Merging the mind and body: A bibliographic review of Embodiment as an integrative approach with Prolonged Exposure and Cognitive Processing Therapy working with Combat-Related Posttraumatic Stress Disorder

Asha L. Holden

A Research Paper

in

The Department

of

Creative Arts Therapies

Presented in Partial Fulfillment of the Requirements

for the Degree of Master of Arts

Concordia University

Montreal, Quebec, Canada

April 2017

CONCORDIA UNIVERSITY

School of Graduate Studies

This research paper prepared

By: Asha L. Holden

Entitled: Merging the mind and body: A bibliographic review of Embodiment as an integrative approach with Prolonged Exposure and Cognitive Processing Therapy working with Combat-Related Posttraumatic Stress Disorder

and submitted in partial fulfilment of the requirements for the degree of

Master of Arts (Creative Arts Therapies; Drama Therapy Option)

complies with the regulations of the University and meets the accepted standards with respect to originality and quality as approved by the research advisor.

Research Advisor:

Bonnie Harnden, MA, RDT

Department Chair:

Yehudit Silverman, MA, R-DMT, RDT

April 2017

Abstract

Merging the mind and body: A bibliographic review of Embodiment as an integrative approach with Prolonged Exposure and Cognitive Processing Therapy working with Combat-Related Posttraumatic Stress Disorder

Asha L. Holden

The aim of this bibliographic research is to study embodying techniques and the U.S. Department of Veterans' Affairs (VA)-approved Cognitive Behavioral Therapies (CBTs)—Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT)—in relation to working with U.S. Veterans experiencing symptoms of combat-related Post-Traumatic Stress Disorder (PTSD). The review of embodiment and CBT can help open doors to exploring a therapeutic approach that connects the mind and body when working with PTSD symptoms. This study was inspired by the growing number U.S. Veterans struggling with combat-related PTSD and seeking help from the VA. Literature has shown that while PE and CPT are supported by the VA, they have low participation and/or high attrition rates. Current discussions in U.S. legislation have begun to explore the benefits of the Creative Arts Therapies (CATs) as Complementary and Alternative Medicines (CAMs) when working with U.S. Veterans (Americans for the Arts, AFTA, 2017). A thorough investigation of the literature found that embodiment: fosters reconnection with the body, improves life satisfaction and symptom reduction, and bypasses Alexithymia. More research is needed to determine the specific ways embodiment can be incorporated in PE and/or CPT practices to encourage post-traumatic growth for U.S. Veterans and Service Members.

Acknowledgements

God has blessed me to be able to see this day and write this paper, so to Him I, first and foremost, want to give thanks.

To my parents, John and Alexis

Thank you for being the guiding lights in my life. You both have influenced me in so many ways and I will be forever grateful for have two wonderful examples of what it means to be an amazing person.

To my husband, Quentin

I did it!!! If it was not for your love, understanding and PLENTY of encouragement, this paper [as in my computer] may have ended up in the bottom of a trash bin. My love, words escape me when I think of what our wonderful lives together will bring. I'm impatient to see it all with you.

To my wonderful, Alabama Shakes loving, co-therapist, Stephanie

Words cannot explain how blessed and thankful I am for the ways you have influenced me and supported me through some of the darkest days of my life. Thank you for being who you are and always allowing me to be who I am. Forever your co-therapist.

To my cohort,

We may be far apart, but you are always in my heart! I miss seeing your smiling faces and cannot wait for the day when we are all reunited under one roof. Thank you for the support you showed me during our program. I learned so much about myself and the way I view the world by being in your presence and watching you through your academic journeys. I wish you all the best, with all my love.

To my future clients,

I endeavor to be of service to you in any way I can. I hope that my efforts will serve as proof that you are not alone in this world and there is always someone willing to listen and lend a helping hand.

Table of Contents

List of Tables

List of Figures

"Creative expression… [is] essential to maintaining emotional, intellectual, and physical balance, which, when present, is an indicator of health."

- *CDR Moira McGuire, NC, USPHS*
  Walter Reed National Military Center

Chapter 1. Introduction

The horrific terrorist attacks of September 11, 2001 (9/11), on the soils of the United States of America killed close to 3000 people (Response to 9/11: The war on terror., n.d.). The Islamist group called al-Qaeda (which means "the base") and its leader, Osama bin Laden, were later identified as responsible for the attacks. The United States (U.S.), along with North Atlantic Treaty Organization (NATO) allies, immediately went to war against al-Qaeda and other terrorist groups, later expanding the war to include Saddam Hussein and Iraq (Response to 9/11: The war on terror., n.d.). These campaigns were titled Operation Enduring Freedom /Operation Iraqi Freedom (OEF/OIF). The 9/11 attacks have resulted in16 years of America's involvement in more military campaigns against global terrorism (Response to 9/11: The war on terror., n.d.). Since that time, Veterans returning to the U.S. from just the OEF/OIF campaigns, alone, are returning with a high prevalence of mental health issues such as posttraumatic stress disorder (PTSD), depression, substance abuse disorders, and secondary results of traumatic brain injury (TBI; Twamley et al., 2013). For these reasons, we have seen an increase in veterans seeking care from the Department of Veterans Health Administration (VHA), an administration within the U.S. Department of Veterans' Affairs' (VA) health care system (Twamley et al., 2013). This does not include the number of veterans from previous wars still seeking care from the VA.

In a study conducted by Hermes, Rosenheck, Desai, and Fontana (2012), it was found that the number of veterans accessing mental health care through the VHA from 1997 to 2010 had increased by 117.6%, resulting in an additional 623,326 people seeking access to care. The number of veterans diagnosed with PTSD had increased by 249.4%, also adding 346,781 people to the list of diagnosed veterans. Although returning OEF/OIF veterans significantly added to

the number of veterans diagnosed with a mental disorder, the bulk of veterans seeking care from the VA remains with Vietnam veterans. These results show an overall increase in workload for the VHA, as well as a steady increase in program budgets and funding (Hermes et al., 2012). With this increase in workload, the question to explore is: How can Drama Therapists aid in delivering the services needed to help military personnel returning from war with mental healthcare needs? This paper aims to illustrate a framework that can be used to understand the implications for working with the members of Military population who experience symptoms of PTSD by using Cognitive Behavioral Psychotherapy (CBT) and Drama Therapy. This connection between the mind and the body has the potential to create a more well-rounded treatment plan for addressing trauma. However, it is helpful to understand where the argument of the mind versus the body stems from.

What is the problem?

Philosophy of mind is a field of study in which scholars seek to understand the nature of the mind (Heil, 2012). One of the areas often addressed in the philosophy of mind is the distinction between the mind and body. This encompasses a long-standing argument often referred to as the mind-body problem (Burwood, 2003; Lagerlund, 2007; Skirry, n.d.; Young, 1990). The mind-body problem houses the debate of whether the mind and body are two separate entities or whether they are indistinguishable from one another. When discussing the mind-body problem, literature often refers to René Descartes as the father of Cartesian thought—also referred to as dualism—which believes that the mind and body are separate entities (Burwood, 2003; Lagerlund, 2007).

Yet, many philosophers disagreed with this view, taking a monism stance, which counters that the mind and body are inseparable (Grankvist, Kajonius, & Persson, 2016).

However, monism consists of three variations of the theory: physicalism, idealism, and neutral monism (Grankvist, Kajonius, & Persson, 2016). In their review of the three types of monism, Grankvist, Kajonius, and Persson (2016) stated that,

> Some monists, who support materialism, also known as physicalism, posit the universe consists only of physical things. Other monists, who support idealism, posit that the universe consists only of non-physical things...Still other monists, the neutral monists, argue that physical and non-physical are descriptions that refer to the same thing, although in two different ways. By this, they mean that the physical and non-physical are merely aspects of the same thing. (p. 126)

Without going too far in depth on the specifics of dualism and monism, the overall difference in opinion that each of these thought classes is seeking to understand is the mind's mental processes such as thoughts, feelings, perceptions, etc. and how they affect or if they can affect the body. When referring to the mind, the discussion of consciousness is generally brought to the surface (Burwood, 2003; Fieser, 2008; Gennaro, n.d.; Samsonovich & Nadel, 2005).

For decades, theories and studies have addressed the connection between trauma and how it affects the mind and body (Darwin, 1998; Levine, 2010; van der Kolk, 2014). These theories sought to determine the location of trauma in the body to create a more effective form of treating mental health issues. In *The Expression of Emotions in Man and Animals*, Darwin (1998) explores the foundations of emotional life. He made connections between humans' mammalian instinctual response to danger and the instincts of animals. van der Kolk (2014) summarized Darwin's work, saying "…the fundamental purpose of emotions is to initiate movement that will restore the organism to safety and physical equilibrium… If an organism is stuck in survival

mode, its energies are focused on fighting off unseen enemies, which leaves no room for nurture, care, and love" (pp. 75-76). In her two-part paper, Bridging the Black Hole of Trauma: The Evolutionary Significance of the Arts, Bloom (2011) stated, "The victim experiences and remembers the trauma in nonverbal, visual, auditory, kinesthetic, visceral, and feeling ways, but is not able to 'think' about it or process the experience in any way" (p. 76). These findings open the door for researchers to explore the connection of the mind and the body when considering the treatment of PTSD symptoms experienced by U.S. Veterans.

Methodology

For this study, I used a bibliographic research approach; per the Art Therapy & Drama Therapy Research Handbook, "the purpose of this type of research is to organize and structure, as yet, non-synthesized areas of study, and to identify topics in need of future clarification" (Department of Creative Arts Therapies, 2015, p. 7). This approach closely mirrors the method of *research synthesis*, but does not focus specifically on quantitative studies as is often the case with research synthesis (Cooper & Hedges, 2009). Research synthesists have been referred to as "bricklayers and hodcarriers of the science guild" (Cooper & Hedges, 2009, p. 4). The researcher is the bricklayer that fits the pieces of studies together in ways that are not easily identifiable when looked at separately, but when put together, they fit to form a bigger picture. I had not found information that specifically referenced embodiment and Drama Therapy—as a therapeutic approach—in conjunction with CBT and its use with U.S. Veterans that have been diagnosed with PTSD. My research sought to clarify ways in which embodying, drama therapeutic techniques and CBT could be viewed together to create dialogue on ways to strengthen the current approaches to treating PTSD.

Research Questions

My research question is as follows:

- How can an examination of the literature on Embodiment—a Drama Therapy core process—and VA-approved Evidence-Based Psychotherapies, Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT), facilitate an integrated approach when working with United States Veterans and/or Military Personnel experiencing symptoms of Combat-Related Post-Traumatic Stress Disorder?

Taxonomy of Literature Reviews

I utilized a combination of Cooper's Taxonomy of Literature Reviews (Cooper & Hedges, 2009) and Randolph's (2009) phenomenological approach to literature reviews as foundations for my study. These methods seemed appropriate given that bibliographic research is essentially an extensive literature review.

Using Cooper and Hedges (2009) taxonomy influenced my review in these six areas: (1) focus, (2) goal, (3) perspective, (4) coverage, (5) organization, and (6) audience. (1) The focus of my review was on the "theories meant to explain the same or related phenomena and the practices, programs, or treatments being used in an applied context" (Cooper & Hedges, 2009, p. 4). This included current theories, practices, and applications of embodiment, drama therapy and CBT when working with Veterans and/or Military Personnel diagnosed with PTSD. (2) My goal was to analyze and critique the theories to integrate and bridge the gap between these concepts using common language and themes. (3) My perspective as the researcher came from an "espousal of position" (Cooper & Hedges, 2009, p. 5). This means that I had a predetermined idea of what my findings would be when beginning my study. I believed that I would find information that supports embodiment as a beneficial addition to PE and CPT techniques. However, I also acknowledged discrepancies that opposed my belief. Cooper and Hedges (2009)

state that "reviewers can be thoughtful and fair while presenting conflicting evidence or opinions and still advocate for a particular interpretation" (p. 5). (4) Ideally, the coverage of my study would have been an exhaustive review of the literature, but given time constraints and difficulty accessing sources in the search rendered, I used a representative review of the materials. (5) The format of my study used a combination of conceptual organization and empirical organization. In my literature review, I used conceptual organization to identify specific areas of focus and rationale for the paper. The intent of the literature review was to give the reader a clearer understanding of the actual data reported in the Results section. However, the rest of my paper followed empirical organization, which I identified sections using the headings: Introduction, Methodology, Results, and Discussion. The purpose for these sections was to inform the reader of the steps used when conducting the study, report findings, and discuss areas of further study. (6) Finally, my intended audience is my supervisor and reviewers, as well as, the scholars in my field.

I documented my research using the characteristics of Randolph's (2009) phenomenological approach to literature listed as follows: (1) bracketing, (2) meaning making, and (3) rich description. (1) As the researcher, I was aware of my experiences with the subject matter that I studied, therefore, it was important that I acknowledged these biases. Yet, I did not believe it was possible to separate these experiences for the sake of neutrality. Instead, I recognized that they existed and, therefore, allowed them to influence my study. I have listed all my biases in the Ethical Considerations section by way of bracketing. (2) Meaning making was also an important part of understanding my findings. As I encountered information, I organized expressive statements, categorized them, and studied the themes of the researchers' findings on embodiment, drama therapy, prolonged exposure, cognitive processing therapy, Veterans and

Service Members, and PTSD—reported in Results section. (3) Rich description refers to "the essence of the phenomenon as seen through the eyes of the researchers who investigated that phenomenon" (Randolph, 2009, p. 11). This means that I, as the researcher, have done my best to structure this paper in a way that captures my experience encountering my findings.

Credibility

In a review addressing the controversy of holding qualitative research to quantitative standards such as validity and reliability, Tracy (2010) listed credibility as one of eight criteria to account for quality in qualitative research. As this paper is based solely on articles collected, I am identifying it as a qualitative research study and will be using Tracy's (2010) approach to addressing the credibility of my study. This is done through "thick description, triangulation or crystallization, and multivocality and partiality" (Tracy, 2010, p. 843).

Thick description. This sub-category of Tracy's (2010) credibility criterion refers to detailed illustrations and in-depth meaning of culturally-situated terms. As a reference taken out of context can be easily misinterpreted, it is the researcher's job to account for context as well as the findings to help minimize misrepresentation (Tracy, 2010). A researcher must "*show*, meaning that provide enough detail that readers may come to their own conclusion about the scene" (Tracy, 2010, p. 843). It is imperative to give the reader enough information to come up with their own interpretation rather than tell them what to think. My paper addresses this category by providing as much detail as possible about the circumstances of my findings. Each quote, reference, and citation is given as much context as relatively possible to ensure thick description.

Crystallization and triangulation. The use of triangulation—multiple sources collected that ultimately come to the same conclusion or yield the same findings—is considered

controversial as its assumptions aid in subjective bias (Tracy, 2010). However, Tracy (2010) believes that its use is still valuable when paired with crystallization—collection of multiple sources not for the sake of coming to a sole conclusion, but "to open up a more complex, in-depth, but still thoroughly partial, understanding of the issue" (p. 844). Through a combination of these two terms I sought to include information that not only reached similar conclusions, but also reported information that did not support my research question. This was an attempt to provide for more well-rounded commentary on the issues.

Multivocality. As I did not have participants in my study, I was not able to use multivocality to achieve an "intense collaboration with participants" (Tracy, 2010, p. 844). However, another way it can also be used is by my addressing the differences in meaning because of the "difference in race, class, gender, age, or sexuality" (Tracy, 2010, p. 844). As for the Military population, there are differences in meaning behind certain terms and situations that are addressed in this paper. This comes at a time when it is also important for me to address my position regarding the population that I am studying and the biases I hold towards the material. These will be identified in the Ethical Considerations section.

Partiality or Member reflections. This step requires the researcher to return to the field to collect follow up data or, in other words, "allow participants to expound on any comments previously made" (Tracy, 2010, p. 844). While this was not possible for the type of research I conducted, it needs to be acknowledged that this is a part of enhancing credibility and adding to the overall quality of a qualitative study, per Tracy (2010). This approach allows for members', or participants', reactions to any findings made by the researcher to be heard and used to provide additional data or elaboration of the participants' meanings.

Data Collection

As stated by White (2014), data collection is the principal portion of bibliographic research. For this study, I collected peer-reviewed journal articles—which I have access to through Concordia University Library—from Google Scholar. Using Boolean operators (AND, OR, NOT; Reed & Baxter, 2006, p. 51), I structured the outcomes of my database searches. This, in turn, helped narrow the number of articles that were found. After several drafts, the final list of data collection terms and the number of sources rendered can be found in Table A1 of Appendix A.

I also developed inclusion and exclusion criteria. Once I confirmed the parameters of my search and the literature met the inclusion/criteria, I further reviewed the materials' relevance by looking at the title, abstract, and discussion sections. Inclusion/exclusion criteria is listed in Table B1 of Appendix B. The steps taken in my data collection were as follows: (1) Search data collection terms and record the number of results rendered; (2) Apply inclusion/exclusion criteria to remaining sources; (3) and extract and synthesis data such as: a table identifying the resulting articles by author, year, design, therapeutic approach, data reported (quantitative, qualitative, mixed), sample size, population, length of study, follow up to study, and "findings/themes/main conclusions" (Cowl & Gaugler, 2014, p. 285).

As of Sunday, March 5, 2017 at 4:36 a.m., the search of all terms listed in Table A1 of Appendix A rendered a total of 300 sources to include articles, books, dissertation/thesis papers, etc. I first weeded out duplicates and sources that were not peer-reviewed journal articles. After narrowing the articles down by comparing the Exclusion criteria—listed in Table B1 of Appendix B—against the abstract, results/discussion sections, I was left with 47 journal articles. Once the Inclusion criteria was applied—again, only reading the abstract and results/discussion sections, I narrowed the remainders down to a total of 26 journal articles. Upon complete read

through, several more were excluded because they did not directly focus on using embodiment as a therapeutic approach; for example, an article that only focused on the percentage of VA facilities offering CAM programs. This left me with a final total of 13 peer-reviewed, journal articles. Table C1—containing the summary of the final selected journal articles—can be found in Appendix C.

Articles Selected

The final selection of articles was broken down into one mixed method study, two phenomenological studies, one systematic literature review, one ethnographic study, and nine case studies. Each paper identified embodiment and body-based work as either its main therapeutic approach or in addition to another approach. Although most the articles did not directly reference Jones' (1996) dramatherapeutic approach to embodiment, they did utilize embodiment as a focus for assisting the client in discovering emotions trapped in the body following a traumatic event. They also noted how exploration can lead to insight and self-expression towards the effects the trauma has had on the client's identity with their body. Given that similarity in approach, I could move forward with including these articles in my study. Common limitations of the qualitative studies were small sample sizes, non-report of follow up data, exclusion of pre-/post-test data and/or lacking a determination whether symptom reduction was the direct result of therapeutic approach.

Ethical Considerations

Using Randolph's (2009) method for conducting a phenomenological, qualitative review to inform my study, it was important to account for ethical considerations, such as my biases or "bracketing" (p. 10). Bracketing refers to the researcher explaining their experience or position on the phenomenon of the study (Randolph, 2009). It is important to acknowledge here that

several of my family and friends currently are or previously were members of the United States Military. Within that group of individuals, several have served in a war at least once during their time in the Service. Thus, more than one of them has suffered some sort of injury or mental illness either directly or indirectly from their Service. Also, I was raised in a city with a very large Military arsenal where both of my parents worked. Originally, my father was stationed at this arsenal as an Activity Duty Personnel in the Army and later became a civilian employee of Federal service. By the time I was born, my father was no longer in the Military, however, my siblings and I were raised with somewhat of a Military form of daily structure and life discipline. These were the primary influences to focusing my research study on U.S. Veterans and Military personnel.

I also must acknowledge that at one point in time, I had my own aspirations of joining the Military and thus participated in the Air Force Reserve Officers' Training Corps (Air Force ROTC) during my first year of university. During this time, participants were trained in the core values and written creed of the Air Force. The core values are "Integrity first, service before self, excellence in all We do" (as cited in CDP, 2013b, p. 16). The creed of the Air Force is:

> The foundation of what it means to be an Airman. It takes a strong mind, body, and spirit to be Air Force warrior. The Air Force warrior demonstrates a moral and physical courage, placing service before self, answering the nation's call, and being faithful to a tradition of honor and a legacy of Valor. An Air Force warrior defends the country with his life. We never leave an Airman behind; we never falter; we never fail. (CDP, 2013a, p. 24)

At the time of learning this creed, I interpreted this to mean that to be unwell or hurt was to be weak and to be selfless and courageous was a basic requirement of Service. Each Branch

has its own dedicated set of core values and creeds similarly evoking the same message as above. One of things the Center for Deployment Psychology (CDP; 2013a) course helped me realize was that although I am inclined to agree with the role of the Military and support some aspects of it, I now have personal difficulties with accepting the position of "service before self" portion. However, at the time of my ROTC training, this was not the case.

During ROTC, I followed the training mentality. Taking care of my comrades was my overall mission, no matter what. While I loved every minute of my time in AFROTC and do not regret any of it, I struggle with this mindset now because when it comes to mental or physical health, I believe you have an obligation to yourself to seek care. Admittedly, I have a unique perspective in that I have had moments in my past when the Air Force core values supported my decisions to overlook my own physical or psychological conditions and now that I am a mental healthcare provider trainee I feel it can be very irresponsible for me and my potential clients to ignore any personal illnesses. This study reminded me of the unique perspective I hold and encouraged me to look at how this perspective will play into my work as a future Military Drama Therapist. I find that I can be more sympathetic to future Military clients' experiences of ignoring symptoms, but must be careful not to assume I understand their unique experience with their Service in the Military.

It is also important to note that my enrollment in a Drama Therapy Masters' program influenced my advocacy of embodying, drama therapeutic techniques. I am also aware that as I do not have participants, this writing came solely from my interpretations as the researcher. It must also be mentioned that, at the time of writing, my knowledge of Cognitive Behavioral Therapy comes from elective courses I took during my Masters' degree. Before continuing

forward, it is important to me that the reader of this paper has a better understanding of my mindset and thought process in the study and writing of this topic.

"Seemingly my senses and body would hijack my mind and I could only be a witness looking out as I reflexively reacted to apparent hostility."

- *Roman General, 2008*

Chapter 2. Literature Review

> In any other vehicle we'd have died. The MRAP jumped, thirty-two thousand pounds of steel lifting and buckling in the air, moving under me as though gravity was shifting. The world pivoted and crashed while the explosion popped my ears and shuddered through my bones…My ears were ringing and my vision was a pinpoint…I got down and climbed through the body of the MRAP. I went on my hands and knees across the seats and opened the back hatch. Then I stepped out. (Klay, 2014)

When I remember 4th of July holidays, I often think about shooting off fireworks in the backyard. As I sit here typing this occurrence, I can faintly hear the whistling of the rocket as it launches itself high into the air. I feel the subtle rumble of its vibrations in my chest and the ringing in my ears. I can almost smell the putrid scent of the burning gunpowder mixture wafting through the air. There's always that split second of fear as the loud sound of the rocket erupts into the atmosphere and that fleeting thought that this moment will surely be the end of us all. Then, almost simultaneously, I receive the expected reward of beautiful, brightly colored lights twinkling before my eyes and the instant feeling of pleasure at the thought of colorful stars raining down on my family and myself. Even now, as I write, my heart picks up a beat in anticipation for another launch of fireworks.

Although this is not a traumatic memory for me, it still elicits physical responses in my body at just the mere thought of the 4th of July. However, for a trauma survivor, I can appreciate that the experience might be similar, but in a more intrusive and intense way than the one I have just relayed. In his work on the suffering of the body and mind, Darwin (1998) stated:

> No suffering is greater than that from extreme fear or horror…Prolonged suffering, especially of the mind, passes into low spirits, grief, dejection, and despair. (p. 143)

As we continue to learn more about the experiences of individuals with Posttraumatic Stress Disorder (PTSD), researchers have begun focusing more on interventions that address the effects of trauma on the mind as well as the body (Goliszek, 2014; Levine, 2010; McFarlane, Atchison, Rafalowicz, & Papay, 1994; Ogden & Minton, 2000, van der Kolk, 2014). To understand the increased focus on physiological symptoms, it is important to understand the history of how PTSD affects the individual and the definition it has come to be known as today.

Posttraumatic Stress Disorder

Early historical references to PTSD-like symptomatology in the face of traumatic events can be found in literature dating back to the Bible with passages such as:

> When you go out to battle against your enemies, and see horses and chariots and people more numerous than you, do not be afraid of them… So it shall be, when you are on the verge of battle, that the priest shall approach and speak to the people. And he shall say to them, 'Hear, O Israel: Today you are on the verge of battle with your enemies. Do not let your heart faint, do not be afraid, and do not tremble or be terrified because of them. (Deut. 20: 1-3, The Holy Bible, New King James Version)

The above reference to the heart mirrors what would later come to be known as "soldier's heart" (Mackenzie, 1916, p. 117). Mackenzie (1916) observed that one of the most common reports among Civil War soldiers was a case of an "irritable heart" (p. 117) and consensus of not feeling well. The above reference in the Bible of a "fainting heart"—a term comparable to "irritable

heart", and the mention of trembling—often listed as a symptom of "shell shock" (Birmes, Hatton, Brunet, & Schmitt, 2003; Crocq & Crocq, 2000), suggests that there were earlier cases displaying PTSD-like symptomatology, which is why the authors reference in it in this way. A review conducted by McFarlane, Atchison, Rafalowicz, and Papay (1994) noted that, "early descriptions of PTSD such as 'soldier's heart' and 'railway spine' focused more on the physical manifestations" (p. 715) of symptoms in the body rather than psychological symptoms.

In their review of other early classical literature, Birmes, Hatton, Brunet and Schmitt (2003) found several classical works that also referenced physical PTSD-like symptomatology. Throughout the play of *Macbeth,* we see the decline of Lady Macbeth's mental health because of her guilt surrounding her involvement in the murders of King Duncan and Banquo (Shakespeare, 1993). In Act V, Scene I, the Doctor and Gentlewoman observe Lady Macbeth displaying post-traumatic stress psychological symptoms of re-experiencing, which causes her to believe she has blood stains on her hands:

> LADY MACBETH
>
> Here's the smell of the blood still: all the perfumes of Arabia will not sweeten this little hand. Oh, oh, oh! (Shakespeare, 1993, p. 248)

Birmes, Hatton, Brunet, and Schmitt (2003) go on to list several other works of fiction, as well as biographical pieces that reference the physical symptomatology of PTSD. They list symptoms such as re-experiencing, avoidance, numbing, outbursts of rage and irritability, and hyperarousal. Literature spanning over 3000 years have used names such as war neurosis, shell shock, psychic trauma, battle fatigue, railway spine, and soldier's heart. These terms have all culminated to make up what has been formally recognized, since 1980, as PTSD (American Psychiatric Association [APA], 1980; Birmes, Hatton, Brunet, & Schmitt, 2003; Crocq & Crocq,

2000; James & Johnson, 1997, p. 384). With so much literature, research and the Diagnostic Statistical Manual-V (DSM-V) notations supporting physiological (body) occurrences of PTSD symptomatology, it is interesting that interventions today tend to focus more on treating the psychological (mind) occurrences of PTSD symptoms (APA, 2013, Levine, 2010; McFarlane, Atchison, Rafalowicz, & Papay, 1994; Ogden & Minton, 2000, van der Kolk, 2014).

DSM-V Definition

The DSM-V describes the primary feature of PTSD as "exposure to actual or threatened death, serious injury, or sexual violence" (APA, 2013, p. 271). Exposure to a traumatic event can be experienced through the direct result of, witnessing the event in person, learning of a traumatic event involving a close family member or close friend, and/or experiencing repeated exposure to traumatic events (such as with first responders, police officers). Major symptoms cause noticeable changes in three categories: avoidance of stimuli, negative changes in cognition and mood, and changes in arousal and reactivity (APA, 2013). Symptoms are listed as intrusive memories or dreams about the traumatic event, sleep disturbances, hypervigilance, heightened startle response, negative emotional outlook, displays of anger and agitation (APA, 2013).

Although presentation of the disorder varies, it is estimated that development of symptoms may occur within three months after the initial traumatic event takes place (APA, 2013). However, it also notes that symptoms could even take years to present themselves. Initially, persons experiencing symptoms may meet the criteria for acute stress disorder (ASD)—symptoms occur immediately in the aftermath of a traumatic event and complete recovery takes place within three months. Alternatively, reoccurrence and intensification of these symptoms continuing passed the proposed time frame and leading up to a year after the traumatic event are classified as PTSD (APA, 2013). Of the 60% of men and 50% of women that will be exposed to

a traumatic event during their lifetime, about 8% of men and 20% of women develop PTSD after the traumatic event (Essential Learning, 2012). For the Military population, PTSD can result from combat exposure or involvement in acts committed while in Service. These numbers look a little different than the national average.

Epidemiology of PTSD in U.S. Military

> Of the 340,000 US active component and reserve component (the latter includes both National Guard and Reserves) service members completing the postdeployment questionnaires, approximately 5 – 10% were referred for mental health evaluation, and among those referred, approximately 95% recorded an inpatient or outpatient visit within 6 months of the referral date (MSMR, 2010). Roughly translated, this equates to somewhere between 16,000 – 32,000 deployed US service members who had one or more health care visits for a mental health evaluation during this 12-month period. (Wells et al., 2011, p. 147)

Since 2001, 1.65 million Service members have been deployed for Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF; Essential Learning, 2012). Of those returning, approximately 33,000 were wounded in action and 4700 were pronounced dead. The Center for Deployment Psychology (Essential Learning, 2012) acknowledged that it is possible that not all the people that reported experiencing a trauma also acknowledged or were aware of any PTSD-like symptoms. This could mean that the average of those reported to develop PTSD may, in fact, be higher.

A cross-sectional survey by Hoge et al. (as cited in Wells et al., 2011) found that in comparison to the 9 % of veterans with PTSD before deployment, 18% returning from Iraq and

12% returning from Afghanistan had developed PTSD. There was also a "positive association between exposure to combat and PTSD in US Army and Marine Corps personnel who served in Iraq and Afghanistan" (Wells et al., 2011, p. 145).

In a study conducted by Hoge et al. (2004) found that Service Members experienced significant instances of combat exposure. Data showed that a substantial number of Soldiers and Marines—stationed in Afghanistan or Iraq—were exposed to many types of life-threatening and traumatic events (as cited in Essential Learning, 2012). Figure 1 displays the average of times these Service Members were exposed to specific conditions.

Hoge et al. (as cited in Essential Learning, 2012) found that of the Service Members that were involved in 6-9 firefights, an average of 20% screened positive for PTSD. A comprehensive survey in the MHAT-IV Report (as cited in Essential Learning, 2012) showed that in the U.S., of those Service Members in high combat situations—30% developed Acute Stress Disorder (ASD) and another 30% were diagnosed with "any psych problems" (sect. 3, p. 4). It was not stated whether the 30% diagnosed with any psychological disorder included those diagnosed with ASD.

Figure 1. Combat Experiences Reported by Members of the U.S. Army and Marine Corps after Deployment to Iraq or Afghanistan.*

Experience	Army Groups		Marine Group
	Afghanistan (N=1962)	Iraq (N=894)	Iraq (N=815)
	number/total number (percent)		
Being attacked or ambushed	1139/1961 (58)	789/883 (89)	764/805 (95)
Receiving incoming artillery, rocket, or mortar fire	1648/1960 (84)	753/872 (86)	740/802 (92)
Being shot at or receiving small-arms fire	1302/1962 (66)	826/886 (93)	779/805 (97)
Shooting or directing fire at the enemy	534/1961 (27)	672/879 (77)	692/800 (87)
Being responsible for the death of an enemy combatant	229/1961 (12)	414/871 (48)	511/789 (65)
Being responsible for the death of a noncombatant	17/1961 (1)	116/861 (14)	219/794 (28)
Seeing dead bodies or human remains	771/1958 (39)	832/879 (95)	759/805 (94)
Handling or uncovering human remains	229/1961 (12)	443/881 (50)	455/800 (57)
Seeing dead or seriously injured Americans	591/1961 (30)	572/882 (65)	604/803 (75)
Knowing someone seriously injured or killed	850/1962 (43)	751/878 (86)	693/797 (87)
Participating in demining operations	314/1962 (16)	329/867 (38)	270/787 (34)
Seeing ill or injured women or children whom you were unable to help	907/1961 (46)	604/878 (69)	665/805 (83)
Being wounded or injured	90/1961 (5)	119/870 (14)	75/803 (9)
Had a close call, was shot or hit, but protective gear saved you	—†	67/879 (8)	77/805 (10)
Had a buddy shot or hit who was near you	—†	192/880 (22)	208/797 (26)
Clearing or searching homes or buildings	1108/1961 (57)	705/884 (80)	695/805 (86)
Engaging in hand-to-hand combat	51/1961 (3)	189/876 (22)	75/800 (9)
Saved the life of a soldier or civilian	125/1961 (6)	183/859 (21)	150/789 (19)

* Data exclude missing values, because not all respondents answered every question. Combat experiences are worded as in the survey.
† The question was not included in this survey.

Figure 1. Combat Experiences Reported by Members of the U.S. Army and Marine Corps after Deployment to Iraq or Afghanistan.* Numbers represent indivduals that reported on specific life-threatening exposures. Reproduced with permission from Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in iraq and afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351,* 13-22. doi: 10.1056/NEJMoa040603, Copyright Massachusetts Medical Society.

Per the RAND corporation (as cited in Essential Learning, 2012), the following characteristics were probable risk factors for mental health disturbances in Service Members: "Service Members not on active duty (i.e. Reserve Corps, discharged, retired), Enlisted personnel, Female, Hispanic, more lengthy deployments, and more extensive exposure to

combat-related traumatic events" (sect. 2, p.12). The challenges OEF/OIF Service Members faced were:

- "A 360-degree battlefield with no front line
- A highly ambiguous environment
- Complex and changing missions varying from combat to peacekeeping to humanitarian in nature
- Long and repeated deployments
- Dealing with harsh environments (extreme heat, 24 hours operations, limited down time, constant movement, crowded uncomfortable living conditions)
- Availability of communication technology (cell phones, text messages, email) that allows for stress/issues from home to reach the deployed environment" (Essential Learning, 2012, sect. 3, p. 1)

Within the military population, it has been acknowledged that combat Veterans can be both the victim, as well as the perpetrator in traumatic events (James & Johnson, 1997). In this regard, combat Veterans may experience the same traumatic events that they themselves inflict on others. For example, while in combat, the fighter experiences the trauma of possibly losing his life while also attempting to take the life of another—kill or be killed. James and Johnson (1997) noted that "the traumas of battle are legitimized acts of violence, authorized and celebrated by the nation" (p.384). James and Johnson (1997) also acknowledge that these experiences can occur over a period of days or months, unlike other traumatic events that only occur once. When working with Veterans, it is important to keep these and other factors in

mind. It is also helpful—for the sake of understanding the plight of Military personnel—to understand the Military culture. Having this knowledge can shed some light onto the resulting actions of Service Members and Veterans—even Military family members—following traumatic events.

U.S. Military Culture

The Armed Forces or Branches of the Military in the United States (U.S.) are governed by the Department of Defense (DoD; CDP, 2013b). Services represented in the DoD include: the United States Army (USA), United States Navy (USN), United States Air Force (USAF), and the United States Marine Corps (USMC). The United States Coast Guard (USCG), although recognized as a Military Branch, is governed by the U.S. Homeland Security (CDP, 2013b). Each Branch operates its own Reserve component (RC), which follows the same ethos and creed as its respective Service, however, their normal operation is as part-time Service Members. The final Service to be mentioned is the U.S. National Guard (USNG). The USNG falls under the jurisdiction of the States (CDP, 2013b). Like the RC of the other Branches, the USNG operates on a part-time basis until called on by their State or, if needed, they operate under the jurisdiction of the DoD in times of war (CDP, 2013a).

Becoming a part of the military is not as simple as completing an application and then going for a job interview. It is a time-consuming process that requires many steps and vetting procedures to ensure the candidate is eligible for Service—on a physical and mental level. The Military life journey is different for every individual that attempts it, and the journey can leave positive impressions or create resentment towards the military ethos and creed.

Air Force Chief of Staff, General T. Michael Moseley, states that the military ethos "exhibits a hardiness of spirit, and moral and physical courage" (as cited in CDP, 2013a, p. 35).

The military ethos is the overall philosophy of the military and is the driving spirit behind any Service Member's actions during and outside of battle. It is meant to be the guiding force for a Service Member in all aspects of their life and decision making processes. A Service Member obtains military ethos through several avenues: Oaths of Enlistment or Commissioning, Service Branch core values, Service's written creed, during professional training, military decorations and rewards, and through the Uniformed Code of Military Justice (UCMJ) codes of behavior (CDP, 2013a). Per the CDP (2013a), aspects of the military ethos include "selflessness, loyalty, stoicism, moral code, and excellence" (p. 47). To better understand the military life journey, you must also understand the military hierarchical (or ranking) system.

Ranking

It is a requirement that Service Members learn the ranking system of their chosen Service Branch and understand where they fall within this network. The rank determines your level of authority, and in most cases with the military, the level of respect you are shown and the level you show others (CDP, 2013b). This hierarchy is broken up into four categories: Enlisted (E1- E9), Warrant Officer (WO-1- WO-5), Commissioned Officer (O-1- O-6), and General or Flag Officer (O-7- O-10; CDP, 2013b). Each Branch has its own titles that correspond with the different ranks listed in these categories. However, the Air Force is the only Branch that does not utilize the Warrant Officer ranking.

The CDP (2013a) has stated that healthcare providers (HCPs) should take into consideration the ranks and roles of the military because "in some respects healthcare culture is similar to military with various clinical specialties and a hierarchy of clinic or department chiefs, service chiefs, and facility executive leadership" (p. 10). The importance of knowing this information is so that as a HCP, one can ask whether the client would like to be addressed as

Mr/s. or whether they would like to be addressed using their ranking title (CDP, 2013b). The CDP (2013b) states that the hierarchy in the military will "continually affect not only Service Members but also their families, including what type of housing they are assigned, where they can park their vehicles, and who they can associate with on a social level" (p. 32). Having even a basic knowledge of this information only stands to further rapport with the Service Member when developing a therapeutic alliance (CDP, 2013b). The rank also brings with it particular types of stressors.

Military Life Stressors

There are several factors within the military that can specifically affect the types of stressors that Service Members experience. An Enlisted Service Member may not experience the same types of stressors that their Officers may experience and in that respect, Active Duty Service Members may have different stressors than their Reserve duty counterparts or Veterans, for that matter (CDP, 2013c).

An Active Duty Service Member is an individual that essentially has signed on to participate in the Military on a full-time basis. This means that aside from their daily job duties, the Service Member is basically on-call for the DoD to deploy at any time for the allotted amount of time needed (CDP, 2013b). A Reservist—on the other hand—is a part-time Service Member and generally only reports for drill one weekend out of the month and temporary duty (TDY) for at least 2 or 3 weeks once a year, or when commissioned for Active Duty at the DoD's discretion (CDP, 2013b). Whether Active Duty or Reserve, Service Members are given a rank and certain responsibilities, the difference being to what degree those responsibilities play in their overall day-to-day lives.

Active Duty Service Members are often required to move every 2-3 years, complete TDY training sessions several times a year, perform multiple deployments overseas, work extended hours to make up for shortages and sometimes participate in individual augmentation (IA). IA is when a Service Member is assigned to another unit or different Service Branch to fill in for a shortage of staff in a specified job or skill set (CDP, 2013c). On the other hand, Reserve and National Guard (NG) Service Members have their own stressors (CDP, 2013c). The CDP (2013c) describes Reserve and NG stressors as: leaving behind full-time jobs when called to deploy overseas; multiple, extended deployments—resulting in the need to request more time off work or having to leave a job and seek new employment upon return; not always living in a community near military and healthcare facilities, or other military personnel and/or families; and not being eligible to utilize military resources and insurance benefits unless identified as Active Duty during the time of need. This alone can play into a Service Member's decision to seek mental healthcare.

Military-life stressors on spouse and child(ren). In addition to the stress of Military life on the Service Member, it is also important to notice the difficulty that the Service Member's family experiences. The circumstances of long deployments, constant moving, limited VA-resources, etc. can place a great deal of stress on the Military family members (CDP, 2013c). It has been observed that on average, an Active Duty Service Member and family are required to move at least 5 times during a child's education from grades K-12 (as cited in CDP, 2013c). This places significant difficulty on the child's ability to begin new relationships and end them, as many relocations may come at short notice (CDP, 2013c). The stressors can also be exacerbated by lengthy deployments, which cause the civilian spouse to shoulder the weight of

the deployed Veteran's role, financially and parentally, and causes children to adjust to life without a parent (CDP, 2013c).

A study conducted by Lester and colleagues (2010) found that the length of an active duty parent's deployment is positively correlated with increased occurrence of child depression and behavioral issues. The authors also found significant elevation of anxiety in Military children in comparison to children in the community (Lester et al., 2010). Families who have a returned Service Members with PTSD are at a higher risk for experiencing stressors (Galovski & Lyons, 2003). Galovski and Lyons (2003) conducted a study on 50 couples, which consisted of Veterans with PTSD and those without PTSD. The researchers found that "70% of the PTSD couples reported relationship distress as compared to 30% of the non-PTSD couples, and that the severity of relationship distress correlated with the severity of PTSD symptoms" (Galovski & Lyons, 2003, pp. 479-480). A later study conducted by Tsai and fellow researchers (2012) found that "Veterans who screened positive for PTSD also reported significantly lower partner satisfaction, less family cohesion, poorer social functioning, and lower life satisfaction scores" (Tsai et al., 2012, p. 140). The stressors mentioned for Service Members, as well as the stressors on the family can affect the decision to seek mental health treatment.

Military Mental Healthcare

Seventeen percent of Reservists returning from deployment between September 2010 to August 2011, screened positive for mental health problems that would need follow up (as cited in CDP, 2013c). This was 55% more than their Active Duty Service Member counterparts. Per the 2012 RAND Corporation Report (as cited in CDP, 2013c), in 2009 the unemployment rank for junior enlisted personnel in the U.S. Army Reserve (USAR) was 25% and 23% for enlisted personnel in the Army National Guard (ANG). The number of completed suicides by ANG and

USAR—while not in active duty status—equaled 140 individuals (CDP, 2013c). The impact of stress on these individuals, as well as Active Duty Service Members and Veterans, has led to increasing cases of mental health problems and suicidality (CDP, 2013c).

Mental health care and treatment of military personnel is uniquely different than working with the civilian population (CDP, 2013a). For a health care provider, one of the biggest struggles when working with the military population is overcoming the stigma of seeking mental healthcare (CDP, 2013a). There are so many layers of resistance to mental health care as it relates to a Service Member's job, community and families. It is also incredibly difficult for mental health care providers to maintain full confidentiality, because Service Members' commanding authorities may have access to their medical and Veterans Administration (VA) records. Service Members are obligated to share with their commanding officers any health concerns that may affect or prevent them from completing their assigned duties on the job (CDP, 2013a). Although they are only required to go into as much detail as necessary for the commanding officer to understand how their health will affect their duties, it still creates a concern for healthcare providers as to how a client will believe their confidentiality is or is not being respected. The information shared could, ultimately, affect the Service Member's job and the livelihood that supports themselves as well as their family. This is a large portion of the stigma placed on the military when seeking mental healthcare (CDP, 2013a). However, when it does come to seeking mental health care, Hamblin, Schnurr, Rosenberg, and Eftekhari (2016) found that through investigation of VA guidelines recommending treatment for PTSD, it is unanimously supported that Cognitive Behavioral Therapies (CBT) are most effective. They also found that Eye Movement Desensitization and Reprocessing (EMDR) therapy was also highly recommended (Hamblin et al., 2016). Understanding this would require a closer look at

the effects PTSD has on the mind and brain, as well as the types of CBT approaches currently being used by the VA.

The Mind

> Neuropsychologists have found a certain class of phenomena hard to account for within the traditional frameworks of cognitive psychology. These include episodic memory, self-awareness, dreams (day dreams and night dreams), personality, value systems, the subjective experience of emotions, Theory-of-Mind (the human ability to understand other minds), various forms of higher-order and meta-cognition, and finally, consciousness and free will. All these problems appear to have one thing in common, namely, their relation to the concept of the self. (Samsonovich & Nadel, 2005, p. 669)

Understanding the human mind has become one of the remaining frontiers that scientists have yet to conquer (Burwood, 2003). In his book chapter on the philosophy of mind, Burwood (2003) discusses the mindedness of humans and its relation to the laws of nature. As beings of this world, we are subject to the laws of nature like any other creatures. For example, our bodies are made of flesh and bone just as other creatures, but our ability to love, have opinions, and feel things sets us apart from them (Burwood, 2003). This causes us to question how we are minded when other creatures are not (Burwood, 2003). Unfortunately, there is no simple answer to this question, but is the driving force behind the study of the mind (Burwood, 2003; Samsonovich & Nadel, 2005).

The self often refers to "either the identity of the individual, as opposed to others, or the internal image of the body, as opposed to the rest of the world" (as cited in Samsonovich & Nadel, 2005, p. 669). In their review of consciousness in relation to the self or the "I" (p. 669),

Samsonovich and Nadel (2005) focus on the different representations of the "simultaneously, active brain" (p. 669). The representations of the "I" include, but are not limited to: "I-Now, I-Previous, I-Next, I-Yesterday, I-Future, I-Imaginary, I-Goal, I-Metacognitive, I-Pretended, etc." (Samsonovich & Nadel, 2005, p. 669). With each passing day, the I-Now will become the I-Previous, while the I-Next will become the I-Yesterday and it will go on this way with new information becoming old (Samsonovich & Nadel, 2005).

However, when someone experiences a traumatic event, the stress of an abnormally strong event disrupts the flow of the I-Now process (Samsonovich & Nadel, 2005). For someone that develops PTSD, the traumatic event is so strong that it creates a strong association with the I-Now. When the event is recalled, the person experiences the event as though it is currently happening. The traumatic event is not properly processed to the I-Past because of the continued hyperactivity of the hippocampus following the trauma (Samsonovich & Nadel, 2005). It is not uncommon for the brain to be referenced when referring to the mind (Burwood, 2003; Goliszek, 2014; Grankvist, Kajonius, & Persson, 2016; Samsonovich & Nadel, 2005).

In his book, *Mind-Body Health and Healing,* Goliszek (2014) makes a clear distinction between the brain and the mind:

> It's important to note that the mind is not synonymous with the brain. Instead, in our definition, the mind consists of mental states that include thoughts, emotions, beliefs, attitudes, and images. The brain is the hardware that allows us to experience these mental states. (Goliszek, 2014, p. 1)

This does not diminish the importance of the brain and its role as the control center for our mind and bodies. For us to develop consciousness, we must look at the development of the brain. Goliszek (2014) goes into detail about the development of the brain and its involvement in

creating a healthy body. Within the first few weeks of conception, our immune system develops followed by the central nervous system, which consists of the brain and spinal cord (Goliszek, 2014). After this, our endocrine and lymphatic organs then form to make up the endocrine-immune system, which is responsible for our healing. Specifically, the brain's structure is supported by the hypothalamus and pituitary glands, which are instrumental in our capability of responding to outside stimuli (Goliszek, 2014).

This is important because the hypothalamus is responsible for keeping our functions running at an even level—homeostasis. It regulates functions such as "heart rate, blood pressure, body temperature, growth, metabolism, electrolyte balance, hunger, sleep, wakefulness and breathing" (Goliszek, 2014, p. 5). It takes in the information from a variety of stimuli such as our eyes, skin, sense of smell, as well as internal stimuli, to respond appropriately (Goliszek, 2014). The hypothalamus is extremely sensitive, especially to stressors from the environment, which ultimately have major impact on our organic system. Other areas of the brain such as the posterior pituitary and the adrenal gland—along with the hypothalamus—interact to make our response to physical and emotional stressors (Goliszek, 2014).

When we experience stress, we go through physiological and behavioral responses that react to the stimuli; however, when our brain does not properly return to homeostasis, we are at risk of developing PTSD, which can cause neurological changes (Antunes-Alves & Comeau, 2014). Antunes-Alves and Comeau (2014) noted that in recent years, studies have focused more on the neural systems affected by PTSD. The results of their study have shown that there are notable changes in the prefrontal cortex, amygdala, and hippocampus following extended exposure to stress.

Also, during their research, Antunes-Alves and Comeau (2014) wrote that several studies did show that there are interactions occurring between the prefrontal cortex and the amygdala, the hypothalamus-pituitary-adrenal (HPA) axis and cortisol, and the hippocampus and cortisol. Bremner and her colleagues found that "decreased hippocampal function has been implicated in such PTSD symptoms as difficulty identifying safe contexts and memory problems" (as cited in Antunes-Alves & Comeau, 2014, p. 11). Decreased hippocampal volume in adults is related to the severity of PTSD. A study conducted by Shin and colleagues (as cited in Antunes-Alves & Comeau, 2014), showed that patients with PTSD demonstrated decreased functioning in their prefrontal cortex, as well as, decreased hyperactivity of the amygdala. In their review of treatments used to improve symptoms of PTSD, they mentioned CBT (Antunes-Alves & Comeau, 2014). They believed that CBT creates new inhibitory pathways that regulate the hyperactivity of the amygdala and decreases symptoms' severity.

Over the last 7 years, the VA has developed initiatives and training programs recognizing two forms of CBT for working with PTSD: Prolonged Exposure (PE) and Cognitive Processing Therapy (CPT; Cook et al., 2013; VA, 2016). In the study conducted by Cook and colleagues (2013), a formative evaluation was used to measure the delivery of the service and aim to identify areas of service that can be improved to foster the adoption of EBT at surrounding facilities. Upon completion, they found that most VA facilities were in favor of adopting CPT practices over full adoption of PE. The reason for this was speculated to be the evidence-based manual that can be used for group CPT—it was noted that at the time there were no written protocols for group PE (Cook et al., 2013). Another reason given by facilities for not fully embracing PE, was the difficulty with conducting the exposure portion. One way of

understanding how these findings affect the ability for VA facilities to implement these approaches, is to look at what each process aims to do and how the process is facilitated.

Prolonged Exposure

This method utilizes psychoeducation about PTSD and trauma reactions, breathing techniques, exposure to trauma-related situations (in vivo exposure), and verbally describing the details of the client's most traumatic memory (imaginal exposure; Cook et al., 2013; Foa & Kozak, 1986). Despite literature that supports the effectiveness of PE (Foa, 2011; Tuerk et al., 2011), it was found in 2009 that only 10% of PTSD therapists in the entire VA Healthcare system utilized this method (as cited in Rauch et al., 2009). More recent studies are needed to see if there has been an increase in the percentage of usage.

A more recent study conducted by Yoder et al. (2012) found that PE showed significant improvements of symptoms for Veterans of different wars; however, they found that "Gulf War era veterans' symptoms declined at significantly slower rates" (p. 6). This finding could suggest that different wars may require longer periods of time to work through traumatic experiences and that other approaches to the therapeutic process may need to be explored to support symptom reduction.

The behavioral model for PTSD, from a PE viewpoint, utilizes Pavlov's classical conditioning (Brim, Ermold, & Riggs, 2013). It relates to trauma because when a traumatic event occurs "certain cues/stimuli present in the environment get conditioned to produce the same response that occurred at the time of trauma" (Brim, Ermold, & Riggs, 2013, p. 10). This means that, like Pavlov's study with dogs, when an unconditioned stimulus (UCS; i.e. dog food or an explosion) occurs, it causes an unconditioned response (UCR; i.e. salivation or fear from explosion). This reaction triggers "single trial learning" (Brim, Ermold, & Riggs, 2013, p. 11),

which eliminates the need for repeated stimulus for a response to be learned. This all then leads to the conditioned stimulus (CS; i.e. the bell for dinner or fireworks on the 4th of July) and the conditioned response (CR; i.e. salivation or physiological trauma response to an IED explosion).

The theory of operant conditioning is used in relation to avoidant behavior (Brim, Ermold, & Riggs, 2013). Although first established by Edward Thorndike, the theory is most notably developed further by B.F. Skinner. Operant conditioning shows up in avoidant PTSD symptoms by negative reinforcement. When a trauma survivor develops PTSD symptoms they may start to avoid things that trigger memories of trauma. By avoiding these things, they are reinforcing the behavior because they are removing or lessening the feelings of fear and anxiety. This is perceived by the trauma survivor as a good thing, so it creates the likelihood that they will continue to avoid things that trigger memories in order not to feel negative emotions or physiological responses (Brim, Ermold, & Riggs, 2013). While this may be helpful to trauma survivors, at times, avoidance often grows to the point that it impairs daily functioning and sense of well-being (Brim, Ermold, & Riggs, 2013).

The procedures used to conduct a PE session are broken down into four categories:

1. Education about common reactions to trauma.
2. Breathing retraining (breathing in a calm way).
3. Repeated exposure to the trauma memories (imaginal exposure).
4. Repeated in-person exposure to avoided situations (in-vivo exposure). (Brim, Ermold, & Riggs, 2013, p. 37)

The goal of the psychoeducational portion of the session is to help normalize the client's PTSD symptoms and help validate them. It also creates hope that the client's symptoms will improve as treatment goes on and the therapeutic alliance will grow to expand communication.

The breathing exercises—taught in the first session—are assigned as homework throughout the entire process, which consists of 9-12 sessions lasting 90 minutes each for at least 1 to 2 times a week. In-vivo exposure supports the client's ability to be in an anxiety-producing state for periods of time. The purpose would be to increase the client's confidence in confronting tough situations and dealing with anxiety (Brim, Ermold, & Riggs, 2013).

Imaginal exposure is the client's repeated "reliving/retelling" of their traumatic event (Brim, Ermold, & Riggs, 2013, p. 44). In this procedure, the goal is for the client to process through the event and tap into their coping skills despite the troubling memory. The hope is to achieve habituation to reduce anxieties, reduce avoidance, create safety around the trauma, and see trauma as a unique event rather than a "common representation of the dangerous nature of the world" (Brim, Ermold, & Riggs, 2013, p. 44).

Cognitive Processing Therapy

As a program, CPT is a 12-session process that can be utilized in a group or individual setting with a primary focus on cognitive interventions (Cook et al., 2013; Monson et al., 2006). It uses the traumatic memory to focus on "feelings, beliefs and thoughts which directly emanate from the trauma" (Cook et al., 2013, p.6). A study conducted by Monson et al. (2006), noted improvements in clinical, as well as, self-reported PTSD symptoms using CPT with male and female Veterans. It was also reported that there were improvements in "co-occurring symptoms of depression and general anxiety, affect functioning, guilt distress, and social adjustment" (Monson et al., p. 903).

CPT was originally developed for rape survivors by Dr. P.A. Resick and M. Schnicks in 1993 (as cited in Copeland & Schultz, 2012). Although originally developed as an individual therapy treatment, the Veterans' Administration (VA) has increasingly begun using CPT in

group settings. It is advised that CPT is best used with patients exhibiting PTSD symptoms or at least "sub-syndromal PTSD" (Copeland & Schultz, 2012, p. 34).

Copeland and Schultz (2012), conducted an online course that introduced a cluster system of four trauma symptom areas. The first three trauma clusters identify the core PTSD reactions, while the fourth cluster identifies the avoidant behaviors, which often delay recovery (Copeland & Schultz, 2012). The avoidant behaviors are also referred to as the center of pathology—or cause of PTSD—following the trauma and should be the focus in treatment (Copeland & Schultz, 2012).

Cluster 1 refers to the intrusive imagery and sensations that the survivor experiences (Copeland & Schultz, 2012). These are the tactile, auditory, and pain sensations that can occur solely or along with visual memories. Nightmares are included in this cluster, but not thoughts or interpretations of the trauma—as these occur in a different part of the brain.

Cluster 2 involves cognitions and cognitive processes, which takes into account how the survivor makes sense of the trauma through thoughts and interpretations (Copeland & Schultz, 2012). Copeland and Schultz (2012) believe that the survivor has distortions around the facts of the event that effect cognition and cognitive processing. Cluster 2 references two common cognitive errors: (1) assimilation, in which the survivor focuses only on the details that fit with their beliefs before the trauma occurred and (2) over-accommodation, in which the survivor goes to the extreme in unifying information interpreted from the trauma with their pre-existing beliefs and causes them to see future events through the lens of the trauma (Copeland & Schultz, 2012). Cluster 3 is the negative affect and arousal area. This involves the strong emotional response to the trauma and includes the physiological response of dysregulated hormones that lead to hindrance of cognitive processing (Copeland & Schultz, 2012).

As previously stated, Cluster 4 centers around escape and avoidance (Copeland & Schultz, 2012). This is the cluster when pathology becomes present. The course illustrates that pathology is correlated with the severity of core PTSD reaction symptoms during the initial traumatic event (Copeland & Schultz, 2012). Escape and avoidance can be observed through "dissociation, emotional suppression, or cognitive avoidance, or it may be largely behavioral in nature such as aggression, self-harm, social withdrawal, or binge eating" (Copeland & Schultz, 2012, p. 16). It may also appear functionally in a survivor's attempts to remain busy so as not to experience thoughts or feelings around trauma (Copeland & Schultz, 2012).

Copeland and Schultz (2012) used this course as an opportunity to lay out the overall purpose and structure for each of the twelve sessions typically conducted in CPT. First they were sure to include the phases of CPT treatment:

- Phase 1: Pre-treatment assessment and pre-treatment issues
- Phase 2: Education regarding PTSD, thoughts, and emotions
- Phase 3: Processing the trauma
- Phase 4: Learning to challenge
- Phase 5: Trauma themes
- Phase 6: Facing the future (Copeland & Schultz, 2012, p. 32)

Phase 1 of the treatment is referred to as the "preliminaries" (p. 32) of CPT while phases 2-6 occur when the actual CPT treatment takes place (Copeland & Schultz, 2012). Phase 1 includes the review of the client's assessment, diagnosis and issues related to the client being able to fully participate in the therapy process, which occurs in the first session (Copeland & Schultz, 2012). During phase 2—which occurs in the first through third sessions of the process—the therapist conducts psycho-education about PTSD, gives overview of CPT and cognitive theories of

emotions, and describes the cognitive behavioral part of the therapy process. The therapist also helps the client identify the "stuck point" (p. 35) of when they believed recovery ceased (Copeland & Schultz, 2012). This is also when the index trauma—the trauma the client has experienced that is the source of PTSD symptoms—is identified (Copeland & Schultz, 2012). The course continues in this manner addressing what activities are conducted within each session leading up to the twelfth and final session. The course teaches about the use of CPT worksheets and practice assignments—homework given to the client that is used during the process centering around the trauma and helps to reconfigure the client's thoughts surrounding the trauma (Copeland & Schultz, 2012). It mentions the steps the therapist should take in the event that avoidant behaviors arise through the non-compliance of completing the practice assignments and advises on how to help the client move passed these behaviors.

The Body

In his book, *In an Unspoken Voice,* Levine (2010) describes his approach to working with the body and trauma using Somatic Experiencing. His work focuses on the physiological responses of the sympathetic nervous system in the face of trauma. The body's "nervous systems are tuned to assess potential risk in the environment—an unconscious evaluative process… 'neuroception'" (Levine, 2010, p. 98). When the body perceives danger, it enters flight-fight-freeze mode. If the danger is no longer present, our bodies should regulate and return to normal. However, if self-regulation does not occur, our body becomes stuck in arousal. This can come in the form of a consistently, increased heart rate (Levine, 2010). The heart rate is a "direct window into the automatic (involuntary) branch of our nervous system" (p. 13).

A study conducted by Shalev et al. (1998) found that after a trauma occurred, patients whose heart rate returned to normal by the time of discharge were unlikely to develop PTSD; however, those whose heart rate stayed elevated after the trauma were highly slated to develop symptoms of PTSD. Levine (2010) supports this theory with his acknowledgement of the benefits for shaking and trembling of the human body following his own experience of being hit by a car. He states that those actions are "a core part of the innate process that reset my nervous system and helped restore my psyche to wholeness" (p. 15).

Levine's (2010) focus on shaking and trembling of the human body in the face of fear mirrors Darwin's (1998) work on animal expression and instinctual self-regulation after perceived trauma. In his work with animal expression, Darwin (1998) observed that the movements of animals' features, as well as their gestures, mirror the expressive gestures of man. This led to extensive, detailed work where he wrote the response of monkeys to perceived danger. In his observations, he found that monkeys also tremble with fear while the hairs on

their head stand up and their teeth become exposed (Darwin, 1998). He even wrote that "Mr. Sutton has distinctly seen the face of the *Macacus rhesus* grow pale from fear" (p. 140).

His principle of direct action focused on the effects of the nervous system causing the body to act independently of thought and habit:

> The manner in which the secretions of the alimentary canal and of certain glands—as the liver, kidneys, or mammae are effected by strong emotions, is another excellent instance of the direct action of the sensorium on these organs, independently of will. (Darwin, 1998, p. 66)

This referred to the immediate response of the mind-body in perceived danger and the effects fear had on the subject. Darwin (1998) often mentioned the standing of hair on the head or neck, but goes as far as to comment on the perceptible change of mans' hair color in the presence of fear. Contrary to the work of Levine (2010), Darwin (1998) felt that trembling was of no service to the being and even felt that it may have been a disservice to the individual. Despite this difference in belief of its function, Darwin (1998) continuously references the occurrence of trembling in humans and animals.

A study by McFarlane et al. (1994) looked at the occurrence of PTSD and its correlation to reported physical symptoms among 147 Australian volunteer fire-fighters 42-months after a bushfire disaster in 1983. They found that of the participants, those diagnosed with PTSD were more likely to consult doctors for physical ailments such as cardiovascular, respiratory, musculoskeletal, and neurological symptoms than the control group of fire-fighters that were not diagnosed with PTSD. It was also found that between PTSD sufferers with physical symptoms and PTSD sufferers without physical symptoms, those with physical symptoms were more likely to have a comorbid diagnosis of major depression (McFarlane et al., 1994).

McFarlane et al. (1994) also questioned the reasons why PTSD sufferers are more likely to report physical ailments. They offered up several possibilities such as symptoms being an "integral part of the constellation of symptoms that make up PTSD" (McFarlane et al., 1994, p. 715), that physical symptoms may be the direct result of injury during the trauma event that led to PTSD, symptoms may relate to comorbid diagnoses, or "premorbid factors such as personality may be important in the development or expression of physical symptoms" (McFarlane et al., 1994, p. 716). Goliszek (2014) wrote that "the interplay between the physical brain and the intangible mind is manifest in the interaction of the physical body and the mental aspects of health and disease. The health of the mind affects the body and the health of the body affects the mind" (p. 2).

Mind-Body Practices

According to Kim, Schneider, Kravitz, Mermier, and Burge (2013) mind-body practices are growing in the number of individuals seeking alternative services to reduce the symptoms related to PTSD. In their literature review, mind-body practices were defined as "physical activities that focus on interaction among brain, body and behavior, including yoga, taichi, qigong, mindfulness-based stress reduction, meditation, and deep breathing" (Kim et al., 2013, p. 2). It should be noted that these approaches are not an inclusive list of all therapies recognized as mind-body practices. Through their review of literature studying the effects of mind-body practices and stress reduction of PTSD symptoms, they supported findings that mind-body practices are effective alternative therapies that aide in lowering intensity of symptoms such as arousal, "numbness, anxiety, depression, insomnia, alcohol consumption, and family problems" (Kim et al., 2013, p. 7). However, the study was met with limitations in that many of the articles originally reviewed did not have control groups, there were variations in the design of the studies

as well as variations in duration. They acknowledge that a true meta-analysis was unable to be conducted (Kim et al., 2013).

Another form of services that are becoming more sought after are complementary and alternative medicines (CAM; Libby, Pilver, & Desai, 2012). These programs are often looked at as being outside of the normal scope of medical practice. In a study conducted by Libby, Pilver, and Desai (2012), it was found that there are 170 CAM treatment programs facilitated by the VA—at various locations—which specifically address the needs of those suffering from PTSD. Over 50% of the VA facilities offered programs in "mindfulness, stress management–relaxation therapy, progressive muscle relaxation techniques, and guided imagery" (Libby, Pilver, & Desai, 2012, p. 1135). It was also noted that of the creative arts therapy CAM programs offered by the VA, arts therapy was offered at 30% of the facilities, music therapy was offered at 13%, dance therapy 2%, and drama therapy 2%. Although a modest percentage, these results demonstrate that the VA is beginning to acknowledge the benefits of offering creative arts therapy programs, including drama therapy.

Drama Therapy

The North American Drama Therapy Association (NADTA) defined drama therapy as "the intentional use of drama and/or theatre processes to achieve therapeutic goals" (NADTA, 2016, n.p). The NADTA (2014) describes Drama Therapy as an:

> …active, experiential approach to facilitating change. Through storytelling, projective play, purposeful improvisation, and performance, participants are invited to rehearse desired behaviors, practice being in relationship, expand and find flexibility between life roles, and perform the change they wish to be and see in the world. (n.p.)

The use of drama as a therapy gives the client the freedom to safely explore the areas in their life that they are struggling with and use creativity as a way to build real life skills for dealing with certain situations.

Early History of Drama Therapy. Early records of art making have been found to date back to the Upper Paleolithic period, some 45,000-35,000 years ago (Bailey, 2009). Around the same time, shamans and priests began using dance and drama in rites as healing and religious practices. Fast forward to Aristotle, his writings acknowledge "drama's purpose as not just for education or entertainment, but to release harmful emotions, which will lead to harmony and healing in the community" (Bailey, 2009).

Although aspects of drama therapy have been utilized throughout history, it wasn't until 1945 that Lewis Barbato coined the term "drama therapy" (Bailey, 2009); however, it did not become a wide spread term until Gertrud Schattner. Gertrud was a Viennese actress that hid out in a mental institution in Switzerland during WWII, claiming suicidal ideation, when her temporary visa expired (Bailey, 2009). While there, she observed the practices of the staff and learned about mental illness treatment. Later, she married a psychiatrist that was doing work with patients recovering from tuberculosis. Her husband noticed the patients' bodies were getting better, but their mental health was not improving (Bailey, 2009). He asked his wife to come and do drama with them. She began doing drama, storytelling, and poetry with the patients and noticed that they were improving. Her work popularized the term, drama therapy (Bailey, 2009). With the help of other professionals using similar practices, they created the National Association of Drama Therapy in 1979 (Bailey, 2009).

Core Processes of Drama Therapy. Within the field of Drama Therapy, the core processes lie at the heart of what makes play effective as a treatment. First introduced by Jones

(1996), the core processes are the fundamentals of drama therapy that make it therapeutic. Every activity or technique used in a therapy session involves at least one of the core processes, but in most cases, more than one process can be identified. The core processes are listed and defined as follows:

- **Dramatic Projection:** The client takes on a fictional character or role, either with a small object or when creating a scene, and transfers aspects of themselves into the dramatic material allowing them to separate themselves from their inner conflict.
- **Drama therapeutic empathy and distancing:** Understanding of a role or character the client has been working with individually or in a group setting; the understanding of another group member's story/removes the client from their problem as a way of changing their perspective and allowing them to approach the issue from a safer viewpoint. In this case, if the client is too emotionally attached it is more beneficial to use a distancing technique like creating a story so as not to overwhelm them, until the material can be looked at closer without causing crisis.
- **Role playing and personification:** Some cases will have the client play themselves within a scenario or take the role of a fictional character for the sake of therapy—bestowing an inanimate object with life or human emotions.
- **Interactive audience and witnessing:** Audience and witness go hand in hand, in that the client can both be an active audience to their own exploration as well as a witness. The drama therapist and other group members can also be an active audience and witness to a client's story.
- **Embodiment:** Dramatizing the body or the realizing of the character or role through the body.

- **Playing:** Is, just that, the capability to play.
- **Life-drama connection:** The link between the events that make up the client's life and the story or "drama" that is created within the therapy. It is through this link that a client may start to see the shift toward personal change in their lives outside of therapy.
- **Transformation:** Operates on more than one level. It can be the client transforming from individual to a player or audience member, but it can also be the transformation or personal change previously noted when describing life-drama connection. It is the new ways of thinking and being that are explored during play that allow the client to develop new habits of responding to life situations in ways that they may not have done before therapy. (Jones, 1996)

Embodiment. In his book, Jones (1996) asks two questions: "How does someone's body relate to their identity?" and "What does the active use of their body in therapy offer to clients?" (p. 112). Embodiment—as it relates to drama therapy—draws from the experience of the actor taking on a role and their use of imagination to not only express the character's ideas, but to also actualize the character's bodily expressions, such as the way they move and the way they sound when they talk to others (Jones, 1996). This engagement of the imagination to bring a character to life requires the actor to fully immerse themselves within their body to create this character's profile. In a similar way:

> Embodiment in dramatherapy involves the way the self is realised by and through the body. The body is often described as the primary means by which communication occurs between self and other. (Jones, 1996, p. 113)

In the way that the actor's embodiment of their character allows them to develop its identity, a client's interaction with their own body helps them to regain access to themselves, ultimately, leading to a renewed sense of their identity. By physically engaging with a problem using drama therapy, the mind and body are working together to find a solution (Jones, 1996). This physicalized approach for working through an issue or problem creates the opportunity to gain awareness on the effects the client's issue has had on their body and their psychological functioning, all in one process.

Embodiment allows the client to explore the 'here and now' effects of an issue and engage with it—physically—in real time and process it with their drama therapist. Jones (1996) identifies three areas detailing how embodiment can allow for exploration and potential change for the client:

> 1. Learning to use their body in more effective or positive ways, 2. Exploring the therapeutic benefits of the client embodying new roles or identities within the sessions, and 3. Focus on how personal, social, and political views and influences can affect the body such as 'body image or emotional traumas related to the body'. (p. 113)

These areas of embodied exploration will be mentioned again in the dramatic body section.

Jones (1996) summarizes this core process by saying, "Embodiment in dramatherapy is the client's physical encountering of material through enactment, and combines the knowledge to be gained through sensory and emotional feeling with the knowledge to be taken from more abstract reflection" (p. 114). In his work, Jones (1996) talks about the knowledge often gained when the body is in action using drama. As noted by Jones (1996) "Dramatic knowledge is gained not through detachment, but through an actual, practical and bodily involvement" (p.

114). To further make the connection between the knowledge that can be gained through the body and drama therapy, Jones (1996) explored what he calls the 'dramatic body'.

The dramatic body. Drawing again on theatrical theories, Jones (1996) references the Bauhaus approach, which Schlemmer and Gropius developed to focus on the transformation of the body in the theatrical space. The Bauhaus approach posits that the body changes when it is in the dramatic element due to the forces that meet within the body (Jones, 1996). Jones (1996) describes the dramatic body as involvement of the body in a theatrical or dramatic act. It is "a place where imagination and reality meet" (p. 225).

For the client of drama therapy, developing a sense of the dramatic body is pivotal in the therapeutic process as it allows the client to get in touch with their emotions and understand the way their body expresses itself in various scenarios. Dramatherapist Lili Levy (as cited in Jones, 1996) described her experience of witnessing a client embody a character by saying, "I see that, by talking, she *tells* me how she feels, but by embodying the characters she has the experience and *feels* it in the 'here and now'" (p. 225). Another client stated this about their experience with embodiment, "It felt like me, but it wasn't me" (Jones, 1996, p. 225). These forms of using embodiment allows clients to explore the actions of a character and test out new behaviors as precursor to integrating them into their everyday life. The body is often referenced as the primary way by which we communicate between the self and others (Jones, 1996). Our personae are developed through the bodily expressions we emit during various situations leading to our sense of identity.

This is where the three areas of embodied exploration previously mentioned come back into play. Embodiment invites the potential for the body to express itself dramatically—leading to a dramatic body. This is how the client gains understanding of the way they express

themselves in the play; however, given the circumstances of the scenario, it could also lead to insight on how the client expresses themselves in similar situations in their daily life. Through allowing the client to embody different characters or roles, there is room for exploration of new behaviors. This leaves room for old behaviors and their negative effects to be explored along with new behaviors and potentially positive outcomes. The benefit of this area of embodiment is that through continuous use, the client can gain mastery of new skills, which can be integrated into daily life. Lastly, the use of embodiment to explore the societal influences that affect the client's body can lead to more insight on how these forces shape the clients understanding of themselves in relation to others.

Through this deeper understanding of how embodiment and the dramatic body facilitate change in drama therapy, it could be inferred that there would be a benefit to working with individuals suffering from symptoms of posttraumatic stress. In the field of drama therapy, working with Veterans and Military personnel is not uncommon. Although their approaches stem from different drama therapeutic theories, James and Johnson (1997) and Lahad, Farhi, Leykin, and Kaplansky (2010) have conducted studies exploring the effects that drama therapeutic techniques can have when working with Service Members.

Drama Therapy and PTSD. James and Johnson (1997) conducted a study whereby a drama therapy program working with Vietnam Veterans experiencing PTSD was created. This program was used as an alternative way of working with participants to account for alexithymia—the inability to put emotions felt during trauma into words (Krystal, 1979). The program used methods of processing through imaginative play, practicing coping skills, and performing autobiographical pieces to an audience (James & Johnson, 1997). The drama therapeutic approach utilized during this study was Johnson's (1982) Developmental

Transformations (DvT)—a form of physicalized play utilized in an improvisational environment to facilitate the imagination and spontaneous responses. In continuing the previous discussion of embodiment, this approach utilized the improvisational nature of the therapeutic sessions to allow the group members to find their own way of expressing themselves using their bodies. This in turn, allowed for new coping skills to be gained during the imaginative play.

Another more recent study of working with Military personnel using drama therapy is Lahad and colleagues' (2010) SEE FAR CBT. At its very core, SEE FAR CBT foundational influences come from three theoretical approaches: parts of Levine's somatic experiencing (SE), Lahad's fantastic reality (FR), and cognitive behavioral therapy (CBT; as cited in Lahad et al., 2010).

It uses Levine's SE as a way of focusing on the good and bad emotions felt in the body to jog the "body memory" (as cited in Lahad et al., 2010, p. 392). This allows the client to recognize good coping skills in the body such as "bodily grounded sensations" (p. 392) as well as note any bad feelings surrounding the traumatic memory. The use of FR comes from Lahad's theory describing the "ability of people facing traumatic situations to transcend into a fantastic space where they feel safe and secure and where they can deal with and change the unchangeable" (Lahad et al., 2010, p. 392). Its aim is to facilitate a distanced perspective of working with traumatic material using theories such as Landy's aesthetic distancing, Jenning's approach to the dramatic space, and Winnicott's potential space theory (as cited in Lahad et al., 2010).

They accomplish distance using COPE cards—therapeutic cards displaying images meant to externalize the trauma and invoke the good sensations as well as the bad within the therapy session (Lahad et al., 2010). In this sense, the client becomes the observer to their trauma

narrative and work through the story from a "pleasant/safe place" (p. 392). Lastly, the use of SEE FAR CBT uses aspects of CBT such as PE's focus on *in-vivo* exposure and desensitization of the trauma memory through retelling of the story during a short-term therapeutic process (Lahad et al., 2010). It also utilizes CBT's approach of psychoeducation during the therapeutic process as a way of keeping the client up-to-date on the steps to recovery when experiencing symptoms of PTSD.

In their study, Lahad et al. (2010) collected data from 106 patients at the Community Stress Prevention Center (CSPC) in northern Israel, who were exposed to 33 days of hostility during the Second Lebanon War in 2006. In this study, treatment was administered between 3 months to 1 year following exposure. Patients received either SEE FAR CBT treatment (N= 43), Eye Movement Desensitization and Reprocessing (EMDR) therapy (N= 57), or a combination of SEE FAR CBT and EMDR along with other types of treatment such as psychoeducation (N= 6; Lahad et al., 2010). The study used Post-traumatic Diagnostic Scale (PDS) at the first session, the last session, and a 1-year follow-up to monitor patients' reports of symptom severity (Lahad et al., 2010).

It was found that patients of both SEE FAR CBT and EMDR showed reduced PDS subscales following treatment. Although there was no significant evidence to show whether either treatment was more effective than the other, SEE FAR CBT showed greater overall reduction of PTSD symptoms—despite the numbers not being considered statistically significant (Lahad et al., 2010). This showed that there was potential for SEE FAR CBT to be considered as effective as EMDR for treating PTSD symptoms. It also gives rise to the need for more research to be conducted to determine the effectiveness of combined therapies that merge mind and body.

"Arts is just as important as military defense, you know? Emotional defense is just as important."

- *Quincy Jones*

Chapter 3. Results

It was important to introduce certain essential concepts and historical notions in the literature review so the reader would recognize them when reading the following section. The results depict a summary of the actual data that met rigid inclusion/exclusion criteria. The purpose of this section is to move beyond theoretical knowledge and ground this research connecting the mind and body in the treatment of PTSD in empirical data.

Synthesizing the mind and body

> Mind-body specialists posit that the mind and body are essentially inseparable—that the brain and peripheral nervous system, the endocrine and immune systems, all of our organs and all of our emotional responses, are in constant communication with one another through a common chemical language…Each mental state has a physiology associated with it—a positive or negative effect felt in the physical body. (Goliszek, 2014, p. xiv)

Although each study used an embodied approach, it was delivered in various formats such as: visual arts and physical presentations (Artra, 2014), Shakespearean performance techniques and self-written monologues based on the trauma event (Ali & Wolfert, 2016), aspects of narrative therapy, sand play and object projection (Flora, Boje, Rosile, & Hacker, 2016), dance and movement (Harris, 2007; Harris, 2009; Koch & Weidinger-von der Recke, 2009), role play and character development (Jones, 2015), work with stories as metaphors for life (Joseph, 2014), theatre games and sociometric activities (Kim, Kirchhoff, & Whitsett, 2011; Salverson, 2016), trauma-focused DvT (PitRe, Sajnani, & Johnson, 2015), Trauma-Sensitive Yoga (TSY; Nolan, 2016), and a form of hypnosis working with dreams (White, 2015).

Each of these studies used their methodologies to bring attention to the body and to determine where in the body the emotions around the trauma resided. It was through these aspects of working with embodiment that the following themes were identified: it fosters reconnection with the body, self, and others, improves life satisfaction and reduces symptoms, and bypasses Alexithymia.

Fosters reconnection with the body, self, and others

The following studies put emphasis on the embodiment's benefit to reconnection with the awareness of self and the body: Ali & Wolfert, 2016; Flora et al., 2016; Harris, 2007; Kim et al., 2015; and Salverson, 2016. In the study conducted by Harris (2007), he referred to his work with "war-affected African youths" (p. 135) using dance/movement therapy as a way of working through trauma. Overall, Harris (2007) noted that:

> Embodiment of personal experiences and attitudes through active participation in contained thematic exercises helped these teenage ex-fighters come to terms with the past in a way that enhanced longer term prospects for survival, and provided a model for reconciling to a community still torn apart by years of brutal war. (p. 154)

Harris (2007) also acknowledged the benefits of the Koindu group's use of role-play depicting their war experiences as the vehicle for the community accepting them back in their daily lives. Harris (2007) wrote that they "created a culturally relevant vehicle for ritualizing both truth of their experience and their need for community reintegration. Appropriately, they *embodied* their own journey through creative movement performed as communal rite" (p. 154). This focus on community reintegration through embodiment and role play is like the work described by Ali and Wolfert (2016) using the DE-CRUIT program.

The DE-CRUIT program was developed to mirror de-briefing Service Members upon returning from deployment (Ali & Wolfert, 2016). It was developed by the Veterans Center for Performing Arts (VCPA) to "support veterans in dealing with traumatic stress and reintegrating into civilian life" (Ali & Wolfert, 2016, p. 59). It was decided that due to the positive results of previous research using theatre-based approaches, re-enactment of the trauma would be beneficial in increasing the clients' confidence and optimism (as cited in Ali & Wolfert, 2016). To this point, the DE-CRUIT program uses Shakespearean monologues from characters that describe symptoms of posttraumatic stress as a way of working with their trauma (Ali & Wolfert, 2016). Through learning the cadence of reciting Shakespearean monologues and then writing their own monologue based their own trauma, clients could process their experiences and reduce symptoms (Ali & Wolfert, 2016). In addition to this novel approach, the program uses the framework of CPT to instill uniformity of its deliverance (Ali & Wolfert, 2016). They believe that the structure of CPT is beneficial when working with Veterans, but its high attrition rates may be credited to its "rigid pathology-based structure" (Ali & Wolfert, 2016, p. 60).

The DE-CRUIT program uses three components as its frame of approach: "unit cohesion, communalization of trauma, and therapeutic embodiment" (Ali & Wolfert, 2016, pp. 60- 63). The idea behind unit cohesion plays off the bond that is instilled in Military personnel during their time in service. When a Service Member enters the Military, they are indoctrinated to willingly sacrifice their own safety for that of their unit members (Ali & Wolfert, 2016). In the DE-CRUIT program, Veterans are deprogrammed of this mindset and reprogrammed to form bonds with the members of their therapy group with the common goal of healing (Ali & Wolfert, 2016). In one of the statements made by T., an Army Veteran, described his experience with the

DE-CRUIT program: “It was all vets in class. Working on scenes and talking with them makes me want to focus on helping fellow vets and the public” (as cited in Ali & Wolfert, 2016, p. 63).

The use of communalization of trauma follows the approach of CPT and narrative therapy, which encourage survivors of trauma to relate their trauma story (Ali & Wolfert, 2016).

> In the DE-CRUIT model, clients move from sharing their cognitive stuck points to sharing their first-hand experiences of trauma in the form of a first-person trauma monologue. (as cited in Ali & Wolfert, 2016, p. 61)

The program utilizes Shakespeare’s plays because many of the characters are Veterans that “astutely describe their military trauma through heightened verse that is at once linguistically distinct from the clients’ own language and experientially close to the clients’ own traumas” (Ali & Wolfert, 2016, p. 61). Another participant identified as J., a Navy Veteran, talked about her experience learning the monologue of Lady Percy in Henry IV, Pt. 1 (Ali & Wolfert, 2016). She described the line-by-line analysis of the monologues as a “crucial element in her experience of the program” (Ali & Wolfert, 2016, p. 63). J. stated:

> ‘The exercise where you take a line of text and say what it means was fabulous, it’s a really interesting way to identify…I can relate to a lot of different characters. We all have a story, even though my story may be different…It’s motivating, it’s given me a sense of purpose’. (as cited in Ali & Wolfert, 2016, p. 63)

Next the article introduces the use of therapeutic embodiment (Ali & Wolfert, 2016). Along with the line-by-line analysis, clients are also trained in the proper breathing techniques, embodiment, and rhythm of recitation used by actors to perform monologues in iambic pentameter (Ali & Wolfert, 2016). This approach not only assists in learning to speak the

monologues, but follows research studies that support "the neurological effects of relaxation techniques and…significant positive outcomes based on findings from electroencephalography (EEG) analysis" (Ali & Wolfert, 2016, p. 63). Ali and Wolfert (2016) mention that other researchers have acknowledged the benefits of self-regulation and body awareness bolstering effects of reducing posttraumatic symptoms. L., a Navy Veteran, described the benefits of learning to "plant your feet, breathe, and get grounded" aided in "unpacking my thoughts, feelings, and experiences in a safe environment" and "figure out meaning in my life" (Ali & Wolfert, 2016, p. 63).

Findings of the case study reported an increased feeling of "being in the moment" (Ali & Wolfert, 2016, p. 63), as well as, a desire for "broader implementation and more expansive outreach into the civilian community" (p. 63). Another aspect of the program was its use of "aesthetic distance" (Ali & Wolfert, 2016, p. 60) so the client can safely examine the material while working towards understanding and unity. This approach mirrors Landy's (1997) aesthetic distance, which operates under the same belief that allowing the client to externalize their story can be used as a safer framework of working through their issue before leading to reunification of the insight gained during the process.

Ali and Wolfert (2016) notated that after serving over 200 Veterans using the DE-CRUIT program, its attrition rate had remained under 10%, by the time of the articles publishing. They felt that "the DE-CRUIT program fulfills these requirements as a treatment model that represents a novel, integrative approach while retaining those aspects of CPT that are most strongly supported by extant empirical findings" (Ali & Wolfert, 2016, p. 60). In alignment with noting the experience of Veterans using embodiment to facilitate connection, an article by Kim,

Kirchhoff, and Whitsett (2011) identified the effect that Expressive Arts Therapy (EXA) has on middle school students that are dependents of Military personnel.

EXA utilizes aspects of the creative arts to work with clients in a therapeutic way (Kim et al., 2011). It uses an "intermodal exchange…where the same material can be explored through different modalities such as 'moving' a drawing, writing about a drawn image, or representing a feeling state in music" (as cited in Kim et al., 2011, p. 356). It also uses the 'here and now' group work to foster social skills building and creating self-awareness.

During the beginning phase of the study, participants were introduced to expressive techniques such as Moreno's sociometric activities to foster interpersonal relatedness (Kim et al., 2011). The authors felt that "by physically and spatially embodying each sociometric measure, individuals are able to see themselves in relationship to each other as well as the group as a whole" (Kim et al., 2011, p. 358). The program also used aesthetically distancing techniques by having clients create a group structure by placing personal drawings on the floor in relation to their group members (Kim et al., 2011). They were then asked to "identify three feelings that these separate issues have in common" (Kim et al., 2011, p. 359). This was done to foster self-expression as well as build group cohesion (Kim et al., 2011).

For the middle phase, the program incorporated drama therapeutic structures such as warm up activities and began using movement- and embodiment-based activities (Kim et al., 2011). This eventually led to enactments and role plays of scenarios that were taking place in the participants' lives. The enactments focused on the problem and then possible solutions to the participants' issue, such as negative peer pressure and friendship conflicts (Kim et al., 2011). This is akin to the life-drama connection I identified earlier as one of the core processes of

Drama Therapy. The approach to life-drama connection can facilitate the incorporation of behaviors practiced in the therapy to those utilized in daily life.

In the end phase of the therapy, participants continued work with role-plays and formulated—as a group—the way they wanted to properly end their therapy process (Kim et al., 2011). This was very important for this group because children of Military personnel often must "say goodbye" (Kim et al., 2011, p. 360) to friends when their Military parent is re-stationed in another location as well as when that parent is deployed for long periods of time. They noted that normalizing feelings of loss around the treatment could lead to resiliency when transitioning to new experiences (Kim et al., 2011). Near conclusion of therapy, the group decided to set up an exhibit of the art created during their therapeutic process and invite their parents and family members to engage with them in some of the activities they experienced while in therapy (Kim et al, 2011). This furthered the cohesion of the therapeutic experience to the parent-child relationship in a fun and emotional way (Kim et al., 2011). Strengthening a Military family's connection has been identified as aiding in "fewer child behavioral problems and more positive child behaviors upon their return" (Flora et al., 2016, p. 132).

In their review of Embodied Restorying Practices (ERPs), Flora, Boje, Rosile, and Hacker (2016) describe their work with a family post-deployment. Using ERP, they work with the participants to rewrite the family story through object and sand play. Each person embodies the story they create by physically creating a scene, then externalizing the story by putting words to their scene when they relay it to the others, therefore opening lines of communication between family members. In relation to PE, ERPs adopt the practice of gradual exposure to the trauma story in a short-term therapy setting, but work with the whole family rather than just with the Veteran experiencing symptoms (Flora et al., 2016). Flora and colleagues (2016) found that

working with the family as a unit—instead of individually—fosters the "reconfiguration of a family's story" (p. 135).

> ERPs work to dislodge dominant, linear, problem-saturated narratives of trauma that get repeated by the individual and family. Instead of replaying and reliving old stories, restorying 'explores around the dominant problem-saturated narrative…to recover previously unstoryable and unnarratable events of the experience that were previously excluded from the dominant narrative…Embodied restorying is not just a process of restorying by social constructivism but also one of sociomaterialism. Storytelling is more than telling; it is showing, shaping, and experiencing…our version of ERPs uses sand tray work, where family members tell their stories by assembling a set of action figures, a landscape, home/military objects into scenes depicting deployment and reintegration'…(Flora et al., 2016, p. 135-136)

This approach, again, mirrors Landy's (1997) use of aesthetic distancing—or externalizing—to allow for safe reconstruction of the trauma experience. It also is reflective of Jones' (1996) use of the life-drama connection, which allows for insight gained during sand tray work to be connected to the lives of the participants. Externalizing and the life-drama connection are core processes that can support the development of embodiment.

During the first session, participants were instructed to create two scenes: one displaying themselves or their family at their "best" or a proud moment and the other was to show how society or others have misunderstood them (Flora et al., 2016). Family #1 included a Veteran, who served three years in the Military with one deployment, and his wife (Flora et al., 2016).

> When the first session began, he spent close to 15 minutes in silence arranging a military scene, using objects and figures depicting him guarding the perimeter of their position at the base of a hill in Afghanistan. Simply arranging the material scene brought up emotions for him and his wife. His wife just watched him, even though the facilitator offered her the opportunity to create a sand tray scene if she wanted. Later, the veteran began to move the characters in the scene, still without talking. Finally, he began to describe the scene without ever making eye-contact with the facilitator or his wife, only looking at the sand tray…His wife simply listened and watched him. It was as if the trauma he was describing and the story he was now sharing were part of her trauma story because she said she sometimes felt left out of knowing what he experienced in deployment. (Flora et al., 2016, pp. 146-147)

From the creation of his scene, the Veteran in Family #1 could relay the following story:

> 'I still remember the words too, I was…roger, you might wanna get, uh, every medic that we have on, on, on the file down to the main…Sure enough right about that time there was about 15 or 20 uh, about 15 or 20 kids started coming in that triggered and IED that insurgents had set off. And uh, the, the, the little girl was wrapped in that blanket, I had to carry her to the expected pile…she might have gotten hit by the brunt of it, but what I saw underneath that blanket, uh, you wouldn't get that kind of detail in horror movies, let's put it that way'. (Flora et al., 2016, p. 147)

This level of open communication and witnessing is a goal and benefit to conducting ERPs with the family. It aids couples in gaining understanding of each other's stories (Flora et al, 2016).

Witnessing is also a core process that facilitates the client's ability to fully embody the experience of the therapeutic process.

Another case reflected the experience of Family #2 consisting of a Veteran, who previously served two deployments for a total of two years, his girlfriend, and her 10-year old daughter (Flora et al., 2016). Below describes how the family working on a story can be both insightful and interactive between participants in the therapy. One of the highlights the authors mentioned, was ERPs' structure allowing space for joint storytelling, which permits family members to build narratives based another family member's story (Flora et al., 2016). In their last session, the Veteran from Family #2 described a scene depicting what he hoped the future would bring and his girlfriend's daughter actively added to the story:

> 'Well it's pretty simple in general…we're happy, uhh, maybe a baby. And I want to be able to drive [as he pointed to a baby and car in the scene].' The daughter interrupted by making a bunk bed in the sand tray and saying she wanted a baby sister in the story. This is another example of the intra-active entanglement of material object and discourse, where the storytelling develops moment-to-moment.' (Flora et al., 2016, p. 150)

At the end of the session, the family writes their new story as well as any goals they have (Flora et al., 2016). They are then prompted to list any family, friends, or Military buddies that can act as accountability partners (Flora et al., 2016). Flora and colleagues (2016) did label ERPs as "secondary prevention" (p. 153); acknowledging that although this process can help equip skills and strategies for crises and potential dysfunction, there may be a need for additional therapy. However, they credit ERPs' ability to create an open discussion between family members around topics that felt taboo before the therapy (Flora et al., 2016). They admit that

they are "…eager to measure the degree to which family communication changes from a closed to open nature, how satisfaction and wellbeing is impacted, or how much material storytelling is impacted by resources like a sand tray of objects…" (Flora et al., 2016, pp. 152-153).

Another finding for effects of embodiment on reconnection to the self and the body were reported in an article written by Salverson (2016). During a symposium for first responders, Salverson (2016) conducted a workshop using Creative Resilience Training to foster peer support and re-evaluating perspectives using "action-based role play" (p. 102). Salverson (2016) recognized:

> …four aspects of arts-based resiliency training that promote self-knowledge, community connection, and healing: (1) witnessing beyond words (listening with an openness, a willingness to have something at stake, and a mutuality), (2) narrative options for re-storying one's life (other ways of understanding, living, and sharing one's story), (3) experiencing oneself beyond the definition of an injury, and (4) brain science and how stories change the brain. (p. 102)

In this article, (1) witnessing helps participants build an "embodied history" (as cited in Salverson, 2016, p. 103). The embodied history is made up by our memories as well as the things we write to "…describe how all the past is active in the present" (Salverson, 2016, p. 103). In regards to (2) restorying, Salverson (2016) believes that we often do not possess the necessary "narrative resources to contemplate options" (p. 103) for re-telling life stories. She used the example of how the "names of things change how we see ourselves" (Salverson, 2016, p. 103). For example, Salverson (2016) wrote, "Why is PTSD called a *disorder*? Why is it not called an *injury*? And why do we hear only about PTSD, not PTS?" (p. 103). This view of

suffering from a disorder follows people around and becomes their identity. This was very well spoken by the Veteran in Family #2 of Flora et al.'s (2016) study:

> He said the military named him as 'unemployable and PTSD, then cognitive tinnitus, it's like a really long list…it's like a little guy in my head that like someone said freak out!' (Flora et al., 2016, p. 146)

Using drama as an approach, Salverson (2016) declares that her "goal is to at least have people consider the possibility that maybe these injuries are meant as a time of suffering, but also as an opportunity for transformation. It is possible to transform trauma into resiliency…" (p. 103).

This leads into aspect (3) experiencing oneself beyond the definition of an injury (Salverson, 2016). As mentioned, it is common for people to let labels define who they are. Knowing I am identified as a person with depression can elicit several thoughts and assumptions from the reader as well as in myself—about what someone would say upon learning this fact about me. However, Salverson (2016) encourages participants to look beyond their label to the human underneath that gets into meaningless arguments with a parent or is simply having a bad day. It was cited in Salverson (2016) that we live in a "therapy culture, one that produces meaning through diagnosis, transforms illness into an identity, and disposes people to react to major catastrophes as potential trauma victims rather than concerned citizens" (p. 103). But in the world of drama, we are whole people that laugh and cry and can move in and out of stories while respecting someone's trauma and praising their joy (Salverson, 2016).

> When we experience being respected, not shamed; listened to, not ignored; safe, not at risk; our neurological pathways change. Not only that, our DNA changes. In other words, our genes are in conversation with our surroundings. (Salverson, 2016, p. 104)

The last aspect of Creative Resiliency Training is (4) Brain science (Salverson, 2016). This approach focuses on compassion as a facilitator for change in the brain. It is through connecting and bonding that our brain releases chemicals such as opioids and dopamine (Salverson, 2016, p. 104). The playfulness of drama allows participants to regulate themselves and break free of the reactive state that keeps them stuck in their immediate panic (Salverson, 2016). In summarizing Creative Resiliency Training, Salverson (2016) said:

> It gets people out of their minds (which is what is injured) and connected to their bodies and spirits. I would offer the opinion that people don't know how to shift back or change, and being stuck is what causes the frustration and hopelessness that many first responders and military vets feel. (p. 104)

Improves life satisfaction and reduces symptoms

Speaking to the impact of moving from being stuck to satisfaction and wellbeing, White (2015), Nolan (2016), Salverson (2015), Koch and Weidinger-von der Recke (2009), PitRe, Sajnani, and Johnson (2015), and Joseph (2014) address the ways embodiment reduces symptoms and lays the foundation for improving overall quality of life. Embodied Imagination (EI) works with dreams and memories using a psychotherapeutic technique where the client recreates the trauma environment in "hypnagogic state as a composite of its many perspectives simultaneously" (White, 2015, p. 247). This approach encourages using dreams, nightmares or memories of the trauma to foster "bodily responses to images" that are "viewed as a form of intelligent communication" (White, 2015, p. 249).

> Two aspects of EI appear to be unique among these kinds of treatment modalities: first, its exploration of multiple perspectives of the same dream or memory—especially the non-self-perspective as a source of new intelligence—

> and second, its focus on hewing as closely as possible to the phenomenon of the original image. (White, 2015, p. 249)

In her article, White (2015) describes her therapeutic process working with a client using EI:

> 'Christopher' (pseudonym), a high-ranking Marine, first came to see me because his mother and sister ordered him into psychotherapy. They felt he had changed since returning from Afghanistan 3 years earlier, becoming emotionally more distant and rude…It would take almost 2 years of working with this affable, high-functioning young man on what, at the time, seemed like relatively minor family and employment issues before the fuller and deeper impact of his time in combat began to emerge. (White, 2015, p. 248)

White (2015) went into detail describing Chris' "lingering guilt, shame, and doubt…about certain decisions he had made as a commanding officer" (p. 251). Although Chris was not diagnosed with PTSD, White (2015) felt that he met the "subclinical posttraumatic pattern that returning vets often experience" (p. 251). Because of his deployment, Chris often had difficulty making decisions and often struggled with ambivalence (White, 2015). This caused him to feel "so uncomfortable about moving on with his life that he had unconsciously recreated his barracks in his home, renting a tiny, bare apartment with a single dark window and using a single dish and set of utensils to eat the same chicken dinner night after night" (White, 2015, p. 251). In addition, Chris' fiancée ended their engagement because he would not commit to marriage and he also stayed in a job he was not satisfied with because he could not decide if it would be better to leave (White, 2015).

Upon finding out his ex-fiancée was engaged to another man, Chris began to emotionally open-up and revealed his most painful memory (White, 2015). During the early part of his

deployment to Afghanistan, Chris' unit was hit by Improvised Explosive Devices (IEDs) that injured several of his men. In response, he was tasked with eliminating the threat being caused by a man named "Ali" and his militia (White, 2015, p. 253). Chris quickly decides that despite having no radio communication to call for backup, they would sneak into Ali's village and burn down his house (White, 2015). Although they removed Ali's wives and children from the home, Chris recalled the moment they stood outside watching the flames:

> He has two of his soldiers light kerosene-soaked rags and throw them into each side of the mud house. It erupts in flames. Chris excitedly grabs his camera and starts recording the action. He catches the eye of one of Ali's young sons, who is watching Chris videotape his burning house. Terror streaks across wide eyes. In that moment, Chris drops his camera in anguish. 'What are we doing?' he asks himself. 'Shit, how stupid do we look? Our whole process is wrong. This kid is watching Americans burn down his house while they film it. If I were him, I'd grow up hating Americans. He may become the next Osama bin Laden!' (White, 2015, pp. 253-254)

Eventually, Ali surrenders to them and they take him into custody despite the clear agitation of his unit at not being able fight it out with Ali and his militia (White, 2015). This memory haunted Chris through "posttraumatic nightmares" (White, 2015, p. 255). As described by White (2015), "posttraumatic nightmares are graphic, repetitive reprisals of actual events…these nightmares are more like intrusive memories than ordinary memories" (p. 255).

Using EI, White (2015) began working with Chris in gradual stages of exposure to hypnagogically recreate the physical and emotional environment of his memory. They work together to safely, explore the sensory response of his setting (White, 2015). The first goal was

to identify a safe place: Chris described a "rallying point outside the village" where he "sits on a large rock in the shade of a grove that has cropped up around a stream…he removes his heavy boots and socks, cooling his tired feet in the water as it trickles down from the mountains" (White, 2015, p. 255). From this point on, they continue to move further into the memory and identify with the perspectives of the individuals Chris mentions during his retelling (White, 2015). This creates a unified perspective between the client and the identified individuals with the intention of fostering insight (White, 2015).

Once the formation of the trauma memory is fully realized, White (2015) instructs Chris to recreate the "embodied composite" throughout the day and before going to sleep, "holding each subjective state in their respective anchor points in his body" (p. 258). White went on to write about the constructed perspectives of the memory:

> A memory body, composed of a network of five different perspectives: safety in the soaking feet, shame of incompetence in Smith's stomach, futility in the shoulders, terror in the held breath, and blood-thirst in Mac's smile…Separately, these individual states are variations of experiences Chris already knows. It is holding these disparate states together in the waking body that leads to change—that expands consciousness to mirror the extreme complexity of Chris' wartime experience. As a result of consciously holding each of these states in his body, he can no longer deny any single part of that experience. Through this composite, a new adaptive system that can withstand and flexibly respond to current life becomes possible. (White, 2015, p. 258)

After completing their work, White (2015) noted that she met with Chris four more times before their sessions ended. During that time, he acknowledged that regularly practicing the

composite helped him to feel "'at peace with the circumstances of the mission'" (as cited in White, 2015, p. 258). Their sessions ended because Chris no longer had posttraumatic nightmares or intrusive thoughts about the trauma (White, 2015). He also "was able to embrace his future by becoming more decisive…he finally decided to leave his unsatisfying job for more promising work in another state. Instead of ruminating about his ex-fiancée, he started expressing hope about finding another significant relationship. He became enthusiastic about replacing his lair of a home with a more spacious, light-filled apartment" (White, 2015, p. 258).

In a follow-up conversation with Chris, White (2015) states that he is no longer a "victim of shame, but someone who can help 'move things along'" (p. 259). She also acknowledges Chris' "reevaluation of his views…in that he individuated from a conventional, conditioned military stance to one that was more authentic and in accordance with his experiences" (White, 2015, p. 259). Although he still struggled at times with self-judgment, White (2015) talks about his posttraumatic growth and him consciously "moving along" (p. 259). These results toward improved life satisfaction resemble the findings reported by Nolan (2016).

In a narrative review conducted by Nolan (2016), overall findings showed that Trauma-Sensitive Yoga (TSY) improved "yoga participant satisfaction, as well as physical and emotional safety" (p. 39). The review reported the findings of five research studies conducted on female survivors of "intimate partner violence (IPV) and other interpersonal trauma" (Nolan, 2016, p. 34). The studies reported on were Clark et al., 2016; Mitchell et al., 2014; van der Kolk et al., 2014; Rhodes et al., 2015; and Rhodes, Spinazzola, & van der Kolk, 2016 (as cited in Nolan, 2016).

The study with Clark and colleagues (as cited in Nolan, 2016) was a "quasi-experimental study aimed to determine the feasibility of implementing a 12-week TSY protocol as an adjunct

to group therapy for women who have experienced IPV" (p. 34). The study used non-random convenience assignments to split 17 women into two groups: a group therapy plus TSY group (N= 8) and a group therapy control group (N=9; as cited in Nolan, 2016). Despite conducting pre-tests using the Hospital Anxiety, Depression Scale, State-Trait Anxiety Inventory, and PTSD Checklist- Civilian Version, the study did not report any post-treatment results regarding symptom reduction (as cited in Nolan, 2016). It acknowledged limitations of the study were small sample size, attrition rate (33%), and that it was "underpowered to test difference between groups" (as cited in Nolan, 2016, p. 34). However, the study did report that it found TSY to be "reasonably easy and inexpensive to implement" (as cited in Nolan, 2016, p. 35).

In continuation, the research conducted by Mitchell et al. (as cited in Nolan, 2016) utilized a randomized-control trial (RCT) in a hybrid TSY/Kripalu Yoga (KY) study to "determine if this type of yoga intervention would reduce PTSD, depression and anxiety symptoms and to ascertain the extent to which implementation of such an intervention was feasible" (p. 35). The study included civilian and Military women who met the criteria for PTSD following results of a Primary Care- PTSD Screen (as cited in Nolan, 2016). The participants completed the PTSD Checklist- Civilian Version, State-Trait Anxiety Inventory, and the Center for Epidemiological Studies- Depression Scale at the beginning, end, and one-month after treatment (as cited in Nolan, 2016). Findings showed "significant declines in all outcomes for both group, but no significant group differences ($\beta = -0.03$, $t = 0.83$; $p = 0.59$)" (as cited in Nolan, 2016, p. 37). Findings related to items on PTSD Checklist such as re-experiencing also showed significant reduction with no group differences (as cited in Nolan, 2016). Both symptoms of depression and anxiety showed significant decrease with no difference between groups (as noted Nolan, 2016). However, when the groups were "analyzed separately, scores

decreased significantly for the control group, but not the yoga group…despite positive feedback from participants, the results of this study do not support significant improvements for the yoga group versus the control group" (as cited in Nolan, 2016, p. 37).

> van der Kolk and colleagues (as cited in Nolan, 2016) also conducted a RCT to:
>
> …test the efficacy of TSY in decreasing PTSD symptoms in women (ages 18-58) with nonresponsive PTSD due to interpersonal trauma such [as] IPV. Nonresponsive PTSD was operationalized as being in therapy for three years for trauma prior to the study, without significant remission or reduction of symptoms. (p. 37)

Of the 101 women assessed to participate in the study, 64 women made up the total sample (as cited in Nolan, 2016). The groups were evenly split between the control group and the TSY group until one woman dropped out of the yoga group and three more dropped out of the control group (as cited in Nolan, 2016). Reported findings of the Clinician Administered PTSD scale showed that "16 out of 31 (52%) of the yoga group and 6 out of 29 (21%) of the control group lost PTSD diagnostic status" (as cited in Nolan, 2016, p. 37). Final reports showed significant reduction in scores related to the Beck Depression Inventory, Davidson Trauma Scale, Tension Reducing Activities subscale of the Inventory of Altered Self Capacities, and the Affect Dysregulation subscale (as cited in Nolan, 2016). However, neither group showed significant differences with the Dissociative Experiences Scale (as cited in Nolan, 2016). Overall, the study noted their support for TSY as a supplemental treatment for women with PTSD. Nolan (2016) wrote that "the researchers posit that the effect of TSY is comparable to that of psychotherapeutic and psychotropic interventions" (p. 37).

The last studies Nolan (2016) documented in this narrative review were conducted by Rhodes and—as a follow-up study—Rhodes, Spinazzola & van der Kolk. Both studies were written in follow-up to the van der Kolk research, but provided different types of data. The study reported by Rhodes (as cited in Nolan, 2016) used semi-structured phenomenological interviews to document 39 responses of participants. The study with Rhodes and colleagues (as cited in Nolan, 2016) reported quantitative findings with 49 women that completed follow-up measures. It was not indicated how many of the participants in Rhodes' study also completed follow up measures in the study with Rhodes and colleagues.

Rhodes indicated that a "core phenomenon" that appeared during the interviews was "peaceful embodiment" (as cited in Nolan, 2016, p. 38). This overarching theme encompassed gaining new perspectives through yoga, being more present-minded, and "experiencing corrective body-related experiences" (Nolan, 2016). Women reported "hope initialing change" as another result of peaceful embodiment (Nolan, 2016, p. 38). They also highlighted the gentleness and choice-oriented approach of the TSY class, in addition, the instructor helped them to feel safe in their practice. Despite positive feedback, some external and internal barriers identified for post-treatment practice were recognized. Some external barriers included: "cost, finding a suitable class, an instructor with whom the women felt safe, and the consistency of a regular practice" (Nolan, 2016, p. 38). Internal barriers were related to motivation and fear. While many of the women reported struggling with motivation, some women also reported being afraid such as being afraid of getting better (Nolan, 2016). Although there was no more detail given to the internal barriers, the study still acknowledged the benefits of the phenomenological study adding the participants voice to the original study (as cited in Nolan, 2016).

The study conducted by Rhodes and colleagues added a quantitative value to the follow-up of participants from van der Kolk's original study (as cited in Nolan, 2016). The follow-up measures were completed by 26 women from the original yoga group, 16 women from the original control group only, and 7 women that were in the original control group, as well as participated in the 10-week TSY intervention—offered to them—after completion of the study (as cited in Nolan, 2016). Given the variation in completion of TSY, "length of time between completion of the RCT and follow-up ranged from 39 to 143 weeks" (as cited in Nolan, 2016, p. 38).

In addition to the measures used in the original study completed by van der Kolk (as cited in Nolan, 2016), researchers also administered the Stressful Life Events Screening Questionnaire and a questionnaire regarding the participants' post-RCT treatments, such as attendance in support groups, psychotherapy, medications, or had participated in some other type of trauma/mental health treatment" (as cited in Nolan, 2016). Results of the follow-up measures showed "reduction in PTSD symptom severity, reduction in depression symptom severity, and increased likelihood of loss of PTSD diagnosis" (as cited in Nolan, 2016, p. 39). The authors did not clarify if the findings reported were of all participants or only those that participated in a TSY practice. The findings also showed that the higher frequency of yoga practice, increased the chance of symptom reduction and loss of PTSD diagnosis. Nolan (2016) noted that a limitation of the study was:

> …isolating the effects of the original intervention on the outcome measures. It is unknown why no significant findings were found for dissociation or tension-reducing activities, nor is it known why the control group displayed greater reduction in PTSD symptom severity. Additional limitations were reliance on

> self-report and the limited number of control variables due to sample size. (p. 39)

Before Salverson's (2016) article on moving passed the labels, Artra (2014) wrote about the importance of the participants' voice regarding meaning-making and grief. To find ways of addressing symptoms of PTSD while also making the "civilian researcher's interpretation transparent", Artra (2014) produced a mixed-method study about meaning-making and grief with combat Veterans (p. 211). In this study Artra (2014) used The Warrior's Journey, a 5-day residential treatment, to work with Veterans experiencing grief and loss. This program featured body-based mindfulness, expressive arts group processing and, on the last day, presentation of a New Story to the group members, researchers, and "external civilian support staff" (Artra, 2014, p. 218).

The Warrior's Journey focused on the benefits an "Integrated Posttraumatic Treatments Model" (IPTSM; as cited in Artra, 2014, p. 212) can have when merging this arts-based approach with other forms of therapy to address symptoms that are not easily recognized.

> In accord, the results of this study demonstrated participants as well as the researcher moving toward difficult emotions, which elucidated rich data that allowed assessment. Assessment indicated the integration of previously unknown or rejected aspects of the self while making meaning. These changes coincided with statistically significant reduction in symptoms of PTSD. (Artra, 2014, p. 213)

This integrated treatment model not only reported on its use of expressive arts grief treatment, but also thematic analysis of the participants' 88 art pieces and 8 stories along with the researcher's response art to the data "to distinguish between the civilian researcher's

interpretation, subjective response, and combat veterans' meanings" (Artra, 2014, p. 213). It fostered more understanding between the researcher and participants, giving voice to the "reflective and reflexive processing over external processing" (Artra, 2014, p. 213). The paradigm was summarized as "the belief that human experience arises from social construction" (Artra, 2014, p. 215). The author continues, by stating that, "this study understood the task of The Warrior's Journey participants to be that of reconstructing meaning from the ruins of shattered assumptions about the world" (Artra, 2014, p. 218).

In their work to alleviate PTSD symptoms in children following a trauma, PitRe, Sajnani and Johnson (2015) published a case study about the use of Trauma-Centered Developmental Transformations (DvT). In this study, they write about PitRe's work with Frankie—a 6-year old victim of physical and sexual abuse (PitRe et al., 2015). Its trauma-centered foundation rests upon the work of Judith Cohen and Esther Deblinger—the creators of Trauma Focused Cognitive Behavioral Treatment (TF-CBT; as cited in PitRe et al., 2015).

> TF-CBT utilizes stress inoculation techniques (relaxation, feeling identification, thought stopping, positive self-talk), cognitive processing (cognitive triangle), gradual exposure (creating a trauma narrative) and parent involvement in an integrated treatment format. (as cited in PitRe et al., 2015, p. 42)

The TF-CBT method was created to help children following traumatic events to work around any barriers age might present while progressing through their material. This approach used games and art as a form of integrated treatment to address possible concentration issues, appropriateness for age-level and verbal processing issues (as cited in PitRe et al., 2015, p. 42). Likewise, Trauma-Centered DvT also uses gradual exposure, mutuality, and embodiment to

establish a “powerful, imaginal playspace” to “offset the challenges posed by direct exposure in standard approaches” (PitRe et al., 2015, p. 43).

In the study, PitRe (2015) works with Frankie using these three components to overcome his trauma history with sexual abuse. In working towards gradual exposure, PitRe (2015) gently directs play, during re-enactment, towards Frankie’s abuse. When recounting references to Frankie’s trauma in the transcript, the authors used *italics*. During one of their early sessions, the therapist makes subtle hints towards Frankie’s trauma:

> Therapist: More nightmares?
>
> Frankie: Ya.
>
> Therapist: Like the last ones?
>
> Frankie: No, different.
>
> Therapist: Different? Worse? Oh man, were the monsters there? (Frankie often uses monsters imagery in play but also speaks about monsters in his nightmares)
>
> Frankie: (No response)
>
> Therapist: *Must have been really bad.* (Increases the volume of her voice and begins to move slowly towards Frankie, he notices.)
>
> Frankie: (No response but diverts his eyes, continues sorting toys, seemingly looking for something.; as cited in PitRe et al., 2015, p. 45)

While moving toward gradual exposure, the therapist and client are also establishing mutuality or support of the therapist as a play partner (PitRe et al., 2015). The role of the therapist is to model the ability to play the victim as well as the perpetrator. When the child begins treatment, it is often that they take on the dominant role of the perpetrator until they have

gained mastery over it and feel safe enough to enter the role of the victim (PitRe et al., 2015). This style of therapy supports "physical proximity and availability of the therapist in the play, which may also include playful physical contact" (PitRe et al., 2015, p. 44). This only serves to bolster the child's ability to take risks during the play and feel protected by the therapist.

Through embodiment the "traumatic memories in physicalized role-play provides a concretized foundation for the child's re-imagining of them in actual behaviour" (PitRe et al., 2015, p. 44). PitRe's (2015) use of embodiment with Frankie progressed over the course of their therapeutic process to include playing out scenes directly referencing his anal rape. While the article acknowledged the readers' concern for "possible re-traumatization and the crossing of interpersonal boundaries" (PitRe et al., 2015, p. 44), they assured readers that Frankie did not experience re-traumatization and, in fact, gained mastery over playing the perpetrator, as well as the victim. PitRe and colleagues (2015) wrote:

> It is clear that Frankie understands that these enactments are only *representations* of his abuse, and are not dangerous, quite in contrast to the earlier session where Frankie demonstrated strong avoidance and fear of replaying references to his trauma. (p. 51)

Lastly, Joseph's (2014) Act Resilient program speaks to the symptomatology benefit of embodiment working with Soldiers experiencing TBI or PTSD. It notes the concept of neural plasticity as its foundation to promoting healing in a traumatized brain (Joseph, 2014). As cited in Joseph (2014):

> Evidence has been accumulating that the brain can reorganize extensively after damage and that reorganization can be obtained even many years after the trauma with appropriate late rehabilitation. (p. 83)

Applying the concept of neural plasticity, Act Resilient uses techniques that focus on reframing thinking, responses, building new motor skills, and ways of perceiving situations (Joseph, 2014). To do this, Act Resilient uses embodied approaches to address emotions that are not just in the head. The article refers to Levine's (2010) point about animals using shaking to reduce adrenaline following a stressful event to regulate the fight-flight-freeze response.

The program's key feature is that "additional ruminations on 'bad things' are avoided, and not reinforced by repetition" (Joseph, 2014, p. 84). The program found that "self-reported stress levels have been reduced by over 50% after just one class" (Joseph, 2014, p. 85). This finding is indeed beneficial to note, but Joseph (2014) does not provide any context—such as number of participants, environmental factors, or scales used—as to how he received that percentage.

One aspect of the program uses "whole brain exercises, which alternate brain activity from left to right, front to back, and with high and low stimulation levels alternating quickly" (Joseph, 2014, p. 84). This was done using theatre games working in a group setting with humor as its primary focus. The program also offered a psychoeducational approach. When a Veteran is believed to be reaching higher levels of activation due to environmental stressors, the family is instructed to notice this change and adjust their behavior to prevent "further upset" (as cited in Joseph, 2014, p. 84). It is believed that finding nonverbal ways of communicating this stress can give spouses:

> greater situational awareness of rising stress levels…When such signs are detected, more talk will likely diminish successful communication, and additional stress could even lead to physical violence or destructive arguments. (as cited in Joseph, 2014, pp. 84-85)

When this is happening, it is often noted that Alexithymia—a common symptom of PTSD—can be credited to causing difficulty in communicating the base of these frustrations (Harris, 2009; Jones, 2015; Koch & Weidinger-von der Recke, 2009). In response, embodiment has been identified as a process for addressing this symptom, which is often difficult to work through in traditional psychotherapies (Harris, 2009; Jones, 2015; Koch & Weidinger-von der Recke, 2009).

Bypasses Alexithymia

Through his work with cultural groups, Harris (2009) found that using creative arts therapies not only bypassed complications with alexithymia, but also addressed cultural viewpoints on verbalizing a trauma event. He noted the use of cultural rites as forms of treatment rather than verbalization of the trauma can have a large impact on the integrative process (Harris, 2015). While he acknowledges the that verbalization of the trauma story is:

> deemed pivotal to virtually all therapeutic interventions with torture survivors…Symbolization through fantasy may itself enable children to erect a fortress in the mind that defends them from the worst psychological effects of violence…Given the nature of human neurological responses to trauma, many children experience significant rupture in their capacity to render the trauma history in words. The role of culture in the expression of the speechless terror may be equally problematic. (Harris, 2009, p. 95)

Harris (2009) then speaks to the ways culture shapes perspectives of the body, disease, and disorders through embodiment and symbolization. Following a trauma, some cultures rely on religion, customs, and rituals to reorganize their lives (Harris, 2009). This way of structuring a response to trauma creates a level of homeostasis that allows meaning to be made, and enables

group and individual growth following extremely stressful events (Harris, 2009). In a statement, Harris (2009) wrote:

> The rituals and customs of cultures, especially sociocentric ones in which the demands of the collective invariably transcends those of its individual members, serve as paradigmatic healing structures. By upholding social cohesion, even amidst situations of massive disruption such as war, pivotal rituals may help sustain a community's capacity for facilitating its members' movement toward the reestablishment of normality. (p. 95)

This quote could be applied to the Military culture, although certain questions would need to be answered, such as: Can an armed collective formulate a *healing structure*? and What *pivotal rituals* could help Military families? A study cited in Harris (2009), wrote that the "[Mozambique's p]eople would rather not talk about the past, not look back, and prefer to start afresh following certain ritual procedures. These do not necessarily involve verbal expression of the affliction" (p. 97).

Comparable to the Mozambican culture, Military personnel have been known to struggle with verbally expressing their trauma. To validate this point, a study found that:

> among 99 school-aged refugees from Sarajevo who were assessed for patterns of encountered war stressors and persistent psychological difficulties, the children who had experienced the highest degree of exposure seemed to worsen as a result of talking about the events. (Harris, 2009, p. 97)

Harris (2009) goes on to write that the structure of ritual creates a framework of how the "expression and release of difficult and potentially conflicted emotions associated with traumatic exposures" (p. 97) are revealed. Harris (2009) highlighted that that his work using "active

embodiment" (p. 100) with war-affected refugees helped access "deeply hidden symbolic meanings" (p. 100). In a collectivist culture—it could be argued that the Military culture is collectivist—the rituals help to normalize daily functioning. However:

> On occasions when political or social upheaval lead to the breaking down of such traditional systems, then the loss of 'cultural defense mechanisms' compels individuals to seek sources of emotional control on their own. (Harris, 2009, p. 97)

Applying the above quote to the Military, perhaps the deployment of Military personnel and placement in violent situations can create a loss of cultural defense mechanisms and a need to seek normalcy in any way they can to make sense of their surroundings while overseas.

Turner (as cited in Harris, 2009), uses rites of passage as a foundation for expressing the *liminal* (from Latin *limen* or threshold) space in three stages:

> (1) Separation (from ordinary social life);
>
> (2) margin or limen…when the subjects of ritual fall into a limbo between their past and present modes of daily existence; and
>
> (3) re-aggregation, when they are ritually returned to secular or mundane life—either at a higher level or in an altered state of consciousness or social being. (p. 97)

Applying these stages to Military rites of passage can look one of two ways: (1) separation=leaving for basic training, (2) margin or limen= time during training/Military Occupation Specialty (MOS) training, (3) re-aggregation= graduate and return home before first relocation OR (1) separation= pre-deployment, (2) margin or limen= time during deployment,

(3) re-aggregation= redeployment or reintegration. From this perspective, Turner (as cited in Harris, 2009) posits that:

> Liminality, or 'being-on-the-threshold,' is thus the period betwixt and between, the subjunctive playful 'as if' of ritual, in space as in time apart from quotidian existence, a site of intense communitas. The sacralized borders of liminality frame a potential for enchantment, subversion, and change. 'When a ritual does work'…it is possible: to achieve genuinely cathartic effects, causing in some cases real transformations of character and social relationships…The exchange of qualities makes desirable what is socially necessary by establishing a right relationship between involuntary sentiments and the requirements of social structure. People are induced to want to do what they must do. In this sense ritual action is akin to a sublimation process, and one would not be stretching language unduly to say that is symbolic behavior actually 'creates' society. (pp. 97-98)

It is through this liminal space that Harris (2009) believes creative arts therapies (CATs) thrive when working around verbal expression of trauma. Harris (2009) wrote that cultures use embodiment to represent change and growth following a trauma. As cited in Harris (2009), "art, song, drama, and dance in primitive times were motivated by a need for catharsis and for gaining control over threats to the community or to the individual" (p. 99). While he acknowledges that the therapeutic space must provide safety and trust to aid the client in entering the liminal space, he does not dispute the CATs' ability to do so (Harris, 2009).

> Whether formulated in the context of the ceremonial dancing circle, the creative arts therapy group, or the intimate maternal-child dyad, profound relational

> bonds invest the human species with the talents to survive even the most unthinkable of ruptures and, sometimes in the face of speechless terror itself, to divine symbolic meaning for expressing themselves. (Harris, 2009, p. 103)

Harris (2009) introduced embodiment as a social framework the community uses to recover from trauma by depicting the ideal society post-trauma. Following this frame, a case study conducted by Jones (2015) highlighted the aspect of working around alexithymia using Drama Therapy's embodiment to create community awareness and connection following a young boy's trauma. Jones (2015) wrote about a drama therapeutic process that took place between Dooman and Abui. Abui is a 10-year old from Sierra Leone that had lived in a refugee camp for two years (Jones, 2015). Before leaving Sierra Leone, he had witnessed the murder of a family member. The author does not say where Abui's therapeutic process took place, but that he was being bullied in his new school and was having difficulty sharing the therapeutic space with his mother—who often attempted to push him away due to her discomfort (as cited in Jones, 2015).

Using object play and improvisation, Dooman and Abui worked together to make references to his time in the refugee camp (as cited in Jones, 2015). After several weeks together, it is the use of decorating a mask that has Abui talking "quite a lot this session" (as cited in Jones, 2015, p. 11). Although he called the mask "evil", Abui proceeds to try it on "as if freed from the fear that this evil could harm him now" (as cited in Jones, 2015, p. 11). He later admits that the mask represents the man that shot his brother (as cited in Jones, 2015).

Their work leads to an improvisational enactment of the Three Little Pigs story before Abui decides to put his own spin to it. From this he instructs the drama therapist to write down his words so that he can enact the play with his classmates (as cited in Jones, 2015).

> The impact of the process is described as connected to the ways in which the drama process and witnessing relate to trauma: 'We gathered together at the end of the group…I asked the group to make a statement of what they heard without posing any questions to Abui, but what they felt able to tell him from themselves. The witnessing of Abui's story was honest. The children were expressing their own deep emotions of sadness and shock at what Abui had to endure and their awe that Abui could survive and be living a life with them.' (as cited in Jones, 2015, p. 12)

Dooman (as cited in Jones, 2015) stated that Abui was no longer bullied after this experience and was often invited by classmates to play with them during recess. Jones (2015) uses this case study to relate the process of the arts therapies to address unspeakable memories. He specifically relates Abui's experience as "awake dreaming" (as cited in Jones, 2015, p. 12).

> The process changes from one allied to a dream of expression and repetition to a dream of communication and thence to a dream that enables the trauma to be communicated and actively engaged with in images and enacted improvisations. (Jones, 2015, p. 7)

Jones (2015) wrote that embodiment and action can allow children to engage with a trauma—in ways verbal therapies struggle with—to understand what they witnessed. Using fantasy, children can work as a group in relation to each other to build this understanding together. Play is both a language and process that allows the trauma to be addressed directly or metaphorically (Jones, 2015). He writes that for children, expressing trauma in words may be beyond their developmental level of speech. However, he feels that the safe place created through play can lead to meaning-making of a painful experience (Jones, 2015).

In their article, Koch and Weidinger-von der Recke (2009) continued this theme of CATs bypassing alexithymia. In their work with refugees in Germany, Koch and Weidinger-von der Recke (2009) used dance/movement therapy (DMT) to overcome the non- and pre-verbal aspects of trauma. However, their process is broken down into "stages of stabilisation, confrontation, and integration" (Koch & Weidinger-von der Recke, 2009, p. 292). For the client to benefit from confronting their trauma, they must first be in a stable place somatically and mentally (Koch & Weidinger-von der Recke, 2009). Once stabilization is gained, the client is faced with confronting the trauma to overcome intrusion and flashbacks before they move towards integration. This is supported by psychoeducation, assisting with any legal issues concerning housing, etc., and providing any community resources needed (Koch & Weidinger-von der Recke, 2009).

From here, the therapeutic process moves towards incorporating somatic interventions to address symptoms, such as regulating the circadian rhythm and learning to recognize triggers (Koch & Weidinger-von der Recke, 2009). Due to the complexity of the refugees' situation, Koch and Weidinger-von der Recke (2009) acknowledged that crises such as legal issues can affect the mental stability of the client causing regression; in this situation, that takes precedence over everything. Ultimately, their work focuses on the ways the body can communicate emotion to the others (Koch & Weidinger-von der Recke, 2009). One of the cases noted in Koch and Weidinger-von der Recke (2009) describes the experience of an Albanian women's group where a client finally opened about her rape after a year of attendance. She began the discussion by describing the anniversary of her rape as the day "that destroyed me" (as cited in Koch & Weidinger-von der Recke, 2009, p. 292). It was written that during the length of the group, the topic of rape was referenced, but no one had ever used the word (Koch & Weidinger-von der

Recke, 2009). The therapist notices that as the woman is talking, she is reliving the trauma before her eyes. To bring her back to the room, the therapist has her make eye contact with each of the women in the circle (Koch & Weidinger-von der Recke, 2009).

> Immediately, I address her and she takes a short moment until she is able to react to me. First, she turns her head in my direction, a nonverbal turning and focusing of attention on me, the familiar therapist. Then, she answers my question by confirming that she is presently seeing the past event like a movie in front of her – now. In this moment, there is movement in the group, some women shuffle their chairs while others use a handkerchief, and wipe their tears and blow noses… It is very quiet. Then, after the client used the word 'rape,' a nonverbal change is observable. There are so-called 'shadow movements'…gestures and small changes which the moving women are not conscious of. These little movements create body and emotional counter-transference in me. I feel fear, uncertainty, shame, and mourning… I address the narrator and ask her to look at the other women in the group. In the next seconds, she appears as if she is diving up out of the depth of her experience. She moves her eyes and her head in slow motion and focuses her eyes on one woman of her age. The looked upon woman meets her gaze and cries openly. (Koch & Weidinger-von der Recke, 2009, p. 292)

The session concluded with the group standing, holding hands and looking at one another. When asked by the therapist how she felt after sharing, the narrator of the trauma responded by saying "'it is good'" (Koch & Weidinger-von der Recke, 2009, p. 293). Koch and Weidinger-von der Recke (2009) summarized that therapies using nonverbal approach and focus

on the body can be a valuable supplement to verbal psychotherapies. The therapist in the above quote used their knowledge of embodiment to allow the client to internalize their story, safely, while remaining present in the room and in her own body by acknowledging the other women in the group. The moment the clients held hands also uses embodiment's ability to connect the client with other group members to communicate understanding and support without ever having to speak a word.

Chapter 4. Discussion

As mentioned before, Darwin (1998) stated that prolonged suffering from fear could cause negative effects not only on the mind, but also physiologically. This paper sought to answer how literature on embodiment and VA-approved, PE and CPT, could foster an integrated approach to combat-related PTSD working with U.S. Veterans and Service Members. Literature suggests limited studies have been conducted on the use of Drama Therapy with U.S. Veterans, and no studies have specifically investigated a merged drama therapeutic approach with the two VA-approved CBT methods. However, this representational review revealed 16 articles—that met rigid, inclusion/exclusion criteria—supporting various types of embodiment merged with aspects of PE and CPT when working with traumatized participants experiencing symptoms of PTSD (Ali & Wolfert, 2016; Artra, 2014; Flora et al., 2016; Harris, 2007; Harris, 2009; Jones, 2015; Joseph, 2014; Kim et al., 2011; Koch & Weidinger-von der Recke, 2009; Nolan, 2016; PitRe et al., 2015; Salverson, 2016; White, 2015).

Prolonged Exposure and Embodiment

The results show that embodiment can be implemented in a therapeutic PE process in several ways. As previously acknowledged, PE uses imaginal exposure to repeatedly immerse the client in their trauma memory and *in vitro* exposure to immerse the client in a real-life

scenario parallel to the trauma (Brim, Ermold, & Riggs, 2013). The case study conducted by PitRe, Sajnani, and Johnson (2015) used embodiment to address "imaginal and *in vitro* exposure" (p. 51) by repeatedly playing out aspects of Frank's sexual trauma either metaphorically (imaginal exposure) or literally (*in vitro*). These variations of play gave Frank the ability to not only reenact the role of the perpetrator, but to eventually embrace the role of the victim and gain mastery over it. The authors wrote that the ability for Frank to play with his sexual abuse and enjoy acting out the scenes of his rape showed mastery over his trauma history (PitRe, Sajnani, & Johnson, 2015). It was also written that around the time Frank gained mastery over his trauma, he also stopped displaying symptom improvements such as reduced aggression, improved speech, resolved encopresis—fecal soiling—and enuresis—involuntary urination, as well as improved anger management (PitRe et al., 2015).

Similar attributions can be made towards White's (2015) use of EI. In this study, White (2015) uses imaginal exposure to support Chris immersing himself into his trauma dream. White (2015) supports Chris embodying the perspective of other individuals identified in the memory to foster understanding. Through acceptance of the various viewpoints of the individuals in his memory, Chris came to terms with the haunting decisions he made during his deployment and moved passed the debilitating life he was living (White, 2015). EI helped Chris regain hope for the future and overcome feeling stuck in an unsatisfactory job, home, and former relationship (White, 2015).

In addition, Flora and fellow researchers (2016) used ERPs to execute "narrative exposure therapy" (p. 153). This therapeutic method allows the client to "relive the trauma story in successive increments" (Flora et al., 2016, p. 153). The authors acknowledged that ERPs are

best used supplemental to other therapies, but specify its advantage of being an alternative approach to working with family stories (Flora et al., 2016, p. 154).

Cognitive Processing Therapy and Embodiment

Researchers Ali and Wolfert (2016) were the only study in the results data that explicitly stated using CPT as a framework for their approach. The DE-CRUIT program draws on the structure of CPT as it provides uniform delivery to its participants across settings; however, they also acknowledge the extreme rigidity of CPT is often one of its drawbacks (Ali & Wolfert, 2016). To counter the negative views of CPT's rigidity, the DE-CRUIT program uses embodiment through breathing techniques and Shakespearean monologues referencing PTSD.

Limitations

This study was limited in its restriction to only peer-reviewed journal articles and the results of the search terms chosen. It can certainly be acknowledged that other formats such as books, presentations, etc. may have added to the quality of my results. I can also understand that there may have been articles that were not available to me through the limitations of my library access. For this reason, I used the representational review of the literature to support my hypothesis.

Further Recommendations

Future studies are needed to detail the way these findings can be implemented in Drama Therapy's embodiment approach to PE and CPT. This could lead to an intervention study using embodiment in various ways such as: role play, sand play, narrative, performance, etc. Also, future studies will need to identify how an embodied intervention could be assessed for efficacy will need to be developed.

The findings of this study provide tentative support for embodiment as supplemental approach to PE and CPT working with Veterans and Service Members experiencing symptoms of PTSD. This outcome can assist future researchers examining the literature of embodiment's use with PE and CPT. For researchers currently working with Veterans and Service Members using PE or CPT, the results could support the legislation that is being reviewed for the benefits of CATs' use with Service Members (AFTA, 2017). Current legislation, under review, is seeking support for the H.R. 102- Expanding Care for Veterans Act, sponsored by Rep. Julia Brownley (D-CA; AFTA, 2017). The bill seeks "to improve access to evidence-based complementary alternative treatments for veterans, including creative arts therapies" (AFTA, 2017, p. 28). Essentially, the bill would increase VA-support of research and education to assess the feasibility of incorporating complementary and alternative medicines (CAMs) in services provided to Service Members and their families. Through further exploration, this study could lead to developments that may be supported by the bill, if it is approved.

Overall, this study has emboldened my pursuit to finding appropriate ways that Drama Therapy's embodiment approach can be associated with PE and CPT when working with Service Members experiencing symptoms of PTSD. It is my hope that through this paper, I may be further inspired, as well as others, to continue this work to care for those who risk their lives to defend this country.

References

Ali, A., & Wolfert, S. (2016). Theatre as a treatment for posttraumatic stress in military veterans: Exploring the psychotherapeutic potential of mimetic induction. *The Arts in Psychotherapy, 50*, 58-65.

Americans for the Arts. (2017). *Arts Advocacy Day 2017 Congressional arts handbook: Facts and figures at your fingertips* [Handbook]. Retrieved from http://www.americansforthearts.org/sites/default/files/HandbookCovers%26IssueBriefs.pdf

Antunes-Alves, S., & Comeau, T. (2014). A clinician's guide to the neurobiology underlying the presentation and treatment of PTSD and subsequent growth. *Archives of Psychiatry and Psychotherapy, 3*, 9-17.

Artra, i. P. (2014). Transparent assessment: Discovering authentic meanings made by combat veterans. *Journal of Constructivist Psychology, 27*(3), 211-235.

Bailey, S. (2009). Ancient and modern roots of drama therapy. Retrieved from http://dramatherapycentral.com/index.php?option=com_content&view=article&id=118:ancient-and-modern-roots-of-drama-therapy&catid=56:articles&Itemid=195

Birmes, P., Hatton, L., Brunet, A., & Schmitt, L. (2003). Early historical literature for post-traumatic symptomatology. *Stress and Health, 19*(1), 17-26. doi:10.1002/smi.952

Bloom, S. (2011). Bridging the black hole of trauma: The evolutionary significance of the arts part 2: The arts and evolution - what is art for? *Psychotherapy and Politics International, 9*(1), 67-82. doi:10.1002/ppi.229

Brim, W., Ermold, J., & Riggs, D. (2013). *Prolonged exposure therapy for PTSD for veterans and military personnel*

Burwood, S. (2003). Philosophy of mind. In J. Shand (Ed.), *Fundamentals of Philosophy* (pp. 234-261). London, England: Routledge.

CDP. (2013a). *Core competencies for healthcare professionals treatment resources and tools*. Retrieved from http://deploymentpsych.org/military-culture-course-modules

CDP. (2013b). *Military culture: Core competencies for healthcare professionals military organizations and roles*. Retrieved from http://deploymentpsych.org/military-culture-course-modules

CDP. (2013c). *Military culture: Core competencies for healthcare professionals self-awareness and introduction to military ethos*. Retrieved from http://deploymentpsych.org/military-culture-course-modules

Cook, J., O'Donnell, C., Dinnen, S., Bernardy, N., Rosenheck, R., & Hoff, R. (2013). A formative evaluation of two evidence-based psychotherapies for PTSD in VA residential treatment programs. *Journal of Traumatic Stress, 26*(1), 56-63. doi:10.1002/jts.21769

Cooper, H., & Hedges, L. V. (2009). Research synthesis as a scientific method. In H. Cooper, L. V. Hedges & J. C. Valentine (Eds.), *The handbook of research synthesis and meta-analysis* (pp. 1-16)

Copeland, L., & Schultz, P. (2012). *Cognitive processing therapy for PTSD in veterans and military personnel*. Retrieved from http://www.essentiallearning.net/Student/content/sections/Lectora/CognitiveProcessingTherapyforPTSDinVeteransandMilitaryPersonnel/index.html

Cowl, A. L., & Gaugler, J. E. (2014). Efficacy of creative arts therapy in treatment of alzheimer's disease and dementia: A systematic literature review. *Activities, Adaptation & Aging, 38*(4), 281-330. doi:10.1080/01924788.2014.966547

Crocq, M., & Crocq, L. (2000). From shell shock and war neurosis to posttraumatic stress disorder: A history of psychotraumatology. *Dialogues in Clinical Neuroscience, 2*(1), 47-55.

Department of Creative Arts Therapies. (2015). *Art therapy & drama therapy research handbook: Policies and procedures for the art therapy & drama therapy options to magistrate in creative arts therapies*. Montreal, Quebec, Canada: Concordia University.

Essential Learning. (2012). *Epidemiology of PTSD in military personnel and veterans: Working with service members and veterans with PTSD*. Retrieved from http://www.essentiallearning.net/student/content/sections/lectora/VeteransPTSD/index.html

Fieser, J. (2008). Mind. In J. Fieser (Ed.), *Great Issues in Philosophy* (pp. 91-135). Oxford University Press.

Flora, J., Boje, D. M., Rosile, G. A., & Hacker, K. (2016). A theoretical and applied review of embodied restorying for post-deployment family reintegration. *Journal of Veterans Studies,* (1), 130-162.

Foa, E. (2011). Prolonged exposure therapy: Past, present, and future. *Depression and Anxiety, 28*, 1043-1047. doi:10.1002/da.20907

Foa, E., & Kozak, M. (1986). Emotional processing of fear: Exposure to corrective information. *Psychological Bulletin, 99*(1), 20-35.

Galovski, T., & Lyons, J. A. (2004). Psychological sequelae of combat violence: A review of the impact of PTSD on the Veteran's family and possible interventions. *Aggression and Violent Behavior, 9*, 477-501. doi: 10.1016/S1359-1789(03)00045-4

Gennaro, R. (n.d.). Consciousness. In *Internet Encyclopedia of Philosophy*. Retrieved from www.iep.utm.edu/consciou/

Grankvist, G., Kajonius, P., & Persson, B. (2016). The relationship between mind-body dualism and personal values. *International Journal of Psychological Studies, 8*(2), 126-32.

Harris, D. A. (2007). Dance/movement therapy approaches to fostering resilience and recovery among African adolescent torture survivors. *Torture: Quarterly Journal on Rehabilitation of Torture Victims and Prevention of Torture, 17*(2), 134-155. doi:2007-2.2006-33 [pii]

Harris, D. A. (2009). The paradox of expressing speechless terror: Ritual liminality in the creative arts therapies' treatment of posttraumatic distress. *The Arts in Psychotherapy, 36*(2), 94-104.

Heil, J. (2004). *Philosophy of mind: A contemporary introduction.* New York, New York: Routledge.

Hermes, E., Rosenheck, R., Desai, R., & Fontana, A. (2012). Recent trends in the treatment of posttraumatic stress disorder and other mental disorders in the VHA. *Psychiatric Services, 63*(5), 471-476. doi:10.1176/appi.ps.201100432

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in iraq and afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*, 13-22.

Johnson, D. (1982). Developmental approaches in drama therapy. *The Arts in Psychotherapy, 9*, 183-190.

Jones, P. (1996). *Drama as therapy: Theory, practice and research* (2nd ed.). East Sussex: Routledge.

Jones, P. (2015). Trauma and dramatherapy: Dreams, play and the social construction of culture. *South African Theatre Journal, 28*(1), 4-16.

Joseph, G. (2014). Act resilient. *The United States Army Medical Department Journal,* , 83-86.

Kim, J. B., Kirchhoff, M., & Whitsett, S. (2011). Expressive arts group therapy with middle-school aged children from military families. *The Arts in Psychotherapy, 38*(5), 356-362.

Kim, S. H., Schneider, S. M., Kravitz, L., Mermier, C., & Burge, M. R. (2013). Mind-body practices for posttraumatic stress disorder. *Journal of Investigative Medicine, 61*(5), 827-834.

Koch, S. C., & Weidinger-von der Recke, B. (2009). Traumatised refugees: An integrated dance and verbal therapy approach. *The Arts in Psychotherapy, 36*(5), 289-296.

Krystal, H. (1979). Alexithymia and psychotherapy [Abstract]. *American Journal of Psychotherapy, 33*(1) 17-31.

Lagerlund, H. (2007). Introduction: The mind/body problem and late Medieval conceptions of the soul. In H. Lagerlund (Ed.), *Forming the mind: Essays on the internal senses and the mind/body problem from Avicenna to the Medical Enlightenment* (pp. 1-15). Dordrecht, The Netherlands: Springer.

Lester, P., Peterson, K., Reeves, J., Knauss, L., Glover, D., Mogil, C., Duan, N., Saltzman, W., Pynoos, R., Wilt, K., & Beardslee, W. (2010). The Long War and parental combat deployment: Effects on Military children and at-home spouses. *Journal of American Academic Child Adolescent Psychiatry, 49*(4), 310-320.

Libby, D. J., Pilver, C. E., & Desai, R. (2012). Complementary and alternative medicine in VA specialized PTSD treatment programs. *Psychiatric Services, 63*(11), 1134-1136. doi:10.1176/ appi.ps.201100456

Monson, C., Schnurr, P., Resick, P., Friedman, M., Young-Xu, Y., & Stevens, S. (2006). Cognitive processing therapy for veterans with military-related posttraumatic stress

disorder. *Journal of Consulting and Clinical Psychology, 74*(5), 898-907. doi:10.1037/002-006X.74.5.898

Nolan, C. R. (2016). Bending without breaking: A narrative review of trauma-sensitive yoga for women with PTSD. *Complementary Therapies in Clinical Practice, 24*, 32-40. doi:10.1016/j.ctcp.2016.05.006

PitRe, R., Sajnani, N., & Johnson, D. R. (2015). Trauma-centered developmental transformations as exposure treatment for young children. *Drama Therapy Review, 1*(1), 41-54.

Randolph, J. (2009). A guide to writing the dissertation literature review. *Practical, Assessment, Research & Evaluation, 14*(13), 1-13.

Rauch, S., Defever, E., Favorite, T., Duroe, A., Garrity, C., Martis, B., & Liberzon, I. (2009). Prolonged exposure for PTSD in a veterans health administration PTSD clinic. *Journal of Traumatic Stress, 22*(1), 60-64. doi:10.1002/jts.20380

Reed, J., & Baxter, P. (2006). Bibliographic research. In F. Leong, & J. Austin (Eds.), *The psychology research handbook: A guide for graduate students and research assistants* (2nd ed., pp. 41-59). Thousand Oaks, CA: SAGE Publications, Inc. doi:10.4135/9781412976626.n3

Response to 9/11: The war on terror. (n.d.). Retrieved from http://www.dummies.com/education/history/american-history/response-to-911-the-war-on-terror/

Samsonovich, A. V., & Nadel, L. (2005). Fundamental principles and mechanisms of the conscious self. *Cortex, 41*, 669-689.

Salverson, J. (2016). Resilience training, stories, and health. *Journal of Military, Veteran and Family Health, 2*(2), 101-105.

Skirry, J. (n.d.). Consciousness. In *Internet Encyclopedia of Philosophy*. Retrieved from www.iep.utm.edu/descmind/

Tracy, S. J. (2010). Qualitative quality: Eight "big tent" criteria for excellent qualitative research. *Qualitative Inquiry, 16*(10), 837-851. doi:10.1177/1077800410383121

Tsai, J., Harpaz-Rotem, I., Pietrzak, R. H., & Southwick, S. M. (2012). The role of coping, resilience, and social support in mediating the relation between PTSD and social functioning in Veterans returning from Iraq and Afghanistan. *Psychiatry, 75*(2), 135-149.

Tuerk, P., Yoder, M., Grubaugh, A., Myrick, H., Hamner, M., & Acierno, R. (2011). Prolonged exposure therapy for combat-related posttraumatic stress disorder: An examination of treatment effectiveness for veterans of the wars in afghanistan and iraq. *Journal of Anxiety Disorders, 25*, 397-403. doi:10.1016/j.janxdis.2010.11.002

Twamley, E., Baker, D., Norman, S., Pittman, J., Lohr, J., & Resnick, S. (2013). Veterans health administration vocational services for operation iraqi freedom/operation enduring freedom veterans with mental health conditions. *The Journal of Rehabilitation Research and Development, 50*(5), 663-670. doi:10.1682/JRRD.2012.08.0137

Veterans' Affairs. (2016). Treatment of PTSD. Retrieved from https://www.ptsd.va.gov/public/treatment/therapy-med/treatment-ptsd.asp

Wells, T. S., Miller, S. C., Adler, A. B., Engel, C. C., Smith, T. C., & Fairbank, J. A. (2011). Mental health impact of the iraq and afghanistan conflicts: A review of U.S. research, service provision, and programmatic responses. *International Review of Psychiatry, 23*, 144-152. doi:10.3109/09540261.2011.558833

How to write a literature review. White, G. E. (Director). (2014).[Video/DVD]

White, J. L. (2015). From reliving to relieving: Using embodied imagination to help veterans move forward. *Journal of Humanistic Psychology, 55*(2), 247-260.

Yoder, M., Tuerk, P., Price, M., Grubaugh, A., Strachan, M., Myrick, H., & Acierno, R. (2012). Prolonged exposure therapy for combat-related posttraumatic stress disorder: Comparing outcomes for veterans of different wars. *Psychological Services, 9*(1), 16-25. doi:10.1037/a0026279

Young, R. M. (1990). The mind-body problem. In R. C. Colby, G. N. Cantor, J. R. R. Christie, & M. J. S. Hodge (Eds.), *Companion to the History of Modern Science* (pp. 702-711). London, England: Routledge.

Appendix A

Table A1: Data Collection Terms	
Search Term	**Total Results Rendered**
“prolonged exposure” AND “drama therapy” AND “embodiment”	11
“prolonged exposure” AND “embodiment” AND “ptsd" AND “military”	98
“cognitive processing therapy” AND “drama therapy” AND “embodiment”	3
“cognitive processing therapy” AND “embodiment” AND “ptsd” AND “military"	32
“creative arts therapy” AND “ptsd” AND “military” AND “embodiment”	11
“drama therapy” AND “ptsd” AND “military”	124
“drama therapy” AND “embodiment” AND “ptsd" AND “military”	21

Appendix B

Table B1: Inclusion/Exclusion Criteria	
Inclusion	**1.** English language **2.** Publication 2007 (inclusive) to present **3.** Studies from any geographical location **4.** Studies using literature reviews, qualitative and/or quantitative methods of analysis—this includes original studies, studies involving secondary qualitative analysis of qualitative data, studies involving secondary quantitative analysis of quantitative data, mixed methods studies **5.** Published, peer-reviewed journal articles **6.** Studies reporting on embodiment or embodying as a therapeutic technique when working to relieve symptoms of trauma
Exclusion	**1.** Non-English language **2.** Published before 2007 **3.** Court Proceedings **4.** Citations **5.** Abstracts **6.** Patents **7.** Dissertations/thesis papers **8.** Books

Appendix C

Table C1: Selected Journal Articles

Author and Year	Study Design	Therapeutic Approach	Sample Size (N=)	Population	Length of Study	Follow Up?	Findings/ Results
Ali & Wolfert (2016)	Case Study	DE-CRUIT Program: arts-based approach	N=3	Male/Female Veterans, "self-reporting functional or psychological impairment from military-related trauma" (p. 62); various ages	10 weekly sessions; 2-hours	Open-ended post-treatment interview	Veterans presented in interview noted reductions in PCL scores

Artra (2014)	Mixed Methods	Art-based methods to thematic analysis	N=8	Male Combat Veterans with Combat PTSD; age 35-67	The Warrior's Journey: 5-day residential intervention	Transference dialogue post-treatment interviews	Effected change in PCL-M Likert scales; triangulation indicated statistical significance between posttraumatic stress improvement and meaning reconstruction for grief and moral injury

Flora, Boje, Rosile, & Hacker (2016)	Case Study	Embodied Restorying Practices (ERP): arts-based approach using sand trays and objects	N=5	Two military families; post-deployment reintegration	3 weekly, 60-90min, indoor ERP sessions as a part of a larger reintegration program	Not reported	Positive findings for family-wide intervention on perceptions and stories; facilitated communication between Veteran and family member(s)

Harris (2007)	Phenomeno-logical Research	Dance/Movement Therapy (DMT)	• N= 100 • N=6 • N=8 • N=12	• Sudanese refugees in Pennsylvania, Male and Female (aged 13-25) • Kailahun-town, Females (16-17) • Muslim, Male torture survivors (23-24) • Male teenage, former combatants (18 and younger)	• On-going series of 2-hour sessions • 9-weekly sessions • 9-weekly sessions • 16 total sessions	Not reported	Overall findings supported embodiment (and role play) of personal experiences and attitudes as a means of symptom reduction, acculturation, and reintegration into community

Harris (2009)	Ethnographic Research	Creative Arts Therapies (CATs)	N/A	"Holistic groups" (p. 94)	N/A	N/A	Work with fantasy was believed to help a child defend against psychological injury; CATs' ability to work through symbolization is believed to bypass problems with Alexithymia to work with trauma, safely

Jones (2015)	Case Study	Dramatherapy	N=1	Abui: 10-year old, Male, refugee from Sierra Leone	"…over a number of weeks" (p. 11)	Post-performance discussion with classmates	Noted that following dramatic performance, Abui was no longer bullied and was included in classmates' play; Abui also could express and explore hidden feelings

Joseph (2014)	Case Study	Act Resilient: arts-based, psychoeducational program	N/A	Service members with PTSD or TBI and their families	Preferred method: 1-hr class meeting, 1x week for 4-8 weeks	N/A	By learning Service Members' triggers and level of arousal, family worked together to minimize onset of negative behaviors

Kim, Kirchhoff, & Whitsett (2011)	Case Study	Expressive Arts Therapy (EXA)	Not reported	Middle school students (11-13) on an active Military base; all were dependents of Military personnel; all were referred for either adjustment issues, mild oppositional and disruptive behavior and/or ADHD diagnosis	8 sessions	Not reported	Creative modalities stimulated group interaction and built social skills; also, facilitated group and peer support
Koch & Weidinger-von der Recke (2009)	Case Study	Integrated dance and verbal therapy approach	N=3	Female, traumatized refugees in Bavaria, Germany	Not reported	Not reported	Movement as a form of therapy promoted verbal expression and supported addressing trauma in body

Nolan (2016)	Narrative Review	Trauma-Sensitive Yoga (TSY)	(N= 5 studies)	"Women with PTSD" (p. 34)	N/A	N/A	Studies showed support of TSY reducing symptoms of interpersonal trauma

PitRe, Sajnani, & Johnson (2015)	Case Study	Trauma-Centered, Developmental Transformations (DvT)	N=1	Frankie: 6-year old, traumatized child	Not specified; at least, 20 sessions	Not reported	Using gradual exposure, therapeutic alliance of therapist and embodied enactment supported unique experience addressing Frankie's trauma and alleviating symptoms

Salverson (2016)	Literature review	Creative Resilience Training: arts-based resilience training	• N=18 • N=6	• "Police officers, fire-fighters, dispatchers, and paramedics" (p. 102) • "first responders" (p. 102)	N/A	N/A	The use of action-based role play, witnessing, re-storying, experiencing to facilitate changes in the brain

White (2015)	Case Study	Embodied Imagination (EI): therapist-guided psychotherapeutic technique working with dreams in "hypnagogic state" (p. 248)	N=1	Christopher: high-ranking Marine, 3-years after deployment to Afghanistan	Last 6 months of a 2-year psychotherapy process	4 follow-up sessions after completing EI-approach; also, White mentions a follow-up conversation that took place after the beforementio ned sessions	Chris reported no longer having reoccurring nightmare of trauma event and newfound hope in his future: changing jobs, finding new love, and moving into a new home; no longer felt indecisive or "stuck"