 11 study participants. Reduction in symptomology associated with conditions of (a) depression, (b) anxiety, (c) hyper-arousal, and (d) hyper-vigilance were each disclosed by the participants in this study. Additionally, improvements in (a) socialization, (b) feelings of belongingness, and (c) overall quality of life were also reported by the participants.

Moreover, the study findings confirmed existing research demonstrating a progression from an initial uneasy experience with DMT towards a more beneficial and inspiring experience than what may have originally been perceived as attainable (ADTA, 2018). For example, a majority of the participants expressed experiencing a state of initial apprehension associated with their introduction to DMT. Additionally, an associated uneasiness with the early experiences associated with the DMT group was expressed by each of the participants in this study.

Nonetheless, the study findings supported an evolution of the initially-reported feelings of apprehension that advanced towards pervasive, positive attitudes connected with the participant's continued DMT involvement. For example, the participants each expressed replete, positive attitudes with regard to the ensuing overall DMT experience. Further, the perception of experiencing a beneficial treatment outcome related to DMT for the participants, ultimately prevailed.

The study results also offered insights into the importance of incorporating music into the DMT process. Music was often linked as a motivating aspect to participation in DMT. Additionally, the study findings indicated that the inclusion of the element of music within DMT promoted and encouraged an extended involvement in this somatic therapy.

In addition to facilitating expressive body movements, the study findings supported the inclusion of music as a substantive, isolated component of DMT. For example, music was associated with both (a) encouraging initial participation, and as (b) facilitating beneficial treatment outcomes for several participant's trauma-related symptoms. Music also seemed to inspire an inherent engagement in DMT that intrinsically communicated to a broad, culturally diverse group of individuals.

Individuals who may not benefit from traditional empirically supported clinical or pharmacological therapies, may show symptom improvement with the introduction of somatic therapies such as DMT or yoga. For example, Hurst et al., (2018) substantiated the difficulties that some individuals coping with trauma-related symptoms may experience with pharmacological treatment methods. The findings in this study aligned with the recommendations of Hurst et al., (2018) in that several participants echoed a strong conviction for the necessity of beneficial, non-pharmacological treatment options for managing their trauma-related symptoms. Increasing public and professional awareness of the treatment benefits of DMT may provide renewed hope to individuals specifically seeking non-pharmacological treatment choices for trauma-related symptoms.

The study findings offer a compact but important insight into addressing the gap in research related to the lived experiences of adult males coping with PTSD symptoms and their participation in DMT. Increasing clinical understanding and awareness of the beneficial health applications of DMT exhibits encouraging empirical advancement (ADTA, 2018). Though substantial peer-reviewed research exists in support of the beneficial physical and psychological healing aspects of DMT, nonetheless additional research is warranted. Strengthening empirical support surrounding the treatment benefits of DMT and broadening general public awareness of the applications of DMT may help extend the treatment advantages of DMT to a greater number of diverse individuals who may benefit from this therapy.

This study addressed the lived experiences of adult men coping with PTSD who have participated in DMT. The findings of this study offered texturally-rich insights into the experiences and beneficial treatment results of DMT for these individuals. Further, the themes surfacing from the analysis echoed the call for improved accessibility and additional effective treatment options for this population of trauma survivors.

The findings in this investigative study affirmed an awareness that participation in DMT conferred a reduction in trauma-related symptoms and provided positive growth through challenge for adult males coping with PTSD. Additional exploration into: (a) the homogenization of the application and standardized treatment delivery of DMT, enriched understanding into (b) the feasible paths for increasing DMT public recognition and ease of accessibility, and further robust (c) RCT's distinct to treatment outcome efficacy for specific, isolated health concerns are nonetheless necessary. Advancing empirical inquiry

that further elucidates both the modality and therapeutic benefits of DMT is recommended.

Furthering scientific understanding of DMT may eventually culminate in a broader interdisciplinary, clinical endorsement of DMT as an evidence-based stand-alone or integrative treatment option for PTSD symptoms. Additionally, increasing awareness among mental health practitioners, consultants, and educators may facilitate expansion and ubiquitous provision for DMT. Thus, bestowing the therapeutic benefits of DMT to an expanded, more culturally-diverse group of individuals striving for hope and positive growth through trauma.

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Appendix A: Email to California Board Certified Dance Movement Therapists

RE: Participants Needed for Doctoral Research Study

Dance Movement Therapy:
Exploring the Lived Experiences of Adult Male Trauma Survivors

Dear BC-DMT,

Hello, my name is Jeanne Langston. I am a doctoral candidate in counseling psychology at Walden University and seek your help in locating participants for my dissertation study, Dance Movement Therapy: Exploring the Lived Experiences of Adult Male Trauma Survivors.

My dissertation research is a qualitative phenomenological study that will investigate the lived experiences of male trauma survivors who have participated in a Dance Movement Therapy group. To assist in recruiting 10-15 research participants who meet the study criteria, 87 California Board Certified Dance Movement Therapists (BC-DMTs) as listed with the American Dance Movement Therapy Association (ADTA) will be contacted.

The purpose of the study will build on the limited empirical research related to understanding the beliefs, attitudes, and meaning of the lived experiences of adult male trauma survivors who have participated in a DMT group. By gaining understanding of the individual meaning of the participants, this study will add to the existing knowledge and offer broader insights into the helping mechanisms of DMT for male trauma survivors.

The research will be conducted via confidential telephone interviews and will last approximately 30-50 minutes. The study participants will choose a pseudonym to protect their individual privacy. To achieve texturally rich data, the semistructured interview questions will be open-ended in nature, for example: What led to your choice to participate in a DMT group?

A recruitment flyer for the study is attached to this email. The flyer may be reproduced, posted, or emailed to individuals interested in participating in this study or to anyone who may know someone interested in participating in this study. Upon completion of the study, the participants will be emailed a $25.00 Amazon gift card. Please feel free to contact me (or my University committee chair, Dr. Ruth Crocker with any questions you may have. This research has been approved by Walden University's Institutional Review Board (IRB) Approval Number: 02-17-17-0163229

With Appreciation,

Jeanne Langston

Appendix B: Follow-Up Email to ADTA Dance Movement Therapists

RE: Male DMT Participants Wanted • Doctoral Research Study

Dance Movement Therapy:
Exploring the Lived Experiences of Adult Male Trauma Survivors

Hello Dance Movement Therapist,

My name is Jeanne Langston. I am a doctoral candidate in counseling psychology and am reaching out for your help in locating participants for my dissertation study, Dance Movement Therapy: Exploring the Lived Experiences of Adult Male Trauma Survivors.

Your assistance is needed solely to circulate the attached recruitment flyer. The flyer may be reproduced, posted, or emailed depending on your choice.

American Dance Movement Therapy Association (ADTA) Registered and Board-Certified Dance Movement Therapists are being notified for support with flyer distribution.

The study is a qualitative phenomenological investigation. The purpose of the study builds on the limited empirical research related to understanding the beliefs, attitudes, and meaning of the lived experiences of adult male trauma survivors who have participated in a DMT group. This study will add to the existing knowledge and offer broader insights into the helping mechanisms of DMT for male trauma survivors.

The research is being conducted via brief 30-50-minute confidential telephone interviews. Study participants will choose a pseudonym to protect their individual privacy. The semistructured interview questions are open-ended in nature, for example: What led to your choice to participate in a DMT group?

Please feel free to contact me or my University committee chair, Dr. Ruth Crocker with any questions you may have. This research has been approved by Walden University's Institutional Review Board (IRB) Approval Number: 02-17-17-0163229.

With Appreciation,

Jeanne Langston

Appendix C: Recruitment Flyer

MEN Wanted

For a Study Investigating The Lived Experiences of Men Who Have Participated in a Dance Movement Therapy (DMT) Group

Seeking Men over 18 who:

- Have participated in DMT for 6 or more sessions
- Have received a PTSD diagnosis
- Are not currently in an "in-patient" status

Participation is completely voluntary and confidential
Private interviews will be conducted via telephone

Interested individuals please contact: Jeanne Langston at [redacted]

$30 Amazon gift card provided upon completion of study

Walden University's Institutional Review Board (IRB) has approved this study
IRB Approval Number: 02-17-17-0163229

Appendix D: Study Participation Guide and Semistructured Interview Questions

Participation Questions Ensuring Study Criteria are Met

1. Are you an adult male over the age of 18?
2. Have you participated in Dance Movement Therapy for at least six sessions?
3. Have you received a diagnosed of PTSD?
4. Are you currently in an out-patient treatment status for your PTSD?

Review of Participant Informed Consent Form

1. Background of the Study including Purpose of the Study
2. Voluntary Nature of the Study
3. Privacy and Confidentiality
4. Compensation of $30.00 Amazon Gift Card following interview.

Semistructured Interview Questions

The following questions were used to guide the in-depth interviews.

1. What led to your choice to participate in a DMT group?
2. In your own way, how would you describe your experience with participating in your DMT group?
3. How would you describe your personal life before participating in the group?

   a. During participation, and
   b. after participating in a DMT group?
4. How do you describe the feelings that might come up for you when you think about participation in your DMT group?
5. Is there anything about locating or deciding to participate in a DMT group that could make the process of participation more accessible?
6. Is there anything else you would like to mention as part of your experience with participating in DMT?

The interviews closed by: (a) thanking the participant for their time; (b) informing the participants of the opportunity to review a synopsis of the description of their story based on their interviews; (c) reminding the participants of the $30.00 token of appreciation that will be sent via e-mail; and by (d) offering the study participants the opportunity to receive a 1 to 2-page summary of the results of the study when completed.

Appendix E: Textural-Structural Descriptions

Participant 1: Andrew

Andrew is a college graduate in his mid-fifties who described himself as a father of two and an ex professional athlete. In addition to having experienced physical and emotional trauma, Andrew frequently described himself as someone who likes a challenge in his life. He described the phenomenon of participating in DMT as challenging and as a positive learning experience. Andrew's interview responses were stated directly, concisely, and with a sense of strength and conviction. In relationship to his experiences with DMT he offered "It just made me, you know, it makes me feel good, made me feel like I was doing something positive, positive goal orientated just like going to the gym, you're doing something that's healthy and everything and when you leave the place it's great, its challenging to me, I enjoy it . . . so [long pause] that's it."

Andrew also shared his conviction for including positive experiences in his life and conveyed that DMT aligned with his personal values remarking "Well like I said it's just, it's another positive in my life. It's another good habit in my life, uhh yep, doing something that is positive. Further, he related his appreciation for DMT as it met his need to keep active in a group, remain challenged, and stay focused. "It's filling a void as far as keeping me busy like going to the gym and doing something, that's productive and goal orientated . . . it's just the feelings are that I'm, basically looking forward to things or looking forward to doing it as far as its, challenging me, it's challenging me to learn new things, and learn how to be involved with a group, you know."

Participant 2: Babe Ruthan

Mr. Ruthan described his earlier life career as a professional concert dancer. Babe Ruthan is estimated to be between 40 and 50 years. His interview was characterized by an underlying sense of passion and centered sense of expression in his voice. He explained his trauma related to his diagnosis with Acquired Immune Deficiency Syndrome (AIDS) in 1984 and he spoke to the resulting pain that occurred from contracting neuropathy that he associated with his prescription medication. He recounted his experience with DMT as positive overall, as providing him with acceptance of himself, and as integrated wholly with life. He expressed "I think [DMT] helped, it's more holistic it's you know it's not necessarily about the pain . . . because it's caused you to get in touch with yourself, it's a wonderful experience, it's something that parlayed into every aspect of my life."

Mr. Ruthan further conveyed his enthusiasm for the positive feelings of forgiveness that he experienced with DMT stating "[P]eople get so caught up in emotions and let emotions build up that you regret it and it teaches you forgiveness, not for the other person but for yourself." Additionally, he described his positive evolution with his DMT experiences sharing "I started to [to] see that I had something inside . . . that needed to be revealed so to speak . . . that I can express it, I can release it and leave it where it is and walk away as another person."

Participant 3: Allen

Allen's interview was infused with several fervent examples that reflected his belief in the social need for DMT to reach a much broader population. Allen is a 33-year-old business man who was diagnosed with PTSD. He suffered from PTSD related symptoms and researches resourcefully in attempt to take his health into his own hands. He spoke in a sincere, connected tone, with a detectable American Southern dialect expressing his concerns over ineffective PTSD treatments and the tendency for some health providers to focus only on prescribed medications in treatment. "Yes, yes, there's man, so [much] ways to improve that, if it was not for me doing my own research and it wasn't the first topic that popped up on Google, I had to dig through some pages to find this option. There is not . . . hey, there's a lot of doctors out there who's got ad's out there that will help you with PTSD with medication, but as far as trying to find out, if there's something else, besides medication, that's a hard push . . . they can do [a lot better things] they really can, you just name it."

Allen discussed his own curiosity to seek out alternative treatment options as what initially led him to experience DMT. He related ". . .trying to find any type of therapy for it, it's, there's not a lot of options on the table, so I encourage all the research you do [on this topic] man we need more research studies in the different, different fields of just prescribing prescriptions". Throughout his interview he reiterated his desire to research his personal treatment options and to avoid prescription medication for his PTSD symptoms. Allen conveyed ". . . I'm not your average participant, I'm not the one that the doctors just give prescriptions 'here take this sit at home, see if it works for you'. [Emphatic Emphasis] No. No, I've been taught there's more options out there than just

what you've been told . . . ['cause] if you got the time to sit at home, doped up your head because you [was] prescribed so much medication, your mind wanders, that's a dangerous thing."

Participant 4: Randy

Randy described his experience of living with trauma, as related to an injury of both of his legs. He explained the trauma as what led him to seek alternative treatment and eventually discover DMT. Randy is estimated to be between 38 and 48 years. He also described how the support of his family encouraged him to continue DMT after his initial apprehension about DMT. “Also, I had family members, [they kinda] pushed me to keep with it and see if it helps and see if it works and, and I'm glad they did. You know, at first, I was apprehensive and at the end, I was glad I did it”. His interview responses continually reflected a genuine interest in the purpose and outcome of this study and a hope to help others. He recounted his initial apprehension with DMT and eventual comfort with the group as “. . . you know anxiety and stuff goes along with that too, and I mean with the dance group, I mean at first, I didn't want to, I wasn't interested, but I believe it's, it really is the group. The group effort in the people with you umm really . . . make it work. I believe that if the fellow members in the group, if they're extraordinary people, they can really help the other members in the group out.”

In reflecting about the experience after he had participated in DMT Randy introspectively questioned “. . . I have pleasant feelings, when I think about it now, yeah, I mean I say they were pleasant, ['cause] I'm glad I did it. I'm glad I, participated and I'm glad I put in an effort, I do feel like it helped so I'm glad I did it when I think about it?” His experience also reflected his emphatic opinion on the general difficulty with the level of accessibility for DMT by stating: “Awareness. Okay, just one-word awareness, ['cause] just many people don't even know . . . they don't know anything about it, they don't know it exists. I mean if people have PTSD or some kind of trauma, you know

everybody[will] just take medication for it, you know, that's just the way . . . so people don't really realize that there are alternatives that can help people. So, awareness."

Participant 5: JR

JR's interview was the shortest interview lasting only seven minutes. His interview was distinguished by precise, succinct answers to the interview questions and with minimal commentary. Through the context and tone of the interview, I estimated JR to be between 40 and 50 years old. He described a car accident as the source of his trauma and as what led him to his DMT participation. ". . . what led me to participate? Well, I had a car accident back in 2000 and, it was really traumatic, what happened . . . it affected my life". He also related his positive experience outcome with movement within the group ". . . yeah its, moving, it takes me from the norm, and it makes me not think about it so much."

Further, JR explained his perception of improvement with his mood and personal life after his participation in DMT. "Before, before, I was really depressed and as I started . . .then I went on, and . . . I started participating and it made my life [long pause] easier. He reiterated his positive feelings with DMT with the effect on his life ". . . after participating, it makes me evaluate my life, more as a whole" and "I think [the group] takes everybody's mind to another level and it changes your life, it lets you be free for the time that you're doing it [and after]" Finally, JR felt strongly that the individual person is responsible for locating a treatment method or DMT group remarking "I think it's the individual, you know it's, it's each person has his own agenda, and [his own] way of solving the problem of locating help."

Participant 6: Jerlapty Martflopper Hendricks-Scottington

Jerlapty's interview was infused with a sense of enthusiasm, humour, and a fluidity with vocabulary. Throughout his interview, Jerlapty illustrated his fondness for creative pursuits, unique experiences, appreciation for social involvement, and an interest in self-improvement. He holds an advanced degree, with an age range estimated between 23 and 33 years old. Jerlapty detailed his introduction to DMT in this way: "I would say that is twofold. One side, [was] I have since, maybe for the last 5 years since college, been involved in meditation, and I kind of stumbled upon that and discovered that it had a compounding and beneficial effect on my life and had found that dance movement has a similar effect to meditating every morning. I suppose the way I find most things, is that a friend recommended it to me [he said] 'would you like to come to this group in two hours?' . . . and I said, 'I have no idea what this is', but he is the sort of friend that whenever he suggests something, I am happy to oblige because he takes me to such great adventures, so ultimately, I stuck with it."

Jerlapty also related his initial apprehension with DMT stating: "Well [pause] it was somewhat uncomfortable at the beginning, simply because it was a new culture and it was an entirely silent group, so no speaking during it, so that was somewhat uncomfortable at the beginning, I had to get over that initial hump.". He went on to clearly describe his evolution to a level of comfort with: "I made friends after [the] group, afterward, you know people hang out afterwards and talked, so I was able to make friends then, and then kinda felt a lot more comfortable with it. So, now I have good friends from this group, I tend to go, kind of when I feel as though I could use a kind of a mental relax

. . . I guess it's also great because I find that community, in specific, is one of the most [pause] what's the term, kind of unconditionally supportive groups that I know of."

Jerlapty also described the positive aspects of DMT on his social life as: "Here's how I'll parse that. Mostly, I'd say that the group has changed much of my social life, so, I've made friends through it, so that has had a pretty sizeable impact between before and after, while participating in it". Further, Jerlapty explained his conviction to continue with the group even when feelings of uncomfortableness arose. "There are times, like with any new activity or any challenging activity, there are times that are very difficult and stressful during it and yet they're also far more [times] when I feel like I'm in the flow, when I can just lose myself, and you know really engage and enjoy the dance . . . it's cleansing and relaxing and pleasing and comforting, you know, I think those would be good words [to describe it.]."

Participant 7: Peat

Peat's interview was characterized by repeated reflective contemplations, frequent long pauses, and a general unhurried nature. Peat's interview was the longest interview lasting 49 minutes. His curiosity was evident at the beginning of the interview as he asked several questions related to the purpose of the study and as to my background. He also asked for clarifications of the questions, during the interview, more so than any other participant. His tone seemed to reflect his genuine interest in this research. When asked what led him to DMT he responded: "[long pause] and I guess, I guess, I actually, I can back up a little bit, if you don't mind, if you don't mind, my answer being a little bit long."

Peat went on to describe his love for dance since childhood: "I actually, the first, I, I used to dance as a child, a lot kind of just by myself. No one else really wanted to wanted dance in my family . . . and I would have dance contests, but I would be the only one that would join them [laughter]". Peat's contact with people and his experience with Acroyoga seemed to be a motivator for him towards participating in this therapy as he expressed: ". . . and then, as I got older, from what I can recall, there's a kind of a big gap in, well I always was into dancing at parties and stuff, but . . . I think that kind of dance that I got into the last few years, last couple years, there's more, umm, contact and interaction with other people. . . and I got into Acroyoga, and that was like one of the first things that I was into that had like contact between people."

He was consistently apologetic for his contemplative responses and expressed challenges at one point in his thoughts when he stated: "[long pause] umm [long pause] hmmm? [laughter] Sorry, uhh, it takes me awhile to think . . . [long pause] it's, it's

challenging, sometimes uhh and, but I think, especially with certain people that I really get along with . . . umm it's really wonderful and [and] umm rewarding and fun and I like the cuddly aspects of it. But he went on to explain the feelings that arose with DMT: ". . . it makes me feel accepted and warm. Hmm, mmm."

Peat's experiences with symptoms of depression, anxiety, and some substance addictions also led him to participation in DMT. He explained that dance may have helped ease these symptoms by ". . . and I'm not trying to imply that, that, that [laughter] that [DMT] necessarily fixed it but . . . I feel like it does happen to line up with when I got more involved in it, dance". His apprehension with DMT is highlighted by his statement: "Okay [breath] [long pause] during dance, I mean there's, there's some dance groups where I feel, certain dances where maybe I don't know people as well, where I feel a little bit disconnected . . . to people there's a little bit of, like maybe worried or like internal mental kind of problem solving of I'm trying to figure out how can I connect with people better."

Finally, Peat expressed his positive outcome with DMT with several statements including: "Afterwards, I feel glowing and warm and present, umm, umm well I guess oxytocin". He also described an apparent feeling of euphoria with: "[pause] hmmm, excitement, [pause] umm [pause] bliss, umm child, childlike, I guess, yeah". One of Peat's concerns was the affordability aspects of DMT as evident by his statement: "I think that, umm, I think that like having a sliding scale or where it was relatively inexpensive or even the option of being free, I think is nice". Similar to several participants, his initial introduction to DMT occurred via word-of-mouth. "Umm, personally, I just found out through word-of-mouth, through my friends."

Lastly, Peat showed an appreciation for the beneficial ‘touch’ aspect of DMT stating: “I think that one of the most important things is to be able to touch other people and be touched, and umm, [long pause] umm, yeah, I think that for a lot of people who don't get touched or the contact or connection with other people, they don't really know where to find it and I think, and for me, I probably thought that, like the, the only way I can think of was like trying to find a sexual partner . . . and that can be kind of frustrating and unfulfilling I think . . . and I think . . . it's like not to roll that out, but I think that umm getting a little bit more like a little bit, what am I trying to say, umm, less intense touch, but just like gentle and playful and stuff is really, helpful, and important.” Peat concluded with: “Umm it brings awareness and good feeling energy into my body, yeah, umm and yeah I just feel good. . . and it keeps it's, it kind of puts the awareness, out of thinking and into just feeling and into my body and into my senses.”

Participant 8: Willem Hoefstra

Mr. Hoefstra is self-employed in a populated metropolitan area and in approximately his mid-twenties. He described himself with post graduate education from an Ivy League setting. His interview was characterized by frequent pauses, hesitations, low vocal volume, circular loops in conversational style, and at times lively laughter. He recounted his experiences with DMT comprehensively. “Yeah, but then during my experiences, uhh you know there was, I think I broke through those, umm presumptions that I've had, you know because of the collaborative and uhh, almost it’s a ... the family nature of the group, and you know [group] really helped, me, it helped uhh reconcile umm you know how I think about uhh woman and you know my sisters and uhh dance, and life. You know because we'd interact you know and talk and hang out . . . [Long pause throat clears] Well [inhale] umm, I find [throat clears] uhh, I find ballet very [negatative]. . . but [DMT] is very calming and [long sigh] and attention focusing. Mr. Hoefstra also related that the phenomenon of DMT felt calming to him “so it's a little bit of the physical aspects that are there also, of course, attention, practice, uhh, it feels like uhh, the attention and focus are certainly very strongly exercised in the group and that is umm [long pause] calming to me.”

Mr. Hoefstra related his experience with his initial introduction to DMT . . . “it's curious, I uhh, I enjoyed, before I started in my group, I enjoyed free movement groups while there was music playing, to help with the stress I was feeling, you know in my life, [muffled speech] you know music playing, and there was one occasion said that the drummer said that that I had very good, the drummer, what did he say ... the drummer said I had good rhythm, and so I took that as a sign that I might be able to do something

more [long pause followed by slight laughter] and so I looked for a program and started then."

He also shared an event that occurred in his life that as a result often placed him in an uncomfortable position with females in his current life. He then described how the experience of DMT helped to positively amend some of his issues. ". . . you know it was very, you know, and in normal society, you know, it often feels like there is a pretext between the sexes, but in group that, uhh, that to my surprise, you know, that bar was severely dropped . . . being able to interact you know with everybody in the group, in a very open and honest way, umm to you know, where you appreciate each other for, you know who you are, umm you know that was very restorative, to you know, to my sense of self, and sense of relationship with other people."

Participant 9: Carl Bonobo Weathers

Carl's interview reflected his curiosity about the research and his love for dance and music. His experiences with DMT were described articulately. Carl's age range is estimated to be between 24-34. Carl described his trauma struggles resulting in social anxiety and depression symptoms and his alleviation when finding a DMT group where alcohol was not combined with dance. In seeking out his DMT group he explained: "Well, I guess I was looking for sort of a social activity, to do in my local area and I'm someone who loves music and dancing just in my own regular, as they say life, and I found that most of the actual, like venues that, you know cater towards the dancing crowd, tended to be also coupled with a lot of alcohol consumption, and that's been something that, uhh I've been trying to avoid lately."

Carl further described his appreciation for the feelings of belonging he receives and the non-verbal aspects of communication that occur during his group: ". . . and I discovered this dance group, that more focuses on like human connection, and a non-verbal communication through dance, and I found that incredibly refreshing and you know sort of my first time going there I felt super welcome, and it's this real community of support". In relating his struggles, he enthusiastically related several beneficial aspects he gained through DMT: "Yeah! Yeah, I would say it's an environment where I feel very comfortable being myself, and in the past I've, I've gone through struggled a lot with social anxiety and depression, especially in situations where you're maybe in a group setting and you have to talk to strangers, so I found it great to be in a place where the communication is just based on body movements and there is no real right or wrong way

to do things and everyone is just very embracing of whatever style you happen to be emulating."

Carl went on to express his positive perceptions of DMT with: "It's definitely made me a lot more sharper, more active, and umm I'm someone who really sees dance and music as this healing force . . . the feelings I would say, are feelings of a mild euphoria and just a joy of participating in this social experience, I definitely feel lively and focused, in the moment, and I'm much more aware of the position of my body and all its twist and turns, way more than when I'm just at work or uhh anywhere else."

Carl discovered his DMT group through word-of-mouth and related hid suggestion for better promotion of DMT by: Well, I mean, I discovered the group essentially through word of mouth, so I guess, I could say that the group could do a better job of promoting itself. Though he also felt a cautious awareness for the facilitators of DMT by expressing: "but I realize that is sort of a two-sided coin, because there are limitations set in place by the [venues] and how many people they can actually accommodate, so I understand that they might not want to just widely disperse the existence of [DMT] and it might just attract to many 'lookie lu' people who aren't really interested in the therapeutic aspects of the dance."

Additionally, Carl offered a suggestion for a fee-free option to appeal to a broader population with: "Well, so one, one kind of, I guess you could call it a slight barrier, or stop gap, is the dance movement group that I take place in does have a, a weekly fee attached, so it's a $20 fee and that could be, I understand a prohibitive expenditure for some people, uhh where they think, 'Uhh I mean I don't really know if I can make this a regular part of my week, if it's going to cost me $20 each time?' So, I you know, ideally

this would be the kind of place where it's just an open environment and there is no real exchange of funds required. But, uhh I do appreciate the effort that the [faciliatators] put into it and I do understand that uhh my money does go somewhere."

Lastly, in relating his experiences and the positive social benefits Carl felt he gained from participating in DMT he offered: "I mean, I guess I really appreciate how a lot of the relationships that I've formed in the group have you know carried over into non-dancing settings, like I've met people there that I actually enjoy hanging out with. So, you know especially for someone like me, it's a great way of uhh going through that social introduction in a, in a way in which you actually see the whole passionate side of someone, expressed through dance. . . uhh rather than say meeting someone at a bar or a networking event or what have you."

Participant 10: Jim Ricks

Jim Ricks' interview was succinct and direct. Jim Ricks is estimated to be between 40 and 50 years old. Jim's experience with DMT seemed to focus primarily on the physical and novel benefits of the therapy. When asked what led him to participate, he responded: ". . . it was basically for . . . something, something different to do in my life to do outside of sitting around on the couch all day. . . and I found it interesting". He steered away from discussing his trauma and focused his responses more on his experience with the beneficial outcome of the therapy expressing: "let's see, it was, it made me move in ways that I didn't think I could anymore, it definitely helped make me a little more flexible, if that makes any sense, and just the general exercise I got out of it I liked."

Jim also described his beneficial transition from idleness to motivation with participating in DMT as: "Well before, it was again I wasn't doing anything, I was just coming home from work and then just kind of being a vegetable on a couch and laying around. So, the dance [group] motivated me to get up off my butt and start doing some exercise and another way of relieving stress from my normal job". Further he went on to describe how DMT was beneficial to his stress, energy levels, and home life by offering: " [DMT] helped out a lot and then after . . . having actually more energy and not being so [stressed] . . . it helped me with stress relieving too, it help at home too, because I wasn't so quick to get upset about things, because . . . I was able to relieve a lot of stress during the dance [group]."

Though he had some hesitation at first, relating the feelings that came up for him when he thought about the DMT group he eventually responded with: "I would just say,

it would be a just the feeling of being able . . .to do more things, to do more things. I don't know if that makes any sense. It just the feeling of making me feel good about myself, I guess is the way to put it". Then, relating his evolution to his comfort level with the group he expressed: "It helped in [makin'] myself more confident, because there was a time when I wouldn't even think about doing dancing or anything like that, but it has built up my confidence level, to be more adventurous, to do other things." Further, he emphasized the need for more availability for DMT and the need for more locations this way: "You know location is always a big issue for me. You know, having to travel from where I live to, to where I was doing, the DMT . . . was kind of, what do you call it, kind of a pain, for lack of a better word, so location, and more places to open for DMT and stuff like that would benefit me". Finally, his enthusiasm for the eventual benefits of DMT resurfaced in the interview when he expressed his evolution from hesitance to comfort with: "Just to, just to, do it. I mean, I was hesitant about going into it and now, I regretted not doing it sooner, so because it's a lot of fun, or it is a lot of fun . . . and so if I had any advice to offer anybody that' wanted to do something like that, it's just, don't think about, don't think about now it's kind of silly or anything, you'll enjoy it, just get out there and do it!".

Participant 11: Basheer

Basheer identified as a British citizen and was the only non-American participant in the study. Basheer's estimated age is early-twenties to early thirties. Basheer related his experiences in a soft-spoken tone, with a slow and thoughtful pace. He also recounted pervasive self-esteem challenges related to his trauma, throughout his childhood and young adult life. During the interview he expressed: "Well, I guess that it was that I was going to counselling for the trauma and for my stress and self- esteem problems . . . but I wanted to say that I had self-esteem problems before my trauma experience and afterwards I was very shy around people, umm and not talking much at all to other people." He expressed his initial reservations about trying DMT this way. "So, my counsellor is the one that first suggested the Dance Therapy group and I was hesitant, but also, really my Mum also thought it would be a good idea . . . and she supported me going into the group for therapy."

His eventual experience with DMT was generally expressed as positive ". . . well let's see really, I'm thinking it is helpful for me to do [DMT] and it makes me feel like I belong more. I experienced self-esteem problems, I always have, and didn't feel like I was normal or like others and after, I feel better afterwards, like I have a group". Further, Basheer clearly described how DMT had positively impacted his social life. "I guess I was feeling isolated and nervous and felt stress in my life and didn't like to get out at all after the event . . . I'm thinking it is helpful for me to do this and it makes me feel like I belong more, [because] during it and after participating I do feel [long pause] stronger, more self-assured and better about myself and it helps me to . . . I'd say basically get along better and easier with others in my life."