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Military Sexual Trauma in Veterans: Consequences, Treatment, and Therapeutic Implications

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CERTIFICATE OF APPROVAL

Clinical Research Project

This is to certify that the Clinical Research Project of

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has been approved by the
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Abstract

Amongst Veterans served within the Veterans Affairs healthcare system, approximately 1 in 50 men and 1 in 3 women have experienced military sexual trauma (MST). While every individual is different, a common characteristic or identity amongst those who have served is that of a warrior – someone perceived as strong and ready to defend both their country and fellow soldier. Experiencing military sexual trauma can create a painful and discrepant identity as well as impact almost all domains of functioning. Unfortunately, trauma is an all too common occurrence in the lives of many service members and the multifinality of trauma can lead to complex, harmful consequences ranging from mental health issues, physical health conditions, and an increased risk of suicide. This clinical research project explores the prevalence of MST in Veterans, its consequences, treatment approaches found to be most effective for MST-related PTSD, and clinical implications for working with MST survivors. At this time, Cognitive Processing Therapy, Prolonged Exposure, and Eye Movement Desensitization and Reprocessing are considered by Veterans Affairs to be the "gold standard" evidence-based PTSD treatments. Suggestions for clinical practice and recommendations for future research are provided.

MILITARY SEXUAL TRAUMA IN VETERANS: CONSEQUENCES, TREATMENT, AND THERAPEUTIC IMPLICATIONS

DEDICATION

I would like to first and foremost dedicate this work to the survivors of military sexual trauma. The strength, resiliency, and perseverance these individuals possess, despite experiencing some of the worst sides of humanity, is truly remarkable. Secondly, I would like to dedicate this work to the individuals who have committed themselves to providing support, understanding, compassion, and treatment to survivors of military sexual trauma. Their selfless and tireless efforts are essential to both treating and working to end this type of trauma. Thirdly, I dedicate this project to my family, loved ones, and supervisors who have supported and encouraged me in more ways than I could ever begin to recount. It is because of them that I am where I am today. Lastly, I dedicate this work to myself. The completion of this project marks a tremendous milestone in my doctoral journey and another significant step toward my long held dream of being a psychologist. My hope is that this work continually inspires and reminds me of the reasons I love this profession and why I have dedicated my career to helping others.

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CHAPTER I: INTRODUCTION

Across various sectors such as state departments of child and family protective services, the National Domestic Violence Hotline (n.d.), the Administration for Children and Families (2020), and Centers for Disease Control and Prevention (CDC, 2019), significant steps have been taken to facilitate the prevention, reporting, and provision of treatment for those at risk of or who have experienced certain traumatic events, such as abuse. When we think about those who work to prevent abuse or those who we report abuse to, often thoughts come to mind of individuals who have dedicated their lives to helping others. We rely on those who have committed themselves to protecting and serving to bring safety to and seek justice for those who have been so painfully wronged. Yet, what happens when the ones being relied on are the ones who experience trauma? Who is there to defend and advocate for them? What treatment modalities have been shown to be most effective in reducing symptomatology and facilitating healing? What clinical implications must be considered when working with such individuals? These questions become fundamental when attempting to understand and treat those who have experienced military sexual trauma (MST), specifically Veterans with MST histories.

Statement of Problem

There are an estimated 18.2 million U.S. Veterans and more than nine million of these individuals receive care through the Veterans Health Administration (VHA; Department of Veterans Affairs, 2019g; U.S. Census Bureau, 2017). MST is neither a new phenomenon nor a rare occurrence (Department of Veterans Affairs, 2018b). The Department of Defense (DoD) even has a Sexual Assault Prevention and Response Office that is responsible for overseeing the DoD's sexual assault policy and works with both the military and civilian community to prevent and address sexual assault (DoD, n.d.). Of the individuals who utilize Department of Veterans

Affairs (VA) healthcare services, approximately 1 in 50 men and 1 in 3 women have experienced MST (Department of Veterans Affairs, 2020a). The associated consequences of MST can be severe and include such problems as posttraumatic stress disorder (PTSD), depression, anxiety, substance abuse, relationship difficulties, chronic pain, cardiovascular problems, and increased risk of suicide (Blais et al., 2017; Goldstein, Dinh, Donalson, Hebenstreit, & Maguen, 2017; Kimerling, Makin-Byrd, Louzon, Ignacio, & McCarthy, 2016; Kimerling et al., 2010; Lutwak & Dill, 2013). As a result, it is essential that clinicians working with Veterans are knowledgeable about and competent in assessing for and treating those who have experienced MST.

Recent Media Coverage on MST

While MST and sexual assault and harassment in civilian contexts are not new events, over the last few years there has been a surge in media coverage of these happenings. Performing a Google search of "military sexual assault" turns up over 78 million results in less than one second. From the widespread sexual abuse allegations against Kevin Spacey and Harvey Weinstein in 2017, to the #MeToo movement beginning in 2006 and resurfacing with a vengeance following the allegations against Weinstein, to the 2019 news coverage of Senator Martha McSally's disclosure of being raped by a superior officer while in the Air Force, to the 2020 killing of Army Specialist Vanessa Guillen, we are seeing increases in disclosures, concern, and conversations surrounding sexual harassment and violence. In 2012, investigative film documentary *The Invisible War* was released, exploring sexual assault in the military and speaking firsthand to survivors (Ziering, Barklow, & Dick, 2011). The film is not only powerful, but aids in putting faces to this crisis and helped bring this issue more to the public domain. In 2019, Senator McSally testified at a U.S. Senate Committee on Armed Services' hearing on sexual assault in the military. She described the crucial and powerful role military commanders

have in the service, reporting them as being placed "in a position of authority and responsibility like none in civilian life." She further discussed her experience of being raped by a fellow service member who outranked her, and not reporting due to not "trust[ing] the system at the time." She described how she "blamed" herself and felt "ashamed and confused and. . .powerless." She also reported feeling as though "the system was raping [her] all over again" after later disclosing and the responses she was met with. In June 2020, partial remains of Army Specialist Vanessa Guillen were discovered after she had been missing from Fort Hood Army post since April 2020. A few days prior to charges being announced against a fellow service member suspected of killing her, the suspect committed suicide via a firearm when authorities attempted to make contact with him. Specialist Guillen's family came forward with claims that Specialist Guillen had experienced sexual harassment during her time in the service. Following calls from her family, Congress, and others, a formal investigation has been initiated into the sexual harassment claims. While media attention of sexual harassment and assault are increasing, unfortunately conviction rates against perpetrators are still severely low, with perpetrators of sexual violence being less likely to be incarcerated than any other type of criminal (RAINN, 2020a).

Definitions

MST is defined by VA as sexual assault or repeated, threatening sexual harassment that took place during an individual's military service (Veterans' Benefits, 2011). MST can occur in any environment or location, when the individual is on or off duty, and the status of the perpetrator does not matter, meaning the perpetrator does not have to be a fellow service member for the assault or harassment to qualify as MST (Veterans' Benefits, 2011). VA's MST definition comes from federal law, which further clarifies sexual trauma occurring during military service

as ". . . psychological trauma, which in the judgment of a mental health professional employed by the Department, resulted from a physical assault of a sexual nature, battery of a sexual nature, or sexual harassment which occurred while the veteran was serving on active duty, active duty for training, or inactive duty training" (Veterans' Benefits, 2011, p. 285). The law goes on to define sexual harassment as "repeated, unsolicited verbal or physical contact of a sexual nature which is threatening in character" (Veterans' Benefits, 2011, p. 286). It is important to note here that MST is an experience, not a diagnosis; although some individuals develop diagnosable conditions that are related to their MST experience(s), such as PTSD, depression, and anxiety (Goldstein et al., 2017; Lutwak & Dill, 2013; Sexton, Raggio, McSweeney, Authier, & Rauch, 2017).

In 2008, Jennifer Freyd introduced the concept of "institutional betrayal" which refers to an institution either committing offenses against those who are dependent upon it, or failing to stop or appropriately address offenses committed by individuals within the context of the institution (Freyd, 2008). Such a concept adds another important layer to MST and how it may be conceptualized. Lutwak and Dill (2013) also discuss MST as a high betrayal trauma that can lead to detrimental consequences. In a military setting, an individual's unit often becomes like their family, with bonds forming that are reported as being closer and stronger than some familial attachments. Trust is of the utmost importance and oftentimes unit members' lives are literally on the line. To be harassed or assaulted by someone who is supposed to protect you, keep you safe, keep you alive, that is an ultimate form of betrayal. Additionally, it is not uncommon for MST to be perpetrated by higher ranking service members (Wolff & Mills, 2016). To be harassed or assaulted by a superior, and/or to not be supported by the military when such actions are reported, perceptions of institutional betrayal can be further intensified.

Issues with current definitions. Current definitions for both sexual assault and sexual harassment as defined by Federal law leave room for subjective interpretation. Although VA attempts to clarify what constitutes MST by providing examples such as threats of consequences for refusing sexual cooperation or being intoxicated when the sexual act occurred (Department of Veterans Affairs, 2015), the ambiguity of the definition creates potential benefits, confusion, and repercussions. What exactly constitutes sexual assault or repeated, *threatening* sexual harassment? With the interplay of cultural, societal, and individual norms, expectations, and perceptions, certain behaviors may be difficult to delineate between ill-considered interpersonal exchanges and interactions that cross the line into harassment or assault. While such a line may seem apparent in theory, in practice, certain experiences may not be as clear-cut as one would hope. For example, such difficulty frequently manifests in legal cases, especially when "evidence" is needed to support or refute an accusation.

According to the U.S. Department of Justice (2019), sexual assault refers to "any nonconsensual sexual act proscribed by Federal, tribal, or State law, including when the victim lacks capacity to consent." Rape, Abuse & Incest National Network (RAINN), the largest non-profit anti-sexual violence organization in the U.S., defines sexual assault as "sexual contact or behavior that occurs without explicit consent of the victim" (RAINN, 2019). Sexual assault includes such things as groping; genital contact or exposure; attempted rape; and vaginal, oral, or anal penetration with a body part or object (AEquitas, 2015; RAINN, 2019). A scenario that frequently causes confusion for all parties involved is when both individuals in a potential sexual assault situation were intoxicated at the time of the event. It is known that alcohol is a risk factor for sexual assault, with alcohol use being involved during the perpetration of sexual assault for 62% of female and 49% of male service members in 2018 (DoD, 2019). Consent is required

from all individuals involved in a sexual experience to be considered consensual and if intoxication voids consent, how does the legal system, for example, navigate such a situation? Is degree of intoxication a factor and if so, how is it possible to determine after the fact? Does it matter who initiated the sexual contact and how could that be undoubtedly determined? These are just a few of the multitude of factors that could be considered in a sexual assault situation. Then factor in the perceptions of each person involved, the internal and external pressures that may be at play, and societal and cultural beliefs, expectations, and norms and one can see how confusion can so easily manifest. Sexual harassment can be even more difficult to define. The definition of sexual harassment requires the behaviors to be "repeated" but fails to operationalize the number of occurrences that are required to meet such criteria (Veterans' Benefits, 2011, p. 286). And how is "threatening in character" to be interpreted (Veterans' Benefits, 2011, p. 286)? Due to no further definition or explanation provided, subjectivity must be included to some degree when determinations are made.

Such vagueness and subjectivity in these definitions can be a potential benefit, as it can allow experiences to be open for interpretation and potentially be more encompassing of various acts. However, this very aspect can also be a significant barrier. Without clear parameters, the possibility exists for dismissal or invalidation of the individual who experienced MST. On the other hand, if more clear-cut parameters were put in place, the possibility also exists, and maybe to an even greater and more dangerous degree, that those who truly did experience MST would not be believed, provided appropriate services, or obtain potential legal justice. It is important to note here that VA's definition of MST is not used for legal purposes, but rather for treatment. Therefore, if a Veteran seeking care within VA identifies their experience as sexual assault or harassment, they qualify for MST-related care (Veterans' Benefits, 2011).

Another area to consider within VA's definition is that the determination of classifying an experience as MST falls on "the judgment of a mental health professional employed by [VA]" (Veterans' Benefits, 2011, p. 285). Such responsibility opens the door to even more potential issues, such as qualifications of the professional and their training and experience in working with MST survivors. Although VA mandates that all primary care and mental health staff undergo MST training, the breadth and depth of such training varies (Department of Veterans Affairs, 2017). The applicability or implementation of such training also varies. The type of assessment and questions a Veteran may receive in a VA PTSD or Mental Health Clinic tend to be quite different than those posed in a primary care or health psychology setting. As such, the possibility exists that Veterans with a history positive for MST, depending on which VA services they are engaged in, may not be assessed for MST, may not feel comfortable disclosing their MST experience depending on the setting, or a provider may not be as well versed in what constitutes MST which could impact a Veteran's MST status. It is important to note that all VAs utilize the same computerized patient record system (CPRS) and all have the same two-question MST screener in CPRS. A "clinical reminder" for the MST screener within CPRS exists for all VHA patients, alerting providers that this screener must be completed. Therefore, any VA provider responsible for conducting MST screenings may classify a Veteran as having experienced MST. A Veteran only needs to answer yes to one of the two questions to be determined to have experienced MST. No "proof" or documentation in their military records is required. Once the MST clinical reminder is completed, it does not become reactivated. Therefore, if a Veteran answers "no" to both screening questions, even if they actually do have a history of MST, the reminder will not present to other or future providers that the Veteran may feel more comfortable disclosing to if they were asked again. Due to this, it is important for

providers to not only be aware of this, but to be diligent in their assessment of MST, regardless of if a Veteran previously answered no on the screener.

Prevalence of MST

According to CDC's 2015 National Intimate Partner and Sexual Violence Survey (Smith et al., 2018), in the U.S., 43.6% of women and 24.8% of men reported experiencing sexual violence in their lifetime. Past-year prevalence of sexual violence was 4.7% for women and 3.5% for men (Smith et al., 2018). Each year, the DoD publishes their annual report on sexual assault in the military for the previous fiscal year. The survey conducted in fiscal year 2018 found that past-year estimated prevalence rates of sexual assault significantly rose from approximately 4.3% in fiscal year 2016 to 6.2% in fiscal year 2018 for active duty women ages 17 to 24 (DoD, 2019). Although not found to be statistically significant, sexual assault rates in men also rose (DoD, 2019). Approximately 6.2% of active duty women and 0.7% of active duty men surveyed reported a past-year experience of sexual assault (DoD, 2019). Based on survey findings, the DoD estimates that 13,000 active duty women and 7,500 active duty men experienced a sexual assault in 2018 alone (DoD, 2019). Such prevalence information regarding active duty personnel is relevant in that many of these service members will eventually obtain Veteran status and may seek treatment related to their MST histories.

It is imperative to highlight that sexual assault is the most underreported violent crime in the U.S., with approximately 75% of rapes or sexual assaults not reported to police in 2018 (Bureau of Justice Statistics, 2019). According to the Bureau of Justice Statistics 2018 National Crime Victimization Survey (2019), the rate of reported sexual assault or rape increased from 1.4 victims per 1,000 individuals 12 years or older in 2017 to 2.7 victims per 1,000 individuals 12 years or older in 2018, yet the rate of reporting such crimes to police significantly decreased

from 40% to 25%. Such underreporting is not exclusive to the civilian sector. Underreporting of sexual violence is also rampant within the military, and on par with civilians, men are less likely to report than women (DoD, 2019; Morral, Schell, Cefalu, Hwang, & Gelman, 2018). When examining the prevalence of MST, the biggest barrier to accurate prevalence data is reliance on self-report. As such, exact numbers as to how many individuals have experienced MST are unavailable. However, it is known that approximately 1 in 3 women and 1 in 50 men who utilize VA healthcare services report a history of MST (Department of Veterans Affairs, 2020a).

While women are at greater risk of experiencing sexual violence, because considerably more men serve in the military, the number of men and women who experience MST tend to be fairly comparable (Kimerling et al., 2016; Smith et al., 2018). In 2016, the first large-scale, population-based study of sexual trauma and suicide mortality within the VA health care system found that out of over six million Veterans, 1.1% of men (or 65,792) and 21.2% of women (or 76,360) had experienced MST (Kimerling et al., 2016). Of the participants, over 20,000 declined to answer. Such a large number of declines raises the questions of the rationale behind the decision not to answer and how many in this group actually had experienced MST. When interpreting Kimerling et al.'s (2016) findings, it is important to keep in mind that these numbers do not include Veterans who obtained healthcare services exclusively outside VA, those who were serving in active duty, or those who had not reported their MST. Wilson (2018) conducted a meta-analysis examining the prevalence of MST in both VA and non-VA settings and found that 15.7% of service members and Veterans report MST (3.9% of men and 38.4% of women). Given the reliance on self-disclosure, current MST prevalence data is likely a gross underestimate of the actual number of individuals who have experienced this type of trauma.

Barriers to reporting MST. Unfortunately, there are many factors that can deter or prevent an individual from reporting their MST experience. As with individuals in the civilian sector who experience sexual assault or harassment, those who have undergone MST can also experience feelings of guilt, shame, fear, and anger (Mengeling, Booth, Torner, & Sadler, 2014). One could imagine that underreporting may be even more prominent within a military setting compared to the general population due to additional barriers and unique cultural aspects, such as service rank hierarchy, fear of retaliation, and a desire to maintain unit cohesion. Fears of not being believed, experiencing retaliation, threat of harm, and lack of resources and access to be able to report are all potential barriers (Lutwak & Dill, 2013). Although they utilized a small sample size, Wolff and Mills (2016) found that out of 52 female Veterans serving between WWII and current conflicts in Iraq and Afghanistan, 90% experienced some kind of MST yet only 15% tried to report the trauma. They found that over half the perpetrators outranked the victims and most of the women did not come forward due to lack of resources to report, the status of their assailant, and for fear of retaliation (Wolff & Mills, 2016). Another study examined online reporting of MST among men and women (Burgess, Lee, & Carretta, 2016). Their results, albeit also relying on a small sample size, found that a significant number of the men in their sample had never reported their MST prior to the online survey and that men tended to have more physical injuries and long-term disturbing thoughts surrounding their MST (Burgess et al., 2016). They also found that rapes were rarely reported, with none of the men in the study having reported them (Burgess et al., 2016).

While an exhaustive discussion of the reasons an individual may not disclose their MST experience(s) is beyond the scope of this paper, some of the most common reasons for not reporting military sexual assault are the individual believing the assault was not serious enough

to report, the individual wanting to forget the experience and move on from it, fear of retaliation, fear of negative perception by others, concerns about the reporting process, career consequences, and embarrassment (Mengeling et al., 2014; Morral, Gore, & Schell, 2015). The 2014 RAND Military Workplace Survey found that men were less likely to report sexual assault due to fears of being viewed as gay or bisexual (Morral et al., 2015). In fiscal year 2018, approximately 21% of active duty female service members who reported their MST experience also reported experiencing behavior that met legal criteria for retaliatory behavior (DoD, 2019). Such behavior most often consists of ostracism by peers, maltreatment, and disruption to the individual's career (DoD, 2019). An individual's perception of experiencing institutional betrayal can also play a role in the likelihood of them reporting their MST (Smith & Freyd, 2013). The military is built on the ideals of trust, loyalty, and camaraderie, and if an individual believes they were let down or that such an establishment fostered an environment which allowed MST to occur, the likelihood of not reporting is increased (Monteith, Bahraini, Matarazzo, Soberay, & Smith, 2016; Smith & Freyd, 2013). The barriers discussed not only potentially impede attainment of appropriate care for the individual, but also diminish prevalence data.

Consequences of MST

It is unsurprising that MST can lead to severe and detrimental consequences for the individual who has experienced this type of trauma. Such problems include mood disturbance; feeling numb; difficulties sleeping; trouble with attention, concentration, and memory; substance use; internal and external triggers that remind the individual of the trauma; interpersonal difficulties; and physical health problems including sexual dysfunction (Department of Veterans Affairs, 2015; Goldstein et al., 2017; Kimerling et al., 2016; Kimerling et al., 2010). Lutwak and Dill (2013) found that compared to other types of traumatic experiences, women who

experienced MST were found to have higher rates of PTSD and that the negative physical and emotional consequences that can occur from PTSD can increase the risk of cardiovascular disease. While PTSD tends to be the diagnosis most often associated with MST, not all individuals who experience this type of trauma will go on to develop PTSD (Department of Veterans Affairs, 2019c). Other diagnoses most commonly associated with MST include depression and other mood disorders, and substance use disorders (Department of Veterans Affairs, 2019c). While men and women often experience similar effects as a result of MST, differences are also noted (Antczak & Brininger, 2008; Averill et al., 2019; Maguen, Ren, Bosch, Marmar, & Seal, 2010). Things such as race, religion, sexual orientation, and other cultural factors can also influence how MST affects the individual (Department of Veterans Affairs, 2015). A heightened suicide risk is also noted and crucial to be mindful of when working with MST survivors (Kimerling et al., 2016). Due to the prevalence and consequences of MST, it is essential that clinicians are knowledgeable about and competent in assessing for and treating individuals with MST histories.

Research Questions

The purpose of the current critical literature review is to examine the associated consequences of MST amongst Veterans, treatment modalities found to be most efficacious for treating MST-related PTSD, and clinical implications when working with Veteran MST survivors. Suggestions for clinical practice and recommendations for future research are also provided.

Procedures

In conducting the current critical literature review, the online EBSCOhost database was utilized to identify peer-reviewed journal articles on MST. Relevant references within identified

articles were also reviewed. Additionally, online MST and related topics resources and articles through VA intranet, National Institute of Mental Health (NIMH), DoD, the RAND Corporation, and other applicable sites were employed. Inclusion criteria for EBSCOhost searches included the following search terms: Military Sexual Trauma, MST, MST Veterans, MST Vets, MST and Veterans Affairs, MST and VA, MST/military sexual trauma/military sexual abuse and treatment/intervention/therapy, MST consequences, MST and mood, MST and PTSD, MST and suicide, MST and substance use, MST and substance abuse, MST and disordered eating, MST and eating disorder, military and disordered eating, military and eating disorder, MST and relationships (also more specific forms of relationships, as necessary), MST and physical health, MST and health, MST and work, and MST and vocation. Exclusion criteria consisted of articles older than approximately 10 years, unless historical data was needed; non-peer-reviewed articles; and articles in languages other than English.

While the strong reliance on self-report and sexual assault being the most underreported violent crime in the U.S. (Bureau of Justice Statistics, 2019) make exact prevalence data on MST unknown, it is known that a significant number of individuals experience this type of trauma (DoD, 2019; Department of Veterans Affairs, 2015; Kimerling et al., 2016). The associated consequences following MST can be severe, cause marked distress, and negatively impact numerous domains of functioning (Department of Veterans Affairs, 2019c; Goldstein et al., 2017; Kimerling et al., 2016; Kimerling et al., 2010). In answering these research questions, we can come to a much better understanding of these detrimental consequences, the benefits of using evidence-based practices in the treatment of MST-related PTSD, clinical implications to be aware of when working with MST survivors, and of important gaps in the current research base.

CHAPTER II: CONSEQUENCES OF MST IN VETERANS

A multitude of factors influence how an individual responds to and copes with a traumatic experience. Such factors include, but are not limited to, idiosyncratic qualities, support systems, cultural variables, life experiences, resiliency, and unique aspects of the trauma endured (Department of Veterans Affairs, 2015; Department of Veterans Affairs, 2019c). The consequences of MST can range markedly in severity and type. However, it is important to remain aware that not all MST experiences result in long-term consequences or lead to the development of a diagnosable disorder (Department of Veterans Affairs, 2019c). Some Veteran MST survivors display incredible resiliency and function well, without lasting impairment or adverse symptomatology (Department of Veterans Affairs, 2019c). Others may experience distressing effects periodically or when confronted by reminders of the trauma (Department of Veterans Affairs, 2019c). And others may experience more chronic, severe, and long-term difficulty (Department of Veterans Affairs, 2019c). What all consequences have in common though is distress caused to the individual.

Psychological Consequences

Posttraumatic stress disorder. Humans are biologically programmed to handle varying degrees of stress (Liu, Zhang, Ji, & Yang, 2018). According to the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5; American Psychiatric Association (APA), 2013), following a traumatic experience, there is often a natural recovery process that occurs in which adverse symptoms related to the experience naturally dissipate within approximately three months. However, some experiences exceed an individual's ability to cope in adaptive and healthy ways. When a person's resources to cope are exceeded or when the natural recovery process following trauma is hindered, PTSD can develop (APA, 2013).

What we now refer to as PTSD was primarily first brought to public awareness following adverse reactions from military members who had experienced trauma during war (Friedman, 2019b). Over the years, PTSD has undergone varied understanding and numerous name changes such as nostalgia, Soldier's heart or irritable heart syndrome, shell shock (during WWI), and combat stress reaction or battle fatigue (during WWII; Friedman, 2019b). Previously believed causes of these conditions included physical injury, brain damage, exhaustion, and personal deficiency (Friedman, 2019b). In 1980, following research on returning Vietnam War Veterans, Holocaust survivors, sexual assault survivors, and other trauma survivors, the APA added PTSD to the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (APA, 1980) under the anxiety disorders category (Friedman, 2019b). Such inclusion was a large advancement in how PTSD was conceptualized (Friedman, 2019a). As opposed to previous beliefs that PTSD was the result of inherent personal deficit that was unusual and outside the realm of normal human experience, we now understand it to be a relatively common reaction following a life-threatening event or sexual trauma that results in intrusive memories or dreams, avoidant behavior, negative changes in mood and thinking, changes in physiological reactivity, and marked distress for the individual that causes impairment in functioning (APA, 2013; Department of Veterans Affairs, 2019b; Friedman, 2019b). Since its initial inclusion, PTSD has since been removed from the anxiety disorders category and now falls under the new category of trauma- and stressor-related disorders in the DSM-5 (APA, 2013). Although specific criteria must be met to be diagnosed with PTSD using the DSM system, the multitude of ways in which symptoms can manifest for each individual makes it a complex and intricate condition that often requires help from a trained professional.

Unfortunately, experiencing trauma is not uncommon. Approximately 50% of women and 60% of men will experience at least one traumatic event during their lifetime (Department of Veterans Affairs, 2019b). Following trauma, women tend to have higher rates of PTSD compared to men (Kilpatrick et al., 2013). It is estimated that lifetime PTSD prevalence rates are 9.7% and 3.6% among adult U.S. women and men, respectively; with approximately eight million adults having PTSD during a given twelve-month period (Department of Veterans Affairs, 2019b; Kessler et al., 2005). Rates of PTSD have been found to be higher amongst Veterans, with prevalence varying by service era (APA, 2013; Department of Veterans Affairs, 2018b). Past year prevalence rates of PTSD among OEF/OIF Veterans is between 11% to 20%, approximately 12% for Gulf War Veterans, and approximately 30% for lifetime prevalence amongst Vietnam Veterans (Department of Veterans Affairs, 2018b).

Individuals who experience MST, especially women, are even more likely to develop PTSD than those who experience other forms of trauma, including combat trauma (Dutra et al., 2010; Lutwak & Dill, 2013; Maguen et al., 2010). In a large-scale, retrospective study examining chronic pain conditions among female Veterans with and without a reported history of MST (n = 516,950), Cichowski et al. (2017) found that those who endorsed MST had significantly higher rates of PTSD (40.6% vs. 9%). Utilizing data from the VHA Corporate Data Warehouse, the researchers used *International Classification of Diseases, 9th Revision* (ICD-9; World Health Organization (WHO), 1996) codes from outpatient visits, outpatient problems listed in the "problems list" of CPRS, and inpatient discharge diagnoses to identify chronic pain conditions and psychological diagnoses (Cichowski et al., 2017). Women who declined to answer the MST screener were excluded from the study (Cichowski et al., 2017). While the number of women who declined to answer the screener was not reported, results from these individuals may have

exhibited important findings, particularly if a significant number endorsed PTSD. Given the prevalence of and barriers to reporting MST, it is reasonable to assume that a number of these women likely had MST histories. Having a better understanding of physical and mental health issues experienced by those who decline to answer the MST screener can better inform both the research base and clinical practice. Important information may also be learned about commonalities shared amongst those who decline to answer the screener.

In a study of 383 female Veterans from a large VHA medical center, Goldstein et al. (2017) examined the impact of trauma on PTSD and depression. Potential participants who had received care within the five years prior to the study and who met inclusion criteria were mailed recruitment letters and offered a small monetary incentive for their participation (Goldstein et al., 2017). The majority of participants were White (59.7%) and the average age of respondents was 49.33 years (Goldstein et al., 2017). Participants completed and returned via mail questionnaires on demographic, background, type of trauma experienced, and mental health symptom information (Goldstein et al., 2017). Researchers found that 90% of participants experienced at least one military-related traumatic event, with sexual harassment being the most common (65.3%; Goldstein et al., 2017). Sexual harassment and assault were found to be significantly associated with greater PTSD and depressive symptom severity (Goldstein et al., 2017). Individuals who had attempted suicide in the last five years at the time of the study, those with a history or current diagnosis of psychosis, and women over the age of 70 were excluded from participation (Goldstein et al., 2017). As will be discussed in more detail, MST is associated with an increased suicide and self-harm risk (Holliday et al., 2018; Kimerling et al., 2016) as well as psychotic disorders (Sexton et al., 2017). By excluding such individuals, information on an important subset of MST survivors with more severe symptomatology is lacking. Based on the

focus of Goldstein et al.'s (2017) study, such exclusion criteria is also somewhat surprising given that self-harm and psychosis are associated symptoms of trauma, PTSD, and depression (APA, 2013; Sexton et al., 2017; Zetterqvist, 2015).

Current research highlights the increased risk of developing PTSD following MST, particularly for women (Cichowski et al., 2017; Dutra et al., 2010; Goldstein et al., 2017; Maguen et al., 2010). However, much of the current literature on MST and its association with PTSD has been conducted primarily with women. More research specifically examining MST-related PTSD among men is needed as well as to examine potential gender differences and risk factors associated with the development of PTSD following MST. Additionally, current MST-related PTSD research has been conducted almost exclusively with VA patients. While VA lends itself well to research opportunities, given that less than half of all Veterans receive VA care, many MST survivors have been excluded (Department of Veterans Affairs, 2019g; U.S. Census Bureau, 2017). The research base on MST-related PTSD would greatly benefit from studies with non-VA users as well as increased racial diversity amongst participants.

Mood disturbance. MST has been found to increase the risk of developing depressive and anxiety disorders, often with individuals meeting criteria for more than one diagnosis (Krupnick, Melnikoff, & Reinhard, 2016; Rauch et al., 2009; Sexton et al., 2017). Sexton et al. (2017) conducted a study with 563 Veterans who were seeking treatment within a VHA PTSD Clinic between 2005 and 2013 for either MST or military combat trauma. Their aim was to investigate potential differences in psychiatric consequences as a result of type of military trauma experienced. Semi-structured interviews, demographic questionnaires, and self-report measures assessing PTSD, depression, and dissociative symptoms were utilized (Sexton et al., 2017). A total of 86 Veterans reported having experienced MST (40 men and 46 women), with

16 endorsing both MST and combat trauma histories (Sexton et al., 2017). Amongst those who endorsed MST, PTSD and depressive disorders were the most common psychiatric diagnoses (Sexton et al., 2017). Compared to combat trauma, those who experienced MST had more severe depression and were more likely to have anxiety disorders, along with having more severe PTSD and dissociative symptoms (Sexton et al., 2017). Significantly higher likelihood of psychotic disorders was observed in men who reported MST compared to women with reported MST (Sexton et al., 2017). Unfortunately, the researchers did not examine psychiatric consequences amongst Veterans who reported having experienced both MST and combat trauma (Sexton et al., 2017). Research with such individuals is lacking and additional information on psychiatric consequences experienced by these Veterans would be beneficial given that these experiences are not mutually exclusive.

In Goldstein et al.'s (2017) study examining the impact of trauma on depression and PTSD among 383 female Veterans from a large VHA medical center, sexual harassment and assault were found to be significantly associated with greater depressive and PTSD symptom severity as measured by the Patient Health Questionnarie-9 (PHQ-9; Kroenke & Spitzer, 2002) and Clinician-Administered PTSD Scale for DSM-5 (CAPS-5; Weathers, Blake, et al., 2013a). The PHQ-9 is a measure of depression severity and the CAPS is considered the gold standard for PTSD assessment (Department of Veterans Affairs, 2019a; Kroenke & Spitzer, 2002; Weathers, Blake, et al., 2013a). Additionally, MST was found to be the only type of trauma to be significantly associated with greater depressive severity, even more so than combat (Goldstein et al., 2017). Exclusion criteria was a limitation of this study, with women who had attempted suicide in the previous five years at the time of the study, those with a history or current diagnosis of psychosis, and women over the age of 70 being excluded (Goldstein et al., 2017).

In Cichowski et al.'s (2017) large-scale, retrospective study examining chronic pain conditions among female Veterans with and without a reported history of MST (n = 516,950), it was found that female Veterans with a history of MST had higher rates of depression (40.5% vs. 18.9%) and anxiety (51.5% vs. 29.2%) compared to female Veterans without reported MST histories. ICD-9 (WHO, 1996) codes from outpatient visits, outpatient problems listed in the "problems list" of CPRS, and inpatient discharge diagnoses were used to identify psychological diagnoses (Cichowski et al., 2017). As discussed earlier, women who declined to answer the MST screener were excluded from the study (Cichowski et al., 2017). While this study contained a large number of participants, the exclusion of women who declined to answer the MST screener limits knowledge regarding their characteristics as well as pertinent diagnostic information that may be unique to this subset of individuals.

MST has been found to have a profound impact on survivors' mental health, with depression and anxiety being some of the most common mood issues associated with MST (Cichowski et al., 2017; Goldstein et al., 2017; Sexton et al., 2017). In speaking further to the significance of its impact, mood disturbance has been found to be more prevalent following MST than even combat trauma (Goldstein et al., 2017; Sexton et al., 2017). Gender differences have been observed in one study, with male MST survivors being significantly more likely to have a psychotic disorder compared to female survivors (Sexton et al., 2017). Unfortunately, research on MST's association with mood disturbance is limited and existing studies have mainly been conducted with White women. While existing findings are informative, it is difficult to generalize results to MST survivors who are demographically and racially different than those current studies have been conducted with.

Substance misuse and abuse. According to the National Institute on Drug Abuse (NIDA; 2018), the most commonly misused medication classes among the general population are opioids, often prescribed to treat pain; central nervous system depressants, such as antianxiety medications; and stimulants, such as those used to treat attention-deficit/hyperactivity disorder. Currently, more than one in ten Veterans has a diagnosable substance use disorder with men tending to have higher rates than women, and alcohol and tobacco being the most commonly used substances (Odani, Agaku, Graffunder, Tynan, & Armour, 2018; Teeters, Lancaster, Brown, & Back, 2017). Despite concern related to the use of opioids and their addictive potential, they are commonly prescribed to Veterans to treat things such as chronic pain and migraines (Teeters et al., 2017). From 2001 to 2009, opioid prescriptions for Veterans within VHA rose from 17% to 24% (Bohnert et al., 2014). Reasons such as trauma, combat exposure, multiple deployments, pain, homelessness, and suicidal ideation can increase risk of substance use among this population (NIDA, 2019; Teeters et al., 2017).

Utilizing data from the National Health and Resilience Veterans Study (n = 2,157; Klingensmith, Tsai, Mota, Southwick, & Pietrzak, 2014), a prospective cohort study that is nationally representative of older U.S. Veterans, Averill et al. (2019) analyzed the data of 115 Veterans who reported experiencing MST (59 men and 56 women). Fifty-five women and 57 men reported experiencing sexual harassment during their time in the service, and 23 women and 11 men reported forced sexual contact (Averill et al., 2019). The majority of participants were White and the mean age was 53.2 years (Averill et al., 2019). For almost 70% of participants, VA was not their primary source for health care (Averill et al., 2019). Compared to female MST survivors, men who endorsed MST were found to be 5.3 times more likely to meet criteria for lifetime substance use disorder (29.7% vs. 8.3%; Averill et al., 2019). While no significant

difference was found between lifetime alcohol use disorder between male and female MST survivors, higher rates of past-year hazardous drinking was seen amongst the males (20.3% vs. 4.3%; Averill et al., 2019). The researchers hypothesized that male MST survivors may be more likely to use substances as a way to cope with MST and its associated consequences compared to female survivors (Averill et al., 2019). A distinguishing feature of this study was the large percentage of participants for which VA was not their primary health care source. Incorporation of both primary and non-primary VA users helps broaden the research base to assist in generalizing findings across Veteran populations. However, racial diversity was a limitation of the study which hinders generalizability.

Teeters et al. (2017) conducted an empirical literature review of 81 published articles examining substance use and substance use disorders amongst Veterans. While male Veterans tend to have higher rates of substance use issues, problematic substance use among female Veterans receiving VA care was found to have increased by 81% from 2005 to 2010 (Teeters et al., 2017). Compared to female Veterans without a substance use disorder, female Veterans with substance use disorders tend to have higher rates of MST, childhood sexual abuse, and domestic violence histories (Teeters et al., 2017). Averill et al. (2019) also found a history of childhood sexual abuse to be common amongst MST survivors, with 25.4% of men and 21.3% of women in their study endorsing such experiences. In Cichowski et al.'s (2017) large-scale, retrospective study utilizing medical record data (n = 516,950), female Veterans with a history of MST were found to have significantly higher rates of substance abuse (12.6% vs. 4.6%) and drug overdoses (2.7% vs. 0.9%) compared to female Veterans without reported MST. Rates of depression and PTSD have also been found to be higher among female Veterans with substance misuse issues (Cichowski et al., 2017; Hoggatt et al., 2015).

Substance use has been found to be a significant issue not only for Veterans in general, but also for MST survivors (Averill et al., 2019; Cichowski et al., 2017; Teeters et al., 2017). Although research has found that male MST survivors tend to have higher rates of problematic substance use, such problems are also common for female survivors and have been found to be increasing over the years (Averill et al., 2019; Cichowski et al., 2017; Teeters et al., 2017). Along with the possibility that male Veterans may be more likely to use substances as a way to cope with the consequences of MST compared to female Veterans (Averill et al., 2019), higher prevalence found amongst men may also be a result of more men using VA health care and in turn being disproportionately over-represented in studies of substance use amongst Veterans. Additionally, gender and cultural norms and expectations may play a role in providers' perception, assessment, and diagnosis of substance use, with men being more likely to be classified as having a substance use issue or disorder. An increase in substance use found amongst female Veterans (Teeters et al., 2017) may speak to an increase in VA health care utilization among female Veterans and mandatory substance use screening measures implemented throughout VA. As a result of the increased likelihood for substance use, it is important that both male and female MST survivors are thoroughly assessed for substance misuse and abuse. Further research into substance use and MST, as well as potential gender differences in use is warranted.

Suicide. Suicide is defined as "death caused by self-directed injurious behavior with intent to die as a result of the behavior" (NIMH, 2019). In the U.S., suicide is the tenth leading cause of death overall and the second leading cause of death for individuals ages 10 to 44 (Heron, 2019). Amongst Veterans, the rate of suicide is 1.5 times higher than the rate for non-Veteran adults, with an average of 16.8 Veterans dying by suicide per day in 2017 (Department

of Veterans Affairs, 2019). In 2017, 69.4% of Veteran suicides were by firearm and firearms remain the primary method by which Veterans complete suicide (Department of Veterans Affairs, 2019). Currently, suicide prevention is the highest clinical priority of VA (Department of Veterans Affairs, 2018c).

Kimerling et al. (2016) examined risks associated with MST and suicide mortality among all Veterans receiving outpatient VHA services from October 2007 to September 2011 who were screened for MST. The primary focus of their research was determining suicide rates among these Veterans who reported MST and examining the associated risks between MST and suicide (Kimerling et al., 2016). Suicide mortality was assessed until either the Veteran's death or the end of calendar year 2011 (Kimerling et al., 2016). More than six million Veterans' medical record data was examined to assess risks associated with MST and the association between MST and subsequent suicide completion (Kimerling et al., 2016). The authors found that 2.2% (or 142,152) of Veterans reported experiencing MST (1.1% of men or 65,792, and 21.2% of women or 76,360) with 0.3% (or 20,228) declining to complete the screener (Kimerling et al., 2016). During the follow-up period, 9,017 Veterans completed suicide; those with positive MST screens had the highest completion rates (159 men and 97 women; Kimerling et al., 2016). The authors found that MST was significantly associated with increased suicide risk (Kimerling et al., 2016). Additionally, those Veterans with positive MST screens who died by suicide were significantly more likely to have been treated for mental health conditions determined to be MST-related by their provider (Kimerling et al., 2016). Such findings speak to the seriousness of suicide risk amongst those who have experienced MST and the need for thorough suicide screening of all MST survivors. Research on effective intervention and suicide risk reduction for this population is also strongly encouraged.

Nonsuicidal self-injury. The DSM-5 (APA, 2013) defines nonsuicidal self-injury (NSSI) as intentional self-inflicted harm to one's body that is not intended and unlikely to cause serious harm or death. Such behaviors include cutting, burning, and hitting oneself (APA, 2013). NSSI often serves to relieve emotional distress, can occur as a response to interpersonal difficulty, or functions as a method of self-punishment (APA, 2013). Within the DSM-5, under the emerging measures and models section, NSSI is listed as a condition currently being studied and in need of further investigation prior to becoming a potential diagnosis (APA, 2013). To further explore this, Zetterqvist (2015) examined peer-reviewed empirical studies on the DSM-5's NSSI proposed criteria in both clinical and community settings through May of 2015. Of the 16 total published studies that were included in the review, 10 studies included adolescents with two of these also including older children, four included either young adults or young adults and adolescents, and three included adults only (Zetterqvist, 2015). Zetterqvist (2015) found that the most common methods of self-injury were cutting, banging or hitting, severe scratching, carving, and scraping. Additionally, depression, anxiety, and PTSD were common among those who engaged in NSSI (Zetterqvist, 2015). Such findings provide additional information on common forms of self-injurious behavior as well as psychiatric conditions potentially associated with NSSI. Although findings garnered from Zetterqvist's (2015) review add to the knowledge base, additional research on NSSI with various populations and ages is needed to come to more definitive conclusions about NSSI behaviors, motivation, consequences, and co-morbidities. Prior to potential inclusion of NSSI as a stand-alone diagnosis, additional differential research is also needed given the overlap of self-injurious behaviors as a symptom of other established diagnoses (APA, 2013).

Holliday, Smith, and Monteith (2018) conducted a study with 107 Veteran MST survivors (65 females and 42 males) to examine characteristics of NSSI among this population and explore differences between MST survivors who had and had not engaged in NSSI. Participants completed self-report measures on NSSI, recent suicidal ideation, PTSD and depressive symptomatology, and trauma-related cognitions (Holliday et al., 2018). Over one-fourth of participants reported having engaged in NSSI, with the majority of them reporting such behavior occurring following their MST experience (Holliday et al., 2018). Those MST survivors with histories of NSSI endorsed greater PTSD symptom severity, recent suicidal ideation, and distressing trauma-related cognitions (Holliday et al., 2018).

To investigate the relationship between MST and serious self-directed violence that resulted in hospitalization, Gross et al. (2020) conducted a large-scale study with OEF/OIF/OND Veterans enrolled in VHA care from October 1, 2001 to September 20, 2014 and who had been screened for MST (n = 750,176). Over 160,000 women (21.33%) and over 12,000 men (1.63%) reported having experienced MST (Gross et al., 2020). Men and women displayed equal rates of serious self-directed violence (1.18% of men and 1.19% of women; Gross et al., 2020). While MST was found to predict serious self-directed violence for both men and women, men who endorsed MST were 15% less likely to engage in such behaviors compared to women with reported MST (Gross et al., 2020). Such findings suggest that men may engage in other types of coping behaviors following MST, such as substance use (Averill et al., 2019; Elder et al., 2017). Interestingly, Gross et al.'s (2020) study displayed a large difference in the number of men who endorsed MST compared to women. Given that almost half of all MST survivors are men (Kimerling et al., 2016; Smith et al., 2018), multiple factors may have accounted for these findings. MST has been found to be grossly underreported, with men being even less likely to

report (DoD, 2019; Morral et al., 2018). Given that this study was conducted with more recent Veterans receiving VHA care, perceptions of institutional betrayal by men who experienced MST may be more prevalent, thus further reducing the likelihood of them reporting their MST experience(s) (Smith & Freyd, 2013). Additionally, stigma, stereotypes, and male rape myths may have discouraged male survivors from reporting their MST (O'Brien, Keith, & Shoemaker, 2015; Turchik et al., 2013).

Although DSM-5's (APA, 2013) definition of NSSI states that the intention of such behavior is not to cause serious harm or death, NSSI has been found to increase the risk of suicide, whether intentional or accidental (Klonsky, May, & Glenn, 2013). Furthermore, suicidal ideation has been found to be common in those who engage in NSSI which also increases suicide risk (Klonsky, Victor, & Saffer, 2014). Available findings show that experiencing MST increases the risk of engaging in NSSI (Gross et al., 2020; Holliday et al., 2018). In Gross et al.'s (2020) large-scale study of OEF/OIF/OND Veterans, those who endorsed MST were significantly more likely to engage in serious self-directed violence that ultimately led to hospitalization. Although a small number of individuals, MST survivors in Holliday et al.'s (2018) study with histories of NSSI were also found to have greater PTSD symptomatology, trauma-related negative cognitions, and recent suicidal ideation. Although research is limited, based on available data and given MST's association with PTSD and mood disturbance (Maguen et al., 2010; Sexton et al., 2017), risk of engagement in NSSI may be substantially increased for MST survivors with more research being warranted. While it is possible male MST survivors may cope with consequences of MST in ways other than NSSI, additional studies are needed to investigate potential gender differences in both prevalence and type of self-injurious behavior.

Disordered eating. Disordered eating, referred to as an eating disorder in the DSM when specific diagnostic criteria are met, is a persistent disturbance of eating behaviors that adversely affects physical health and/or psychosocial functioning (APA, 2013). Disordered eating behaviors can result in a multitude of consequences, ranging from depression, to cardiovascular problems, to even death (APA, 2013; National Eating Disorders Association, 2018). Diagnostically, some of the most common eating disorders are binge-eating disorder, anorexia nervosa, and bulimia nervosa (APA, 2013). Along with the physical, psychosocial, and emotional consequences that can occur with disordered eating, a heightened risk of suicide is also present among those diagnosed with bulimia and anorexia (APA, 2013).

Based on data from the National Comorbidity Survey Replication (Hudson, Hiripi, Pope, & Kessler, 2007), the NIMH (2017) found that among U.S. adults, prevalence of eating disorders is 1.2% for binge-eating disorder, 0.6% for anorexia, and 0.3% for bulimia, with women showing higher prevalence rates for all. Studies have found that rates of eating disorders tend to be higher amongst military members and Veterans, and similar to results found in the general population, female Veterans show higher prevalence rates of eating disorders compared to males (Antczak & Brininger, 2008; Bartlett & Mitchell, 2015). Being in the military is both physically and psychologically demanding. Throughout all branches of the military, there are physical and weight requirements all service members are mandated to meet, with consequences should they not (Antczak & Brininger, 2008; Bartlett & Mitchell, 2015). Such an environment may increase the risk of individuals developing disordered eating behaviors as well as exacerbate symptomatology for those who already have an eating disorder (Antczak & Brininger, 2008; Bartlett & Mitchell, 2015).

In a retrospective epidemiological study, Antczak and Brininger (2008) examined the incidence of eating disorders amongst all service members from 1998 to 2006 (n = ~1,380,788), specifically investigating anorexia, bulimia, and eating disorder not otherwise specified. Data from the Defense Medical Epidemiology Database (Military Health System, 2020) was utilized to conduct their study which includes historical and up-to-date medical records and personal characteristics for all Army, Air Force, Marines, and Navy service members for the past 10 years (Antczak & Brininger, 2008). ICD-9 (WHO, 1996) codes input into medical records by providers were used to identify those diagnosed with anorexia, bulimia, and eating disorder not otherwise specified (Antczak & Brininger, 2008). Results revealed that, per year, the average diagnosed eating disorder incidence rate was 0.30%, with a significant increase from 1998 (0.23%) to 2006 (0.41%; Antczak & Brininger, 2008). Women were diagnosed with an eating disorder significantly more than men, making up 85% of all cases (Antczak & Brininger, 2008). Additionally, White women had significantly higher incidence of diagnosed eating disorders compared to women of other races (Antczak & Brininger, 2008). Bulimia was found to be the most prevalent eating disorder among women (45%) while eating disorder not otherwise specified was the most common for men (52%; Antczak & Brininger, 2008).

Bartlett and Mitchell (2015) conducted a systematic literature review to investigate the prevalence of eating disorders amongst U.S. military members and Veterans. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Moher, Liberati, Tetzlaff, & Altman, 2010) guidelines were used to identify initial articles for inclusion and the reference lists of relevant articles were also searched for eligible studies, resulting in a total of 68 included articles (Bartlett & Mitchell, 2015). The authors identified that differences in methodologies to assess for eating disorders such as use of clinical interview, diagnoses in

medical records, or eating disorder screening measures resulted in large variances in disordered eating rates amongst studies (Bartlett & Mitchell, 2015). The authors found that studies using hospital records to estimate eating disorder prevalence amongst Veterans tended to have the lowest rates of disordered eating (Bartlett & Mitchell, 2015). Studies using telephone or in-person interviews to assess for disordered eating amongst Veterans found lifetime eating disorder prevalence of 4.6% to 4.76% for women and 0.7% to 3.69% for men (Bartlett & Mitchell, 2015). Based on their review of the literature, the authors suggest that reliance on hospital records alone to evaluate prevalence of eating disorders may underestimate true prevalence data (Bartlett & Mitchell, 2015). The physical and weight requirements of the military and exposure to trauma were found to be risk factors for disordered eating behaviors or an eating disorder amongst service members; whereas for Veterans, history of MST, a diagnosis of PTSD, and comorbid mental health diagnoses, particularly mood, personality, and substance use disorders, were risk factors (Bartlett & Mitchell, 2015).

To examine the association between MST and combat exposure on anorexia, bulimia, and binge eating disorders in a group of female Veterans, researchers utilized a mail-based study design in which information about the study was sent to all female Veterans between the ages of 18 and 70 who were receiving care at an urban VA and its affiliated community-based outpatient clinics (CBOCs; Breland et al., 2018). A small monetary incentive was offered and 594 women initially agreed to participate (Breland et al., 2018). Surveys were mailed to those who expressed interest and a total of 407 surveys were returned (Breland et al., 2018). Self-report measures were utilized to gather information on demographic characteristics, MST, combat exposure, and eating disorder symptomology (Breland et al., 2018). MST assessment was almost identical to the two-item screener used within VA and item 10 of the Life Events Checklist for DSM-5

(LEC-5; Weathers, Blake, et al., 2013b) was used to determine combat exposure (Breland et al., 2018). The SCOFF Clinical Prediction Guide (Morgan, Reid, & Lacey, 2000) was used to assess for probable anorexia, bulimia, and eating disorder not otherwise specified and the Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 2008) was used to assess for binge eating disorder (Breland et al., 2018). Of the participants, 66% endorsed MST and 32% reported combat exposure (Breland et al., 2018). The researchers found that 15% of participants met criteria for an eating disorder and while combat exposure was not found to be associated with an eating disorder, those with MST histories were twice as likely to meet criteria for one (Breland et al., 2018). Furthermore, those who identified their race as Asian had higher odds of meeting criteria for an eating disorder compared to White participants (Breland et al., 2018). It is unclear if potential cultural factors played a role in this racial difference. Although Breland et al.'s (2018) findings add to the research base on MST and its association with disordered eating, there are a number of issues with their study. Regarding the assessments utilized, the SCOFF was specifically "designed to raise the suspicion that an eating disorder might exist before rigorous clinical assessment" (Morgan et al., 2000, p.1). It does not assess for fear of gaining weight or persistent efforts to avoid weight gain, nor does it assess for restriction of caloric intake which are requirements of anorexia (APA, 2013; Morgan et al., 2000). Additionally, although the SCOFF asks about making oneself sick because of feeling "uncomfortably full," no other compensatory behaviors to avoid weight gain which may be seen in bulimia are assessed (APA, 2013; Morgan et al., 2000). Furthermore, the EDE-Q, which was used to assess for binge eating disorder, was developed prior to this disorder's addition to DSM-5 (APA, 2013; Breland et al., 2018; Fairburn & Beglin, 2008). Along with items that are inconsistent with DSM-5 criteria for binge eating disorder, the EDE-Q is only concerned with behaviors occurring in the

past four weeks whereas binge eating disorder behaviors must occur for at least three months to meet DSM-5 criterion (APA, 2013; Fairburn & Beglin, 2008). Breland et al. (2018) reported using these assessments to evaluate for anorexia, bulimia, and binge eating disorders with no further clinical assessment or corroboration from medical records. As such, their results are of strong questionable validity. Additionally, based on information contained in medical records, women with a history of any psychotic disorder and those who had attempted suicide in the past five years from the time of the study were excluded (Breland et al., 2018). The authors cited ethical concerns as their rationale for such exclusion given the mail-based study design (Breland et al., 2018). While such a rationale may be understandable, exclusion of such individuals limits information on potential comorbidities associated with eating disorders and type of trauma. Furthermore, potential disordered eating symptoms amongst individuals with such mental health histories could provide important clinical information.

Blais et al. (2017) performed a retrospective cohort study with male and female OEF/OIF Veterans who received VHA care between fiscal years 2004 and 2014. Using the 2011 OEF/OIF roster file and VHA medical record data obtained from the Corporate Data Warehouse, the researchers sought to examine the association between a positive MST screen and an eating disorder diagnosis within one and five years of initiating VHA care, and if gender differences existed (Blais et al., 2017). The one-year cohort consisted of 595,525 Veterans (73,352 women and 522,173 men) having at least one year of clinical record data (Blais et al., 2017). Of these individuals, 265,806 (34,342 women and 231,464 men) had at least five years of clinical record data and they comprised the five-year cohort (Blais et al., 2017). Of their sample, 3% (or 18,488) endorsed MST (Blais et al., 2017). Five hundred and thirteen Veterans (0.09%) in the one-year cohort and 504 Veterans (0.19%) in the five-year cohort had an eating disorder diagnosis (Blais

et al., 2017). Significant demographic and military service variables for both cohorts were found to be associated with an eating disorder diagnosis and included being female, never married, younger, "non-Black race/ethnicity" (p. 4), serving active duty, being in the Navy/Coast Guard and Air Force, and having a positive MST screen (Blais et al., 2017). For both male and female Veterans, those with positive MST screens were nearly two times as likely to have an eating disorder diagnosis (Blais et al., 2017). Additionally, those with PTSD, depressive disorders, and substance use disorders were significantly more likely to also be diagnosed with an eating disorder (Blais et al., 2017). While women had higher rates of eating disorders among both cohorts, within the one-year cohort, likelihood ratio tests revealed that males with a positive MST screen were significantly more likely to be diagnosed with an eating disorder compared to females with reported MST (Blais et al., 2017).

In a cross-sectional study of 1,004 female Veterans receiving care at two VA medical centers and associated CBOCs, Forman-Hoffman, Mengeling, Booth, Torner, and Sadler (2012) investigated lifetime eating disorders and associations with sexual trauma and PTSD. A structured computer-assisted telephone interview was conducted with all participants that assessed demographics, physical and mental health history, substance use history, thoughts and behaviors related to eating and weight, and sexual assault (Forman-Hoffman et al., 2012). The majority of participants identified as White, were considered overweight or obese, had at least some post-secondary education, were employed, had served in active duty, and almost 30% served in a combat area or war zone (Forman-Hoffman et al., 2012). Almost 62% of participants reported experiencing at least one attempted or completed sexual assault in their lifetime with 32.5% reporting sexual trauma occurring during their time in the service and 41% reporting childhood sexual trauma (Forman-Hoffman et al., 2012). Regarding lifetime diagnosed

conditions, 247 (24.6%) reported PTSD, 304 (30.3%) reported depression, 346 (34.5%) reported substance abuse or dependence, and 162 (4.7% diagnosed and 11.5% self-report) participants reported an eating disorder (Forman-Hoffman et al., 2012). Participants who endorsed PTSD or sexual trauma during their time in the military were approximately two times as likely to have a lifetime eating disorder compared to those without PTSD or lifetime sexual trauma (Forman-Hoffman et al., 2012). Furthermore, sexual trauma occurring in the military was found to be more strongly associated with lifetime eating disorder compared to childhood sexual trauma (Forman-Hoffman et al., 2012). Those who endorsed depression or substance use issues were also found to be more likely to have an eating disorder (Forman-Hoffman et al., 2012). Such findings highlight the detrimental effects sexual trauma endured during military service can have on eating behaviors. Because this study only examined completed or attempted sexual assault and not sexual harassment, findings are unable to be generalized to all MST survivors. While findings provide important information, they should be interpreted with some caution due to the reliance on self-report only. Additionally, the researchers originally sought to conduct a study on gynecological health and did not recruit participants over the age of 51 (Forman-Hoffman et al., 2012). Additional research is encouraged with a broader age range of participants.

Rates of eating disorders have been found to be higher amongst Veterans compared to the general population with a variety of risk factors contributing to this (Antczak & Brininger, 2008; Bartlett & Mitchell, 2015). There is strong research support for MST, PTSD, and mood and substance use disorders being risks factor for disordered eating amongst this population (Bartlett & Mitchell, 2015; Blais et al., 2017; Forman-Hoffman et al., 2012). MST survivors with any of these comorbidities are likely at an even greater risk of having an eating disorder. As a result of such findings, appropriate screening for potential eating issues followed by thorough clinical

assessment is especially important when working with Veterans who endorse MST. While rates of disordered eating tend to be higher in females, eating disturbance may present differently in males. Antczak and Brininger (2008) found that eating disorder not otherwise specified was the most common diagnosis for male Veterans in their study. Additional research examining gender differences in how such behaviors may manifest is needed. Furthermore, incorporation of male MST survivors in disordered eating research overall is crucial given that women are currently disproportionally over-represented in such studies. Such inclusion will also assist in garnering more accurate prevalence data for men. When evaluating for the presence of eating issues, use of both interview and objective measures may be most helpful (Bartlett & Mitchell, 2015).

Biological Consequences

Physical health. Throughout history, philosophers, medical providers, and prominent individuals in psychology have debated the connection between the mind and body. For example, René Descartes, a prominent 17th-century French philosopher, believed the mind and body were separate entities operating independently of one another (Descartes, 1924). We now know our psychological health affects our physical health and vice versa (Murphy et al., 2014). Along with a psychological impact, MST has been found to be associated with a myriad of physical consequences such as chronic pain, obesity, and cardiovascular issues (Cichowski et al., 2017; Lutwak & Dill, 2013; Pandey, Ashfaq, Dauterive, MacCarthy & Copeland, 2018).

Chronic pain. As opposed to acute pain in which pain is a time-limited symptom alerting an individual that an injury has occurred, chronic pain is a condition that lasts beyond an expected healing time and often persists despite treatment (Murphy et al., 2014). Chronic pain can adversely affect overall quality of life as well as exacerbate mental health and other medical conditions (Asmundson & Katz, 2009; Murphy et al., 2014; Villano et al., 2007). In a large-

scale, retrospective study utilizing records from VHA's Corporate Data Warehouse, researchers examined the association between history of MST and chronic pain in female Veterans (n = 516,950; Cichowski et al., 2017). ICD-9 (WHO, 1996) codes from outpatient visits, outpatient problems listed in the "problems list" of CPRS, and inpatient discharge diagnoses were used to identify chronic pain conditions and psychological diagnoses (Cichowski et al., 2017). Of the records included in the study, 22.5% (or 123,417) of the individuals reported a history of MST (Cichowski et al., 2017). The authors found that most in the sample had more than one chronic pain condition and those with a history of MST were significantly more likely to have diagnoses of headaches, chronic pelvic pain, chronic back pain, non-specific joint pain, fibromyalgia, generalized abdominal pain, irritable bowel syndrome, and dyspareunia (Cichowski et al., 2017). An adjusted odds ratio revealed that depression, PTSD, and smoking were also significantly associated with a chronic pain condition (Cichowski et al., 2017). The authors found that at baseline, those with reported MST histories were younger, weighed more, and were more likely to be White and current smokers compared to women without a reported history of MST (Cichowski et al., 2017). Although research on MST and chronic pain is scarce, the large sample size of Cichowski et al.'s (2017) study provides support for their results being generalized to other MST survivors. Their study highlights the variety of physical ailments associated with MST which may negatively affect not only a survivor's overall physical health but also their psychological health. The increased likelihood of MST survivors in their study to also be current smokers heightens the risk of other health issues, such as obesity and cardiovascular problems (CDC, 2020b; Lutwak & Dill, 2013).

Obesity. The adverse health risks associated with excess weight and tobacco use have been well documented (CDC, 2020a, 2020b). Almost half of the U.S. adult population is

considered obese (CDC, 2020a) and within VHA, 37% of patients are considered overweight and 41% are considered obese (Breland et al., 2017). Obesity is associated with heart disease, diabetes, increased stroke risk, and a variety of other adverse health consequences (CDC, 2020a). Utilizing medical record data of over 200,000 female Veterans receiving VHA care in fiscal year 2014, Pandey et al. (2018) examined the association between MST, PTSD, and obesity. The researchers garnered participant information from VA's Corporate Data Warehouse and the Surgical Treatment Outcomes for Patients with Psychiatric Disorders data repository which is comprised of data from CPRS for all Veterans utilizing VA care from fiscal years 2005 to 2014 (Pandey et al., 2018). Participants were women between the ages of 20 and 103 engaged in VHA care in fiscal year 2014 with body mass, diagnostic, and MST status information listed in their medical records (Pandey et al., 2018). Obesity was defined as a body mass index of 30 or greater (Pandey et al., 2018). A total of 5,946 (2.8%) women endorsed MST, 16.2% had a diagnosis of PTSD, and 45.7% of the sample was considered obese (Pandey et al., 2018). The researchers found MST to be significantly associated with PTSD (50.2% of women who endorsed MST, $p < 0.0001$), depression (57.1% of women who endorsed MST, $p < 0.0001$), and obesity (52.4% of women who endorsed MST, $p < 0.0001$; Pandey et al., 2018). PTSD was also found to be significantly associated with obesity with 17.1% of participants with a PTSD diagnosis also being obese ($p < 0.0001$; Pandey et al., 2018). Furthermore, in a multivariable model of obesity that was adjusted for demographics and comorbidity, MST was found to increase the risk of obesity by approximately 9% (Pandey et al., 2018). Although there is limited research directly devoted to the study of MST and obesity, available data highlight MST's significant association with obesity among female Veterans engaged in VA care (Pandey et al., 2018). Further research

is needed to better understand this association along with research on male MST survivors and obesity.

Cardiovascular problems. There has been longstanding interest in the association between PTSD and cardiovascular disease, with numerous studies finding that PTSD increases the risk of multiple cardiovascular problems (Coughlin, 2011). The association between MST, PTSD, and depression has also been found to increase the risk of cardiovascular disease in part due to additional associated negative health behaviors such as increased smoking, substance use, and sedentary activities (Lutwak & Dill, 2013). Surís and Lind (2008) conducted a critical literature review examining the prevalence of MST and its associated health consequences. They included a total of 25 studies in their review and focused primarily on MST related to sexual assault (Surís & Lind, 2008). Interviews, self-report measures, and mailed surveys were the primary means of data collection for the studies included (Surís & Lind, 2008). The authors found that female Veterans with histories of MST tended to have significantly more physical health symptoms compared to female Veterans without reported MST, including more cardiovascular risk factors such as obesity, diabetes, hypertension, tobacco and alcohol use, and more sedentary behaviors (Surís & Lind, 2008). Unfortunately, the authors found only one study looking at MST and associated health consequences among male Veterans, with results showing a significant association between AIDS and MST (Kimerling, Gima, Smith, Street, & Frayne, 2007; Surís & Lind, 2008). Along with limited research with male Veterans, overall research looking specifically at MST and its relationship to cardiovascular issues is scant. While similarities are likely to exist with cardiovascular problems found to be associated with PTSD, more research is needed specifically on cardiovascular risk factors and issues associated with MST.

Physical consequences of rape. While physical health consequences such as chronic pain, obesity, and cardiovascular problems have been found to be associated with MST (Cichowski et al., 2017; Lutwak & Dill, 2013; Pandey et al., 2018), there are also physical consequences specific to rape that should be considered. Along with chronic pain, consequences of rape also include sexually transmitted infections (STIs), pregnancy, physical injury, and sexual dysfunction (Hart-Johnson & Green, 2012; Joyful Heart Foundation, 2019). It is important to note that within the VA system, once the MST screener has been completed and a Veteran answers affirmatively to either or both items, the type of MST the Veteran experienced is not specified. Such lack of specification can make research efforts difficult when attempting to investigate consequences specific to type of MST endured. Unfortunately, there are no known studies at this time examining the physical and other associated consequences of MST resulting specifically from rape. Available research amongst the general population has demonstrated that men who experience sexual assault to include rape tend to suffer more severe physical injuries and that the assaults themselves tend to be more violent that sexual assaults against women (Tewksbury, 2007); however, others have found the opposite to be true (Kimerling, Rellini, Kelly, Judson, & Learman, 2002).

In a large national sample of returning OEF/OIF Veterans receiving VHA care (n = 420,725; 52,484 women and 368,241 men), Turchik et al. (2012) conducted a cross-sectional study to examine the prevalence of STIs and sexual dysfunction disorders in relation to endorsement of MST. The researchers used nationwide medical record data obtained from VHA's National Patient Care Database of Veterans receiving VHA care between fiscal years 2002 and 2010 (Turchik et al., 2012). MST status was determined by a positive MST screen (Turchik et al., 2012). ICD-9 Clinical Modification (ICD-9-CM; National Center for Health

Statistics & Centers for Medicare & Medicaid Services, 2008) codes were used to identify STIs and sexual dysfunction disorders (Turchik et al., 2012). A total of 8,773 (or 16.7%) women and 2,637 (or 0.7%) of men endorsed MST (Turchik et al., 2012). The researchers found that those who reported MST were significantly more likely to have STIs and sexual dysfunction disorders compared to those without a reported history of MST (Turchik et al., 2012). Women were found to be significantly more likely to be diagnosed with an STI compared to men (Turchik et al., 2012). Furthermore, women with reported MST were more likely to have HPV, genital warts, cervical dysplasia, pelvic inflammatory disease, yeast infection, herpes, trichomoniasis, HIV/AIDS, and pubic lice (Turchik et al., 2012). Men with MST histories were more likely to have HPV, genital warts, herpes, HIV/AIDS, pubic lice, and syphilis (Turchik et al., 2012). Sexual pain, desire, and arousal disorders were more common among women with MST histories compared to women without (Turchik et al., 2012). Men with MST histories were found to have higher rates of sexual desire and arousal disorders compared to men without reported MST (Turchik et al., 2012). When examining the interaction between STI and sexual dysfunction diagnosis with mental health conditions, women with MST as well as PTSD, depression, or a substance use diagnosis were significantly more likely to be diagnosed with an STI (Turchik et al., 2012). Men with a history of MST and STI were significantly more likely to have a substance use disorder (Turchik et al., 2012). Additionally, sexual dysfunction diagnosis was significantly more likely among women with MST and depression, and among men with MST and PTSD or depression (Turchik et al., 2012). Findings from such a large sample highlight important sexual health issues associated with MST. Although one could hypothesize the strong likelihood that many in the study experienced rape, because type of MST experienced was not specified, it is unclear which issues are directly associated with rape specifically. Differential research on

associated consequences by type of MST experienced is needed and would provide more richness to the overall MST research base.

Sociocultural Consequences

Interpersonal relationships. Humans are social creatures and our relationships with others become important and crucial components to our overall wellbeing. Difficulties, conflicts, and deficiencies in relationships, as well as in our interpersonal skills, can lead to adverse consequences, including strain on our mental health (Gelenberg, Freeman, Markowitz, Rosenbaum, & Thase, 2010). Trauma, and particularly sexual trauma, can have devastating effects on interpersonal relationships and can lead to ineffective relational patterns that can lead to further overall distress (Cloitre, Kulkarni, Jackson, Weiss, & Gupta, 2015; Resick, Monson, & Chard, 2017). Following trauma, it is common for survivors to have difficulties trusting others, forming close bonds, being intimate, and navigating relational difficulties when they arise (Cloitre et al., 2015; Resick et al., 2017). All relationships can be adversely affected including romantic, familial, and social. Trauma and its associated thoughts and feelings can increase social isolation, discomfort and fear around others, and difficulty effectively navigating social interactions (Cloitre et al., 2015; Resick et al., 2017). Each person forms relationship patterns or schemas based on their life experiences (Cloitre et al., 2015). Prior positive interpersonal experiences that led to adaptive and healthy beliefs and expectations about others may be turned upside down following trauma (Resick et al, 2017). Alternatively, prior negative interpersonal experiences, including past trauma, that result in maladaptive beliefs and expectations can be reinforced by trauma (Resick et al, 2017).

Creech et al. (2019) examined gender differences in the association between PTSD symptoms and romantic relationship difficulties among post 9/11 Veterans (n = 202; 60 women

and 142 men). Participants were recruited at a VA health care system through mailings, local Veterans' service organizations, and referral from VA staff (Creech et al., 2019). Veterans with diagnoses of bipolar or psychotic disorder, active suicidal or homicidal ideation, and those who were determined to be unstable were excluded from the study; however, instability was not operationalized (Creech et al., 2019). The majority of participants were White (59.1%) with 73% being married and 84% currently living with a partner (Creech et al., 2019). Self-report measures were utilized to evaluate relationship impairment, PTSD symptoms, combat exposure, and stressful life events (Creech et al., 2019). The romantic relationship role impairment scale of the Inventory of Psychosocial Impairment (IPF; Bovin et al., 2018) was used to assess relationship difficulties and the PTSD Checklist – Military Version for DSM-IV (PCL-M; Weathers, Litz, Huska, & Keane, 1994b) measured PTSD symptom severity (Creech et al., 2019). PTSD symptom severity was assessed at four-month intervals throughout the course of a year and relationship difficulties were assessed at the beginning and end of the same year (Creech et al., 2019). Men with greater PCL-M scores at the first assessment period were found to have greater relationship difficulties compared to women ($p < 0.05$; Creech et al., 2019). Overall, Veterans whose PTSD symptoms worsened over time were found to have heightened relationship difficulties, although relationship difficulties were not found to be associated with changes in PTSD symptoms (Creech et al., 2019). A primary limitation of this study was that no specifics were provided regarding the type of relationship challenges endorsed by participants.

In a cross-sectional study of 164 OEF/OIF Veterans who sought primary or mental health care through VA within a year of returning from deployment, over half screened positive for PTSD on the PCL-M (Tsai, Harpaz-Rotem, Pietrzak, & Southwick, 2012; Weathers et al., 1994b). Self-report measures gathering demographic information and evaluating PTSD

symptoms, social functioning, life satisfaction, and coping were administered (Tsai et al., 2012). Those Veterans screening positive for PTSD reported significantly greater romantic relationship difficulties, less familial cohesion, less social support, poorer social functioning, and lower overall life satisfaction (Tsai et al., 2012). Furthermore, those screening positive for PTSD endorsed greater cognitive-behavioral avoidance in their relationships and fears of losing vigilance (Tsai et al., 2012). Although it is known that trauma can have detrimental effects on relationships and interpersonal effectiveness (Creech et al., 2019; Resick et al., 2017; Weiss, Jackson, Gupta, & Cloitre, 2015; Tsai et al., 2012), currently, there is a lack of research exploring the consequences of MST on relationship and social functioning. Studies specifically exploring interpersonal repercussions following MST are necessary to have a better understanding of MST's relational consequences and how such consequences may differ compared to other types of sexual trauma.

Homelessness. If we think of Maslow's (1943) hierarchy of needs, basic needs such as food, water, shelter, and safety create the foundation of the hierarchy. Such basic needs are believed to be required before an individual can progress up the hierarchy (Maslow, 1943). Individuals experiencing homelessness face a variety of challenges particularly related to the fulfillment of basic needs. Veterans account for approximately 11% of the U.S. homeless population, with the majority being male (National Coalition for Homeless Veterans, n.d.). Approximately 40,000 Veterans were homeless in January 2017 based on point-in-time estimates conducted by the U.S. Department of Housing and Urban Development (Department of Veterans Affairs, 2019). Additionally, approximately 1.4 million Veterans are considered at risk of homelessness due to financial strain, unemployment, and other environmental factors (National Coalition for Homeless Veterans, n.d.). A variety of risk factors can contribute to homelessness.

While it is outside the scope of this paper to discuss such factors in depth, it is known that mental health issues and substance abuse have been found to be associated with homelessness (Balshem, Christensen, Tuepker, & Kansagara, 2011). Veterans may be at an even greater risk for homelessness given their increased likelihood of experiencing trauma which is associated with mental health and substance use issues (APA, 2013; Department of Veterans Affairs, 2018b; Department of Veterans Affairs, 2019c).

In a study examining homelessness among over 300,000 Veterans seen within VA anxiety and PTSD clinics, 5.6% experienced homelessness within a one-year incident period (Tsai, Hoff, & Harpaz-Rotem, 2017). Additionally, those who were single or diagnosed with a substance use disorder were over two times as likely to experience homelessness (Tsai et al., 2017). In a national, cross-sectional study of homeless Veterans who utilized VHA outpatient services in fiscal year 2010 (n = 126,598), researchers found that 39.7% of women and 3.3% of men reported MST (Pavao et al., 2013). Although women were significantly more likely to have a reported MST history, the number of homeless Veterans with reported MST was similar for both men and women (3,915 men and 3,538 women; Pavao et al., 2013). These individuals were more likely to have a mental health diagnosis with PTSD, depression, and substance use disorders being the most common (Pavao et al., 2013). Both homeless men and women who endorsed MST had significantly more mental health care visits with women having more MST-related visits (Pavao et al., 2013). While homelessness continues to remain a problem among Veterans, such mental health care utilization seen within Pavao et al.'s (2013) study is a promising finding that suggests Veterans within VHA experiencing homelessness are being connected with needed services related to their MST. More research is needed to examine the associations and risk factors of MST on homeless with Veterans within and outside of VA care.

Vocational. For Veterans with PTSD, job attainment and retention can be challenging (Tanielian & Jaycox, 2008). When considering the criteria comprising PTSD, such difficulties become more understandable. Avoidance behaviors, distressing intrusive memories and emotions, negative mood, and heightened physiological reactivity can greatly impair one's ability to effectively complete job tasks and interact with co-workers and supervisors. Such difficulty in obtaining and keeping employment can exacerbate distress, further impair overall functioning, and contribute to other psychosocial difficulties (Tanielian & Jaycox, 2008). Within VA medical centers, a vocational rehabilitation program called Compensated Work Therapy (CWT) is available to Veterans with mental and physical health issues (Department of Veterans Affairs, 2020b). CWT assists Veterans in attaining gainful employment by providing support and teaching skills necessary to be successful in the job market (Department of Veterans Affairs, 2020b). A Veteran often obtains a CWT position at the VA facility they receive care at and such positions can include environmental services, grounds keeping, and construction. A unique aspect of CWT is that it allows work schedule flexibility for the Veteran to participate in needed mental and physical health appointments and treatment (Department of Veterans Affairs, 2020b).

Using record data collected by the VA Northeast Program Evaluation Center of Veterans for CWT programs from fiscal year 2006 and the first half of fiscal year 2007, Resnick and Rosenheck (2008) examined employment status of Veterans with PTSD while participating in CWT and at time of discharge from the program (n = 5,862 and 122 CWT programs nationwide). They found that of those Veterans who worked in the 90 days prior to discharge from the program, those with PTSD worked approximately 11% fewer days (p = 0.003; Resnick & Rosenheck, 2008). Veterans with PTSD were 19% less likely to have obtained competitive employment at time of discharge compared to Veterans without PTSD (Resnick & Rosenheck,

2008). Additionally, post-Vietnam era Veterans with PTSD were significantly less likely to be competitively employed at time of discharge (Resnick & Rosenheck, 2008).

To examine the relationship between psychiatric status and work impairment, Adler et al. (2011) conducted a cross-sectional study of 797 recently returning OEF/OIF Veterans from six northeast VAs who were referred for mental health evaluations by their primary care provider. The mean age of participants was 34 years, 63% identified as non-Hispanic White, 88% were male, and 59% of participants were employed (Adler et al., 2011). Data was garnered from medical records and assessments conducted by trained mental health technicians (Adler et al., 2011). The assessments consisted of a structured interview and administration of the PHQ-9 (Kroenke & Spitzer, 2002), PCL for DSM-IV (Weathers, Litz, Herman, Huska, & Keane, 1993), Mini-International Neuropsychiatric Interview (Sheehan et al., 1998), Work Limitations Questionnaire (WLQ; Lerner et al., 2001), and the mental and physical functioning components of the Short-Form Health Survey (Ware, Kosinski, & Keller, 1996; Adler et al., 2011). The researchers found that unemployed Veterans were significantly more likely to have depression as well as more severe depressive symptoms compared to employed Veterans (Adler et al., 2011). Amongst employed Veterans, greater depressive and PTSD symptom severity and amount of binge drinking episodes were associated with greater impairment in all aspects of work functioning as measured by the WLQ (Adler et al., 2011).

In a study examining the influence of MST on 961 returning OEF/OIF male Veterans referred for treatment to a large VA trauma and anxiety specialty clinic, researchers found that while MST was negatively associated with post-deployment social support and positively associated with post-deployment perceived emotional mistreatment, it was not significantly associated with job loss or unemployment (Mondragon et al., 2015). There is very limited

research directly studying the potential consequences of MST on vocational attainment, retention, and functioning. Based on the research available, PTSD and depression have been found to negatively impact an individual's work functioning as well as one's ability to obtain and maintain gainful employment (Adler et al., 2011; Resnick & Rosenheck, 2008). PTSD symptoms and relational factors, such as hypervigilance, intrusive symptoms, and difficulty feeling safe around others, may contribute to vocational challenges (APA, 2013; Resick et al., 2017). Furthermore, issues with individuals in positions of authority, such as a boss or supervisor, may be particularly challenging for MST survivors which may further perpetuate vocational difficulties. More research is needed on MST and vocational factors to have a better understanding of how MST may affect employment.

A variety of psychological, biological, and sociocultural consequences can manifest following experiences of MST. PTSD, mood disturbance, and substance use issues have been found to be some of the most common psychological consequences for survivors (Averill et al., 2019; Maguen et al., 2010; Sexton et al., 2017; Teeters et al., 2017). Additionally, MST has been found to be significantly associated with increased suicide risk and disordered eating (Antczak & Brininger, 2008; Bartlett & Mitchell, 2015; Kimerling et al., 2016). Given the variety of ways MST can effect someone, and depending on the length of time since the experience of MST occurred, providers may think less about the physical consequences of MST as a result of rape that can have long-term or lasting repercussions. Things such as sexual dysfunction, STIs, and pregnancy can contribute to an array of other additional and distressing challenges for a survivor. Additional health co-morbidities such as chronic pain, obesity, and cardiovascular issues can also present additional challenges. The ripple effects of MST can extend to disruptions in interpersonal relationships, housing instability, and vocational difficulties. Although the research

base on the consequences of MST is continuing to expand, there is still unfortunately a shortage of studies investigating the different domains of functioning that MST can impact. Continued research efforts in these areas is encouraged to both gain a better understanding of these consequences and to assist in informing clinical practice.

CHAPTER III: EVIDENCE-BASED TREATMENT FOR MST-RELATED PTSD

VA has taken considerable steps to address and provide treatment for Veteran MST survivors. Across the nation, every VA health care facility has a designated MST Coordinator responsible for addressing MST-related issues and assisting Veterans in obtaining care (Department of Veterans Affairs, 2018a). All VA medical centers are equipped with providers who are trained in and able to provide MST-related mental and physical health services to survivors (Department of Veterans Affairs, 2018a). Such services are free and include assessment and evaluation, individual and group therapy, medication evaluation and treatment, and psychiatric care (Department of Veterans Affairs, 2018a). Some VA facilities have residential treatment services for Veterans needing more intensive MST-related care (Department of Veterans Affairs, 2018a). VA CBOCs and Vet Centers are also able to provide MST-related therapeutic services (Department of Veterans Affairs, 2018a). Other unique and important aspects of these services are that a Veteran does not have to have a disability compensation rating to obtain MST treatment, their MST experience does not have to be previously documented, and some Veterans are able to receive MST care even if they do not qualify for other VA services (Department of Veterans Affairs, 2018a). It is also important to note that MST-related care does not just include directly talking about the Veteran's MST experience(s); rather, treatment can be for any condition that is the result of or was exacerbated by the MST as determined by the treating provider (Department of Veterans Affairs, 2018a). Although VA offers an immense amount of services for Veterans who have experienced MST, an important caveat to qualify for such services is that the individual must have "Veteran" status (Veterans' Benefits, 2011). According to Title 38 of the Code of Federal Regulations (Veterans' Benefits, 2011), an individual is defined as a Veteran, and thus qualifies for VA MST-related

services, if they "served in the active military, naval, or air service and who was discharged or released under conditions other than dishonorable" (p. 1). For those who served in the Reserves or National Guard, if they were activated or deployed for at least one day during their time of service then they would also qualify as a Veteran (Veterans' Benefits, 2011).

There has been an increasing focus on researching treatment effectiveness and implementing evidence-based practices within the field of psychology. As mentioned, MST is an experience, not a diagnosis; however, MST can result in a multitude of consequences, including PTSD or PTSD symptoms (Dutra et al., 2010; Maguen et al., 2010). The VA's National Center for PTSD (the Center), created in 1989 by an act of Congress, is a leader in research and education on PTSD (Friedman, 2012). The Center consists of seven VA academic centers of excellence across the country each with their own focus that contributes to the overall mission of the Center (Friedman, 2012). According to the Center, the most highly recommended treatment for PTSD is trauma-focused psychotherapy in which the primary focus of treatment is the trauma experience and the ways in which the trauma has impacted the individual's functioning (Department of Veterans Affairs, 2019e). Currently, the trauma-focused treatments with the most empirical support, also referred to as the "gold standards" for trauma treatment, that are recommended by VA and the DoD are Cognitive Processing Therapy (CPT), Prolonged Exposure (PE), and Eye Movement Desensitization and Reprocessing (EMDR; VA/DoD, 2017). Among the psychotherapies recommended by the American Psychological Association's (2017) *Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder,* both CPT and PE are strongly recommended. At the time of publication, EMDR was suggested, although did not have as strong of support (American Psychological Association, 2017). Important to note, the American Psychological Association's guideline is based on studies conducted between 1980

and 2012 (American Psychological Association, 2017). They conducted an updated search on studies published between 2012 and June 2016; however, "risk of bias assessment, strength of evidence rating and meta-analyses were not conducted on the studies identified through the updated search" (pg. i; American Psychological Association, 2017). Despite this, they did state that EMDR's recommendation may change from suggested to being strongly recommended (American Psychological Association, 2017).

While there are many approaches to treating trauma, CPT, PE, and EMDR have been extensively researched and found to be highly effective in treating PTSD, particularly military-related PTSD (Haagen, Smid, Knipscheer, & Kleber, 2015; Lee et al., 2016; Steenkamp, Litz, Hoge, & Marmar, 2015; Watts et al., 2013). All three treatments address the same symptoms, but take different approaches (Foa, Hembree, Rothbaum, & Rauch, 2019; Resick et al., 2017; Shapiro, 2018). Meta-analyses comparing the effects of CPT and PE have found that both treatment modalities result in similar improvements amongst research participants (Haagen et al., 2015; Lee et al., 2016; Watts et al., 2013). A primary difference between CPT and PE is that CPT utilizes more cognitive-based strategies to target symptoms while PE utilizes more direct exposure techniques to decrease avoidance behaviors and distress related to cognitions and emotions associated with the trauma (Foa et al., 2019; Resick et al., 2017). The most distressing traumatic event, called the index trauma, is the initial focus of treatment for all three modalities, with the underlying premise being that garnered improvement generalizes to other traumatic experiences and associated unhelpful thoughts and beliefs (Foa et al., 2019; Resick et al., 2017; Shapiro, 2018). In clinical practice, deciding to conduct CPT, PE, EMDR, or another treatment approach should be a collaborative process between the therapist and client, with a thorough explanation of each treatment to allow the client to make an informed decision.

Cognitive Processing Therapy

CPT was originally created by Dr. Patricia Resick in 1988 as a treatment for sexual assault, with the first CPT manual published in 1993 (Resick & Schnicke, 1993). CPT is a form of cognitive behavior therapy with foundational roots in cognitive theory, targeting distressing thoughts, beliefs, and feelings related to a traumatic experience(s) (Resick et al., 2017). The overarching goals of CPT are to help the client better understand PTSD and their specific symptoms; decrease distress associated with thoughts, memories, and emotions of and related to their trauma; decrease avoidance behaviors; increase cognitive flexibility; and improve overall functioning and wellbeing (Resick et al., 2017). CPT theorizes that when an individual is unable to successfully process a traumatic event, the natural healing process following trauma can become disrupted, leading a person to become "stuck" in their recovery (Resick et al., 2017). It is common in a military setting for such an experience to happen in which a soldier is unable to effectively process a traumatic event and the associated thoughts and feelings surrounding the experience, resulting in the inability to feel the natural and normal feelings that occur following a trauma. Instead, all too often a solider is expected to stay focused on the mission, suppress any painful or negative emotions, aside from anger, and not outwardly display any signs that could be perceived as weakness (Bell & Reardon, 2011). As a result, it is understandable how a soldier could become stuck in the trauma recovery process.

Oftentimes following a trauma, beliefs about the self, others, the world, and the trauma itself can be negatively impacted (Resick et al., 2017). CPT examines a client's traumatic experience(s) and how it has influenced them, specifically related to cognitions surrounding safety, trust, power and control, esteem, and intimacy (Resick et al., 2017). Strategies and tools are taught to help clients identify their "stuck points," unhelpful thoughts and beliefs that keep an

individual stuck in their recovery; change unhelpful thoughts and feelings about the trauma; and successfully process the trauma both cognitively and emotionally (Resick et al., 2017). A CPT protocol typically consists of 12 weekly one-hour sessions (Resick et al., 2017). Between-session assignments are utilized to reinforce and expand on strategies and tools learned in session (Resick et al., 2017).

Initially, the standard CPT protocol included written accounts of the client's trauma(s) as part of treatment (Resick & Schnicke, 1993). In 2008, Resick et al. conducted a dismantling study and found that CPT without the written accounts was not only just as effective, but also led to faster symptom improvement and a decrease in patient dropout. In 2014, Walter, Dickstein, Barnes, and Chard found no statistically significant differences between CPT with and without written accounts in program evaluation data in a VA hospital. As a result of such findings, CPT without written accounts is now the primary version focused on in the current treatment manual (Resick et al., 2017). Clinicians and clients may still elect to use the written accounts version, which is now referred to as CPT+A (Resick et al., 2017). Since its original inception, CPT's target population has drastically expanded, now considered a prominent evidence-based treatment for traumas of various etiologies (American Psychological Association, 2017; Resick et al., 2017; VA/DoD, 2017). In 2006, the first study on the use of CPT with Veterans was published, with results showing 40% of participants no longer meeting criteria for PTSD at the end of treatment (Monson et al., 2006). Such findings launched the dissemination of CPT throughout the VA system (Resick et al., 2017).

Extensive research has been conducted demonstrating CPT's effectiveness in treating PTSD among a diverse range of populations, including Veterans with MST histories (Asmundson et al., 2019; Haagen et al., 2015; Watts et al., 2013). Asmundson et al. (2019)

conducted a meta-analysis of 11 studies (n = 1,130) comparing CPT+A to either an inactive control condition or other active PTSD treatment. Of the studies comparing CPT+A to an inactive control condition, four studies utilized a psychological placebo and three used a wait-list comparison group (Asmundson et al., 2019). Of those comparing CPT+A to another active PTSD treatment, one study compared CPT+A to dialogical exposure therapy, one used memory specific training, one PE and a wait-list comparison group, and another used written exposure therapy (Asmundson et al., 2019). Five of the included studies were conducted with a military population and six were conducted with a community population (Asmundson et al., 2019). Of the community studies, half were conducted exclusively with female participants (Asmundson et al., 2019). Based on between-group effect sizes on PTSD outcome measures, the authors found that individuals who received CPT+A had significantly better posttreatment outcomes compared to individuals in inactive control conditions and other active PTSD treatments, including PE (Asmundson et al., 2019). While those in CPT+A conditions were found to do better than those in other active PTSD treatments, the effect sizes were small to moderate and no significant differences were found at follow-ups (Asmundson et al., 2019). Furthermore, the comparative findings between CPT+A and PE were based on only one randomized clinical trial with a community sample of female participants (Asmundson et al., 2019). While findings from this meta-analysis highlight CPT+A's effectiveness in treating PTSD, the limited number of studies included, especially with military samples, make it difficult to draw definitive conclusions about CPT+A's effectiveness compared to other active PTSD treatments.

Surís, Link-Malcolm, Chard, Ahn, and North (2013) conducted a randomized controlled clinical trial comparing CPT+A with present-centered therapy (PCT) for PTSD for MST-related PTSD and depression with Veterans receiving VA care (n = 86). PCT for PTSD is a manualized

treatment that focuses on current trauma-related difficulties a patient is experiencing and how to increase effective coping and improve relationships with others (Shea, 2020; Surís et al., 2013). PCT for PTSD does not include the trauma-focused or cognitive-behavioral components that CPT+A does, and although daily journaling of difficulties or concerns is a part of PCT, written trauma accounts are not (Shea, 2020; Surís et al., 2013). PCT is currently considered a second-line treatment for PTSD and is often used as an active control condition in studies of other trauma-focused treatments (Shea, 2020; VA/DoD, 2017). At pre-treatment, Surís et al. (2013) administered a demographics questionnaire, CAPS (Blake et al., 1995), PCL for DSM-IV (Weathers et al., 1993), and Quick Inventory of Depressive Symptomatology (QIDS; Rush et al., 2003). Demographically, 85% of participants were female, 44% identified as White, and 41% identified as Black, with no significant differences in demographic characteristics between treatment groups found (Surís et al., 2013). Participants were randomly assigned to receive 12 individual therapy sessions of either CPT+A (n = 52) or PCT (n = 34; Surís et al., 2013). The mean number of sessions completed for the CPT+A condition was 9.7 and 10.5 for the PCT condition (p = 0.28; Surís et al., 2013). While no significant differences were found in dropout rates between the two conditions, dropout rates were higher for CPT+A (approximately 35% vs. 18%; Surís et al., 2013). Based on pre-treatment assessment measures, no significant differences were found between those who completed treatment and those who dropped out (Surís et al., 2013). Assessment measure scores significantly improved over time for both treatment conditions; however, Veterans who received CPT+A displayed significantly larger decreases in PTSD symptom severity as measured by the PCL at posttreatment compared to Veterans who received PCT (Surís et al., 2013). Those who received CPT+A continued to have lower PCL scores at all three follow-up periods, although differences were not significant (Surís et al.,

2013). CAPS and QIDS scores were also found to be lower in the CPT+A condition although not significantly compared to the PCT condition (Surís et al., 2013). The researchers hypothesized a lack of power for no additional significant interaction effects being found between the conditions (Surís et al., 2013). Initially, 129 participants were randomized to receive CPT+A or PCT; however, due to treatment fidelity issues by one clinician providing CPT+A, data was only analyzed for 86 participants (Surís et al., 2013). Utilizing the same data set, researchers found that Veterans who received CPT+A had significantly lower trauma-related negative cognitions as assessed by the Posttraumatic Cognitions Inventory (Foa, Ehlers, Clark, Tolin, & Orsillo, 1999) at post-treatment and all four follow-up periods compared to those who received PCT (Holliday, Link-Malcolm, Morris, & Surís, 2014). Limitations of the Surís et al. (2013) study include limited male Veterans, exclusion of those with active substance use within the last three months of when the study was conducted, those with unstable bipolar disorder, and current involvement in a relationship with intimate partner violence.

Also utilizing data from Surís et al.'s (2013) randomized controlled clinical trial, Holliday, Holder, Williamson, and Surís (2017) compared CPT+A's effectiveness between Black (n = 20) and White (n = 16) female Veterans with MST-related PTSD to evaluate potential racial differences on number of attended sessions, dropout rates, and changes in PTSD symptom severity. The mean age of the Black female participants was 42.20 years (SD = 11.88) and 45.75 years (SD = 9.86) for the White females (Holliday et al., 2017). The mean level of education for the Black female participants was 14.10 years (SD = 1.83) and 15.06 years (SD = 2.49) for the White females, with no significant age or education differences found (Holliday et al., 2017). The CAPS (Blake et al., 1995) and PCL for DSM-IV (Weathers et al., 1993) were used to assess and measure PTSD symptom severity with no significant differences found between groups at

baseline assessment (Holliday et al., 2017). At post-treatment, CAPS and PCL scores revealed significant reductions in PTSD symptoms for both groups, with gains maintained at six-month follow-up (Holliday et al., 2017). Findings did not reveal any significant differences between the two groups regarding PTSD symptom reduction, number of sessions attended, or dropout rate (Holliday et al., 2017). For this sample, the researchers discuss CPT+A as an effective treatment for MST-related PTSD for both Black and White female participants who were receiving care within VA (Holliday et al., 2017). While these findings are promising, additional research examining CPT's effectiveness with Veterans of color in both VA and non-VA settings is needed before generalizations can be made.

In another study again using data gathered from Surís et al.'s (2013) randomized controlled clinical trial, researchers assessed CPT+A's effectiveness with male Veterans with MST-related PTSD (n = 11; Mullen, Holliday, Morris, Raja, & Surís, 2014). All men randomly assigned to the CPT+A condition completed the 12 session protocol (Mullen et al., 2014). Significant reduction in PTSD symptomatology as measured by the CAPS (Blake et al., 1995) and PCL for DSM-IV (Weathers et al., 1993) was found at post-treatment and was maintained at six-month follow-up (Mullen et al., 2014). Depressive symptomatology was also assessed via the QIDS (Rush et al., 2003) and was found to be significantly reduced at post-treatment (Mullen et al., 2014). However, the mean QIDS score for participants at six-month follow-up was found to increase although the change from post-treatment assessment was not significant (Mullen et al., 2014). Similar to Holliday et al.'s (2017) findings, the current findings are encouraging, with more research needed with males with MST-related PTSD in both VA and non-VA settings. Although a small sample size, the high retention rate amongst males is also promising and warrants further research into potential gender differences regarding CPT retention. Although

significant reduction in PTSD symptomology was found, 75% of participants still obtained scores on the PCL above the recommended cutoff for PTSD at post-treatment (Mullen et al., 2014; Weathers et al., 1993). The small sample size again may be a contributing factor along with potential patient variables not examined. Comparisons between those above and below the cutoff at post-treatment were not studied and could be a future avenue of research efforts. Additionally, examination of sustained symptoms is warranted as such information could provide valuable information of symptoms that may need further clinical attention. Given the increase in depressive symptoms at six-month follow-up, one hypothesis is that elevated PCL scores at post-treatment were capturing lingering symptoms shared with both PTSD and depression.

Boehler (2019) conducted a literature review of outcome studies to examine CPT's efficacy in treating MST-related PTSD. Study inclusion dates ranged from 2010 to March 2019, resulting in a total of five studies (Boehler, 2019). CPT was found to be effective in significantly reducing PTSD symptomatology, with gains maintained at six-month follow-up (Boehler, 2019). Unfortunately, four of the five studies experienced issues with treatment fidelity, resulting in removal of participant data which reduced statistical power (Boehler, 2019). Despite such reductions in power, the significant decreases in symptomatology found across studies provide support for CPT's effectiveness as a treatment for MST. However, only five studies over a nine-year period being included in Boehler's (2019) review highlights the limited research specifically evaluating CPT's effectiveness in treating MST-related PTSD. Furthermore, of the available CPT research with MST survivors, multiple studies used the same data set from Surís et al.'s (2013) original study. Such lack of original research and replication studies specifically examining CPT's efficacy in treating MST-related PTSD maintains a gap in the current knowledge base. A scarcity of gender and racial diversity is also seen amongst the research.

While CPT has been extensively studied and found to be effective in treating PTSD (American Psychological Association, 2017; VA/DoD, 2017), more research on its effectiveness with MST-related PTSD with diverse Veterans is needed.

Prolonged Exposure

PE has its underpinnings in Emotional Processing Theory and asserts that two primary factors maintain PTSD symptoms: avoidance of trauma reminders and unhelpful thoughts and beliefs related to the trauma (Foa et al., 2019). PE specifically targets PTSD symptoms and how they interfere with daily functioning and overall wellbeing through the use of exposure to reduce avoidance of thoughts, memories, emotions, and external reminders related to the traumatic experience (Foa et al., 2019). Exposure is accomplished in two ways: imaginal exposure that occurs in session and in vivo exposure that happens in real life (Foa et al., 2019). Imaginal exposure targets trauma memories while in vivo exposure targets daily tasks, situations, and activities that have been being avoided or done with great difficulty (Foa et al., 2019). Imaginal exposure occurs in session and consists of repeatedly recounting the trauma memory in increasing detail, including thoughts, feelings, and sensations as if the individual were experiencing the event in the present (Foa et al., 2019). As the client is engaged in the imaginal exposure, the clinician monitors their distress level (Foa et al., 2019). Outside of session, the client is tasked with listening to the recorded imaginal exposure once a day (Foa et al., 2019). The goal is that as the client repeatedly recounts and listens to the trauma memory, their distress reduces and eventually they experience habituation to the memory (Foa et al., 2019). Imaginal exposure allows the client to emotionally process the traumatic memory by putting the pieces of the entire narrative together from start to finish, incorporating the context of the event, processing the memory with the therapist, and allowing the mind to differentiate the trauma

memory from the trauma itself (Foa et al., 2019). For in vivo exposure, a hierarchy of avoided situations and trauma reminders is created that is specific to each client (Foa et al., 2019). As the client engages in repeated, systematic exposure to progressively distressing situations, a decrease in distress occurs as well as habituation (Foa et al., 2019). Imaginal and in vivo exposure allows the client the opportunity to face avoided things in a safe way; process the traumatic experience and associated thoughts, beliefs, and emotions with the therapist; and allows the client to test their unhelpful beliefs and partake in new learning opportunities (Foa et al., 2019). A PE protocol typically consists of 10 to 12, ninety-minute weekly sessions (Foa et al., 2019). In vivo exposures and listening to the imaginal recording are utilized to continue targeting symptoms outside of session (Foa et al., 2019).

Numerous studies have demonstrated PE's effectiveness in treating PTSD in adults, including Veterans (Cusack et al., 2016; Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010; Rauch et al., 2009). In 2007, VA launched a national initiative or "roll-out" of PE training for VA mental health providers that includes a four-day workshop and required weekly consultation with national PE experts for six- to nine-months (Karlin et al., 2010). The training program also gathers de-identified patient outcomes data from clinicians providing PE to Veterans across the nation (Karlin et al., 2010). Using such data, Eftekhari et al. (2013) sought to evaluate the efficacy of PE for PTSD with Veterans receiving VA care. Data was obtained from 804 VA clinicians participating in the PE training program resulting in data for 1,931 Veterans diagnosed with PTSD (Eftekhari et al., 2013). Of those Veterans, information about index trauma was available for 1,896 with 10.3% reporting MST (Eftekhari et al., 2013). Per the PE protocol, participants completed baseline self-report PTSD and depression symptom measures and again at every other session (Eftekhari et al., 2013; Foa et al., 2019). Overall findings displayed

significant reductions in PTSD symptomology from pre- to post-treatment as measured by the PCL for DSM-IV ($p < 0.001$; Eftekhari et al., 2013; Weathers et al., 1993). Furthermore, positive PTSD screens as measured by the PCL decreased from 87.6% at the start of treatment to 46.2% at post-treatment (Eftekhari et al., 2013; Weathers et al., 1993). Significant reductions in depressive symptomatology as measured by the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) were also found ($p < 0.001$; Eftekhari et al., 2013). Of those who completed at least eight PE sessions, those who endorsed MST had the largest reduction in PCL scores from pre- to post-treatment and the second largest reduction on the BDI-II (Eftekhari et al., 2013). A total of 542 (28%) participants dropped out of treatment prior to completing at least eight sessions with dropout rates being significantly higher for females (38.7%) and those whose index trauma was identified as MST (40%; Eftekhari et al., 2013). Based on set response options, clinicians identified "other" and increased distress as the most common reasons for dropout (Eftekhari et al., 2013). Further explanation of reasons for dropout falling under the "other" category, per providers, included treatment avoidance, scheduling conflicts, and providers believing PE was not a good treatment fit for the patient (Eftekhari et al., 2013). Findings from this study highlight the overall effectiveness of PE in reducing PTSD and depressive symptoms in Veterans with PTSD, including those who experienced MST (Eftekhari et al., 2013). Additionally, this study brings attention to potential drawbacks of this treatment particularly related to treatment retention for female Veterans and those with MST. Although a large study, only 12.9% of participants were female and no demographic data was provided regarding race or ethnicity of participants (Eftekhari et al., 2013).

Although PE has shown to be effective in treating civilians with PTSD as a result of sexual assault (Foa et al., 2005; Rothbaum, Astin, & Marsteller, 2005), research specifically

examining PE's effectiveness in treating MST-related PTSD is lacking. In a small study of Veterans treated in a midwestern VA PTSD Clinic (n = 10; 8 men and 2 women), researchers examined PE's effectiveness in treating PTSD as a result of various traumas, including MST (Rauch et al., 2009). The authors found significant decreases in PTSD severity as measured by the Posttraumatic Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997), with half of the sample no longer meeting criteria for PTSD at treatment completion (Rauch et al., 2009). Of the two individuals who endorsed MST, a clinically significant reduction in PTSD and depressive symptomatology from pre- to post-treatment was observed as assessed by the PDS and BDI-II (Beck et al., 1996; Rauch et al., 2009). Although such reductions are promising, it is important to note that the mean BDI-II score for these individuals still fell in the moderate range indicating that depressive symptoms remained elevated following treatment (Beck et al., 1996; Rauch et al., 2009). While generalizations of findings from this study are unable to be made given the small sample size, Rauch et al.'s (2019) results provide additional support for PE's effectiveness at improving PTSD and depressive symptoms in MST survivors. However, given the continued depressive symptoms endorsed following treatment, additional research specifically evaluating PE's impact on depressive symptoms in individuals with MST-related PTSD is warranted.

Schnurr et al. (2007) conducted a randomized controlled trial with active duty (n = 7) and Veteran (n = 277) females to compare PE and PCT for the treatment of PTSD. Participants were recruited from nine VA medical centers, two VA readjustment counseling centers, and a military hospital from August 2002 to October 2005 (Schnurr et al., 2007). The mean age of the participants was approximately 45 years, more than half identified as White, and approximately 33% identified as Black (Schnurr et al., 2007). Participants endorsed an average of 10 different

types of traumatic experiences with sexual trauma being the most common and over 70% reporting MST (*n* = 207; Schnurr et al., 2007). The CAPS (Blake et al., 1995) and PCL for DSM-IV (Weathers et al., 1993) were utilized to measure PTSD symptom severity at pre- and post-treatment and at three- and six-month follow-up (Schnurr et al., 2007). CAPS and PCL scores reduced from pre- to post-treatment in both groups, with those in the PE condition having significantly lower scores compared to those in the PCT condition (Schnurr et al., 2007). Furthermore, those in the PE condition were more likely to no longer meet criteria for PTSD and to achieve full remission at post-treatment (Schnurr et al., 2007). However, non-significant increases in CAPS and PCL scores were observed at six-month follow-up for those in the PE condition (Schnurr et al., 2007). While the dropout rate for PE was higher than PCT (38% vs. 21%) treatment satisfaction did not differ between groups (Schnurr et al., 2007).

PE has been found to be especially effective for treating PTSD (Cusack et al., 2016; Powers et al., 2010; Rauch et al., 2009), yet similar to CPT, specific studies assessing its effectiveness in treating MST-related PTSD are limited. Of the available research, both Eftekhari et al.'s (2013) and Schnurr et al.'s (2007) findings provide strong support for PE's effectiveness in treating PTSD as a result of MST given their large sample sizes and geographically diverse participants. Those who reported MST as their index trauma and completed at least eight sessions of PE in Eftekhari et al.'s (2013) study had the largest reduction in PTSD symptoms and the second largest reduction in depression symptoms. Unfortunately, dropout rates were an issue in both studies, with dropout being higher for PE compared to PCT in Schnurr et al.'s (2007) study and dropout being significantly higher for females and those with MST as their index trauma in Eftekhari et al.'s (2013) study. These results provide useful information for future research avenues, particularly related to retention efforts to address dropout in PE treatment for

MST-related PTSD. Racial and gender inclusivity is also encouraged in future research on PE for MST-related PTSD.

Eye Movement Desensitization and Reprocessing

EMDR was specifically developed to treat PTSD by helping reduce distress related to traumatic experiences by successfully reprocessing the trauma (Shapiro, 1989; Shapiro, 2018). A process referred to as dual attention bilateral stimulation, such as through the use of back-and-forth eye movements, alternating tones while wearing headphones, or through tactile taps, is used while the individual simultaneously recalls their trauma, intended to activate the information processing system of the brain to facilitate treatment effects (Shapiro, 2018). EMDR posits that adverse life events that are unsuccessfully processed create memory networks that can become reactivated in the present, leading an individual to react as if they were in the same situation as before (Shapiro & Laliotis, 2017). By successfully reprocessing the adverse or traumatic experience, the individual creates adaptive stored memories while abandoning maladaptive, unhelpful thoughts, beliefs, and emotions (Shapiro & Laliotis, 2017). EMDR treatment consists of eight phases with a focus on past, present, and future to aid the individual in successfully reevaluating and reprocessing past traumatic experiences that have been causing problems in the present (Shapiro, 2018).

Over the years, EMDR has had its fair share of skepticism particularly regarding its underlying mechanism of change (Sikes & Sikes, 2003). At its onset, the back-and-forth eye movements were believed to be a key component of treatment; however, EMDR's founder discusses the barriers this has imposed on EMDR's application and appreciation (Shapira, 2018). She further discusses other various and crucial components of EMDR aside from eye movements, stating if she could do it again, she would name the treatment "Reprocessing

Therapy" (Shapira, 2018, p. xii). As the research base has continued to increase, support continues to be found for EMDR's effectiveness in treating PTSD (American Psychological Association, 2017; Cusack et al., 2016; de Jongh, Amann, Hofmann, Farrell, & Lee, 2019; Watts et al., 2013). At this time, however, no research has specifically been conducted on EMDR's effectiveness in treating MST-related PTSD. Furthermore, the majority of randomized controlled trials of EMDR have been conducted with civilian populations (de Jongh et al., 2019). Despite this, EMDR's effectiveness in treating sexual assault survivors is numerous and the current treatment manual provides specific information related to providing treatment to MST survivors (Shapiro, 2018).

A recent mixed methods study examined the efficacy of EMDR for treating female survivors of sexual and domestic violence (Schwarz, Baber, Barter, & Dorfman, 2020). Purposive sampling was employed, with participants being voluntarily recruited through a community-based nonprofit counseling center for survivors of sexual and domestic violence (n = 21; Schwarz et al., 2020). Participants completed eight sessions of EMDR as well as pre- and post-treatment self-report measures assessing PTSD, depression, anxiety, and overall wellbeing (Schwarz et al., 2020). Following treatment completion, 12 participants agreed to partake in a semi-structured interview assessing their overall impression of EMDR, how EMDR compared to previous counseling they had engaged in, and any changes they noticed in themselves as a result of EMDR treatment (Schwarz et al., 2020). Such interviews were also conducted with the counselors who provided EMDR to assess their perceptions of their clients' experiences in these domains (Schwarz et al., 2020). Participants were between the ages of 20 and 60 years old (Schwarz et al., 2020). Four identified as Latina, three as African American, 12 as White, one as Asian, and one as biracial (Schwarz et al., 2020). Paired sample t-tests were used to analyze

changes in assessment scores from pre- to post-treatment along with a Bonferroni correction being used to reduce the risk of a Type 1 error occurring (Schwarz et al., 2020). Following EMDR treatment, significant reductions in symptoms of anxiety, depression, and PTSD and improvement in overall functioning were observed (Schwarz et al., 2020). Of those with PTSD and depressive symptoms, over half scored below the cutoff criteria for PTSD on the PCL for DSM-5 (PCL-5; Weathers, Litz, et al., 2013) and on the BDI-II (Beck et al., 1996) at treatment completion (Schwarz et al., 2020). Based on collected interview data, accelerated treatment progress was endorsed by both participants and clinicians (Schwarz et al., 2020). Participants discussed unresolved issues previously worked on in therapy being markedly improved or resolved following eight or less sessions of EMDR (Schwarz et al., 2020). Clinicians who had been doing talk therapy with their clients prior to conducting EMDR supported these claims in the interviews they partook in (Schwarz et al., 2020). Unfortunately, details of previous treatment engagement were not provided for all participants. Although clinicians had previously been engaged in talk therapy with many of the participants, exact numbers were not provided and "talk therapy" was not operationalized (Schwarz et al., 2020). One participant did report previously being involved in "exposure therapy, DBT with the mindfulness, [and] psychotherapy" (p. 8), but no further details were given (Schwarz et al., 2020). Limitations of this study include the small sample size, only 12 of the participants completing post-treatment interviews, no comparisons between those who had experienced sexual or domestic violence or both, no established diagnoses reported for participants, and no control or specific comparison group. Pre-treatment interviews would have also been beneficial to establish a baseline. Despite these limitations, findings from this study exhibited marked improvement in reductions of PTSD, depression, and anxiety symptoms amongst the participants following EMDR (Schwarz et al.,

2020). Given that both sexual and domestic violence are interpersonal traumas like MST, findings with this sample provide promise for EMDR's use with MST survivors.

Stanbury, Drummond, Laugharne, Kullack, and Lee (2020) recently conducted a randomized trial comparing the efficiency of EMDR and PE for treating PTSD. Efficiency was operationalized as total time exposed to trauma memories throughout the course of treatment, number of processed trauma memories, number of sessions required to process the index trauma, and subjective units of distress (SUD) scores after initial treatment session (Stanbury et al., 2020). Participants were recruited from a posttraumatic stress clinic at a hospital, a university psychology clinic, and local medical practices all in Perth, Western Australia between August 2011 and July 2013 (n = 20; Stanbury et al., 2020). PTSD was determined using *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision* (APA, 2000) criteria and the CAPS (Blake et al., 1995; Stanbury et al., 2020). The mean age of participants was 42.15 years with no significant differences between participants for each treatment group noted (Stanbury et al., 2020). A range of trauma experiences were endorsed including sexual trauma, although the number of participants who reported this type of trauma was not indicated (Stanbury et al., 2020). Self-report measures of PTSD, depression, anxiety, and stress were utilized throughout the study (Stanbury et al., 2020). Participants were randomly assigned to receive EMDR or PE and partook in 90-minute sessions twice a week for six weeks (Stanbury et al., 2020). The researchers found significant decreases in PTSD, depression, and anxiety symptoms for both groups at post-treatment (Stanbury et al., 2020). Aside from CAPS scores, treatment gains were maintained at three- and six-month follow-up with those in the PE condition having lower scores on all measures (Stanbury et al., 2020). CAPS scores were found to significantly increase between three- and six-month follow-up for both conditions with those

in the EMDR group having higher scores (Stanbury et al., 2020). Although no significant differences in symptom improvement were found between the two conditions, those who received EMDR spent significantly fewer hours in overall treatment (Stanbury et al., 2020). Diaphragmatic breathing was the only homework assigned for the EMDR group compared to in vivo exposures and listening to imaginal exposure recordings for the PE condition (Stanbury et al., 2020). Furthermore, those who partook in EMDR processed significantly more trauma memories ($M = 4$, $SD = 2.1$) compared to those who received PE ($M = 1.5$, $SD = 0.9$) and in fewer sessions ($M = 4.75$ vs. 8; Stanbury et al., 2020). SUD scores were also found to be significantly lower for those in the EMDR condition after the initial treatment session ($M = 22$ vs. 59; Stanbury et al., 2020). Findings from this study speak to important potential benefits of EMDR such as faster symptom improvement and greater number of trauma memories processed in a shorter amount of time compared to other trauma-focused treatments. It is interesting that EMDR was as effective as PE in symptom reduction despite markedly less time spent being exposed to trauma memories. In vivo and imaginal exposures that occur outside the therapy session are believed to be a primary mechanism of change in PE (Foa et al., 2019), yet such additional exposure was not needed for participants to gain comparable benefit from EMDR in this study (Stanbury et al., 2020). The researchers suggest that the free association component of EMDR may account for more efficient processing of trauma which in turn may assist in greater number of traumatic memories being processed over a shorter time period (Stanbury et al., 2020). However, more studies are needed to determine if results are consistent with this study's findings, particularly with MST survivors. Similar to other evidence-based trauma-focused treatment studies, this study excluded individuals with substance dependency issues, dissociation symptoms, psychotic disorders, and Cluster B personality disorders (APA, 2000; Stanbury et al.,

2020). Such exclusion perpetuates the gap in research on evidence-based trauma-focused treatment use with individuals with more serious mental health or substance use issues. Additionally, significant increases in CAPS scores following treatment completion was an issue for both conditions and warrants further study into potential factors associated with such an increase.

Research supports EMDR's effectiveness in treating PTSD as a result of various etiologies, including sexual trauma (American Psychological Association, 2017; Cusack et al., 2016; Schwarz et al., 2020; Stanbury et al., 2020; Watts et al., 2013). However, as of now, research on EMDR's effectiveness in treating MST-related PTSD is scant. Given the interpersonal nature of sexual trauma, positive findings of EMDR's use with sexual assault survivors provides promise for the applicability of EMDR in treating those who have experienced MST. Recent findings demonstrating EMDR being comparable to PE as well as more effective in processing more trauma memories and resulting in faster symptom reduction provide support for EMDR as an alternative to more traditional exposure therapies (Schwarz et al., 2020; Stanbury et al., 2020). However, more randomized controlled clinical studies are needed to corroborate such findings as well as research comparing EMDR and CPT. Furthermore, the limited number of randomized controlled trials of EMDR with Veteran samples make it difficult to generalize findings to this population. While correlations can be made between MST and sexual trauma occurring in the civilian sector, there may be unique factors that may affect EMDR's efficacy in treating MST-related PTSD.

Other Promising Approaches Requiring Further Research

Although VA has identified three primary evidence-based trauma-focused treatments to treat PTSD (VA/DoD, 2017), other established approaches are promising. These approaches

have been shown to be effective in addressing PTSD symptomatology and warrant further research into their effectiveness of specifically targeting MST-related PTSD. Given the understandable hesitation and at times fear of engaging in trauma-focused work, particularly for approaches with a heavy emphasis on exposure to trauma details, further consideration of alternative treatments may be particularly beneficial.

Skills Training in Affective and Interpersonal Regulation. Skills Training in Affective and Interpersonal Regulation (STAIR) is an evidence-based cognitive behavioral treatment that was initially created for individuals with childhood trauma histories who were experiencing functional impairment as a result (Cloitre, Cohen, & Koenen, 2006). Since its inception, adaptations have been made to specifically treat Veterans with various trauma histories, including MST (Weiss et al., 2015). STAIR is a skills-based protocol that focuses on how trauma has negatively impacted an individual's functioning, particularly related to emotional regulation and interpersonal effectiveness (Weiss et al., 2015). Throughout treatment, STAIR works to increase understanding of how current symptoms developed as they relate to trauma, and teaches skills and strategies to enhance emotional awareness, increase distress tolerance, and improve interpersonal relationships by changing ineffective relational patterns (Weiss et al., 2015). Originally, STAIR was developed as a two-module treatment called STAIR Narrative Therapy (Cloitre et al., 2006). The first part of treatment consists of eight sessions and teaches the skill-based strategies to increase distress tolerance and improve relational dynamics (Cloitre et al., 2006). The second part of treatment comprises eight sessions focused on processing past trauma(s) using narrative therapy to help the client organize and make meaning from their experiences (Cloitre et al., 2006). Although STAIR Narrative Therapy is still an available treatment option, research has found that the skill-based portion of STAIR is effective on its own

in improving emotional regulation and interpersonal effectiveness, and it is now more commonly used without the narrative component (Cloitre, Jackson, & Schmidt, 2016). STAIR can be conducted either individually or in a group format (Weiss et al., 2015). Individual STAIR still consists of eight sessions while the group format consists of twelve (Cloitre et al., 2015; Weiss et al., 2015). STAIR can also be delivered as a standalone treatment, as a precursor to trauma-focused work, or in conjunction with other trauma-focused approaches (Weiss et al., 2015). A unique aspect of STAIR is that details of an individual's trauma are not discussed. Instead, the focus is on how the trauma has deleteriously impacted the individual and in teaching skills to improve emotional and relational functioning (Weiss et al., 2015).

To examine the benefits of STAIR and STAIR Narrative Therapy, Cloitre et al. (2016) utilized three case studies with Veterans seen in a VA outpatient mental health setting who had PTSD and histories of childhood abuse and MST. Demographic composition consisted of a 28-year-old White female, 35-year-old Hispanic female, and a 50-year-old Black male (Cloitre et al., 2016). The 28-year-old woman completed STAIR and the other woman and the man completed STAIR Narrative Therapy (Cloitre et al., 2016). Findings revealed significant reductions in PTSD symptoms from pre- to post-treatment for all three Veterans as measured by the PCL for DSM-IV (Cloitre et al., 2016; Weathers et al., 1993). The researchers hypothesized that STAIR may be a more readily accepted form of treatment for some Veterans compared to frontline trauma-focused work due to its skills-based focus and that it may even increase the likelihood of later engagement in front-line trauma treatment (Cloitre et al., 2016).

A pilot study implementing STAIR via telehealth in a population of rural female Veterans who had experienced MST (n = 10) found significant improvement in PTSD, depression, and emotional regulation scores from pre- to post-treatment as measured by the PCL-

5 (Weathers, Litz, et al., 2013), BDI-II (Beck et al., 1996), and Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004; Weiss, Azevedo, Webb, Gimeno, & Cloitre, 2018). Participants for the study were obtained through clinician and self-referral (Weiss et al., 2018). Flyers were sent to clinicians serving rural Veterans at CBOCs and brochures were mailed to female Veterans receiving care at those CBOCs who had a diagnosis of PTSD and/or a positive MST screen in their medical record (Weiss et al., 2018). The majority of participants identified as White and heterosexual (Weiss et al., 2018). Respondents with active suicidal or homicidal ideation and those unable to complete treatment via telehealth were excluded; those with current substance use issues were referred to specialty substance use treatment (Weiss et al., 2018). While the results of this pilot study are promising, the small, primarily homogeneous sample size makes findings unable to be generalized. Additionally, by excluding individuals with active suicidal ideation and substance use, important information as to STAIR's effectiveness in helping provide alternative, more adaptive forms of coping amongst such individuals is unable to be assessed. Such information is important to examine, particularly given the increased risk of suicide and substance use associated with MST (Kimerling et al., 2016; Teeters et al., 2017).

Although STAIR is an evidence-based treatment found to be effective in addressing the emotional and relational consequences following trauma (Cloitre et al., 2016; Weiss et al., 2015), more research is needed on how improvements in these domains may or may not generalize to other trauma-impacted areas. Such research is particularly important when evaluating STAIR's efficacy in specifically treating consequences of MST. Initial research on implementing STAIR with MST survivors is promising and additional research is encouraged with Veteran MST survivors of various races, ethnicities, gender identities, sexual orientations, ages, and presenting

symptoms. Furthermore, randomized controlled trials comparing STAIR's efficacy to other evidence-based trauma-focused treatments is encouraged.

Virtual reality exposure therapy. Virtual reality exposure therapy (VRET; North & North, 1994) is a form of exposure therapy that allows the patient to directly approach their trauma in a virtual environment designed to mimic their trauma experience. VRET has been found to work well in conjunction with PE as a way to enhance emotional and trauma memory engagement during imaginal exposure (Seitz, Poyrazli, Harrison, Flickinger, & Turkson, 2014). Such an approach may be particularly helpful for individuals who have difficulty visualizing or emotionally connecting to their trauma through traditional imaginal exposure techniques (Seitz et al., 2014). It has been proposed that more recent Veterans may be more open to engaging in therapies such as VRET given the popularity of video games, virtual reality, and other similar technologies used among younger generations (Rizzo, Hartholt, Grimani, Leeds, & Liewer, 2014).

Research exploring the effectiveness of VRET for PTSD continues to expand. A systematic review of VRET for combat-related PTSD among Veterans spanning a 15 year inclusionary time period found that VRET was effective in reducing PTSD symptoms in all studies examined (Seitz et al., 2014). The idea of engaging in VRET to treat MST-related PTSD understandably sounds quite intimidating and even frightening. Loucks et al. (2019) conducted a study to examine the feasibility and effectiveness of providing VRET to treat MST-related PTSD among a small group of Veterans (n = 15). The majority of participants were Black females (Loucks et al., 2019). Many of the participants had past abuse histories and more than half had co-morbid depression (Loucks et al., 2019). The BRAVEMIND virtual reality system (Rizzo et al., 2017), a virtual Iraq/Afghanistan environment, was used with MST-specific content built into

the system that was based on existing literature and expert clinician input of environments in which MST commonly occurs (Loucks et al., 2019). The system allows the clinician to customize the virtual environment and stimuli based on specific details relevant to the individual patient (Rizzo et al., 2017). It is important to note that the actual sexual assault is not recreated in the virtual environment. The focus instead is on the context and other environmental stimuli that the patient describes (Loucks et al., 2019). In place of traditional imaginal exposure conducted in PE, in which the patient recounts the trauma narrative aloud while envisioning the experience in as much detail as possible, the virtual reality environment replaces this imaginal exposure (Rizzo et al., 2017). While the patient recounts the trauma narrative, the clinician matches the context and sensory details in the virtual environment (Rizzo et al., 2017). Loucks et al. (2019) found significant reductions in PTSD and depressive symptoms amongst participants as assessed by the CAPS-5 (Weathers, Blake, et al., 2013a), PCL-5 (Weathers, Litz, et al., 2013), and PHQ-9 (Kroenke & Spitzer, 2002). At post-treatment, 53% of participants met criteria for PTSD with the percentage dropping to 33% at three-month follow-up (Loucks et al., 2019). The authors propose that initial findings suggest VRET can be safely and effectively used to treat MST-related PTSD, highlighting lack of adverse effects or critical incidents in their study, and similar attrition rates seen in traditional PE research (Loucks et al., 2019). While more research into VRET's effectiveness in treating MST-related PTSD is needed, Loucks et al.'s (2019) findings provide important information and can inform replication studies with larger and more diverse samples moving forward.

Interpersonal Psychotherapy. Interpersonal Psychotherapy (IPT; Klerman, Dimascio, Weissman, Prusoff, & Paykel, 1974) is an evidence-based manualized approach which focuses on the close relationships individuals form with others and the interpersonal dynamics that

transpire within these relationships that can lead to or perpetuate mental health issues (Gelenberg et al., 2010; International Society of Interpersonal Psychotherapy, 2017). At its onset in the 1970s, IPT was initially developed to treat adults suffering from non-bipolar depression (Klerman et al., 1974). Treatment was established to work in a time-limited, outpatient setting with the primary goals being to decrease depressive symptoms, increase interpersonal effectiveness, and enhance social supports, with the overarching aim being to increase the individual's interpersonal functioning (Klerman, Weissman, Rounsaville, & Chevron, 1984). Within IPT, interpersonal challenges or problem areas are considered stressors for the individual (Lipsitz & Markowitz, 2013). In turn, the goal in addressing these specific stressors is to lead to more effective interpersonal dynamics with significant people in the individual's life (Lipsitz & Markowitz, 2013). Oftentimes, feelings of anger, shame, and alienation can occur when individuals are experiencing such interpersonal conflicts (Lipsitz & Markowitz, 2013). IPT seeks to explore such feelings and help the client gain insight into their inner affective experiences to improve their relationships with others (Lipsitz & Markowitz, 2013). Emotions are a central piece to interpersonal relationships and a key component of IPT is aiding the client in accurately identifying, processing, and effectively expressing these emotions (Lipsitz & Markowitz, 2013).

Since its creation, IPT has been adapted to work with various populations and mental health issues, including PTSD (Fairburn et al., 1991; Interpersonal Psychotherapy Institute, 2017; Markowitz, 2016; McIntosh, Bulik, McKenzie, Luty, & Jordan, 2000). Peskin, Markowitz, and Difede (2018) describe a case study of a female Air Force Veteran who partook in IPT years following MST perpetrated by her commanding officer. The Veteran had initially been diagnosed with major depressive disorder and later PTSD (Peskin et al., 2018). She participated in ten 60-minute weekly sessions of IPT adapted for PTSD (Bleiberg & Markowitz, 2005; Peskin

et al., 2018). In this adaptation, the focus is on anxiety and discomfort related to feelings of vulnerability around significant others in the survivor's life (Bleiberg & Markowitz, 2005; Peskin et al., 2018). Skills are taught to help the individual use their emotional experiences as effective social cues when interacting with others (Bleiberg & Markowitz, 2005; Peskin et al., 2018). As a result of the Veteran's progress in treatment, she only completed ten sessions instead of the recommended fourteen (Bleiberg & Markowitz, 2005; Peskin et al., 2018). Following treatment completion, the Veteran reported marked improvement in her relationship with her romantic partner, she was able to identify the importance of expressing her emotions and interpersonal needs, and reported improved cognitions related to her MST (Peskin et al., 2018). The Veteran also reported that her nightmares, intrusive memories, and avoidance of trauma memories had resolved (Peskin et al., 2018). PTSD and depressive symptom severity significantly decreased from pre- to post-treatment as measured by the PCL for DSM-IV (Weathers et al., 1993) and BDI-II (Beck et al., 1996; Peskin et al., 2018). At 18-month follow-up, the Veteran received a total score of zero on the CAPS (Blake et al., 1990; Peskin et al., 2018).

Krupnick et al. (2016) conducted a pilot study to investigate IPT's effectiveness in treating female Veterans with military-related PTSD. Participants were recruited from the Trauma Services program of the Washington, D.C. VA with 22 Veterans referred for the study (Krupnick et al. (2016). Of the referrals, 15 began treatment and 10 completed all 12 sessions (Krupnick et al., 2016). The majority of participants identified as Black and mean participant age was 39.9 years (Krupnick et al., 2016). The primary investigator had previously adapted IPT for PTSD (Bleiberg & Markowitz, 2005) in another study (Krupnick et al., 2008) and this treatment manual was used for the current pilot study (Krupnick et al., 2016). The primary adaptation was

use as an individual treatment for female Veterans as opposed to a group modality (Krupnick et al., 2008, 2016). Assessment measures consisted of a structured interview, PCL-M (Weathers et al., 1994b), and BDI-II (Beck et al., 1996; Krupnick et al., 2016). More than half of the participants reported a positive history of MST (Krupnick et al., 2016). Comorbid PTSD and other mental health issues, such as depression and panic disorder, were common amongst participants (Krupnick et al., 2016). No significant differences were found on baseline assessment measures between those who completed treatment and those who did not, although those who completed treatment had higher baseline scores on both the PCL-M and BDI-II (Krupnick et al., 2016). PCL-M scores significantly reduced from pre- to post-treatment, with sustained improvement at three-month follow up (Krupnick et al., 2016). At the end of treatment, along with improvement in PTSD symptom severity, the researchers found that three of nine women no longer met criteria for panic disorder and one of nine no longer met criteria for major depression (Krupnick et al., 2016). While overall symptoms of depression as measured by the BDI-II reduced amongst participants, the finding was not significant (Krupnick et al., 2016). The authors acknowledge this unexpected outcome given that IPT was specifically designed to treat depression (Klerman et al., 1974; Krupnick et al., 2016). Adaptation of treatment with a focus on PTSD rather than depression is a consideration for such a finding. However, significant reductions in depressive symptomology were observed in the study in which the adapted treatment was initially made for (Krupnick et al., 2008, 2016). The small sample size of the current study likely affected power and is another potential reason for BDI-II score changes not meeting significance.

At present, there are no known randomized clinical trials specifically investigating IPT's efficacy in treating MST-related PTSD. While the case study presented by Peskin et al. (2018)

and Krupnick et al.'s (2016) pilot study of IPT for military-related trauma provide encouraging initial support for the use of IPT as a non-exposure form of treatment for PTSD as a result of MST, findings are unable to be generalized due to the limited research, small sample sizes, and lack of male Veteran inclusion. Krupnick et al. (2016) suggest IPT may be an effective initial treatment or alternative to traditional trauma-focused therapies. The interpersonal nature of MST may make IPT particularly beneficial as a treatment option for MST survivors as issues with safety and trust as well as the development of ineffective relational patterns can manifest following such trauma (Krupnick et al., 2016; Resick et al., 2017; Weiss et al., 2015). A particular strength of Krupnick et al.'s (2016) pilot study was the majority of participants being Black despite the small sample size. Given the current lack of racial and gender diversity in MST research, such inclusive practices are encouraged in future randomized clinical trials of IPT for MST-related PTSD.

Mindfulness-Based Stress Reduction. Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 2003) is an evidence-based manualized treatment that was originally created for stress management. It is now often used to treat depression, anxiety, PTSD, chronic pain, and other medical-related conditions that can negatively impact an individual's coping and ability to regulate distressing emotions (Gallegos, Cross, & Pigeon, 2015; Niazi & Niazi, 2011; Vujanovic, Niles, Pietrefesa, Potter, & Schmertz, 2019). MBSR is often delivered in a group format and typically consists of one full-day session (six hours) and 150-minute weekly sessions for eight weeks (Kabat-Zinn, 2013).

To evaluate the effects of MBSR as an adjunctive treatment for Veterans with PTSD receiving VA care, Kearney, McDermott, Malte, Martinez, and Simpson (2013) conducted a randomized controlled pilot study (n = 47). Using concealed allocation, participants were

randomly assigned to an eight-week MBSR group plus treatment as usual condition (n = 25) or a treatment as usual control condition (n = 22; Kearney et al., 2013). No significant differences were found on assessment measures for participants at baseline or on demographic variables aside from participants in the treatment as usual control condition being significantly more likely to be prescribed benzodiazepines (Kearney et al., 2013). At post-treatment, significant improvements in PTSD and depressive severity and mental health-related quality of life scores were seen in the MBSR plus treatment as usual condition as assessed by the PCL-Civilian Version (Weathers, Litz, Huska, & Keane, 1994a), PHQ-9 (Kroenke & Spitzer, 2002), and Short Form-8 (Kearney et al., 2013; Ware, Kosinski, Dewey, & Gandek, 2001) At four-month follow-up, continued improvements in PTSD symptom severity and mental health-related quality of life scores were observed (Kearney et al., 2013). However, no reliable effects of MBSR on PTSD or depression were observed on intention-to-treat analyses (Kearney et al., 2013). Findings from this pilot study demonstrate promise in the use of MBSR in helping alleviate PTSD symptoms amongst Veterans with further clinical studies being warranted. Information about additional treatment involvement outside of the MBSR group was not provided, making it unclear if observed improvements were the result of MBSR, another treatment, or a combination of both. Limitations of this study include a small sample size, lack of gender and racial diversity amongst participants, and exclusion of Veterans with borderline or schizoaffective personality disorder (Kearney et al., 2013).

In Gellegos et al.'s (2015) article on the use of MBSR with Veterans with MST histories, the authors discuss rationale and benefits of using this treatment approach, as well as strategies to improve implementation of MBSR within VA. The authors postulate that MBSR's focus on increasing nonjudgmental emotional awareness and improving distress tolerance makes it

especially beneficial for those who have experienced MST given the increased risk of mood disturbance and emotional dysregulation that can occur following such trauma (Gellegos et al., 2015; Krupnick et al., 2016; Rauch et al., 2009; Sexton et al., 2017; Weiss et al., 2015). A key component of this treatment that can be particularly helpful for individuals with MST-related PTSD is in decreasing experiential avoidance of distressing thoughts and feelings (Gallegos et al., 2015). The authors suggest that use of mindful awareness to reappraise unhelpful thoughts and physiological experiences may improve emotional regulation and lessen symptomatology for MST survivors which in turn may aid in reducing suicidal ideation or behavior (Gallegos et al., 2015). They highlight that MBSR may be an alternative to more traditional evidence-based trauma-focused treatments or be implemented in conjunction with such treatments (Gallegos et al., 2015). The authors note that the time-limited group dynamic of MBSR may make it particularly appealing in a VA setting (Gallegos et al., 2015). Furthermore, the ability to deliver MBSR via telehealth increases treatment accessibility (Gallegos et al., 2015). The authors encourage local and regional advocacy by providers as a means to increase implementation of MBSR within VA (Gallegos et al., 2015). Although initial studies examining MBSR's effectiveness for treating PTSD are promising, there are no known studies that have specially examined its efficacy for treating MST-related PTSD. Gallegos et al. (2015) discuss important components of MBSR that may be particularly helpful for such individuals; however, clinical trials are needed to further examine the efficacy of MBSR with this population.

Aside from the current gold standard, evidence-based PTSD treatments (VA/DoD, 2017), other evidence-based therapies display potential for their use in treating MST-related PTSD (Cloitre et al., 2016; Kearney et al., 2013; Krupnick et al., 2016; Loucks et al., 2019; Peskin et al., 2018; Weiss et al., 2018). Initial findings have been positive in these treatments'

effectiveness in reducing PTSD and other distressing symptomatology associated with MST. Further research, however, is needed before more definitive conclusions can be made for their effectiveness in specifically treating PTSD as a result of MST. More research into such potential alternatives to current front-line PTSD treatments will help fill an important gap in the literature and assist in expanding research-supported treatment options for those suffering consequences of MST. Since research has shown that dropout rates tend to be higher for evidence-based treatments targeting PTSD (Imel, Laska, Jakupcak, & Simpson, 2013; Najavits, 2015), alternative approaches that focus more so on the consequences of MST may facilitate both treatment engagement and retention. Furthermore, additional research into these other promising approaches may uncover unique techniques that more effectively treat symptoms that tend to remain following completion of some front-line PTSD treatments.

Evidence-Based Psychotherapy Relationship Factors

While numerous treatment modalities have been shown to be effective in working with trauma survivors, it is important clinicians not lose sight of the most important factor of therapy, regardless of specific treatment approach or theoretical orientation: the therapeutic relationship (Norcross & Lambert, 2018). A task force created by the American Psychological Association's Society for the Advancement of Psychotherapy (2008), in collaboration with other American Psychological Association divisions, has been conducting and examining research on empirically supported psychotherapy relationship factors since 1999 (Norcross & Lambert, 2018). The most recent task force conducted a meta-analysis exploring the most effective aspects of the therapeutic relationship to provide updated information to inform clinical practice to improve therapy outcomes (Norcross & Lambert, 2018). The researchers found nine relationship factors to be demonstrably effective, seven factors to be probably effective, and one factor to be

promising but that had insufficient research to be judged (Norcross & Lambert, 2018). Regarding factors relevant to individual therapy, the therapeutic alliance, collaboration, consensus of treatment goals, empathy, positive regard and affirmation by the therapist, and collecting and delivering client feedback were found to be demonstrably effective to therapy outcomes (Norcross & Lambert, 2018). Congruence/genuineness, the real relationship (the genuine, realistic, personal relationship between therapist and patient), emotional expression, cultivating positive expectations, promoting treatment credibility, effectively managing countertransference, and repairing alliance ruptures were found to be probably effective (Norcross & Lambert, 2018). Along with identifying those relationship factors shown to be most effective in therapy outcomes, the authors also identified specific factors shown to be ineffective and potentially damaging. Not surprisingly, engaging in behaviors opposite of what has been found to be effective can heighten the risk of treatment dropout and less successful outcomes (Norcross & Lambert, 2018). Additionally, based on current and previous findings, the authors encourage clinicians to avoid confrontation, negative processes, assumptions, therapist-centricity, rigidity, and cultural arrogance (Norcross & Lambert, 2018). These findings can be particularly useful when working with MST survivors. Power imbalances, feelings of betrayal, perceptions of institutional betrayal, and difficulties trusting and feeling safe with others can all potentially make therapy more challenging for someone who has experienced MST (Resick et al., 2017; Smith & Freyd, 2013). Implementation of therapeutic relationship factors found to be most beneficial for treatment outcomes, such as empathy, positive regard, and collaboration, can facilitate trust and a strong working alliance with a MST survivor. Furthermore, the therapeutic relationship established between clinician and survivor has the capability of providing corrective emotional experiences which can bolster treatment gains and further facilitate healing.

Medications for PTSD

While many mental health providers are not responsible for prescribing medication, having a general knowledge of psychopharmacology is useful. Many individuals in therapy may also be taking psychotropic medication that can impact symptoms and symptom presentation, or result in potential side effects. While it is imperative providers are not acting outside their scope of practice, being knowledgeable about common psychotropic medications, particularly medications commonly prescribed to individuals diagnosed with PTSD and other co-morbid disorders, can demonstrate competence and instill confidence in the provider by the patient. Such knowledge also assists clinicians in knowing what has been found to be effective when developing treatment plans and when working on multi-disciplinary teams.

According to the American Psychological Association's (2017) *Clinical Practice Guideline for the Treatment of Posttraumatic Stress Disorder*, fluoxetine (Prozac), paroxetine (Paxil), sertraline (Zoloft), and venlafaxine (Effexor) are conditionally recommended medications for PTSD. Sertraline, paroxetine, and fluoxetine are all selective serotonin reuptake inhibitors (SSRIs) which work to increase levels of serotonin in the brain (NIMH, 2016). Venlafaxine is a selective serotonin-norepinephrine reuptake inhibitor (SSNRI) which works to increase levels of both serotonin and norepinephrine in the brain (NIMH, 2016). Both SSRIs and SSNRIs are antidepressant medications and are commonly prescribed to treat depression and anxiety (NIMH, 2016). Currently, the only medications for PTSD approved by the FDA are sertraline (Zoloft) and paroxetine (Paxil; American Psychological Association, 2017). It is important for patients to take into account potential side effects of medication. While many mental health providers are not prescribers, they can have conversations with their patients about potential pros and cons of taking medication, investigating possible side effects, and barriers to

medication compliance. Side effects can often be a barrier to medication compliance and clinicians can assist their patients in talking with their prescriber to address such concerns, such as through role play and distress reduction techniques.

Providing appropriate and effective treatment for MST-related PTSD is imperative. Currently, the most highly recommended treatment for PTSD is trauma-focused psychotherapy (Department of Veterans Affairs, 2019e). As of now, the front-line PTSD treatments with the most empirical support that are recommended by VA and the DoD are CPT, PE, and EMDR (VA/DoD, 2017). These treatments have been extensively researched and found to be particularly effective in treating military-related PTSD (Haagen, Smid, Knipscheer, & Kleber, 2015; Lee et al., 2016; Steenkamp, Litz, Hoge, & Marmar, 2015; Watts et al., 2013). Additional evidence-based treatment approaches have shown promise in treating MST-related PTSD and warrant further consideration. Such treatments may be especially beneficial as alternatives to more traditional trauma-focused or exposure-based therapies. Furthermore, some of these approaches may lend themselves well as adjunctive therapies to address harder to treat symptoms found amongst MST survivors. Additional research on the effectiveness of these treatments with this population is crucial to providing the best care for those who have experienced this type of trauma and are enduring the associated consequences.

CHAPTER IV: CLINICAL IMPLICATIONS

Treatment Implications

Mental health providers have the profound privilege of helping individuals with the most painful and distressing aspects of their lives. Such a privilege in turn comes with great responsibility. Trained and competent clinicians are in a position to provide high-quality, effective treatment for MST survivors. Following best practice guidelines for treating mental health issues related to MST is important and found to be most effective (American Psychological Association, 2017; Department of Veterans Affairs, 2019e). Given the prevalence of MST, it is likely that clinicians who work with Veterans will provide at least some MST-related care, even if not specifically working with trauma (Kimerling et al., 2016). As such, it is important to be knowledgeable about the unique factors affecting these individuals and treatments found to be most efficacious for a Veteran's presenting issues. Such unique factors include the influence of military culture, mental and physical health comorbidities, gender and sexual orientation, and confounding factors to diagnosis and treatment. These and other factors can play an important role in a MST survivor's life as well as impact their recovery.

Specialized training. While many treatment modalities can be practiced without additional formal training given that the clinician meets minimum educational and graduate training requirements, to ensure competency and in keeping with ethical guidelines, specialized training in evidence-based trauma-focused treatment is highly encouraged (American Psychological Association, 2017; CPT, 2020; Department of Veterans Affairs, 2019f; Department of Veterans Affairs, 2020c; Shapiro, 2018). Treatment manuals are quite informative, but there is a stark difference between reading about how to conduct a specific treatment and receiving expert training in its theoretical underpinnings, interventions, structure,

and nuances. Furthermore, appropriate training can facilitate good treatment fidelity, which has been found to improve trauma-focused treatment outcomes (Holder, Holliday, Williams, Mullen, & Surís, 2018). While not a requirement to provide such therapies, CPT, PE, and EMDR, the current gold standard PTSD treatments, all require specialized training to become a certified provider (CPT, 2020; Department of Veterans Affairs, 2020c; EMDR International Association, 2020). Clinicians working within VA have the opportunity to become VA-certified in these evidence-based treatments by attending formal training and completing required consultation processes (Department of Veterans Affairs, 2019f). Clinicians working within VA are strongly encouraged to participate in these trainings if they are to be providing trauma-focused care. Those working outside VA are also able to receive such training often by paying to attend formal workshops or web-based trainings (CPT, 2020; Department of Veterans Affairs, 2020c; EMDR International Association, 2020).

Treatment engagement and retention. It can be disheartening for a clinician to have a patient not engage in or complete a treatment found to be effective in treating consequences related to MST, such as PTSD. Clinicians should be aware that this is not uncommon nor is it uncommon for a patient to initiate an evidence-based trauma-focused treatment more than once (Maguen et al., 2019). A recent observational study using data on a longitudinal OEF/OIF cohort diagnosed with PTSD (n = 255,968) enrolled in VA care found that only approximately 20% engaged in any CPT or PE sessions (Maguen et al., 2018). Such findings highlight the important need for effective methods to increase both engagement and retention in treatments found to be effective in treating PTSD.

In a national, retrospective cohort study of OEF/OIF Veterans receiving VA care, Maguen et al. (2019) examined factors associated with treatment engagement and retention in

evidence-based PTSD treatment (*n* = 265,566). Inclusion criteria included a post-deployment PTSD diagnosis between October 2001 and September 2015 and at least one post-deployment psychotherapy visit by June 2017 (Maguen et al., 2019). Data sources consisted of the Iraq and Afghanistan War Veterans Roster and the VA Corporate Data Warehouse (Maguen et al., 2019). Researchers specifically examined engagement and retention in CPT or PE, either individual or group, within any given 24-week period of time (Maguen et al., 2019). Treatment completion was defined as at least eight sessions of either treatment (Maguen et al., 2019). Researchers found that 9.1% (24,039) completed CPT or PE, 13.8% (36,595) dropped out, and 77.2% (204,932) did not partake in either treatment in any six-month period of time (Maguen et al., 2019). Significantly more participants were found to complete CPT compared to PE (7.4% vs. 1.9%; Maguen et al., 2019). Compared to those who dropped out of (*n* = 29,006) or did not engage in CPT, those who completed CPT (*n* = 19,067) were more likely to be older, have more education, identify as African American, be Officers in the service, and to have served in the National Guard or Reservists (Maguen et al., 2019). The same was found for those who completed PE (*n* = 5,154) compared to those who dropped out of (*n* = 12,782) or did not engage in PE (Maguen et al., 2019). Regardless of if they completed or dropped out, those who initiated either treatment were more likely to have a history of MST, depression, substance use issues, suicidal ideation or attempt, a service connected disability, and to have served in a combat zone (Maguen et al., 2019). Additionally, those who initiated CPT were more likely to be female, have a history of bipolar disorder, and a history of psychosis (Maguen et al., 2019). Those who completed CPT were more likely to have engaged in both individual and group CPT (Maguen et al., 2019). For Veterans who completed CPT, the mean length of time from initial mental health visit to CPT treatment completion was 3.49 years (*SD* = 2.72 years) and 3.25 years for PE (*SD* =

2.66 years; Maguen et al., 2019). For the remainder of the sample who did not engage in either treatment or who dropped out, the mean length of time from initial mental health visit to the last follow-up date of the study was 7.13 years (*SD* = 2.76; Maguen et al., 2019). The researchers also found that completion time for both CPT and PE significantly improved over the years, meaning patients were completing either treatment in less time over the course of the study (Maguen et al., 2019). Such a finding may speak to the heightened push over the years for clinicians to provide evidence-based treatments for PTSD within VA, increased VA-sponsored trainings in these treatments, and increased awareness and accessibility of these treatment options throughout VA (Maguen et al., 2019; VA/DoD, 2017). Findings regarding the length of time from initial mental health visit to completion of either CPT or PE are not to suggest that most Veterans take years to decide to engage in an evidence-based treatment after initially seeking mental health services. Rather, these findings likely speak more to the difficult nature of approaching trauma; potentially needing to address more acute issues first, such as suicidal ideation, active substance use, or medical issues; time commitment conflicts; and potential issues with the treatments themselves (Maguen et al., 2019). Recognizing the difficulty in approaching trauma can aid clinicians in their work with MST survivors by conveying empathy, understanding, and effectively managing their own potential expectations should they find themselves becoming discouraged with treatment effectiveness or perceived progress. These findings also highlight the need for continued research into alternative treatments for PTSD, specifically MST-related PTSD. Promisingly, Maguen et al. (2019) found that for both PE and CPT, a history of MST was one of the strongest predictors of initiating and completing treatment. They suggest that VA efforts to increase awareness and care for MST survivors may be a contributing factor (Maguen et al., 2019). The researchers did not examine engagement in

other evidence-based treatments, but did find that engagement in prior psychotherapy was associated with a higher likelihood of completing CPT or PE (Maguen et al., 2019). Based on their findings, the researchers suggest ways to enhance treatment engagement and retention that include initial trust building sessions prior to initiation of evidence-based PTSD treatment, providing thorough explanations of treatment options, assisting patients in preparing for beginning an evidence-based PTSD treatment, and striving to destigmatize PTSD treatment (Maguen et al., 2019). Younger age was associated with lower completion rates, higher drop out, and longer time to receive CPT or PE (Maguen et al., 2019). Time constraints and role responsibilities, such as childcare or educational involvement may be potential barriers for younger Veterans engaging in and completing such treatment. The authors suggest that increasing accessibility to care such as through telehealth can be useful for both engagement and retention (Maguen et al., 2019). Treatment fit also plays an important role. Although the current gold standard trauma-focused treatments address the same symptoms, the approach each takes varies (Foa et al., 2019; Resick et al., 2017; Shapiro, 2018). Providing information on each so that the patient can make an informed decision not only fosters the patient's autonomy, but also likely increases treatment buy-in if they are the one deciding for themselves what seems like the best option per their preferences.

Lack of progress and treatment dropout. The term "dropout" in the context of treatment refers to a client who terminates therapy before it is complete. While all clinicians are hopeful that therapy will be successful and that each client will complete treatment, unfortunately, this is not always the case. Research has shown that dropout rates tend to be higher for evidence-based treatments targeting PTSD (Imel, Laska, Jakupcak, & Simpson, 2013; Najavits, 2015). A meta-analysis examining dropout among PTSD treatments across populations

found an average dropout rate of 18.28% (Imel et al., 2013). Unfortunately, dropout rates markedly differed between studies (Imel et al., 2013). More recently, results from a large, national retrospective study examining factors associated with evidence-based PTSD treatment initiation and completion among OEF/OIF Veterans receiving VA care (n = 265,566) found that 22.8% began either CPT or PE, but only 9.1% completed treatment (Maguen et al., 2019). In Eftekhari et al.'s (2013) study examining PE's effectiveness in treating PTSD (n = 1,931), 40% of participants who identified MST as their index trauma dropped out of treatment. Being aware of potential limitations of a specific therapy and factors that increase the risk of treatment dropout can aid clinicians in taking preemptive action, identify warning signs, and appropriately handle such situations should they arise.

A variety of factors can influence dropout rates amongst Veterans, such as age, race, service era, comorbid psychiatric conditions, and service connection status, to name a few (Harpaz-Rotem & Rosenheck, 2011; Maguen et al., 2019; Najavits, 2015). Resick et al. (2017) strongly encourage that CPT group members not read their trauma narratives within group, suggesting this may increase other group members' distress and the risk of dropout. Along with potentially increasing others' distress, reading one's trauma narrative aloud or discussing details of one's trauma to others is also likely to be anxiety-provoking for the individual themselves. Given that feelings of shame and fear of stigma are commonly experienced by MST survivors (Maguen et al., 2019; Mengeling et al., 2014; Turchik et al., 2013), one might imagine how difficult group treatment might be, regardless of if treatment is with other MST survivors. Normalizing such discomfort at the start of group treatment and allowing space to process thoughts and feelings related to sharing details about one's trauma with group members may facilitate trust-building and reduce dropout. In a randomized clinical trial examining factors

associated with treatment dropout among female Veterans with MST-related PTSD being treated with CPT (n = 56), researchers found preliminary results suggesting that negative cognitions related to the self and self-blame may be predictors of dropout (Holder, Holliday, Wiblin, LePage, & Surís, 2019). Although a small sample size, these findings may be helpful for clinicians to be aware of and targeting such negative cognitions early on may help increase retention.

While not definitive, one could hypothesize that factors such as avoidance, increased distress upon engagement in trauma-focused treatment, and treatment fit may be associated with PTSD treatment dropout. Avoidance is a hallmark of PTSD (APA, 2013). When avoidance behaviors are reduced and a patient begins to actively approach their trauma memories and emotions in therapy, it is not uncommon for them to experience an initial increase in distress and symptomatology. Such distress may make it difficult to want to proceed with trauma-focused work. Many PTSD treatments specifically target negative cognitions related to the trauma and it can be difficult to change often long-held beliefs even when such beliefs are ineffective, inaccurate, or causing prolonged suffering (Foa et al., 2019; Resick et al., 2017; Shapiro, 2018). It is also possible that timing may play a role in treatment retention such as if there are conflicts with other commitments or role responsibilities in a patient's life (Maguen et al., 2019). Furthermore, it is not uncommon for a MST survivor to initiate treatment more than once which may for some be the result of continued distress following treatment dropout which prompts them to reengage at a later time (Maguen et al., 2019). A clinician's competence and confidence in a treatment may also aid in increasing treatment buy-in and retention (Holder et al., 2018).

It is encouraged that evidence-based trauma-focused treatment progress be continually monitored, with appropriate adjustments being made as needed, such as problem-solving related

to continued avoidance or use of safety behaviors (Foa et al., 2019; Resick et al., 2017). Staying vigilant for avoidance behaviors is important in trauma-focused work as well as addressing such behaviors in a timely manner so as to minimize potential hindrance to treatment progress (Foa et al., 2019; Resick et al., 2017). Assessing the dynamics of a Veteran's family and identified supports can also be useful to not only gauge perceived support which may foster treatment retention, but also assess for potential risks for dropout. Evaluating how family or supports may assist the Veteran in their recovery or how relational dynamics may enable symptom continuation or discourage progress can be valuable information for the clinician.

Military culture. While attempting to fully capture military culture as well as its nuances is outside the scope of this paper, a general understanding of military culture is helpful in conceptualizing the effects such an environment may have on a MST survivor both while they were in the service and following separation. The military is the epitome of a hierarchical structure in which rank, authority, following orders, cohesion, setting one's own needs and desires aside, and acting for the greater good are defining features. The military is its own unique culture filled with a multitude of stressful situations, intense emotions, and demanding expectations. However, service members are regularly trained to suppress emotions, particularly painful ones, often as a means of staying objective and focused on the assigned mission (Bell & Reardon, 2011). Such suppression of affect, specifically following traumatic experiences, can increase the risk of developing PTSD (Resick et al., 2017). Avoidance of thoughts and feelings related to trauma, which is a hallmark of PTSD (APA, 2013), can reinforce such suppressive efforts and may make it difficult for a Veteran MST survivor to engage in therapy. A clinician's ability to be patient, understanding, and to normalize such difficulty can aid in building trust between the two and assist the Veteran in approaching their trauma in treatment.

Power imbalances and the unquestioning expectation to follow orders can present additional risk factors for victimization (Bell & Reardon, 2011). The role of power imbalances can be further understood in the conceptualization of MST given that those who experience MST tend to be younger and it is not uncommon for perpetrators to outrank their victims (Elder, Domino, Rentz, & Mata-Galán, 2017; Kimerling et al., 2016; Mondragon et al., 2015; Wolff & Mills, 2016). Such a dynamic can make it even harder for victims to turn down or escape abusive situations. Given the inherent power imbalance in the therapeutic relationship, it is wise for clinicians to be attuned to this and process such an imbalance if considered clinically relevant.

There is a strong emphasis on unit cohesion and trust within the military. Unit members need to operate smoothly and effectively to carry out essential duties, complete missions, and trust one another to protect and care for each other. Setting aside one's own needs and desires to serve a greater purpose is needed in order to operate as an effective team. While such a dynamic is beneficial in a myriad of ways, it can also create immense pressure to maintain such cohesion. A soldier who experiences MST may be reluctant to disclose for fear of disrupting such unity and experiencing ostracism or retaliation (DoD, 2019). When one is trained to consistently put their own needs to the side, it can be difficult to then attempt to advocate for oneself and seek needed support following MST. Additionally, such a significant violation of trust makes MST particularly traumatic. A culture that promotes overt masculinity, male toughness, and aggression also creates additional challenges for survivors of MST (O'Brien et al., 2015). Stereotypes, myths, and misinformation about sexual harassment and assault, and an individual's personal beliefs about what it means to be a soldier can create a confusing self-concept and painful affective experiences for those who have undergone such abuse (O'Brien et al., 2015). The additional expectations of suppressing painful emotions, staying focused on the mission,

maintaining unit cohesion, and the perceptions of what it means to be a soldier adds to the difficulties for someone who experiences MST and must then remain in such an environment. Beliefs and behaviors that developed in the military and that may have been reinforced following MST oftentimes stay with a survivor following separation from the service, continuing to make it challenging to seek and obtain needed support, resources, or treatment (Bell & Reardon, 2011; O'Brien et al., 2015).

Self-Harm and Suicide

Research has shown that Veterans are at a heightened risk of committing suicide compared to the general population (Department of Veterans Affairs, 2019). Those with histories of MST are at an even higher risk of both suicide and NSSI (Gross, 2020; Holliday et al., 2018; Kimerling et al., 2016). As such, it is imperative that clinicians stay diligent in their assessment of such ideations and/or behaviors. Directly and empathically assessing for risk of self-harm should occur at every session. It can also be helpful for clinicians to explore the functionality of suicidality, particularly NSSI. Given trauma's deleterious effects, distress tolerance or interpersonal skills may be lacking. Skill building interventions may be needed to bolster the Veteran's ability to more effectively cope with distressing thoughts and emotions and relate effectively to others (Weiss et al., 2015).

Mental and Physical Health Comorbidity Considerations

Given the mental and physical health comorbidities seen not only amongst MST survivors, but also amongst Veterans (Cichowski et al., 2017; Goldstein et al., 2017; Hoggatt et al., 2015; Krupnick et al., 2016; Lutwak & Dill, 2013; Pandey et al., 2018; Rauch et al., 2009; Sexton et al., 2017), clinicians working with the Veteran population should expect to work with individuals who present with such concurrent challenges. It is also common for such individuals

to be prescribed medications to treat such conditions (Teeters et al., 2017). Being familiar with common comorbidities and how they might influence one another is helpful, such as how chronic pain can exacerbate mental health symptoms and vice versa (Murphy et al., 2014). Within VA or a similar setting, being familiar with how to make appropriate referrals or who to contact to get more information on how to connect a Veteran with additional resources can be helpful. Also being aware of the increased risk for such things as STIs and sexual dysfunction amongst MST survivors (Turchik et al., 2012) can aid clinicians in having sensitive conversations with Veterans and potentially encourage them to seek medical care if needed and appropriate. Additionally, providing psychoeducation on sexual health and consequences of risky behaviors relevant to the Veteran may be needed. As always, being empathic, supportive, accepting, and non-judgmental are crucial in having such conversations. Given the interconnectedness between physical and mental health, Veterans may likely experience improvement in their overall wellbeing as they engage with and progress in mental health treatment and experience symptom reduction (Murphy et al., 2014).

Comorbid characterological traits and disorders. The DSM-5 (APA, 2013) defines a personality disorder as "an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment" (p. 645). Findings from the National Epidemiologic Survey on Alcohol and Related Conditions found that approximately 15% of U.S. adults meet criteria for at least one personality disorder and that individuals with PTSD are more likely to have borderline, schizotypal, and narcissistic personality disorders (National Institute on Alcohol Abuse and Alcoholism, 2006). In the general population, an estimated 24.2% of individuals with PTSD have a comorbid diagnosis of

borderline personality disorder (BPD; Pagura et al., 2010). These individuals were found to have higher rates of childhood trauma, increased risk of suicide attempts, and other comorbid mood disorders compared to individuals with standalone PTSD or BPD diagnoses (Pagura et al., 2010). Given that Veterans who experienced MST are at heightened risk of having PTSD, mood disorders, and other past traumatic experiences (Cichowski et al., 2017; Department of Veterans Affairs, 2018b; Maguen et al., 2010), the likelihood of a clinician working with a Veteran with comorbid BPD or borderline traits is heightened. Such comorbidity adds to the complexity of the Veteran and may present unique challenges in treatment.

BPD is characterized by pervasive instability in relationships with others, their self-image, and mood, and pronounced impulsivity (APA, 2013). Marked concern with real or perceived abandonment by others is a prominent feature of the disorder, often resulting in volatile relationships and engagement in behaviors to avoid such abandonment (APA, 2013). BPD is often perceived as a difficult diagnosis to treat, a perception that can be a barrier to clinicians providing PTSD treatments shown to be effective for those with comorbid BPD (Osei-Bonsu et al., 2017).

Holder, Holliday, Pai, and Surís (2017) conducted a pilot study investigating the effect of a BPD diagnosis on CPT dropout and treatment outcomes with female Veterans with MST-related PTSD (n = 27). Data was used from a previously conducted randomized clinical trial with Veteran MST survivors (Surís et al., 2013). The CAPS (Blake et al., 1995) and PCL-M for DSM-IV (Weathers et al., 1994b) were utilized to assess treatment outcomes (Holder et al., 2017). The authors found no statistically significant differences between number of sessions completed and treatment completion for Veterans with and without comorbid BPD (Holder et al., 2017). Veterans with comorbid PTSD and BPD had significantly higher CAPS scores at baseline

assessment compared to those without comorbid BPD (Holder et al., 2017). CAPS and PCL-M scores were found to significantly reduce over time for both groups (Holder et al., 2017). Overall results show promise in CPT's effectiveness in treating MST-related PTSD in female Veterans with comorbid BPD, and that BPD is not a barrier to implementing evidence-based PTSD treatments (Holder et al., 2017). While the findings from this pilot study are encouraging, it is important to note that this study only included 27 participants, with only seven having both diagnoses (Holder et al., 2017).

Clarke, Rizvi, and Resick (2008) found similar results as Holder et al. (2017) when examining borderline traits on treatment outcomes in a sample of female rape victims (n = 131). Those with higher borderline characteristics displayed more PTSD and depressive symptomatology at baseline assessment; however, they were not more likely to drop out of treatment (Clarke et al., 2008). Williams et al. (2017) also found differences in symptom severity in their study examining the relationship between Veteran MST survivors with comorbid PTSD and BPD, and PTSD and depressive symptomatology. Similar to Holder et al. (2017), data from a previously conducted randomized clinical trial with Veteran MST survivors was used (Surís et al., 2013; Williams et al., 2017). Of that previously gathered data, medical record information for 90 Veterans documenting the presence or absence of BPD was used in the Williams et al. (2017) study. The authors found that Veterans with comorbid PTSD and BPD had significantly higher avoidance and depression symptoms, trauma-related negative cognitions, and negative cognitions related to the self (Williams et al., 2017). Interestingly, no significant differences were found between previous sexual trauma and current symptomatology (Williams et al., 2017). An important caveat to this study is that only female Veterans were found to have both PTSD and BPD. Findings from these studies suggest that Veteran MST survivors with comorbid BPD

and PTSD may present with more severe symptoms yet can still gain marked improvement from evidence-based trauma-focused treatment. When conducting assessments and providing treatment to such Veterans, it may be helpful for clinicians to be particularly alert to the potential presence of depression and maladaptive cognitions related to the trauma and self.

Gender and Sexual Orientation Implications

While research efforts focusing on MST experienced by men are increasing, unfortunately there is still a large gender disparity within the literature which can seem surprising considering that almost half of all MST survivors are men (Kimerling et al., 2016; Smith et al., 2018). O'Brien et al. (2015) suggest military cultural factors may play a role in the disproportion, asserting that male rape myths may discourage male survivors from coming forward. The authors discuss common rape myths related to men that include beliefs that men do not get raped, especially strong men; male-on-male rape is about homosexuality; male rape is not serious; and that men cannot be raped by women (O'Brien et al., 2015).

In a study of 961 returning OEF/OIF male Veterans referred for treatment to a large VA trauma and anxiety specialty clinic, 173 (18%) reported experiencing MST by a member of their unit (Mondragon et al., 2015). Those who endorsed MST were found to be younger, were more likely to have also experienced sexual abuse as a child or adult, were less likely to be married, and were more likely to be diagnosed with a mood disorder (Mondragon et al., 2015). Researchers found MST to be negatively associated with post-deployment social support ($p < 0.001$) and positively associated with post-deployment perceived emotional mistreatment ($p = 0.004$), thus highlighting the interpersonal difficulties that can arise for some men following MST (Mondragon et al., 2015). Interestingly, although MST was associated with interpersonal

challenges, loss of a romantic relationship following deployment was not found to be an associated consequence of MST amongst this sample (Mondragon et al., 2015).

Utilizing grounded theory methodology to explore male Veterans' personal understanding and perceptions of experiencing MST, Elder et al. (2017) conducted interviews with 21 male MST survivors. Participants were referred by clinicians at a large city VA hospital and more than half of the participants identified as Latino (Elder et al., 2017). The number of participants for the study was determined by data saturation, meaning participants were recruited until information garnered from intake interviews no longer provided new or contradictory information (Elder et al., 2017). Following their experiences of MST, a majority of the participants endorsed the following: negative changes in trust, hypervigilance, fear of judgment, social isolation, increased substance use, interpersonal difficulties, conduct problems in the military, and vocational difficulties following separation from service (Elder et al., 2017). Substance use was identified as a form of avoidance of negative thoughts and feelings for approximately 62% of participants (Elder et al., 2017). Hindsight bias, a common reaction following trauma, was also endorsed, with 86% of participants reporting believing they could have prevented the assault had they done something differently (Elder et al., 2017). Sexual performance issues and difficulty with anger, especially in triggering situations with individuals in positions of authority, were also reported (Elder et al., 2017). Conduct problems while in the service believed to be related to aftereffects of MST led to some of these Veterans receiving "other than honorable" discharge statuses (Elder et al., 2017). Such a discharge status can lead to other consequences; however, for the purposes of this paper, it is important to highlight that such a status can potentially disqualify someone from being eligible for VA care. For any Veteran, such a status can lead to additional challenges, including real or perceived stigma, and is

important for clinicians to be aware of. Promisingly, 71% of participants in the Elder et al. (2017) study reported also experiencing posttraumatic growth that included advocacy for vulnerable individuals, including women and children in exploitative situations. Additionally, 38% of participants reported ultimately developing newfound respect and empathy for gay men (Elder et al., 2017). The authors proposed the possibility that adverse consequences following MST may positively influence male survivors' thoughts and beliefs related to sexism, heterosexism, and traditional power dynamics (Elder et al., 2017).

To examine MST-related treatment barriers among male Veterans, Turchik et al. (2013) conducted semi-structured interviews with 20 male Veterans receiving VHA care who reported MST but had not received MST-related mental health care services. Using qualitative analyses, the researchers identified stigma, fear of humiliation or shame if others learned of their experience, fear of not being believed, shame surrounding beliefs they should have fought harder during their assault, beliefs their MST history should be kept secret, believing the MST should not bother them, and fear of their sexuality or masculinity being questioned as barriers to seeking mental health care (Turchik et al., 2013). Additionally, the researchers examined provider gender preference and found that half of the participants preferred a female provider, one quarter preferred a male, and another quarter reported no preference (Turchik et al., 2013).

It can be helpful to think about how a Veteran's response to their MST may be shaped by their gender or sexual orientation. While every individual is different, a common characteristic or identity amongst those who have served is that of a warrior – someone perceived as strong and ready to defend both their country and fellow soldier (Hoge, 2010). Experiencing military sexual trauma can create a painful and discrepant identity. Women may believe stereotypes that they are weak or should not have joined the military whereas men may question their beliefs about being

strong and able to defend themselves. Males may be more likely to believe that they should have been able to prevent their assault such as by being able to fight off their assailant(s) (Turchik et al., 2013). It is also not uncommon for men to question their sexual orientation following MST (Elder et al., 2017; Monteith, Gerber, Brownstone, Soberay, & Bahraini, 2018; Turchik et al., 2013). An important factor for clinicians to be aware of for both male and female MST survivors is the body's reaction to sexual trauma that can include orgasm and getting an erection (O'Brien et al., 2015; RAINN, 2020b). Such uncontrollable physiological responses can be very confusing for survivors and may increase feelings of shame or guilt. Being able to sensitively and empathically provide factual information about such involuntary responses and how they do not equate to consent or enjoyment can be very helpful.

LGBT Veterans. While differences have been found between male and female Veteran MST survivors, an important caveat is that such findings have been derived predominately from data on heterosexual and cisgender individuals, referring to those whose gender identity matches their biological sex. While the majority of Veterans may identify as heterosexual and cisgender, such lack of diversity in sexual orientation and gender identity in MST research is an issue that perpetuates an important gap in the literature. It is estimated that there are over one million lesbian, gay, bisexual, and transgender (LGBT) U.S. Veterans which includes over 134,000 transgender Veterans and retired National Guard and Reservists (Disabled American Veterans, 2019; Gates & Herman, 2014).

Using a prospective cohort study, Mattocks et al. (2013) examined differences in mental health conditions, VA healthcare satisfaction, and trauma exposure among heterosexual and lesbian and bisexual female Veterans receiving care at two large VAs. Recruitment letters were mailed to 3,251 OEF/OIF female Veterans receiving care at each facility (Mattocks et al., 2013).

A total of 365 Veterans participated in the study and data was collected via electronic medical records and baseline surveys conducted between July 2008 and October 2011 (Mattocks et al., 2013). Surveys gathered self-reported information on sexual orientation, physical and mental health conditions, trauma exposure, and VA health care satisfaction (Mattocks et al., 2013). A total of 35 participants identified as gay (9.6%), lesbian (4.7%), or bisexual (4.9%) and were referred to as "LB" Veterans (Mattocks et al., 2013). Thirty participants identified as asexual or celibate and were excluded from data analysis (Mattocks et al., 2013). Demographically, LB participants were less likely to be married and significantly less likely to have government-sponsored insurance, such as Medicaid, compared to heterosexual participants (Mattocks et al., 2013). Regarding mental health conditions, 50% of LB Veterans had a diagnosis of PTSD, anxiety, depression, or bipolar disorder compared to 35% of heterosexual participants (Mattocks et al., 2013). LB women were significantly more likely to have histories of MST and childhood sexual trauma, exhibit problematic drinking behaviors, be current smokers, and report worse current mental health than before they deployed compared to heterosexual women (Mattocks et al., 2013). No significant differences between participants were found for physical health issues post-deployment (Mattocks et al., 2013). Regarding VA healthcare satisfaction, no significant differences existed between the two groups although LB participants were significantly more likely to use VA health care services than heterosexual participants (Mattocks et al., 2013). Findings from this study highlight mental health and substance use disparities between lesbian and bisexual and heterosexual female Veterans. The increased risk of victimization experienced by lesbian and bisexual female Veterans likely contribute to such disparities. One of the limitations of this study was exclusion of those who identified as asexual or celibate. Celibacy does not equate to not having a sexual preference and both asexual and celibate individuals can

experience MST and other trauma, have mental and physical health issues, and can provide information on their use of and satisfaction in their VA care. By not including these individuals in analysis, valuable information on a minority group was not captured.

Utilizing archival data from 2000 to 2013, Lindsay et al. (2016) examined the relationship between MST and mental health conditions amongst transgender OEF/OIF Veterans treated within VHA (n = 332). Approximately 15% of their sample had positive MST screens, with almost 1 in 5 transgender men and 1 in 7 transgender women reporting MST (Lindsay et al., 2016). The authors found that MST was significantly associated with a mental health diagnosis, with transgender men significantly more likely to be diagnosed with PTSD and a personality disorder, and transgender women significantly more likely to be diagnosed with PTSD, depression, bipolar disorder, and a personality disorder (Lindsay et al., 2016). Overall, depression, anxiety, and PTSD were the most common mental health conditions among the sample (Lindsay et al., 2016). Additionally, transgender men with reported MST were found to be significantly more likely to be a racial minority (Lindsay et al., 2016). Such findings highlight the important and crucial need for more studies with transgender Veterans with MST histories to examine potential differences in consequences associated with MST amongst this population, risk factors, and to aid in informing best treatment practices.

A brief overview of the military's stance on LGBT individuals serving in the armed forces can be helpful in having a very rudimentary understanding of the stress and fear these Veterans have endured. In 1994, the "Don't Ask, Don't Tell" (DADT, 1993) policy was instituted that allowed lesbian, gay, and bisexual (LGB) individuals to serve in the military but prohibited them from being open about their sexual orientation. Should such information be discovered, individuals faced real threat and likelihood of discharge from the service (DADT,

1993). In 2011, the DADT was repealed, ushering in a new period of anti-discrimination protection against LGB service members (Don't Ask, Don't Tell Repeal Act of 2010).

However, although DADT was repealed, transgender individuals continued to be banned from serving openly in the military and could be medically discharged if their status was known (Gates & Herman, 2014). In June 2016, the Defense Secretary of the Pentagon announced that the ban on transgender individuals openly serving had been overturned. However, in 2017, the Trump-Pence Administration began taking steps to reinstate the transgender ban. In March 2019, such steps resulted in the implementation of Directive-type Memorandum-19-004 – Military Service by Transgender Persons and Persons with Gender Dysphoria (DTM-19-004), which requires that any person who receives a diagnosis of gender dysphoria after April 2019 must serve according to their sex assigned at birth and such individuals are prohibited from receiving transition-related healthcare. Additionally, any potential military recruit with a diagnosis of gender dysphoria is banned from enlisting (Palm Center, 2019).

Although the military has and continues to be fraught with discrimination against LGBT individuals, such individuals continue to serve in all capacities and in every branch of service (Gates & Herman, 2014; Meadows et al., 2018). Such discrimination can not only impact the overall health of individuals currently serving but can continue to have a detrimental impact once they are separated from the military. Having to stifle one's true identity for fear of being discharged from the service, fear of retaliation, and fear of victimization can have an adverse impact on one's mental health (Lindsay et al., 2016). Fear of stigma or fear of losing health benefits can create barriers for LGBT individuals with MST histories from seeking needed healthcare services (Sherman, Kauth, Shipherd, & Street, 2014). Given the stigma LGBT individuals face and that sexual violence and harassment are grossly underreported, such

Veterans may present with mental and/or physical consequences that have never been addressed previously. Along with treatment for mental health concerns, LGBT Veterans may also need to be referred to medical or other providers to address additional issues related to their MST histories. Individuals who do engage in treatment may also present with histories of multiple traumas given the increased risk of victimization within the LGBT population. Recognizing and understanding the unique factors that can affect LGBT Veterans is important and can help in addressing potential barriers to services. Clinicians should also be familiar with best practice guidelines for working with this population. Unfortunately, there are no known studies at this time specifically examining MST amongst gay men. Not only is broad research on MST and LGBT individuals needed, but also more focused research within this population.

Implications for Clinical Practice to Aid in Reducing Barriers to Reporting MST

Understandably, MST is often grossly underreported (DoD, 2019; Morral et al., 2018). Factors such as shame, stigma, fear, mistrust, and negative reactions from others can make it incredibly difficult for survivors to share their experiences (Mengeling et al., 2014; Morral et al., 2015). Given the likelihood that those who experienced this type of trauma may have felt extremely betrayed by those they trusted, and at times by individuals in positions of authority, it is understandable that disclosing such an experience can be especially challenging (Smith & Freyd, 2013; Wolff & Mills, 2016). Such difficulty can be even further understood when taking into account that sexual assault is the most under-reported violent crime in the U.S. (Bureau of Justice Statistics, 2019). We know from the research how important the therapeutic relationship is (Norcross & Lambert, 2018). Creating a safe and trusting environment is always crucial and becomes paramount when working with MST survivors (Bell & Reardon, 2011; Norcross & Lambert, 2018). Depending on the setting one is practicing in, a clinician may know from the

onset that a Veteran has experienced MST. Such initial knowledge is common for example in VA PTSD Clinics where individuals are referred for such specialty care. However, there are other times where such information may be learned after a clinician has been working with a Veteran for a period of time. Fostering an accepting, supportive, and nonjudgmental environment can encourage disclosure of MST (Bell & Reardon, 2011). Such a stance from the clinician, especially after MST is disclosed, can also provide a reparative experience if a Veteran has previously experienced negative reactions from either other providers or individuals in their lives who they had confided in. Providing accurate information on MST including known prevalence, associated consequences, and effective treatment options can also aid in open discussion and validation of the Veteran's experience. Such information can also instill hope that the Veteran can attain symptom improvement and increased quality of life. While providing such psychoeducation can be helpful for all MST survivors, it may be particularly helpful for men given stereotypes and male rape myths that may make male MST survivors feel isolated with their MST experience (O'Brien et al., 2015). The clinician should be aware that mistrust of the military and other government-related entities, such as VA, related to potential feelings of betrayal can also be a barrier to disclosure (Smith & Freyd, 2013). Such understanding by the clinician can facilitate meaningful conversations that can normalize a Veteran's experience and provide the opportunity to establish trust between clinician and patient.

Confounding Factors to Diagnosis and Treatment

In an ideal setting, a clinician would assess for and render an accurate diagnosis and the patient would engage in appropriate and effective treatment. However, unique patient characteristics, treatment setting, insurance stipulations, and other factors can make proper diagnosis and treatment complicated. As has been discussed, MST can result in a variety of

consequences and comorbidity is common (Cichowski et al., 2017; Goldstein et al., 2017; Hoggatt et al., 2015; Pandey et al., 2018; Sexton et al., 2017). In turn, teasing out an accurate diagnosis can at times be challenging, especially when an individual presents with numerous and severe symptomatology. Clinical interview, assessment measures, review of medical record data, consultation with other treating providers, and collateral information are all sources of data that can be utilized to aid in conceptualization and diagnosis. Unfortunately, not all these sources of data may be available. Additionally, depending on the treatment setting, unique factors may be at play that can further complicate diagnosis and treatment delivery.

Service connected disability benefits. Within VA, individuals who developed a medical or mental health condition while serving, who had a pre-existing condition that was exacerbated by military service, or who develop such a condition after separation from the military that is considered secondary to their time in service may qualify for what is referred to as service connected disability (Veterans Benefits Administration, 2019). In turn, these individuals receive monthly, tax-free financial compensation, and any medical or mental health care related to the condition is financially taken care of by VA (Veterans Benefits Administration, 2019). Because of such secondary gains related to service connection, the possibility exists for over-exaggeration or malingering of symptoms to receive certain diagnoses, such as PTSD (Ali, Jabeen, & Alam, 2015). Within VA, PTSD is a commonly sought-after service connected disability and the financial compensation can be quite significant (Veterans Benefits Administration, 2020). As such, thorough assessment utilizing current best practices is very important not only to determine accurate diagnosis, but to also provide appropriate treatment and recommendations. If it is determined that a patient is exaggerating or malingering symptomatology, attempting to understand the motivation behind such behavior can also be beneficial. Oftentimes, the

individual is experiencing legitimate distress and possibly other psychosocial stressors that may require treatment or referrals to other appropriate services, such as housing or financial assistance.

Periodically, service connection disability benefits are reviewed by VA and this can understandably make Veterans nervous (Veterans Benefits Administration, 2019). Fear of losing monthly depended upon income from service connection may contribute to potential reluctance to make treatment gains. Such reluctance may be conscious or unconscious. Financial responsibilities and burdens, family pressure, needed services, and other factors can contribute to a strong desire to maintain such service connection. A Veteran may believe that if, for example, their PTSD resolves, they will lose their PTSD service connection. It is important for a clinician to be mindful of such a possibility, and to have open and honest discussions with patients about such fears should they present. It is also beneficial for clinicians working within VA to have a basic understanding of how service connection works in order to provide accurate information to Veterans.

Treatment appropriateness. With the number of available treatment options, determining the best course of action can appear challenging and at times may feel overwhelming. One would be hard-pressed to find a clinician who did not want to provide the best treatment possible to their patient. While clinical judgment is a valuable factor, fostering a patient's self-efficacy is also important. As such, treatment preference and engagement should be a collaborative approach between clinician and patient. The patient should be provided with information on available treatment options in order to make an informed decision. A great benefit of evidence-based trauma-focused treatments shown to be effective in treating MST-related PTSD is that regardless of which treatment is provided, the patient is likely to garner

marked benefit and experience a reduction in symptomatology. A clinician who finds themselves in a situation where they believe one treatment may be more beneficial but their patient has chosen another will hopefully find comfort in the knowledge that either will likely be effective. Ultimately, the decision of which treatment to engage in should be the patient's. The three current gold standard, evidence-based trauma-focused treatments are recommended for a variety of traumas with various populations (Foa et al., 2019; Resick et al., 2017; Shapiro, 2018; VA/DoD, 2017). However, they do advise that those who are currently experiencing psychosis or unmedicated mania, have active and uncontrolled substance use, are imminent dangers to themselves or others, or at high risk of experiencing violence, such as domestic violence, should first address these issues and become more stable or be removed from the dangerous situation before engaging in any of these treatments (Foa et al., 2019; Resick et al., 2017; Shapiro, 2018). Unfortunately, many MST survivors experience these additional co-morbid challenges (Averill et al., 2019; Cichowski et al., 2017; Holliday et al., 2018; Kimerling et al., 2016; Sexton et al., 2017; Teeters et al., 2017). Such co-morbidity adds to the complexity of the MST survivor and in how to best provide appropriate care. A benefit of working in an integrated healthcare system, such as VA, is that a Veteran can be engaged in simultaneous care to address a variety of problems they may be experiencing which can aid in increasing stability and providing additional support. In private practice or other settings in which resources may be limited, it may be particularly challenging to provide appropriate and/or comprehensive care when additional issues such as active substance abuse, mental health symptoms, or intimate partner violence is also occurring. In such circumstances, following recommendations of first addressing psychiatric stability, substance use, and safety risks is encouraged prior to initiating evidence-based trauma-focused treatment.

Confidentiality and Ethical Implications

Respecting and maintaining patient confidentiality is a pillar of the mental health profession. The incredibly sensitive and personal nature of MST can often make patients even more concerned about their privacy being upheld, especially depending on the context of the environment they are receiving care in. Within the VA system, as well as other possible settings, the computerized patient record system allows many individuals access to a Veteran's treatment and diagnostic information. While only individuals who are providing care to a patient should be accessing their medical record, various disciplines and providers can still learn of a Veteran's MST status in the process of doing their job. When a Veteran reports MST and the MST screener is completed with an affirmative response, a selection box becomes activated in their medical record so that providers can indicate when an encounter with the Veteran is MST-related. Such indication is important so that a Veteran is not charged for a service that is related to their MST history. However, this selection option is available regardless of what provider is accessing the Veteran's record given that MST-related care does not just constitute mental health care (Veterans' Benefits, 2011). As such, it is important that VA clinicians have a conversation with Veterans informing them of this encounter information option and explaining the rationale, benefits, and potential implications to their confidentiality. A Veteran has the right to decline to answer affirmatively to the two-item screener. If a Veteran declines to answer, then the clinical reminder will become due again in a year's time frame. It is important that a clinician not select "no" to either or both items of the screener if a Veteran declines to answer or has a known history of MST. Instead, the "Decline" option should be selected along with informing the Veteran that they will again be asked these questions in a year. Clinicians working within the VA system should be aware that the DoD has access to Veterans' health records. Vet Centers,

however, do not share health records with the DoD. If a Veteran is for any reason concerned about the DoD having access to their medical record, specifically related to them garnering MST treatment, seeking such treatment at a Vet Center can be an option to explore.

Reporting and safety considerations. Mental health professionals are mandated reporters of abuse and neglect (The Public Health and Welfare, 2017). Such requirements apply to abuse or neglect of children, the elderly, and individuals with intellectual disabilities (The Public Health and Welfare, 2017). When it comes to reporting sexual assault or harassment of an adult not falling into one of the aforementioned categories, that is outside the purview of a clinician. However, a clinician may work with a Veteran whose assailant is still known to them or in some way is still a part of their life. MST does not have to be committed by a fellow service member, although that is often the case (Veterans' Benefits, 2011). In such circumstances, it is imperative that the clinician assess for risk and if the perpetrator may have access to vulnerable individuals or is believed to still be victimizing others (The Public Health and Welfare, 2017). If a clinician determines that abuse or neglect is or may be taking place, then they may be required to make an official report as required by the state they are practicing in. A clinician may also work with a Veteran who is interested in pursuing legal action against their perpetrator(s). While a clinician's role is not to offer legal advice, they can work with the client to process the client's thoughts and feelings and explore potential options. However, oftentimes legal recourse is not a feasible option given the amount of time that has passed since the MST occurred. Assessing the client's safety in relation to behaviors they may be engaging in is also crucial. Problematic drinking, risky sexual behavior, financial recklessness, and other activities that can put the client at increased physical or other risk is not uncommon as a response to trauma (APA, 2013). It is the responsibility of the clinician to not only assess for such behaviors, but to also sensitively and

empathically express concern and work with the client to explore such behaviors and their potential consequences. In such circumstances, helping the client to build and utilize effective coping strategies can be quite beneficial. Providing psychoeducation and normalizing the client's behavior as it relates to their trauma history can also be helpful and increase client insight.

Given the unique difficulties MST survivors may face, such as increased risk of suicide, mental and physical health co-morbidities, and higher dropout rates in treatment, providers are encouraged to be thoughtful when providing care to this population. Those struggling with the consequences of MST may also face additional challenges related to their gender identity or sexual orientation. All of these intersecting factors are essential considerations when working with and providing care to survivors. In addition to a complex clinical picture, awareness of the numerous barriers to reporting and seeking services for MST is important. It is encouraged that clinicians engage in efforts to reduce such barriers whenever possible. Working to create a strong therapeutic alliance that can foster the recovery process is also strongly encouraged.

CHAPTER V: DISCUSSION

Summary

Although the biggest barrier to accurate prevalence data is the reliance on self-report, it is known that among Veterans receiving care in VA, approximately 1 in 3 women and 1 in 50 men have experienced MST (Department of Veterans Affairs, 2020a). Because men make up a significantly larger proportion of service members, the numbers of men and women who experience MST are quite similar, with almost half of MST survivors being men (Kimerling et al., 2016; Smith et al., 2018). MST is associated with numerous mental and physical health consequences. PTSD is one of the most common mental health diagnoses that can develop, with MST being more likely to result in PTSD compared to other types of trauma (Dutra et al., 2010; Lutwak & Dill, 2013; Maguen et al., 2010). Mood disturbance, substance use, interpersonal difficulties, and an increased risk of suicide are also associated with MST (Department of Veterans Affairs, 2019c; Goldstein et al., 2017; Kimerling et al., 2016; Krupnick, et al., 2016; Sexton et al., 2017; Teeters et al., 2017). Evidence-based trauma-focused treatment is considered the first-line treatment for MST-related PTSD (Department of Veterans Affairs, 2019e; VA/DoD, 2017). Currently, CPT, PE, and EMDR are considered the gold standard trauma treatments within VA (VA/DoD, 2017). While each take a different approach, they all work to help the Veteran successfully process their traumatic experience(s), decrease distress associated with the trauma, and improve overall quality of life (Foa et al., 2019; Resick et al., 2017; Shapiro, 2018). Other evidence-based approaches have shown promise in effectively alleviating symptoms associated with MST and additional research into these treatments is warranted (Krupnick et al., 2016; Loucks et al., 2019; Stephenson et al., 2017; Weiss et al., 2018). Clinicians are reminded that regardless of specific treatment approach or theoretical orientation,

it is imperative to not lose sight of how important the therapeutic relationship is (Norcross & Lambert, 2018). Given the sensitive and painful nature of trauma, fostering a working alliance with a patient that is supportive, empathic, respectful, and non-judgmental is essential (Norcross & Lambert, 2018). It is not uncommon for individuals not to be forthcoming regarding MST unless asked directly. Creating a safe and supportive environment can facilitate discussion and exploration of this delicate area and help reduce potential fears of disclosing.

Although efforts have and continue to be made to increase access to resources and services to report MST and receive treatment for such trauma, it is clear based on the research that more work is still needed. Barriers to disclosing, such as fear of retaliation, being outranked by their assailant, and lack of access to appropriate resources remain very real (Mengeling et al., 2014; Morral et al., 2015). Promisingly, there continues to be a strong push for more research and action to be taken to address and put a stop to MST. Both the media and increased awareness have shed more light on this longstanding issue and are helping drive forces to prevent, intervene, and treat this terrible occurrence. VA has also taken considerable steps in trying to address and treat this issue that include having a MST Coordinator in every VA health care system, having MST-related services at every VA medical center, asking every Veteran if they have experienced MST, providing free treatment for any physical or mental health conditions related to MST, and having nationwide inpatient and residential facilities that offer specialized sexual trauma treatment (Department of Veterans Affairs, 2018a).

For clinicians working with trauma survivors, additional training in evidence-based trauma-focused treatment is strongly encouraged (American Psychological Association, 2017; CPT, 2020; Department of Veterans Affairs, 2019f; Department of Veterans Affairs, 2020c; Shapiro, 2018). Those clinicians working within VA have the opportunity to become VA-

certified in CPT, PE, and EMDR by attending formal trainings (Department of Veterans Affairs, 2019f). Clinicians working outside of VA are still able to attend formal trainings with more information about training availability often provided on each treatment's official website (CPT, 2020; Department of Veterans Affairs, 2020c; EMDR International Association, 2020). Along with providing appropriate care that has been found to be effective in treating the consequences of MST, understanding the intersectionality of a survivor's identity can aid in treatment delivery and outcomes. Cultural, diversity, military, and individual factors all impact a survivor's recovery (Bell & Reardon, 2011; Department of Veterans Affairs, 2015). It is important moving forward that a focus be placed on identifying, engaging, and retaining MST survivors in treatment. While progress has and continues to be made in reducing the stigma surrounding mental health, unfortunately stigma still remains. When sexual assault and military culture are factored in, stigma and reluctance to seek treatment can present an even larger barrier. As screening measures become more sophisticated, stigma is reduced, and perpetrators are held more accountable, it is likely we will see an increase in both prevalence data and treatment engagement from survivors.

Limitations

The primary limitation of this clinical research project was the reliance on existing research data to garner information and form hypotheses. The field has made considerable progress over the years with studying the detrimental effects of MST, risk factors associated with experiencing MST, and more recently exploring the most efficacious treatment options to reduce symptomatology as a result of MST. However, much work is still to be done. One of the biggest limitations to MST research is the reliance on self-disclosure of the MST experience which is often underreported (DoD, 2019; Morral et al., 2018). As such, research is in part constrained by

the data we currently have as well as current hypotheses about factors related to MST based on such available information. Understandably so, much of the current research on MST has been conducted with Veterans within the VHA system. However, less than half of all Veterans receive care through VA (Department of Veterans Affairs, 2019g). Given income and eligibility requirements of VA, there may be important differences not being captured in the literature between Veterans who do and do not receive VA healthcare. Another salient limitation is common exclusion criteria in evidence-based treatment research. Often, individuals with prominent suicidal ideation, active substance use, current involvement in an abusive relationship, and psychosis or other serious mental illness are excluded from such studies (Foa et al., 2019; Resick et al., 2017; Shapiro, 2018). While such exclusion criteria are understandable in the context of trying to control for extraneous variables, we know that these very issues are common amongst MST survivors (Cichowski et al., 2017; Kimerling et al., 2016; Sexton et al., 2017). By not including such individuals, a wealth of information is likely not being captured in the current body of knowledge. Additionally, this paper focused primarily on treatment of MST-related PTSD. Although MST is significantly associated with the development of PTSD (Cichowski et al., 2017; Dutra et al., 2010; Maguen et al., 2010), as has been discussed, numerous other conditions can develop and should not be discounted (Department of Veterans Affairs, 2019c; Goldstein et al., 2017; Kimerling et al., 2016; Sexton et al., 2017). Furthermore, racial, gender, and sexual orientation diversity is still markedly lacking among studies examining MST. The research we do have has shown that racial and sexual minorities tend to be at an increased risk of experiencing MST (Lindsay et al., 2016; Mattocks et al., 2013). Such individuals may suffer even more severe consequences as a result of the interplay of additional risk factors that may heighten the likelihood for them to experience discrimination and other forms of victimization.

Suggestions for Future Research and Recommendations

A number of suggestions for future research and recommendations are offered. First and foremost, more research specifically on MST is needed. While over the years the body of literature on this type of trauma has increased, a great deal more is needed on the consequences of MST, validated treatment approaches, and clinical implications for working with this population. Because of the reliance on self-report for accurate prevalence data and because MST is so often underreported, research on and suggestions for ways to reduce barriers to reporting would be very beneficial. Although understandable that most research on MST has been conducted with Veterans receiving care within VA, given that less than half of the Veteran population receives VA care, more research with MST survivors outside of VA would enhance the current research body. With the VHA being the largest integrated health care system in the U.S. (VHA, 2020), Veteran MST survivors receiving VA care have access to a variety of health care resources. Survivors receiving care outside of VA may have less access to such comprehensive services. Additional research with Veteran MST survivors who do not use VA to explore potential differences compared to those who do would be beneficial, as well as research examining potential treatment barriers for non-VA users. Along similar lines, incorporation of more diversity factors within studies of MST survivors is strongly encouraged. Such diversity characteristics include, but are not limited to, racial, ethnic, gender identity and sexual orientation, socioeconomic status, religious affiliation, and ability status. Almost half of all MST survivors are men (Kimerling et al., 2016; Smith et al., 2018), yet most research on MST focuses exclusively on women. More studies specifically with male MST survivors are needed. Additionally, continuing to examine barriers to reporting MST that may be unique to men will be helpful in identifying strategies not only to aid in increasing disclosure but also in providing

needed services to these individuals. Further studies specifically examining ways to reduce shame and stigma associated with MST can also help to reduce disclosure and treatment barriers. As mentioned, including MST survivors with more serious comorbidities, such as active substance use, serious mental illness, personality disorders, and active or recent suicidal ideation is needed given how common these issues are for this population (Cichowski et al., 2017; Kimerling et al., 2016; Sexton et al., 2017). Research has shown that despite engagement in evidence-based treatment, it is not uncommon for distressing symptoms to remain following treatment completion (Mullen et al., 2014; Rauch et al., 2009; Stanbury et al., 2020). Such persistence in symptomatology provides additional support of the need for further research into alternative, adjunctive, or possible modifications to established treatment modalities for use in treating MST-related PTSD. Research on practical strategies and implications for clinicians working with MST survivors is also encouraged. Given the unique interplay of various cultural and psychosocial factors for this population, having guidance on effective interventions for working with this population will not only aid Veterans who are receiving care, but will hopefully increase competency and confidence amongst clinicians working with these individuals.

While it is clear that experiences of MST can create broad and lasting impacts across numerous areas of a person's life, we may be able to take hope in knowing that recovery is possible. A variety of evidence-based treatment options and resources to support MST survivors are available and daily efforts are being made to provide care to these individuals. Although much work is still to be done, continued national efforts are being made to address and put a stop to MST. On-going efforts to raise awareness, demand justice, and improve policy leave us with a hope for a cultural shift both within and outside the military: a hope that the term "MST" will

one day represent a painful legacy rather than an on-going battle for the safety of our service members.

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