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# Exploration of Rape Myths Among Former Military Professionals

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A dissertation

presented to

the faculty of the Department of Public Health

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Public Health, concentration in Community and Behavioral Health

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by

Gabrielle N. Caldara

May 2018

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Dr. Deborah Slawson, Chair

Dr. Robert Pack

Dr. Megan Quinn

Keywords: rape myths, military, veterans, sexual violence

## ABSTRACT

### Exploration of Rape Myths Among Former Military Professionals

by

Gabrielle N. Caldara

Sexual violence is sometimes considered a taboo topic for discussion, but it gained widespread attention in the media in late 2017 due to the social movements addressing the sexual assault of women. However, sexual violence perpetrated against men lacks publicity in America, and highlights a similar situation in the Armed Forces. A discussion of sexually violent acts committed against men is sometimes impeded by cultural norms. This discrepancy associated with civilian and military communities inspired this exploratory study.

A convenience sample of 520 former American military professionals completed an anonymous online survey to describe their attitudes and beliefs regarding rape myths. The survey included basic demographics followed by 20 questions with dichotomous responses addressing male and female rape myths, empathy, belief in a just world and gender attitudes. Responses to each question were analyzed, followed by composite scoring for rape myths, empathy and gender attitude questions. Bivariate correlation analysis was performed to examine significant relationships. Ordinal and bivariate logistic regressions were completed to predict adherence to male rape myths.

The exploratory nature of the survey provided a glimpse of veterans' views and indicated the majority, 317 (61.1%) of veterans did not adhere to any of the listed male

rape myths, and 311 (59.6%) of veterans did not agree with the female rape myths. The ordinal logistic regression model predicted that empathy for male survivors and disagreement with some patriarchal gender attitudes were significantly associated with decreased acceptance of male rape myths in the sample of veterans. Significant predictors of male rape myths in the bivariate logistic regression model included increased empathy (Exp(B) = 6.373, CI [2.740, 14.822]), agreement with patriarchal gender attitudes (Exp(B) = 5.598, CI [2.059, 15.219]), and adherence to female rape myths (Exp(B) = 1.969, CI [.993, 3.904]).

These results emphasized popular misinformation, and the need for education and awareness surrounding rape myths. Strategic suggestions for the military community were aimed at prevention, education, and policy changes. Despite the challenging environment, the topic of sexual violence perpetrated against males is a relevant issue affecting humanity.

## DEDICATION

To the Service Members of America...All gave some, some gave all.

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## GLOSSARY OF TERMS

ACE - Adverse Childhood Experience

DoD - Department of Defense

MST - Military Sexual Trauma

NCVS - National Crime Victimization Survey

RAINN - Rape, Abuse, Incest National Network

SAPRO - Sexual Assault and Prevention Response Office

SM - Service Member

## CHAPTER 1

### INTRODUCTION

Acts of sexual violence are committed every hour of every day in America, irrespective of age, race, gender, socioeconomic status, or background. Acts of sexual violence committed by perpetrators can include rape or sodomy. Rape is the least reported of all violent crimes, and when rape is reported, less than 10% of the cases result in criminal charges against a perpetrator (Alderden & Ullman, 2012; Rand, 2009). Studies have indicated that 25% of women and 16% of men have been sexually abused as children, while 62% of the perpetrators have been men, and 38% have been women (Dube et al., 2005). As a child progresses to adolescence and adulthood the chances of experiencing sexual violence continue whether it as a freshman in college, or a new recruit in a military setting. At United States military academies 5% of women and 2.4% of men have reported rapes (Snyder, Fisher, Scherer, & Daigle, 2012).

There is a web of contributors that lead perpetrators to commit acts of sexual violence in the civilian sector and within the military. Sexual violence directed against girls and women is addressed in the media and in educational venues, especially with the popularity of the #MeToo movement, however, acts of sexual violence committed against boys and men frequently are perceived as taboo (Easton, 2013; Easton, Saltzman, & Willis, 2014, Javaid, 2015). Cultural norms, gender attitudes, and rape myths function as mechanisms to hide the reality of sexual violence directed against males. The masculine environment of the military condenses many of the

characteristics that define manhood, such as toughness, competitiveness, and courage, into a daily way of life (Rosen & Martin, 1998; Bell, Turchik, & Karpenko, 2014).

This exploratory study examined the prevalence of rape myths and gender attitudes of former military professionals to identify current beliefs. This examination was a means to raise awareness and uncover ways to dispel rape myths commonplace in a military culture. Male sexual violence is inconspicuous and sometimes ignored due to the persistence of male rape myths (Kassing, Beesley, & Frey, 2015). This perpetuates a cycle of denial, shame, stigma, and long-term health consequences facing male sexual violence survivors (Brignone et al., 2016; Schry et al., 2015; Turchik & Edwards, 2012).

This chapter begins with a definition of terms followed by sexual violence statistics, the role of the military environment, sexual education in America, and commonly held rape myths. The personal interest of the researcher is stated, and the chapter concludes with a discussion of the purpose and significance of the study to current and former Service Members.

### Definition of Terms

The following definitions are provided to clarify the use of specific terms utilized in this study.

#### Active Duty

Full-time duty in a branch of the Armed Forces consisting of Army, Navy, Air Force, Marines, and Coast Guard. Duty availability consists of 7 days a week, with the exclusion of leave (vacation) or pass (permitted rest time) (DoD Dictionary, 2017).

## Department of Defense (DoD)

Executive branch of the United States government that coordinates and supervises the United States Armed Forces (Hirsch, Kett, & Trefil, 2005). Service branches include Army, Navy, Air Force, Marines, and Coast Guard.

## Gender Attitudes

Social concepts about roles, traits, behaviors, and power associated with masculinity and femininity in a given culture (Ryle, 2011).

## "Just World"

The belief that people get what they deserve (Lerner, 1980). A belief in a "Just World" allows an "individual to confront his [or her] physical and social environment as though they were stable and orderly" (Lerner & Miller, 1978, p. 1030). A "Just World" view describes events in life as "deserved, so the world cannot be unjust" (Faccenda & Pantaleon, 2011, p. 506).

## Rape

"The penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim" (Uniform Crime Reporting - Federal Bureau of Investigation, 2013, para.1).

## Rape Myths

"Prejudicial, stereotyped or false beliefs about rape, rape victims, and rapists" (Burt, 1980, p. 217). These include, but are not limited, to the following myths: women incite men to rape, men can't be raped, you can tell a rapist by the way he/she looks, and only women and gay men get raped (Hamlin, 2005).

### Service Member (SM)

A member of the uniformed services that includes the Army, Navy, Air Force, Marine Corps, and Coast Guard. (U.S. Department of Veterans Affairs, 2016).

### Sexual Assault

"Sexual assault is any type of sexual contact or behavior that occurs without the explicit consent of the recipient. Falling under the definition of sexual assault are sexual activities as forced sexual intercourse, forcible sodomy, child molestation, incest, fondling, and attempted rape" (Department of Justice, 2017a, para. 2). The DoD Memorandum JTF-SAPR-006 (2004) defines sexual assault as "intentional sexual contact, characterized by use of force, physical threat or abuse of authority or when the victim does not or cannot consent" (para. 2). The Bureau of Justice Statistics (2017) separates rape or attempted rape from the definition of sexual assault.

### Sexual Violence

Sexual act(s) committed against someone without that person's freely given consent. This includes sodomy (anal or oral sex), forced masturbation of another person, and rape which can involve the use of verbal pressure (words), physical force (punching, restraining), threats, alcohol, drugs, or weapons, to obtain sex from a person against their will. An all-encompassing and non-legal term that includes childhood sexual abuse, rape, sexual assault, incest, intimate sexual partner violence, and elderly sexual abuse (Rape, Abuse & Incest National Network (RAINN), 2017a). Sexual violence can include forms of sexual assault, fondling and other inappropriate sexual acts.

## Veteran

"Veteran means a person who served in the active military, naval, or air service and who was discharged or released under conditions other than dishonorable" (Pensions, Bonuses, and Veterans' Relief, 2017, para. d.). Referred to as a former military professional or former Service Member (SM).

## Victim Blaming

"Victim blaming is a devaluing act where the victim of a crime is held as wholly or partially responsible for the wrongful conduct committed against them. Victim blaming can appear in the form of negative social reactions from legal, medical, and mental health professionals, as well as from the media and immediate family members and other acquaintances" (USLegal, 2016, para. 1).

## Terminology

There are differences in the definition of sexual assault. The definition listed by the Bureau of Justice Statistics (2017) describes sexual assault as, "A wide range of victimizations, *separate from rape or attempted rape*. These crimes include attacks or attempted attacks generally involving unwanted sexual contact between victim and offender. Sexual assaults may or may not involve force and include such things as grabbing or fondling. Sexual assault also includes verbal threats" (para. 3). Due to variations in the understanding of sexual assault, the use of the term sexual violence has been used in this survey to encompass sexual assault, rape, fondling, threats and other inappropriate sexual acts between a victim and a perpetrator.

## Sexual Violence Statistics

Research conducted by the Centers for Disease Control and Prevention (CDC) estimates that approximately 1 in 6 boys and 1 in 4 girls are sexually abused before the age of 18 (American Psychological Association, 2016). CDC results from the National Intimate Partner and Sexual Violence Survey (NISVS) in 2011 found that adult men and women had a similar prevalence of nonconsensual sex in the previous year (1.267 million men and 1.270 million women). Male survivors of sexual violence are frequently overlooked when discussing sexual violence within the United States and the military (Stander & Thomsen, 2016).

The Department of Defense (DoD) Sexual Assault Prevention and Response Office (SAPRO) was created in 2005 in response to several Congressional hearings and is responsible for DoD wide sexual violence reporting. SAPRO reported 6,172 cases of sexual assault involving Service Members as either victims or subjects of criminal investigations during the fiscal year (FY) 2016; a 1.5% increase from FY 2015 (DoD SAPRO, 2017). Of the 6,172 reports of sexual assault, 5,350 involved Service Member victims (DoD SAPRO, 2017). Service Members who reported experiencing a sexual assault in FY 2015 were composed of 4.3% of active duty women and 0.6% of active duty men, in comparison to FY 2014 reports indicating 4.9% of military women and 0.9% of military men experienced sexual assault (DoD SAPRO, 2017). Although the rate of sexual violence reported by male military survivors is significantly lower than the rate of sexual violence reported by female military survivors, the number of survivors is similar for both genders within the military due to a population of approximately 85% males in the Armed Forces (DoD SAPRO, 2017; Stemple & Meyer, 2014). The DoD

SAPRO (2017) reported "of the 20,300 estimated victims of sexual assault in 2014, 10,600 were men and 9,600 were women" based on the 2014 RAND Military Workplace Survey (p. 26). The DoD estimates the number of SMs that have experienced some type of sexual assault in 2016 hovers around 14,900, a decrease from earlier reports (DoD SAPRO, 2017). However, under-reporting for men and women is common, and male military survivors are less likely to discuss or report their experiences with sexual violence which leads to further under-reporting (DoD SAPRO, 2017).

### Sexual Education in America

Sexual education may be influential in understanding sexual violence in America. Examining the broader scope of sexual education in America depicts a country that places the responsibility for teaching sexual education in the hands of school educators. This effort spearheaded by schools may play a limited role depending on the particular school district and location within the country. The CDC's School Health Policies and Practice Study (2013) showed that 71% of high school districts adopted a policy stating that schools will teach human sexuality. These school districts are required to have the teaching staff provide 6.2 hours of instruction on human sexuality, while a teenager is in the four years of high school (CDC SHPPS, 2014). The lack of sexual education that may be occurring in American schools creates a deficit that may then be filled by peers, entertainment venues, and the media. One study showed that teenagers (13 - 15 year olds) ranked entertainment media as their top source for information on sexuality and sexual health (Kaiser Family Foundation, 2001). Research has shown that children receive most of their information about sexual assault from the media, with television and the internet ranking the highest, while the lowest ranked source of information was

school with slightly more reports of family and peers as resources (Katz-Schiavone, Levenson, & Ackerman, 2008). Young Americans may not be receiving the proper education to understand the fallacies of rape myths applicable to men and women, or the attributes of a healthy sexual relationship that can help to prevent sexual violence. Acceptance of male rape myths have been shown to be negatively correlated with college education levels (Kassing et al., 2005).

### Rape Myths

Rape myths promote false information that is often perceived as factual, leading to the magnification of inaccuracies surrounding sexually violent situations that are fraught with miscommunication and devastating side effects. Common rape myths include: "if a victim of sexual assault does not fight back, they must have thought the assault was not that bad or they wanted it," and "rape does not happen that often" (Rape Victims Advocates, 2017, para. 3 & 7). There are people who believe sexual trauma is applicable to only women, and this may dissuade questions and discussions surrounding the topic of male sexual violence (Katz, Cojucar, Behesthi, Nakamura, & Murray, 2012). Rape myths hinder the effectiveness and support of family, friends, law enforcement personnel, medical providers, the judicial system, and society. Studies have shown that negative attitudes toward men and women are often mediated by the relationship that exists between traditional masculine ideologies, rape myths, and adherence to patriarchal gender attitudes that can encourage rape myth acceptance (Davies, Gilston, & Rogers, 2012; Lutz-Zois, Moler, & Brown, 2015). The United States Armed Forces are masculine environments that encourage physically and mentally strong SMs. Some of these traditional male ideologies may stymie treatment seeking

behaviors and unknowingly promote male rape myths (O'Brien, Keith, & Shoemaker, 2015).

### Military Environment

Barriers in the military often prevent personnel from seeking mental health care for a variety of reasons that are clouded in social stigma, military norms, and sometimes workplace conditions (Yamawaki, Kelly, Dresden, Busath, & Riley, 2016). The military is both a living and working environment, especially during field operations or a deployment. Due to these conditions, some SMs that have experienced Military Sexual Trauma (MST) continue to remain in close proximity to perpetrators without feeling as if they can escape, and this can be more problematic when rank and authority status are manipulated by the perpetrator (Allard, Nunnink, Gregory, Klest, & Platt, 2011; Stander & Thomsen, 2016). Some SMs may feel a greater sense of betrayal after an assault by a fellow SM, which destroys the sense of camaraderie (Stander & Thomsen, 2016). Others do not feel comfortable spontaneously disclosing current or past information regarding sexual trauma to a health care professional (Katz et al., 2012). The stigma associated with accessing mental health services has been reflected in SM's concerns such as a decrease in confidence by peers, a difference in treatment by leaders, appearance of being weak, and negative impacts on career progression (Hernandez, Bedrick, & Parshall, 2014; Gibbs, Rae Olmsted, Brown, & Clinton-Sherrod, 2011; Mittal et al., 2013).

Common stereotypes of sexual violence survivors, especially male survivors, include such self-identified labels of shame, guilt and blame (Mondragon et al., 2015). Fear of mental health treatment for sexual violence victimization may be supported by

rape myths, gender attitudes, and perceptions of male sexual violence (Turchik et al., 2013). Military and veteran cultural stigma may further deter treatment seeking behaviors during and after military service (Turchik & Edwards, 2012). These features highlight the importance of customized awareness training and education to dispel commonly held rape myths that are inhibiting healing and the health of SMs.

### Personal Interest

In a society that is striving towards gender equality, it is paramount to ensure that men and women are both granted the facts, the understanding, and the treatment options necessary to counter the impacts of sexual violence, regardless if the perpetration occurred when the survivor was a child or an adult. Men may bear an even greater social stigma associated with sexual violence. For each person that knows the shame, grief, solitude, and fracture that exists after experiencing sexual violence, the hope is that exposing techniques to educate society on the facts of rape and sexual violence may be of help to survivors. In military communities that promote qualities of power and strength amongst its male and female SMs, there is a heightened need for education and reduction in social stigma concerning sexual violence directed against men. Programs for veteran and civilian communities are critically needed, also. Therapy may not be the intervention best suited for each survivor; but lessening of the shame, guilt and anger for the survivor, through awareness and education, should be a goal.

## Purpose

The significance of exploring adherence to rape myths and gender attitudes held by former SMs once immersed in a culture of power and protection of others, may provide previously unknown insights regarding views on sexual violence, protective factors, and potential policies to reduce male stigma associated with addressing the problem and seeking care for trauma. Sexual violence that occurs prior to military service or during the service period is frequently unaddressed and untreated (O'Brien et al., 2015). Exploring rape myth acceptance and gender attitudes held by veterans will seek to focus efforts on dispelling commonly accepted rape myths, decreasing knowledge barriers about sexual violence, and promoting care seeking behaviors for former and current SMs. By exploring the adherence to male rape myths, female rape myths, patriarchal gender attitudes, empathy, and belief in a "Just World" there is an opportunity to understand the views of former SMs. A long-term goal is to provide military professionals with a health risk reduction strategy that strives to assist them in preventing short and long-term health sequelae after any seriously traumatic event (Hoyt, Rielae, & Williams, 2011; O'Brien & Sher, 2013). Hence, the purpose of this work is to understand contemporary views on rape myths to help current and future veterans.

## Research Aims

This study explored the current views of veterans to determine support of male and female rape myths, and gender attitudes. Three domains addressing male rape myths, female rape myths, and patriarchal gender attitudes were investigated through survey responses. The aims of this research were:

## Research Aim 1

To explore the extent of support for rape myth beliefs and patriarchal gender attitudes among former military professionals that previously served on active duty.

Hypothesis 1. Veterans in this sample would agree with more male rape myths, in comparison to the support for female rape myths and patriarchal gender attitudes. Male participants would support more male rape myths than would female participants.

## Research Aim 2

To further examine significant associations between basic demographics and adherence to belief in a "Just World," empathy, patriarchal gender attitudes and adherence to rape myths in the community of military professionals no longer on active duty service.

Hypothesis 2a. Increased age and further education would serve as protective factors with a reduced adherence to male and female rape myths in this population.

Hypothesis 2b. Support of patriarchal gender attitudes would be positively associated with increased adherence to male and female rape myths.

Hypothesis 2c. Belief in a "Just World," whereby people get what they deserve, would be positively associated with an adherence to male and female rape myths.

Hypothesis 2d. Less empathy for male survivors would be positively associated with male and female rape myths. Female veterans would reflect higher empathy scores in comparison to their male counterparts.

Model. Generate a model to predict adherence to male rape myths based on generation (age), gender, rank, education, belief in a "Just World," empathy, agreement with patriarchal gender attitudes, and adherence to female rape myths.

### Research Aim 3

Provide policy recommendations and suggestions for former and current military SMs guided by the responses provided by veterans in the sample. Describe strategies for DoD and veteran organizations to raise awareness of the sexually violent crimes committed against men, prompt further initiatives to meet the needs of active duty SMs and veterans, and minimize negative stigma surrounding sexual violence and treatment seeking behaviors for all forms of trauma.

## CHAPTER 2

### LITERATURE REVIEW

#### Introduction

The purpose of this literature review is to provide an examination of the literature relevant to the understanding of sexual violence perpetrated against males and explore the major themes associated with age, gender differences, rape myths, civilian and military cultural norms, gender attitudes, and long-term health consequences. The chapter will begin with a discussion of adverse childhood experiences followed by the insidious role of rape myths in our society, and conclude with a discussion of treatment concerns.

A comprehensive review of the literature was performed using PubMed, ProQuest, PsycINFO, MEDLINE, EBSCO CINAHL, and NCBI. Key words for searching publications included: rape myths, sexual assault, sexual violence, veterans, military sexual trauma, men, boys, rape, gender attitudes, gender norms, Service Members, and military patriarchy. These words were combined to further explore literary options. Inclusion criteria consisted of: 1) English articles, 2) peer reviewed, and 3) publications within the last 15 years. Due to the historical nature of gender attitudes and theoretical frameworks some older sources were included as references.

#### Adverse Childhood Experiences

Adverse childhood experiences (ACEs) describe all types of abuse, neglect, and other traumatic experiences that occur to an individual under the age of 18 years old (CDC, 2017a). ACEs include physical abuse, sexual abuse and witnessing domestic

violence, and have been shown to increase the risks of long-term health consequences as indicated by reports of poor physical and mental health, high-risk behaviors, and early mortality in adulthood (Bellis et al., 2014; Felitti et al., 1998). Specifically, sexual abuse and verbal abuse are two ACE components that independently predict increased risk for smoking, risky HIV behavior, obesity, diabetes, coronary heart disease, depression, and disability caused by poor health (Campbell, Walker, & Egede, 2016). Research indicates that risks associated with ACEs appear to be mitigated by having the support of an adult throughout childhood, yet unfortunately sexual abuse is often perpetrated by a family member or friend (Bellis et al., 2017). Only about 10% of perpetrators of child sexual abuse are strangers to the child, while an estimated 60% of perpetrators are known to the child, such as friends, babysitters, or neighbors, and approximately 30% are family members (DoJ, 2017b). Preserving the family has been shown to be a reason that male children of sexual violence do not disclose the truth (Paine & Hansen, 2002). This abuse of trust from a caregiver in nearly 90% of the cases of childhood sexual abuse begins a cycle of mistrust at an early age. Frequently disclosure does not occur until adulthood, as it is a process that unfolds over the course of a life span (Easton, 2013; Sorsoli, Kia-Keating, & Grossman, 2008).

### Adult Sexual Violence

It is widely acknowledged that rape, sodomy, and sexual assaults of males and females are under-reported and consequently undercounted on surveys across America, with rape being considered the most under-reported crime (Kalsbeek & House, 2014; Rennison, 2002). Oftentimes the reports are counterintuitive to the statistics that indicate an American is sexually assaulted every 98 seconds, and

obscured by acts of sexual violence that have focused mostly on girls and women (RAINN, 2017a). In December of 2011 the Federal Bureau of Investigation's (FBI) definition of rape changed from the earlier 1929 version of "the carnal knowledge of a female, forcibly, and against her will" to "penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim" (Department of Justice, 2012). The change addressed victims of sexual violence including young boys and adult males. This acknowledgement that males of all ages can be raped was a progressive step in American society. Unquestionably, the update in the definition is indispensable, but it adds complexity to reporting measures that were collected prior to 2012 when male victims were excluded. Research and programs continue to present sexual violence from events generated by the experiences of female victims, and oftentimes generalizations inform society that the victims' gender differences are irrelevant.

Sexually violent acts can be experienced in distinctly different ways for men and women. This is not to suggest that one gender has a worse series of events and outcomes, rather it is a discriminator. Treating sexual violence as strictly a female problem conceals the fact that sexual violence happens to men, and can foster the perception that sexual violence perpetrated against men is not important. Surveys indicate 1.4% - 3% of American men have experienced an attempted or completed rape in their lifetime (Black et al., 2011). Another estimate concluded that 1 in 5 men will experience some form of sexual assault in their lifetime (RAINN, 2017a). The lack of reporting is impacted by the stereotypes and cultural stigmas that are embedded in social norms.

## Gender Attitudes

Beginning in infancy, and oftentimes with the very first interactions between the newborn and society there are cues promoting features of being "male" and the subsequent gender attitudes. This can occur through children's picture books, lyrics, and mother's preferential vocal responses to infant girls versus infant boys (Johnson, Caskey, Rand, Tucker, & Vohr, 2014). A 2017 study showed that fathers of daughters used more language associated with sadness and were shown to be more engaged and responsive to their daughters, while fathers of sons engaged in more rough and tumble play, and used more achievement language with their sons (Mascaro, Rentscher, Hackett, Mehl, & Rilling, 2017). The "manning up" of infant boys begins early in their development and their interactions with caregivers; it serves as a means to prepare boys for fighting, competition, and disclosing less of their emotions (Reiner, 2017). Men are taught distinct gender roles at an early age such as physical strength, sexual conquering, and emotional fortitude. A recent report by the Global Early Adolescent Study indicated global masculine and feminine social roles have long-term implications for health and well-being of children, with boys experiencing an emphasis on physical strength and independence (Blum, Mmari, & Moreau, 2017).

Female social conventions are established at a young age and girls are often taught to be polite, while boys are taught not to cry (Gruber, 2006). Crying is considered a weakness, and allegiance to this message causes some men to hide their emotions from others and themselves, and when emotions arise then there can be a sense of embarrassment or cowardice (Fradkin, 2012). This early avoidance that continues as a young male matures through childhood, adolescence and teenage years can encourage

a cycle of remaining silent about sexual violence, the ensuing emotional turmoil, and the subsequent long-term health consequences. Research has shown that avoiding emotions leads to decreased emotional health (David & Congleton, 2013).

Male gender attitudes directed towards women have shown a connection between the masculinity concept of sexual prowess in college-aged men and the intent to sexually coerce (Hust, Rodgers, Ebreo, & Stefani, 2016). Furthermore, negative attitudes toward women have been shown to mediate the relationship between traditional masculine ideologies and rape myths (Lutz-Zois et al., 2015). Alternatively, these very qualities that define gender attitudes can lead to devastating self-blame for male survivors of sexual violence (Kassing et al., 2005). Interpersonal influences from the early interactions with family and then with peers are key contributors towards the construction of gender attitudes for boys and girls (Kågesten et al., 2016). The role of community factors such as schools, social media, and religious venues are additional influences in the development of gender attitudes.

### Social Expectations

Males do not report their victimization beginning at an early age for a multitude of reasons, therefore obtaining accurate information regarding the number of males that are the victims of sexual violence is a difficult task (APA, 2016). The trajectory of male stoicism and the common male stereotypes found not only in America, but around the globe prevent reporting (Stemple, 2008). Several recent reports have highlighted how male rape is a technique used to humiliate and demoralize men during civil conflicts, particularly in the Democratic Republic of Congo (Bryan, 2017; Gettleman, 2009). Distinct male challenges that differ from female sexual violence survivors include the

social expectation that males should always be able to defend themselves against sexual assaults (Kakhnovets & Holohan, 2007). Due to the expectations of personal defense and fighting skills, males consider they will not be believed by law enforcement, the court system, family, and friends, if they were to report an act of sexual violence (Turchik & Edwards, 2012). Other common misperceptions are that only homosexual men can be raped, only prisoners are raped, and the belief that rape can only happen to women (Kakhnovets & Holohan, 2007; Vandiver & Dupalo, 2012).

These perpetuated rape myths become adult beliefs and include the following: 1) males are physically incapable of being overpowered to have sex, 2) men who are raped are no longer "real men," 3) men should cope with their emotions, 4) the presence of an erection or ejaculation indicates consent, and 5) men cannot be sexually assaulted by women (Bullock & Beckson, 2011; Kassing et al., 2005, Sleath & Bull, 2010). These commonly held beliefs are all inaccurate, but they are often internalized by men, and by women. This leads men to experience shock, humiliation, shame, and, unlike women, men often tend to question their sexuality after an act of sexual violence has occurred. Male rape myths perpetuate the negative impacts on male sexual violence survivors (Bateman & Wathen, 2015). Voller et al. (2015) observed that men who strongly support male rape myths often experience greater psychiatric distress after being victimized, and such distress reduces their overall self-efficacy.

All of these barriers not only prevent male survivors from disclosing the violence, but in some cases males will choose not to recognize or acknowledge what happened in the past. Barriers reported by male sexual violence survivors include: a disbelief by family, friends, law enforcement, and judicial systems, a confusion surrounding

ejaculation during the trauma, a fear that sexual violence has made the person "gay" or perceived as "gay," a deep sense of guilt and/or shame that can be affiliated with feelings of being physically and mentally weak, embarrassment and/or humiliation, and a loss of masculinity (Mondragon et al., 2015; O'Brien et al., 2015). These barriers illustrated in Figure 1 have been shown to influence the long-term health and well-being of the survivor.

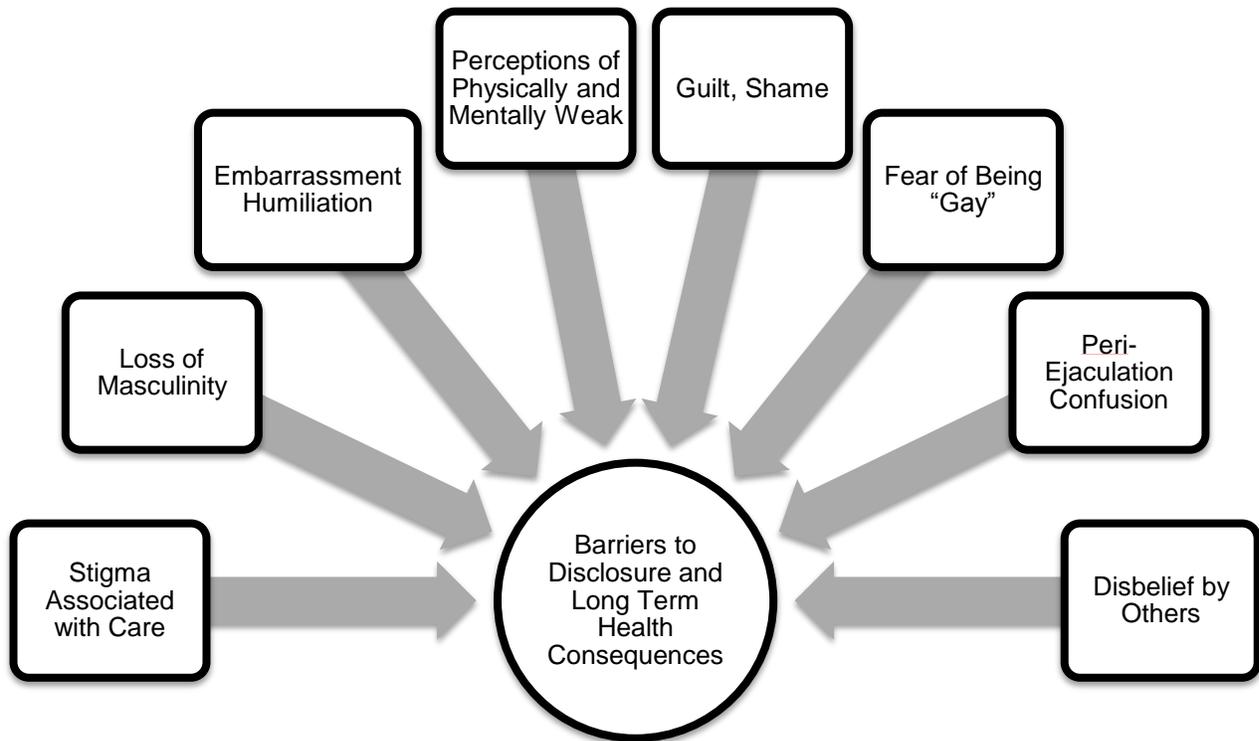
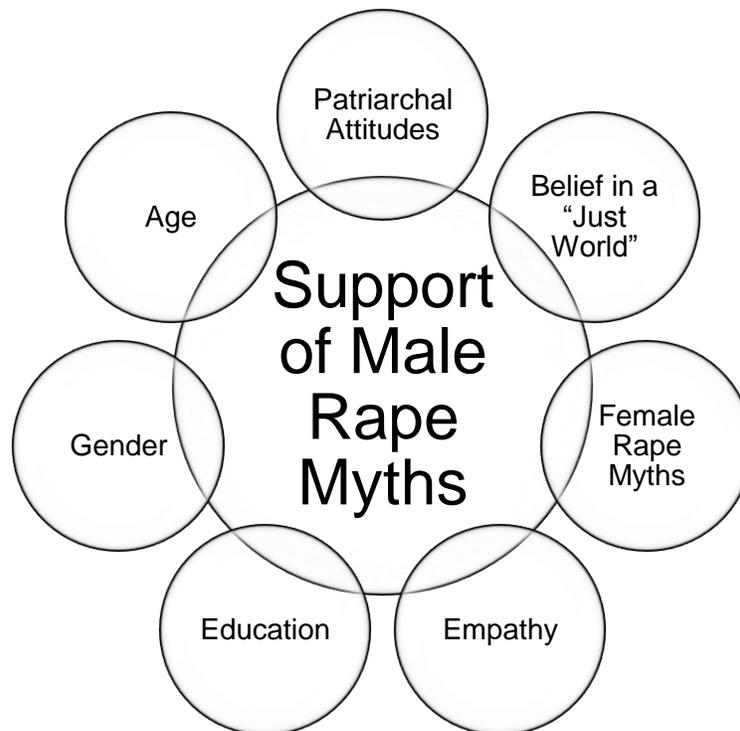


Figure 1. Barriers to Disclosure After Sexual Violence

## Conceptual Framework

An individual may experience the barriers to disclosure after an act of sexual violence as illustrated in Figure 1. These barriers can then impact the long-term health of the survivor. The barriers to disclosure are promulgated by society's expectation and contribute to the support of male rape myths as depicted in Figure 2. Understanding the role of social constructs surrounding masculinity illustrates the impact on the adherence to male rape myths, and their enhanced role within the military community. The social construct surrounding masculinity is promoted by masculine hegemony and what it means to be a man (Jewkes et al., 2015). The social construct theory described by Connell and Messerschmidt (2005) has been adapted to gain further understanding of rape myth. Policy change through the use of education and awareness is a key goal towards impacting current and former SM's views on rape myths.

As illustrated in the model shown in Figure 2, support of male rape myths can be influenced by patriarchal attitudes, belief in a "Just World," subscription to female rape myths, less empathy, less education, male gender and younger age. Many of these contributors are based on personal beliefs, however, providing education can have a powerful impact as a mechanism to intervene on the promotion of false information surrounding male rape myths. False information creates an environment that discourages acceptance and treatment, while advancing shame and guilt for survivors. By attempting to influence policy applicable for SMs still on active duty the hope is to reduce long-term health impacts and stigma that can follow survivors throughout their lives as veterans.



*Figure 2.* Multifactor Contributors to Support Male Rape Myths

A conceptual model was adapted from published articles of male rape in England and Wales by Abdullah-Khan (2008) and Javaid (2015). Abdullah-Khan (2008) described the perpetuation of gender inequalities, social expectations of men and women, and patriarchal attitudes as contributors to the continual denial of male sexual violence. The denial of sexual violence perpetrated against men is one of several rape myths that are commonplace. Connell and Messerschmidt (2005) have contended that gender roles are not based on biology, but the conduct that is assigned to the gender based on the culture. The social constructs of power, strength, toughness and invulnerability are the drivers behind conduct of men and women. When the social constructs are violated, then subsequent judgments are levied on men and women.

Sexual violence committed against men disrupts these social constructs which then can lead to a promotion of male rape myths to counter reality. There is a tug from the norms and mores of a society to normalize and reaffirm the dominant gender standards (Javaid, 2015).

For men, this is compounded by Cooley's (1902) description of the "looking-glass self." He stated, "The thing that moves us to pride or shame is not the mere mechanical reflection of ourselves, but an imputed sentiment, the imagined effect of this reflection upon another's mind" (Cooley, 1902, p. 184). The "looking-glass self" can be considered the framework of adherence to rape myths regardless of whether one is a survivor, perpetrator, woman, or man. All of the contributors are impacted by the evaluations by others and the perception held by the individual. The notion of the "looking-glass self," even without confirmation from surrounding individuals, is impacted by internal perceptions of social expectations. This can explain why some people adhere to male rape myths, not only due to a lack of knowledge about proven biological facts, but concern that society is disdainful towards male sexual violence survivors and oft consider male sexual violence survivors to be weak. These notions are based on social norms, the gender expectations of men, and the perceived subordination of men when sexual violence occurs. The support of male rape myths is not a straight line from cause to effect. The "looking -glass self," derived from the socio-cultural gender roles, can serve as the scaffolding that supports adherence to male rape myths because it becomes the way individuals internally define their identity and externally interact with other people. The "looking-glass self" explains why some individuals report the crime

committed against them while others remain silent, and why some people adhere to rape myths and others reject the myths.

### Rape Myths

Dispelling commonly held male rape myths, such as "men can't be sexually assaulted" and "rapists aren't like ordinary people" is an essential step towards reducing a culture of sexual violence and misunderstanding (Clarke, 2001; South Eastern CASA, 2017). Female specific rape myths include: "females who say they were raped, agreed to have sex and then regretted it," "if a female wears inappropriate clothes, then she is "asking for trouble," and "if a man is drinking he may sexually assault a woman unintentionally" (McMahon & Farmer, 2011). These rape myths are promulgated and believed by members of both civilian and military society (Chapleau, Oswald, & Russell, 2008). The basis for the general acceptance of male and female rape myths is founded on three key constructs. These constructs include 1) protection of the belief in a "Just World," 2) patriarchal rape supportive beliefs, and 3) lack of knowledge regarding the fallacies of rape myths (Aubrey, Hopper, & Mbure, 2011; Thompson & Morrison, 2013; Viki, Abrams, & Masser, 2004).

### Protection of Belief in "Just World"

The "Just World" Theory states there are no innocent victims and if something bad happened then it was deserved (Dalbert, 2009). This is exemplified by a crime going unpunished or a perpetrator not being penalized. When individuals experience a threat to their "Just World" beliefs, they have been shown to find fault with the victim, as a means to preserve their belief (Stromwell, Alfredsson, & Landstrom, 2013). Strömwall, Alfredsson, and Landström (2013) showed that males with a strong belief in a "Just

World" attributed the least blame to the perpetrator when there was a young male victim of sexual violence (mean of perpetrator blame = 33.75, standard deviation (s.d.) = 0.35). Vonderhaar and Carmody (2015) showed "Just World" beliefs and rape myth acceptance were positively correlated ( $r = .105$ ;  $p < .01$ ). Both men and women have been shown to adhere to victim blaming as a means to protect one's belief in a "Just World" (Viki et al., 2004). The "Just World" belief may be directly related to rape myth adherence and serve as a contributor to rape myth support within a military setting.

### Patriarchal Rape Supportive Beliefs

It is notable that early research with undergraduate students using a Attitudes Toward Violence Scale, Adversarial Heterosexual Beliefs Scale, Hostility Towards Women Scale, and Rape Myth Scale items indicated that college men viewed female rape myths as a rationalization of male sexual domination of women, while college women viewed female rape myths as a means to assuage susceptibility and fear (Lonsway & Fitzgerald, 1995). The study by Chapleau et al. (2008) that explored male rape myths found that college-aged men (acceptance mean = 2.14) were more supportive of male rape myths than women (acceptance mean = 1.71). The most commonly accepted male rape myth was that male rape victims were responsible for being raped, although adherence to specific rape myths show variability (Chapleau et al., 2008; Sleath & Bull, 2010). As the Rape, Abuse, & Incest National Network (RAINN) (2014) described in their recommendations to the White House Task Force to Protect Students from Sexual Assault, a continual discussion of rape culture "removes the focus from the individual at fault, and seemingly mitigates personal responsibility for his or her own actions," whereby blame is shifted to the survivor. It is necessary to

consider that responses of college students may not generalize to veterans based on the wider range of ages and educational pursuits that are applicable to former military professionals, but the college-aged studies provide information regarding beliefs and attitudes found in the American population.

### Lack of Knowledge

Factual information regarding sexual violence can help to dispel false rape myths that continue to exist. Accurate information regarding defense, sex, power, physiological responses and other rape notions are essential.

Defense. Sufficient data exists to disprove male rape myths, particularly the belief that adult male sexual violence survivors should have successfully fought their attacker. This finding is based in the assigned gender norms that are commonplace in our society and define manliness as power, strength, and self-determination. However, when male sexual violence survivors are interviewed they indicate that physical force was used in nearly 80% of the reported male rapes and they were unable to fend off the perpetrators (Walker, Archer, & Davies, 2005). These acts of violence included punches, beatings, strangling, burning, stabbing, and cutting the victim, while 10% of the cases involved a weapon and 38% of the time there were two or more attackers (Walker et al., 2005). Data indicates that nearly 75% of all female date rapes involve alcohol or other drugs, such as Rohypnol (Sampson, 2013). Likewise, alcohol and drugs can cause men to be more susceptible to sexual violence. Oftentimes sexual violence victims who did not fight back against their assailant are considered to not have actually been victimized (Bateman & Wathen, 2015). Sleath and Bull (2010) showed that 47% of males believed that resistance was a major factor in deciding if a man was raped.

Sex. The rape myth that male sexual violence victims are homosexual ignores the fact that women commit acts of heterosexual violence against men, whereby men are sodomized or made to penetrate another male or female. Men have been forced to have sex by women that threaten with a weapon, verbal abuse, and blackmail (Weare, 2017). This addresses the rape myth that men cannot be sexually violated by women; a rape myth (Hlavka, 2016). Analysis of a National Crime Victimization Survey (NCVS) suggested that men encounter perpetration of sexually violent acts more often by men than women with 46% of sexually violent acts against men attributable to women, and 54% attributable to other men ( $\chi^2 = 341.274$ ,  $p < .001$ ) (Weiss, 2010). This finding illustrates that men are likely to experience sexual victimization not only from other men, but women, although it is sometimes difficult to conceptualize the idea within the framework of traditional masculine socialization. The study based on the NCVS data indicated that only 15% of men, compared to 30% of women, reported acts of sexual violence ( $\chi^2 = 9.128$ ,  $p < .01$ ) (Weiss, 2010).

Gender attitudes twist perceptions regarding sexual violence committed by women against men. Again, attitudes surrounding gender lead a portion of males that have experienced sexual violence by a female to decline to report the violence. A study by Chapleau et al. (2008) illustrated that 26% of men and 16% of women believed a man would not be very upset after being raped by a woman, and 25% of men felt a man was blameworthy for not escaping a woman.

Power. It is necessary to understand that sexual violence can be about both power and sex. Some acts of sexual violence are not about sexual pleasure, but rather the exertion of power by the perpetrator (Lee & Jordan, 2014). Bryden and Grier (2011)

challenge the power belief by evaluating the "weight of the evidence [that] sexual gratification is a rapists' most common (if not universal) goal" when examining rape of women (p. 276). Dr. Howard Fradkin (2012), a leader for over 30 years in the recovery of male survivors, describes sexual violence perpetrated against males by other males as "sexual satisfaction and domination of [another male] to boost his own self esteem" (p. 220). The rape of men by both other men and women may include a sexual component, but also may be an exertion of control through humiliation and demoralization (Couturier, 2012). This illustrates the duality of sexual violence incorporating a sexual aspect, and power. Various risk factors outlined by the CDC (2016) are associated with the perpetration of sexual violence to include alcohol use, adherence to traditional gender roles, prior sexual victimization and masculinity. Furthermore, adherence to rape myths can often lead to increased perpetration of sexually violent acts, intimate partner violence, and blaming of victims (Edwards, Turchik, Dardis, Reynolds, & Gidycz, 2011).

Physiological Response. Particularly devastating is the rape myth of an erection or ejaculation during an act of sexual violence indicating consent or enjoyment. Research has proven that physiological responses to sexual violence are not always voluntarily controlled by the victim (Bullock & Beckson, 2011). The physiological response can lead to profound confusion and shame concerning a man's sexual identity, especially if he is ill informed or lacks the knowledge regarding the body's physiological responses (Kakhnovets & Holohan, 2007). This is a rape myth that has potentially long-term psychological harm because of the fear, anger, and embarrassment stemming from the misunderstanding.

Other Male Rape Myths. Kassing et al. (2005) showed that more than 50% of participants in their study accepted multiple male rape myths and there was a positive correlation between homophobia and common masculine value, and a negative correlation with education level. This indicates the potential for education as a means to help dispel rape myths. Education can inform people that strangers are not the typical perpetrator of rape and acts of sexual violence, and that survivors generally are not lying. The typical perpetrator is a known assailant 78% of the time (Bureau of Justice Statistics, 2013). Data compiled from repeated reports illustrate that false reports average between 2 - 10.9%, and reflect rates similar to other felony crimes (Harris & Grace, 1999; Lonsway, Archambault, & Lisak, 2009). Furthermore, the topic of lying is misleading because many men and women do not report sexual violence. The Bureau of Justice Statistics (2013) indicates that only 35% of victims of sexual violence report the crime. Within the military only about 40% of female victims and 10% of male victims report sexually violent incidents (Ali, 2016).

### Military

Opinions vary on the notion of sexual violence driven by the motivation of sexual satisfaction, power, or both. The Center for Disease Control and Prevention (CDC) reported on an emerging theory that bullying in childhood is predictive of sexual violence perpetration later in life (ASAP, 2010). Bullying is considered to be hostile activity committed by a person who maintains intent and deliberate actions toward another with more physical and/or social power (Patchin & Hinduja, 2016). The power struggle exhibited by bullying has parallels in the military system, but is often termed "hazing," and much like college hazing, the consequences have resulted in the deaths

of SMs (LaMothe, 2016). The military is a challenging environment because aggression, dominance, and self-sufficiency serve as pillars in the defense of America (Castro, Kintzle, Schuyler, Lucas, & Warner, 2015). Mental toughness and physical displays of strength are foundations of the American military, and weakness is discouraged in the profession. These traits are exhibited within a patriarchal structure dominated by values such as formality, rank, leadership, loyalty, camaraderie, and emotional control (Castro et al., 2015). When these virtuous traits are twisted, they can inadvertently promote permissive and sexually violent traits that can persist during and after military service has ended.

### Policies and Programs

Military policy directing resiliency training programs reinforce the notion of coping and strength in the face of adversity (Navy PAO, 2013; R2, 2017). This leads to a delicate balance between a military culture that frowns on weakness, yet advises SMs to report and seek assistance when an act of sexual violence has occurred. Personal adherence to rape myths by Judge Advocate General (JAG) representatives and Military Police (MP) investigators can result in victim blaming, a subtle disinterest in punishing criminals, and a potential impact on judicial proceedings (Page, 2008). Despite the similar number of male and female SMs that are sexually assaulted, the attention and emphasis of male on female sexual violence often leaves male victims neglected (Hoyt et al., 2012). Some people believe that military men and women are incapable of committing acts of sexual violence against their fellow SMs, but this is clearly not the case. Some branches of the Armed Forces report 75% of the sexually violent acts are committed by fellow SMs (DoD Enclosure 1, 2017). Due to the social

and cultural nature of sexual violence and rape myths, coordination with multiple agencies such as schools, law enforcement, the judicial system, medical departments, and media are necessary to raise awareness concerning male rape myths and the perpetration of sexual violence against men and boys (Turchik & Edwards, 2012).

### Post-Traumatic Stress Disorder

The military also requires restrictive emotionality in battles. Strength is often displayed by showing limited emotions, and this is an important component of survival during a conflict whether it is in Vietnam or Afghanistan. Service Members need to be focused on completing the mission, while protecting oneself and the team. The difficulty arises when not showing emotions and not allowing emotions merge together (Fradkin, 2012). Reinforcing the importance of restrictive emotionality leads to distinct parallels between men that avoid treatment or discussion of suffering from sexual violence, and male SMs that avoid seeking treatment for combat related post-traumatic stress disorder (PTSD); both of which can cause long-term health consequences (Hoyt et al., 2011; Osman, 2011; O'Brien & Sher, 2013). Survivors of sexual violence can experience PTSD, due to the humiliating and sometimes life threatening sexual acts they endure (Doherty & Anderson, 2004). Hence, men are less likely to report incidences of sexual violence, thereby perpetrators are unreported, undisciplined, and engage in acts of recidivism, while the male survivor avoids treatment, and copes with the victimization alone. A vicious cycle continues.

### Military Sexual Trauma

The military of the 21st century is an all-volunteer force that has been shown to display markedly higher prevalence of ACEs among its male military members than

civilian counterparts. This result from Blosnich, Dichter, Cerulli, Batten and Bossarte (2014) was based on data from the 2010 Behavioral Risk Factor Surveillance System that further illustrated men with military service had twice the odds of reporting forced sex before the age of 18 years old than men without military service (odds ratio = 2.19; CI [1.34, 3.57]). Enlistment in military service may be an option for escape from harmful circumstances at home, yet the military culture may unknowingly foster an environment that promotes stigma and weakness associated with acknowledgement and treatment of prior sexual violence. Research has shown there are both positive and negative outcomes associated with male survivors acknowledging sexual violence, and disclosure remains a personal decision, but without exposure the amount of perpetration of sexual violence against men remains unclear (Artime, McCallum, & Peterson, 2014). Service Members who have experienced sexual violence while in the military (MST), or prior to joining, are at an increased risk for subsequent depression, substance abuse disorders, mood disorders, decrease in work productivity, higher levels of suicidality, and reduction in the quality of life (O'Brien & Sher, 2013; RAINN, 2017b; Schry et al., 2015).

Eighty-five percent of military men who reported having unwanted sexual contact did not make an official report (Rock, Lipari, Cook, & Hale, 2011). Men feared retaliation, lack of health care confidentiality, fear of fellow SMs finding out, and other deeply rooted male stereotypes that prevented them from seeking help (Rock et al., 2011). Military men are grounded in a profession that champions acts of physical strength and resiliency, and for this reason male SMs may suffer even more than their civilian counterparts because they feel they should have been able to protect

themselves. These factors contribute to men reporting initially stronger symptoms, longer lasting symptoms, and perceptions that their health is more damaged (Morris, Smith, Farooqui, & Surís, 2013). The symptoms can endure a lifetime with unforeseen impacts.

### Veterans

Veterans with MST are at an increased risk of homelessness with more than double the rate of homelessness compared to those veterans without MST (positive MST rates for homelessness within 30 days was 1.6%, 4.4% within one year, 9.6% within five years, versus negative MST rates of homeless within 30 days was 0.7%, 1.8% within one year, 4.3% within 5 years (Brignone et al., 2016). Results from the study by Brignone et al. (2016) went on to show that positive MST status is an early indicator for disadvantageous post deployment outcomes, decline in mental health, and risk of substance abuse. The heightened risk for men suffering from MST to become homeless indicates the acute vulnerability of this population. Although psychosocial sequelae encompass poorer interpersonal relationships, less social support, and post-military adversity for women and men, civilian men have been shown to have greater risks for psychiatric complaints, distress, and alcohol abuse, while military men have increased risk of suicide and intentional self-inflicted injury (age and race adjusted odds ratio (AOR) = 2.93, confidence interval (CI) [2.22, 3.88]), personality disorders (AOR = 3.42, CI [3.16, 3.70]), and PTSD (AOR = 3.00, CI [2.89, 3.12]) (Kimerling, Gima, Smith, Street, & Frayne, 2007; Turchik & Edwards, 2012). Veterans with positive MST screens showed that depressive and eating disorders were likely for both women and women. Unlike earlier reports that did not address these problems with male veterans, women

showed depression (AOR = 2.33, CI [2.24, 2.42]) and eating disorders (AOR = 3.05, CI [2.43, 3.83]), with men indicating similar odds for depression (AOR = 2.21, CI [2.14, 2.29]) and eating disorders (AOR = 2.77, CI [1.65, 4.66]), (Hoyt et al., 2012; Kimerling et al., 2007). Male veterans are less likely to seek treatment than female veterans whether it is attributable to stigma, embarrassment and/or fear (Kimerling, Street, Gima, & Smith, 2008).

### Military Attitudes

America's military has a patriarchal structure comprised of approximately 85% men (SAPRO, 2017). Each branch of service has a rank structure, formal chain of command, top-down leadership, and sense of camaraderie that may reduce reporting of sexual violence, and treatment seeking behaviors, especially when the survivor is a man. A male-centric culture promotes aggression, dominance, risks, control, competition, and heterosexuality (Hunter, 2007). Many resiliency characteristics are essential for a professional and competent SM, however, the consequences of these traits may prevent reporting or seeking physical or mental health care (O'Brien et al., 2015). Some male MST survivors weigh their military image and the appearance of weakness against the perception of personal safety when not-reporting, even if it results in continual exposure to a perpetrator that can lead to supplementary trauma (Murdoch et al., 2014). Difficulties continue when victims of MST are obliged to follow military customs and courtesies, such as saluting, following orders, and possibly living in close proximity during field training or during deployment, when the perpetrator is in the unit, or the chain of command (Mondragon et al., 2015). Root causes of sexual violence described by Castro et al. (2015) include gender stereotypes, historical accountings of

male accomplishments, religious influences, alcohol, and cultural acceptance. Military structure that includes the military judicial system, the military reporting system, value performance, resolution of problems at the lowest level of leadership, the allegiance to the unit, and the resilience based training can all be factors causing a survivor of sexual violence to hide an act of sexual violence that occurred while in military service or during youth. Feelings of shame and concerns about other's reactions can prevent a male SM from seeking care as an adult, regardless if he is on active duty or not (Holland, Rabelo, & Cortina, 2016).

### Traditional Masculinity

The following eleven norms are generally considered by experts to reflect society's expectations of traditional masculinity: desire to win, need for emotional control, risk-taking, violence, dominance, self-reliance, primacy of work (importance placed on one's job), pursuit of status, playboy (sexual promiscuity), power over women, and disdain for homosexuality (Wong, Ho, Wang, & Miller, 2016). A military culture cultivates the first nine norms because of their importance during combat and recovery operations (Castro et al., 2015; Voller et al., 2015). Strong conformity to these masculine norms can promote a decrease in mental health treatment (Wong et al., 2016). This is important when attempting to understand SMs' views of rape myths, and how the military setting combined with specific exposure to early childhood gender attitudes and norms may influence sexual roles of women and men (Kaplan, 2016). The role of conformity to the aforementioned male gender norms is valuable when attempting to understand why some men do not pursue mental health help seeking behaviors (Vogel, Heimerdinger-Edward, Hammer, & Hubbard, 2011). Individuals that

adhere strongly to masculine norms such as invincibility and male sexual insatiability require innovative approaches to encourage them to seek treatment, report, or acknowledge a sexually violent incident (Rochlen, Whilde, & Hoyer, 2005).

### Homosexuality

Traditional masculine beliefs tend to embrace homophobia. This is particularly poignant when examining male sexual violence because a common rape myth is that men experiencing sexual violence must be gay. The military's policy of "Don't Ask, Don't Tell" (DADT) prohibited Service Members from engaging in homosexual conduct prior to the 2011 repeal (USD, 2011). Health care concerns for lesbian, gay and bisexual (LGB) SMs was instrumental in repealing DADT, but concerns still persist in the military (Biddix, Fogel, & Perry Black, 2013). In contrast to the sexual discrimination concerns of LGB military members, the male heterosexual survivor may fear that he is homosexual due to the act of sexual violence that was committed. This is the profound influence of supported and promoted rape myths that reinforce the stigma that some people associate with being labeled a homosexual in a masculine and patriarchal environment (Hunter, 2007). Notably, more than 80% of Gulf War I veterans that reported sexual assault were "completely" heterosexual (Murdoch et al., 2014). For a man to report that he was the victim of sexual violence may force him to consider the consequences of other men claiming he is homosexual.

### Treatment

There is an array of stigma barriers that prevent reporting and seeking treatment to include the view that a male victim with a history of sexual violence, whether from childhood or adulthood, is somehow flawed, deviant, weak, or gay. This may further

prompt senior leaders and fellow SMs to treat him differently and subsequently lose confidence in his abilities (Holland et al., 2016). These concerns are coupled with male sexual violence survivors' subscription to the myth that men should not need help or emotional care (O'Brien et al., 2015; Stander & Thomsen, 2016). This is compounded by a distrust of health care providers, who potentially have limited knowledge in treating male sexual violence survivors, concerns surrounding confidentiality, and limited male sexual violence health care training for providers in both military and non-military settings. However, increasing access to treatment options for traumatic events while military professionals are still on active duty is a health care service that should not be trivialized, and ensuring the availability of resources after leaving service is equally critical for long-term health.

### Training

Lack of treatment is exacerbated in the military and civilian settings when health care professionals and counselors do not have training or knowledge regarding male sexual violence, rape myths, and treatment strategies, particularly when reports indicate 2.78 million male survivors of sexual violence are residing within America (RAINN, 2017b). Some health professionals are not aware of the false information surrounding male rape myths, which causes a discrepancy from the outset of treatment (Sleath & Bull, 2010). Members of the health care system must be cognizant of their own biases and adherence to rape myths and gender norms when treating male sexual violence survivors, especially in a masculine environment. Reports from male survivors indicated that their endeavors to seek treatment were not only traumatizing, but further declined their overall sense of stable mental health (Walker et al., 2005). Men presenting a flat

affect when describing sexual violence may indicate emotional avoidance and it should not be assumed that these men are not impacted or emotionally harmed by the events (Bicknell- Hentges & Lynch, 2009; Chapleau et al., 2008).

### Treatment Modalities

Common treatment modalities include cognitive behavior theory (CBT), exposure therapy, eye movement desensitization, mindfulness training, and other evidence based interventions (Lee & Jordan, 2014; Van der Kolk, 2014). Encouraging male sexual violence survivors to seek treatment can be exceedingly helpful, but it is futile if health care professionals do not have the knowledge, empathy, and skill sets to focus on the Service Member and reexamine their own false assumptions surrounding the perpetration of sexual violence and rape myths. If a SM experiences sodomy or rape that has caused extensive tearing or internal injuries, then he is faced with addressing the concern with medical providers. There is a definitive lack of literature concerning the fields of urology and internal medicine as it applies to sexual violence perpetrated against men (Gallo-Silver, Anderson, & Romo, 2014). Male MST survivors may present with anal lacerations, bleeding, broken bones, bruising and sexual transmitted infections (Walker et al., 2005). Survivors of sexual violence deserve exceptional and empathetic treatment within a military health care environment.

### Positive Psychology Model

Despite the trauma caused by sexual violence and the long-term health sequelae, there is an endeavor to focus on aspects of survival, recognition and overall improvement of one's well-being. Numerous studies have indicated the health benefits resulting from a positive and optimistic outlook can: reduce depression (Seligman,

Rashid, & Parks, 2006), reduce cardiovascular disease (Giltay, Geleijnse, Zitman, Hoekstra, & Schouten, 2004; Tindle et al., 2009), protect against strokes (Ostir, Markides, Peek, & Goodwin, 2001), and offer other favorable health outcomes (Diener & Chan, 2011; Steptoe & Wardle, 2005).

The Positive Psychology Model (PPM) uses features common to the military community: 1) self-regulation, 2) wisdom, 3) courage, 4) responsibility and 5) perseverance (Seligman & Csikszentmihalyi, 2000). Positive Psychology is described as "the scientific study of the strengths that enable individuals and communities to thrive [and] the belief that people want to lead meaningful and fulfilling lives" (Positive Psychology Center, 2017, para.2). Happiness and well-being are examined in the past, present and future (Seligman, 2003). The use of the PPM is in no way meant to minimize the deep emotions or angst survivors may demonstrate, rather the implementation of a PPM is to benefit survivors and provide an option for healing. Five pathways to well-being are described by Seligman (2011): positive emotions, engagement, relationships, meaning, and achievement. Research indicates that some people who have experienced childhood violence expanded deeper relationships, and empathy with other survivors (Wright, Crawford, & Sebastian, 2007). Furthermore, there is a documented tendency for some individuals to shape horrifying life experiences into a mechanism for healing as described by Neimeyer (2006). Components of the PPM have been shown to have utility in the healing of childhood sexual violence survivors and as a valuable approach for therapists (Draucker et al., 2011). Viewing sexual violence and rape myths through the lens of the PPM serves as a

potential treatment option for male sexual violence survivors and others seeking care for PTSD.

### Conclusion

Military and civilian communities in America underreport acts of sexual violence, which can lead to long-term impacts on health and well-being. Research shows that support of rape myths and patriarchal gender attitudes can dissuade reporting and treatment seeking behaviors, while increasing stigma, fear, and embarrassment, particularly when addressing male rape myths. Professional SMs that formerly and currently function within an environment that encourages traditional masculine ideologies, may express adherence to rape myths, particularly male rape myths, as reflected in some college studies. Experts have shown that ascribing to these rape myths can affect the health of SMs that have experienced sexual violence, as well as their family members, friends, and the surrounding community. This exploratory study is concentrated on uncovering the extent of current adherence to male and female rape myths, and gender attitudes in a sample of former military professionals. These results from a convenience sample of former SMs can lead to a better understanding of veterans views and future approaches to dispel rape myths in military and civilian populations.

## CHAPTER 3

### METHODOLOGY

The purpose of this chapter is to provide a description of the methods used, including data sources, data collection and data analysis plan. The chapter begins with an overview followed by the research design, setting and sample, recruitment and enrollment, followed by data collection procedures. There is a discussion of the survey instrument, measurements, and evaluation of the aims are explained. The chapter concludes with a description of study considerations and the limitations of the research.

#### Overview

A quantitative approach was used to identify adherence to rape myths attitudes held by former military professionals. SPSS 25 statistical software was utilized for the data analysis. Veterans were asked to complete an anonymous survey with six basic demographic questions followed by 20 dichotomous questions. These questions allowed for: 1) analysis of basic demographics that include the prevalence of adherence to male rape myths, female rape myths, and patriarchal attitudes held by former military professionals, 2) relationships between basic demographics, belief in a "Just World," empathy, rape myths and patriarchal attitudes, and 3) recommendations for policy development based on evidence based programs, literature, and key findings. The sample included former American military personnel.

#### Research Design

The research questions and hypotheses reflect the exploratory and descriptive nature of this study. The study utilized the opinions of former active duty SMs as

indicated by responses on a survey (Appendix A). Survey questions assessed demographics, belief in a "Just World," empathy, male rape myths, female rape myths, and patriarchal gender attitudes. An initial pilot study was completed to provide information regarding the amount of required time to complete the survey and the ease of understanding the questions. Five individuals with differing educational backgrounds, ages, military service, and gender completed the pilot study. Question #13 on the survey was refined based on the comments of participants. The initial question read, "If a woman doesn't physically fight back, you can't really say it was rape," but was changed to "A woman must physically fight back to claim she was raped" to reduce confusion.

Recruitment occurred by contacting veteran organizations with an initial introductory email that inquired about potential interest in providing the survey on their website, distribution to members, or posting on Facebook. Additional recruitment involved a small network of veterans that were provided the link on Facebook. Data collection proceeded for eight weeks from October through December 2017. The results provided insights into rape myths, and informed suggestions for policy intervention aimed at reducing stigma, and improving the health outcomes for survivors of sexual violence.

### Setting and Sample

Due to the potential for low response rates on the topic of rape myth, the use of veteran based social media platforms was the means to collect data to assist with representativeness, reliability, and validity (Murphy, Hill, & Dean, 2013). This targeted recruitment approach tapped group members within veteran organizations to attain

representativeness of the sample. The survey was provided to former enlisted personnel and officers, regardless of rank, specific branch of the Armed Forces, or job identifier within the military. The target population size of veterans throughout America (N) hovers around 20 million (U.S. Department of VA, 2017). The potential sample size was an estimated figure based on the use of Slovin's formula ( $n = N / (1 + N e^2)$ ). Simply, Slovin's formula was employed to provide a sample size (n) calculation with a 95% confidence level ( $e^2$ ). Approximately 400 respondents were needed to complete the survey. However, due to the non-probability based sample the intent was to reach 500 participants to improve the statistical analysis. All procedures were approved by the Institutional Review Board.

### Recruitment and Enrollment

The recruitment period occurred over the course of eight weeks. The researcher contacted a variety of nationwide veteran organizations and chapters drawn from the Veterans and Military Service Organizations (VSO) Directory from 2017, and a list generated from a Google search of "veteran organizations" requesting the participation of their members. The researcher provided an introductory email to the organization (Appendix B) via their contact information in the VSO directory, their website contact page, a webmail address, or through a Facebook message. If a point of contact from the organization was interested in the study, an introductory email for veterans was provided with an embedded link to the online survey tool, SurveyMonkey (Appendix C). The introductory email was offered through internal networks, newsletters, and website postings. There was no relevance in obtaining the names of former military SMs, therefore a signed informed consent document was waived and acknowledgement of

informed consent was given by clicking the appropriate response (Appendix D). Clear statements indicated there was no obligation to participate, and participants would remain anonymous. Former SMs were provided contact information to reach the researcher if they wished to ask any questions or highlight any concerns they had about completion of the survey, or the research.

With the goal to reaching the maximum number of veterans across America, online access was used for recruiting, especially since former military personnel reported access and use of the Internet on a daily basis (Sadler et al., 2013). Facebook was used to reach veterans because the website continues to be America's most popular social networking platform with nearly eight-in-ten online Americans utilizing it (Greenwood, Perrin, & Duggan, 2016). Facebook was used as method to reach young veterans in a study by Pedersen et al. (2015) and this approach was employed by the researcher to expand the representativeness of the sample through popular veteran organizations on Facebook. Additionally, seventeen former military professionals on the researcher's Facebook account were contacted with an introductory email. The goal was to reach qualified former SMs of various ages with snowball sampling, whereby an eligible participant would share the introductory email with other potential participants who met the inclusion criteria (Berg, 2006). These former military professionals that either separated or retired from active duty service were sent a notification describing the research study which included a request to refer the study to another qualified participant within their network (Appendix E). Some studies have shown that Facebook has an over representation of females, but due to a majority of male veterans, this was not viewed as problematic (Whitaker, Stevelink, & Fear, 2017). The approach allowed

for targeted sampling through the use of established veteran organizations and informal social networks of veterans within the Facebook community.

All of the former SMs that participated were required to meet the following inclusion criteria listed on the ICD: 1) formerly on active duty within one of the five branches of the United States Armed Forces, 2) any rank, 3) over the age of 18 years old, and 4) internet access. There were no specific educational requirements. Exclusion criteria included: 1) Department of Defense civilians who never served on active duty, 2) other governmental employees who never served on active duty, 3) family members never on active duty, and 4) civilians never on active duty. In the event of confusion and based on open enrollment the demographic questions addressed time in service and calendar year of transition from the military as an attempt to limit non-veteran participants in the study (Dusek, Yurova, & Ruppel, 2015). There were minimal risks associated with completing the survey, and any veteran who experienced discomfort when answering questions could contact one of the services listed at the conclusion of the survey.

#### Data Collection

The survey was offered over the course of eight weeks predominantly through veteran organizations and Facebook. It was a one-time survey event without any follow-up due to the exploratory nature of the research. The SurveyMonkey platform was used to generate of the online survey and included the requisite informed consent document on the first page of the survey with a time stamp. Each survey question included a "Yes" or "No," "Agree" or "Disagree" option, or the participant could decide not to answer the question and progress to the subsequent question. At the end of the survey, the

respondent was given an option to withdraw from the survey. To ensure privacy, Internet Protocol (IP) address tracking and email address tracking were disabled. The online survey responses were downloaded directly from SurveyMonkey and added to the Excel document to properly maintain a single data repository.

### Survey

The researcher wanted to ensure the survey: 1) did not tax the time of veterans, and 2) retained interest through brevity. The survey only required dichotomous responses and did not employ the use of a five or seven point Likert-type scale often used in other studies. A Likert-type scale was not utilized in this survey due to the topic of rape myths, and an attempt to encourage participants to make a choice regarding a specific rape myth. Likert-type scales have been shown to cause participants to avoid a choice, even though a distinct agreement or disagreement may be the actual belief held by the participant (Hartley, 2013). However, the disadvantage of a dichotomous response is that a respondent must make a choice, although their opinion may indeed may be neutral or undecided on a specific rape myth. Despite the anonymity of the survey, respondents may feel there were negative implications associated with a definitive "yes" or "no" response. There was always the option of not completing the question, and proceeding to the next question without fault. Due to the voluntary nature of the survey, responses based on a dichotomous (non Likert-type) scale were intended to save time and capture a definitive response to the attitude or belief.

The survey was worded to accommodate former SMs with varying degrees of education and was tailored for a high school reading level. Negatively worded questions were avoided, except for the following question, "A woman who dresses in skimpy

clothes should not be surprised if a man tries to force her to have sex". The question necessitated the use of the word "not" to pinpoint the situational description and had been utilized repeatedly in the Illinois Rape Myth Acceptance Scale (IRMA). "Double-barreled" questions were avoided to ensure only one succinct question was posed to the participant.

The survey began with six demographic questions addressing gender, age, rank, year of military transition, amount of time on active duty, and highest grade/year of school completed (Appendix A). This was followed by twenty questions that reflected various themes and rape myths. The survey began with two questions chosen by the research to better understand the views of former SMs. The next question addressed the belief in a "Just World," and was followed by seven questions directed at male rape myths, two empathy questions, four female rape myth questions, and concluded with four patriarchal gender attitude questions.

Participants that did not answer any of the questions, or only completed the demographic questions without answering any of the dichotomous questions were deleted from the analysis. This led to an 84.3% completion rate. Participants that partially completed the empathy, rape myth, or patriarchal gender attitude questions were assigned a missing value for the unanswered questions during analysis. Composite values for a participant were generated based on the number of answered questions. If a participant answered less than 50% of the questions within the topic, then the composite measure was assigned an overall missing value for the composite measure.

## Measures

Research Aim 1: To explore demographics, and determine the extent of support for rape myth beliefs and patriarchal gender attitudes among the sample of former Service Members.

Gender. Limited to the option of male or female. (Males were coded "0" and females were coded "1".) Nearly equivalent participants of both genders allowed for further analysis. Studies have shown that rape myth acceptance has been more prevalent in males, regardless if the victim is designated a male sexual violence survivor (Russell & Hand, 2017).

Age. Basic demographic questions with the age of the veteran entered as a continuous variable. Based on the resulting age distribution of 22 - 84 year olds, the data was categorized by generations based on established age brackets. These age brackets delineated by The Center for Generational Kinetics (2016) consisted of Millennials ranging in age from 22 - 40 years old, Generation X from 41 - 52 years old, Baby Boomers from 53 - 71 years old, and Traditionalists ranging in age from 72 - 84 years old.

Rank When Leaving Military. Basic demographic question stated as " Enlisted" or "Officer". Rank was included in the analysis, but many of the former military professionals in this sample accumulated further education. Typically, individuals with a four-year degree join the officer corp., although there are exceptions. The pursuit of further education during or after active military service deemphasized the importance of the rank measure in the analysis of the veteran model. (Enlisted personnel were coded "0" and officers were coded "1".)

Year of Military Transition. Calendar year entered.

Length of Time on Active Duty. Time in service question addressed the total years of active duty consisting of a) less than 1 year, b) between 1 - 4 years, c) between 4 - 10 years, d) between 10 - 20 years, and e) more than 20 years. This question was drawn from the online Veterans Transition survey (Military Transition, 2015).

Education. Basic demographic question requested veterans to indicate the highest level of education: a) grades 9 - 11 (some high school), b) grade 12 or GED (high school graduate), c) college 1 year to 3 years (some college or technical school), or d) college 4 years or more (college graduate). This question was drawn from the CDC's 2016 version of the Behavioral Risk Factor Surveillance System Questionnaire (BRFSS) and is a basic demographic in the annual telephonic survey that is approved by state coordinators (BRFSS, 2016).

Exploratory Questions. The first question stated, "Do you think the occurrence of sexual violence is higher in the military than in the civilian community?" The question was chosen to uncover thoughts regarding the prevalence of military sexual violence. The second question addressed confidentiality in the military setting and stated, "Do you think a Service Member that experienced sexual violence would refuse to seek care or help from the military system due to confidentiality concerns?"

Belief in a "Just World". Question three declared, "Do you believe in a "Just World"? (A "Just World" is considered a world where there are no innocent victims and if something bad happened then it was deserved.)" The original question was derived from one of the 15 questions of the Just World Belief Scale (Cronbach's alpha = .787) used in the study by Vonderhaar and Carmody (2015) that stated "People will

experience good fortune if they themselves are good". The researcher chose the pointed question accompanied by a definition to understand the role of belief in a "Just World" within the military community.

Empathy. Two questions address empathy: 1) Can you imagine a man's intense humiliation at being forced to have sex against his will? and 2) Would you be more sympathetic to a female sexual violence victim, in comparison to a male sexual violence victim? The first question was adapted from the Final Rape-Victim Empathy Scale described by Smith and Frieze and included an emotional component (2003). This question had been shown to have a .76 positive correlation with the total score in a study conducted by Smith and Frieze examining rape-victim empathy. The scale reliability was .92, while the scale validity which included the previous question was significant and indicated a main effect for gender (Smith & Frieze, 2003). The question was reverse scored in the survey to ensure the variable of interest remained uniform while analyzing the data, and to enable a tally of the composite measure to reflect a higher value representing lower empathy.

The second question was adapted to suit the military population, and was generated based on cultural gender roles that indicate both men and women are more sympathetic to female sexual violence victims (Graham, 2006). This sympathetic approach has been shown in the Rape Empathy Scale by Deitz, Blackwell, Daley, and Bentley (1982) which indicated high reliability with Cronbach's alpha = .84 for female, and Cronbach's alpha = .82 for male college students. Validity measures indicated that females exhibited greater empathy for the rape victim than male counterparts (Deitz, Blackwell, Daley, & Bentley, 1982). Women have been shown to have higher

perceptions of empathy and less supportive of rape myths in a college sample (Jimenez & Abreu, 2003). Osman's (2011) research indicated that additional efforts may be needed to increase sensitivity regarding male rape victims based on the use of Smith and Frieze's Rape-Victim Empathy Scale.

Male Rape Myths. Four of seven questions were derived from Struckman-Johnson and Struckman-Johnson's Male Rape Myth Scale that examines agreement with male rape myth items that focus on the denial, blame and trauma subscales (Struckman-Johnson & Struckman-Johnson, 1992). The selected questions were formatted to accommodate a dichotomous response and include: 1) "Do you think a man that has been raped or experienced sexual violence is weak?" (blame), 2) "Do you think male rape victims are somewhat to blame for being raped?" (blame), 3) "Do you think it is impossible for women to sexually violate men?" (denial), 4) "Do you think men need counseling after experiencing sexual violence?" (trauma). This scale had been implemented in a variety of research studies, but the study by Chapleau et al. (2008) highlighted the denial, blame, and trauma of the Struckman-Johnson Male Rape Myth Scales and determined their participants were most supportive of the blame myths ( $M = 2.01$ ,  $SD = 1.09$ ), trauma myths ( $M = 1.86$ ,  $SD = .83$ ) and denial myths ( $M = 1.71$ ,  $SD = .79$ ), which corresponded with men's highest mean on the blame subscale ( $M = 2.49$ ,  $SD = 1.23$ ), followed by trauma ( $M = 2.13$ ,  $SD = .85$ ) and denial ( $M = 1.80$ ,  $SD = .84$ ). All mean differences were significant ( $p < .01$ ) and men ( $M = 2.14$ ) demonstrated more overall rape myth acceptance than women ( $M = 1.71$ ), with women showing non-significant differences between the three rape myth subscales ( $p > .10$ ) (Chapleau et al., 2008). The question addressing counseling was reverse scored when analyzing the

data to enable a tally of rape myths that reflected a higher value indicative of increased adherence to male rape myths for the composite measure.

The three additional questions were not drawn from the Struckman -Johnson and Struckman-Johnson scale, but addressed common rape myths: 1) "Do you think most rapists are unknown/strangers to a male victim?," 2) "Do you think only homosexual (gay) men sexually violate other men?," and 3) "Do you think a man that experiences stimulation (an erection) from sexual violence means he was a willing participant or enjoyed it?" The question regarding unknown/strangers as perpetrators with a male victim was included based on female rape research and views on acquaintance and stranger rape, and stranger rape among young, single men (Stermac, Bove, & Addison, 2004; Viki et al., 2004). Homosexuality was addressed in question two. Inquiries generally describe a situation of a sexually assaulted male survivor being homosexual, but the question was reworded to examine the potential for the perpetrator to be considered homosexual (gay) (Mitchell, Hirschman, & Nagayama, 1999; Stermac et al., 2004). Question three highlights the frequently held idea that "men are incapable of functioning sexually unless they are sexually aroused" (Smith, Pine, & Hawley, 1988, p. 103). Due to the guilt held by male survivors and the lack of understanding surrounding the physiological response of peri-ejaculation this question was included on the survey (Fradkin, 2012).

The seven male rape myths included in the survey were chosen based on review of the literature and included broad concepts relevant to dominant masculinity. Society's typical expectation requires men to be tough, powerful, strong, invulnerable, and self-reliant. These ideas are often incongruent with perceptions of sexual

victimization of men (Castro et al., 2015; Connell & Messerschmidt, 2005; Javaid, 2016; Morris et al., 2015).

Female Rape Myths. The following four questions addressed female rape myths: 1) "A woman must physically fight back to claim she was raped," 2) "A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex," 3) "A lot of women lead a man on, and then claim they were raped," and 4) "Rape of a woman happens when a man's sex drive is out of control". The rape myth questions are drawn and adapted from the Illinois Rape Myth Acceptance Scale (IRMA) (Payne, Lonsway, & Fitzgerald, 1999). In the study by Chapleau and Oswald (2013) that utilized the Illinois Rape Myth Acceptance Scale the Cronbach's alpha = .88. The four aforementioned questions address four key subscales of rape myth acceptance that are included within the IRMA Short Form: "It wasn't really rape," "She asked for it," "She lied," and "He didn't mean to," respectively (Payne et al., 1999). The corrected correlations for the four chosen subscale questions were acceptably high: question 1 was .59, question 2 was .69, question 3 was .68, and question 4 was .62, and validity of the IRMA scale was illustrated in the study by Payne et al. (1999) with  $r(43) = -.51, p < .01$ . The IRMA has demonstrated predictive validity of positive correlations with a variety of variables related to sexual violence (Chapleau et al., 2008; McMahon & Farmer, 2011; Stephens & George, 2009).

Patriarchal Gender Attitudes. Four questions: 1) "Do you think women who carry condoms are "easy"?," 2) "Do you think the intellectual leadership of a community should be in the hands of men?," 3) "Do you think swearing and obscenities are more repulsive when spoken by women compared to men?," and 4) "Do you think that fathers

should have greater authority in raising children than mothers?." The gender attitude questions were adapted from an online close-ended College Adverse Childhood Experiences (C-ACE) questionnaire offered during introductory psychology classes at East Tennessee State University in 2014.

Hypothesis 1. Veterans would show the greatest adherence to male rape myths in comparison to female rape myths and patriarchal gender attitudes. Male participants in the survey of former military professionals would support more male rape myths, while adhering to less female rape myths and patriarchal gender attitudes than women. Men in other studies were shown to agree with male rape myths (Chapleau et al., 2008; Davies et al., 2012; Morris et al., 2015).

Research Aim 2: To further examine associations between basic demographics, belief in a "Just World," empathy, patriarchal gender attitudes and adherence to rape myths in the veteran community.

Hypothesis 2a. Increased age and further education would serve as protective factors with a reduced adherence to female and male rape myths in this population. Earlier studies indicated acceptance of male rape myths were negatively correlated with education levels (Anderson & Whiston, 2005; Kassing et al., 2005, Vonderhaar & Carmody, 2015). Also, Powers, Leili, Hagman, and Cohn (2015) showed age was negatively correlated with adherence to rape myths; whereby older individuals were less likely to support rape myths.

Hypothesis 2b. Support of patriarchal gender attitudes would have a positive association with adherence to male and female rape myths. An indication of patriarchal

gender attitudes has been shown to be positively associated with increased adherence to rape myths (Chapleau & Oswald, 2013; Lutz-Zois et al., 2015).

Hypothesis 2c. Belief in a "Just World," whereby people get what they deserve, would be positively associated with an adherence to male and female rape myths. Belief in a "Just World" was strongly associated with an adherence to both male and female rape myths in an earlier study by Vonderhaar and Carmody (2015). Understanding the role of the "Just World" belief may help to inform educational training platforms.

Hypothesis 2d. Less empathy for male survivors would be associated with increased adherence to male and female rape myths (positive association). Higher empathy scores would be found among females versus their male counterparts. It has been shown that women identify with survivors more often than men and score higher on empathy tests (Olsen-Fulero & Fulero, 1997; Osman, 2011).

Model. A review of the literature provided information that led to the development of a model based on key independent variables. An ordinal logistic regression model was built to determine the statistical significance of age (generation), gender, rank, education, belief in a "Just World," empathy, agreement with patriarchal gender attitudes, and adherence to female rape myths on the likelihood of adherence to male rape myths. Based on the exploratory approach of the study and the dearth of veteran's views on rape myths, the goal was to examine the variables within the model that might predict adherence to male rape myths.

Research Aim 3: Provide recommendations and policy suggestions for former and current military SMs guided by the responses provided by veterans in the sample.

Describe strategies for DoD and veteran organizations to raise awareness of sexually

violent crimes committed against men, promote further initiatives to meet the needs of active duty SMs and veterans, and minimize negative stigma surrounding sexual violence and treatment seeking behaviors.

This survey explored the attitudes and beliefs of former SMs in a convenience sample. The research served as a mechanism to provide insights and information to the Department of Defense and veteran organizations with the goal of shifting stigmas associated with male sexual violence victimization through awareness and education (Anderson & Whiston, 2005; Paul & Gray, 2011). By better understanding the support for male rape myths in the military, leaders can hope to educate current and former SMs with the long-term goal of reducing blame towards male victims and increasing the blame attributed to the rapist (Sleath & Bull, 2010). Masculine roles, stereotypes, and self-concepts can lead to unmet health needs of male sexual violence survivors and subsequent long-term health consequences (Brignone et al., 2016; Holland et al., 2016; Mondragon et al., 2015). Military systems responsible for veterans and active duty SMs will benefit from an informed understanding of current attitudes and beliefs surrounding rape myths. The policy suggestions may offer ways to improve assistance for all survivors.

#### Evaluation of the Aims

Research Aim 1: To explore demographics, and determine the extent of support for rape myth beliefs and patriarchal gender attitudes among the sample of veterans.

Descriptive analysis based on the basic demographic questions performed using SPSS 25 statistical software included a summary of the age, rank, gender, and education of the participants that completed the survey. These descriptive statistics

were supplemented with the amount of time spent on active duty, and transition period. The continuous age variable was re-coded into generations, and the year of transition demographic was reassigned to the 20th and 21st century. There were concerns the number of female respondents would be low, thereby prohibiting statistical analysis of the gender variable, but male and female respondents were nearly equivalent. The high school measure was modified to include one individual who had not graduated from high school. This was necessary to prevent errors in the analysis, due to cell frequencies less than five. All of the other measures had sufficient cases. The frequency distributions of gender, generation (age), rank, education, length of time on active duty, and transition period were depicted in the initial output table.

Frequencies, chi-square analysis, and Pearson's correlation coefficient or Spearman's correlation coefficient were utilized to evaluate the exploratory questions, empathy for a male survivor, belief in a "Just World," subscription to common patriarchal gender attitudes, and rape myths. Chi-square (two-tailed test) and correlation analysis tests were completed for each variable to ensure comprehensiveness, however chi-square analysis was reported in the tables to provide consistency with other literature in the field. If associations showed statistical significance ( $p < .05$ ) then a relationship was indicated between the variables.

Composite scores were established for empathy, patriarchal gender attitudes, and rape myths. Struckman-Johnson and Struckman-Johnson (1992) examined the overall agreement with rape myths by structuring subjects into categories of disagreeing with myths (scores from 1-3) or agreeing with myths (scores from 4-6). However, based on a review of the data in this survey and adherence rates to each individual measure,

there was a clear distinction between the number of participants in this study who did not adhere to any common myths or attitudes, those who adhered to one, and respondents who adhered to more than one myth or attitude. Based on the clear illustration from the survey responses, male rape myths were scored according to no adherence (0), low adherence (1), and high adherence (2-7) to male rape myths. A similar concept was applied to the adherence to female rape myths with scores of no adherence (0), low adherence (1), and high adherence (2-4) to female rape myths, and support of patriarchal gender attitudes was determined with the same pattern of none (0), low (1), and high (2-4) adherence to patriarchal gender attitudes. This led to the composite values of none, low, or high adherence. The variables of interest, such as less empathy and increased adherence were coded the higher value within each composite measure. Frequencies and chi -square tests were completed for each composite measure to observe associations between variables.

Research Aim 2: Examine further significant associations between basic demographics, belief in a "Just World," empathy, patriarchal gender attitudes and adherence to rape myths in a sample of the veteran community.

Based on the demographics and composite measures, correlation tests were conducted to determine the strength and direction of associations. Pearson's correlation had been used in other sexual violence research (Koss et al., 2007). The use of Pearson's correlation coefficient determined positive or negative correlations between the variables that did not include multiple ordinal levels, and the subsequent strength of that relationship. Spearman's correlation was used to calculate a coefficient based on ordinal variables, particularly with composite measures of rape myths, gender attitudes

and empathy. Correlations between age, education, support of patriarchal gender attitudes, adherence to female rape myths, empathy, belief in a "Just World" and adherence to male rape myths were analyzed to address hypotheses 2a - 2d in the research study.

The ordinal logistic regression model tested adherence to male rape myths while controlling for demographics and other factors. The model examined the independent variables including composite empathy, composite female rape myths, composite patriarchal gender attitudes, gender, generation, rank, education, and belief in a "Just World". Ordinal logistic regression was chosen based on the dependent variable being associated with the three level composite male rape myths variables: no adherence, low adherence and high adherence. The response frequencies to male rape myths showed distinct differences between the number of respondents who did not agree with any male rape myths, agreement with one rape myth, and agreement with two or more myths. Multinomial logistic regression was not chosen for the analysis based on the need to preserve the information assigned to the ordered response categories.

Ordinal logistic regression models in SPSS automatically choose the higher value as the reference category and analysis was based on this categorization. The logistic regression models followed forward stepwise entry at 0.05 and removal at 0.10. A second ordinal comparison was required to complete the analysis and included the recoding of the original variables to examine the unaccounted pair in each location. The recoding was performed to examine the comparison between the unexamined levels of female rape myths, patriarchal gender attitudes, empathy for male survivors, generation, and education.

Furthermore, it is commonly suggested that additional investigation of the proportional odds assumption may be necessary and should be performed if violations of the proportional odds assumption occur and, also, to avoid incorrect interpretations of the data (Das & Rahman, 2011; Liu & Koirala, 2012). Based on a failure to meet the proportional odds assumption, separate binomial logistic regression models were completed on differentiated outcome variables in order to examine the parameter estimate and odds ratios. The odds ratio must be relatively equal when comparing the two dichotomous categories of the outcome variable, male rape myths. Odds ratios were considered tenable within the model if the difference was  $< 0.100$  (Laerd, 2015). Hence, the binomial logistic model was completed with the dependent variable consisting of no adherence to male rape myths and adherence to male rape myths (one or more). The model allowed for determination of the likelihood of adherence to male rape myths based on demographics and attitudes/beliefs.

Research Aim 3: Provide policy guidance and suggestions based on the results of the study.

The results of Aim 1 and Aim 2 provided insights into a convenience sample of veterans' attitudes and knowledge of rape myths as a platform to inform the topic for former and current SMs' programs. These findings drive the policy suggestions of Aim 3 that focuses future efforts to dispel false information that promotes stigma, fear and inequality. The proposed plan is based on educational measures shown to be successful in other studies, combined with a novel approach to raise awareness and expand all three levels of prevention by increasing relevance for a military population.

## Study Considerations

Due to the exploratory nature of this research, there were several difficulties that arose from voluntary, self-reporting participation that are not easily mitigated.

### Bias

Bias was possibly interjected with the limitations imposed by the use of the survey instrument and the Yes/No, or Agree/Disagree response. Although a quick survey was deemed appropriate to encourage completion and not tax the time of voluntary participants, this feature can limit the variability in responses by providing participants with a single option. This may have prevented clarification and depth of understanding. Research has shown that acquiescence bias occurs when less educated and less informed respondents tend to offer affirmative answers, in comparison to better educated and better informed respondents (Hinz, Michalski, Schwarz, & Herzberg, 2007). Historical bias may have occurred in the study based on the #MeToo movement, and the suicide of Chester Barrington, the lead singer of Linkin Park, which was associated with his traumatic childhood sexual abuse (Petrusich, 2017). Despite the anonymity of the survey, social desirability may have prompted participants to provide socially acceptable answers they perceived to be as favorable, and thereby not provide their actual beliefs. However, the anonymity of the study may have offered a sense of security to answer questions with honesty. The use of the online platform limited the participants to only those veterans with internet access and biased the sample. Additionally, some veterans may not have visited the websites where the study was advertised, or belonged to a veteran network that was not willing to provide the introductory email and link.

## Validity

Threats to validity included a small number of voluntary participants, the use of self-reporting, disinterest on the part of veterans to complete a survey, and indifference to the topic of sexual violence and rape myths. The non-probability based sample further obstructed validity. The external validity may have been subject to selection bias and sampling error due to the nature of the online sampling and the responses provided strictly by veterans willing to volunteer. These threats hindered the representativeness of the sample and reduced the generalizability to other former Service Members. Alternatively, since there were no immediate benefits from completing the survey, such as access to treatment, monetary reward, or other notoriety the chances of misrepresentation may have been reduced, thereby decreasing the threat to sample validity (Kramer et al., 2014).

The researcher was seeking more participation from the 403 veteran organizations that were contacted, but positive responses were restricted to 6.2% of the contacted organizations. There was a risk that an individual could complete the survey multiple times based on the open enrollment to the survey, but a SurveyMonkey setting was enabled to prevent participants from completing the survey more than once from the same device. Internet protocol (IP) web tracking was turned off to help provide anonymity, but prevented tracking to ensure validity of the participants as former military professionals. SurveyMonkey did provide date and time stamps for survey responses and the information was reviewed to determine if there were peculiar completion patterns. These patterns included the survey being completed so fast that the questions were obviously not read, or numerous responses to the survey being posted within a

short period of time. Efforts were taken to ensure validity as much as possible, regardless of the non-probability sample.

### Limitations

The biggest limitations of this survey were reaching veterans, and then capturing only those veterans that voluntarily agreed to complete an online survey. The use of self-report on the survey through online access was another limitation and that may have alienated less economically advantaged veterans. This survey did not offer an incentive which may have been beneficial to stimulate cooperation (Singer & Ye, 2012). Regardless, an unrepresentative data sample can lead to erroneous results and mistaken conclusions.

Use of appropriate language and sentence structure was important to accommodate varied educational backgrounds, thereby not limiting completion based on a failure of a participant to understand the questions. Although the online platform prevented the participant from asking questions during the survey, the researcher's email was provided and respondents were encouraged to ask questions. The topic of rape myths may have been uneasy for some participants and discouraged interest in the survey. Another drawback of this approach to survey distribution was the difficulty in scrutinizing the veracity of the participants' veteran status. The intent to deter non-veterans from completing the survey and reduce misrepresentation was accomplished by providing demographic questions that addressed military service based on year of transition and length of time on active duty service, but anonymity prevented the ability to confirm former military service.

## CHAPTER 4

### RESULTS

#### Introduction

The exploratory approach of the survey allowed for an examination of the adherence to rape myths among former military professionals in America (Aim One). Further analysis was conducted with the use of ordinal and binomial logistic regression models to determine effects of gender, age, rank, education, belief in a "Just World," empathy, adherence to female rape myths and patriarchal gender attitudes on the likelihood of veterans' adherence to male rape myths (Aim Two). The information from Aim One and Aim Two informed the suggestions included within the strategic plan to educate, raise awareness, shift norms, and reduce long-term health consequences of sexual violence (Aim Three).

#### Sample

The introductory email requesting potential participation in the survey was sent to 403 organizations and chapters associated with former military professionals (Appendix F). Of these 403 establishments, 25 responded positively, a response rate of 6.2%. A large percentage, 325 (80.6%) of the organizations and chapters did not respond to a contact page request, email, or Facebook message, while 53 (13.2%) of the organizations or chapters responded with a declination. Some locations provided reasons for declining to offer the survey. These responses included "inappropriate topic," "limited members with internet access," "too close to the holiday season," "question legitimacy," "focus not appropriate for members," and "unsure of intent". For

those organizations and chapters willing to participate, the second introductory message and a link to the Exploration of Rape Myths survey was provided to the point of contact. The contact then provided the introductory message to veterans in the organization or network through an advertisement provided by the organization, a post on a Facebook page, an electronic newsletter, or forwarding through email. An additional 17 veterans on Facebook were contacted with an introductory email containing the link to the survey with a request to forward the email to other veterans within their own network through snowball sampling. The Exploration of Rape Myths survey was accessed by 617 veterans. This was determined by acknowledgement of the informed consent document. However, 95 of these 617 veterans decided not to complete any of the questions on the survey. Two veterans completed the demographics portion, but answered only two of the survey questions, and were deleted from the tally. A total of 520 former active duty military professionals provided completed surveys, leading to a completion rate of 84.3%.

### Missing Data

There were demographic and attitudes/beliefs questions veterans chose not to answer. Failure to answer a question may be attributed to a participant not understanding the question, choosing not to answer based on personal preference, or submitting the survey without returning to an unanswered question. Thirty participants (5.8%) of the total participants (n = 520) did not answer one or more of the Yes/No or Agree/Disagree questions, while 19 (3.7%) veterans did not answer one or two of the demographic questions. The male and female rape myth questions were the typical questions left unanswered, while rank upon leaving military service and education level

were the commonly unanswered demographic questions. When establishing composite measures, a participant that completed less than 50% of the questions within that measure were assigned a missing value for the unique composite measures.

Research Aim 1: To explore demographics, and determine the extent of support for rape myth beliefs and patriarchal gender attitudes among the sample of former Service Members.

Females and males responded to the survey in similar proportions with 264 (50.8%) male and 256 (49.2%) female participants (Table 1). Baby Boomers had the highest number of respondents with (171, 32.9%), followed by Millennials (155, 29.8%), Generation X (145, 27.9%), and Traditionalists (49, 9.4%). A larger number of former enlisted Service Members completed the survey, 375 (72.8%), while 140 (27.2%) officers provided their input. Many of the former military professionals were college graduates (319, 61.9%) or had some college or technical schooling (164, 31.8%). One male veteran indicated partial completion of high school and was included within the high school graduates group (32, 6.2%). This participant might not have considered the Graduate Equivalency Diploma (GED) as a means of high school completion, or a military branch permitted entry into service without a degree. (Many of the former enlisted personnel (343, 91.7%) reported some college/technical school or graduation from college.)

The length of time on active duty varied from less than one year (11, 2.1%) to the largest number of survey participants having spent more than 20 years (169, 32.6%) in the Armed Forces. Male veterans with more than 20 years (122, 46.2%) comprised the largest percentage of male respondents. Female respondents with 4 - 10 years of active

duty service (93, 36.5%) represented the highest percentage of females. The year of transition from the military was added to the survey in an attempt to ensure former military professionals, and not active duty SMs, completed the survey. Years of transition from military service spanned 1956 to 2018, and was further categorized to represent transition in the 20th versus the 21st century. Of the 520 former military professionals, 206 (39.6%) transitioned from the military between 1956 - 1999, while 314 (60.4%) left the military service between 2000 - 2018. Transition in the 20th century included 109 (41.3%) males and 97 (37.9%) females, while 21st century transition to veteran status included 156 (58.7%) of the male participants and 159 (62.1%) of the female participants.

Table 1

*Demographic Information of the Study Sample*

Demographic		Total (N %)	Male (N %)	Female (N %)
Gender		520 (100)	264 (50.8)	256 (49.2)
Generation	Millennials	155 (29.8)	62 (23.5)	93 (36.3)
	Generation X	145 (27.9)	77 (29.2)	68 (26.6)
	Baby Boomers	171 (32.9)	87 (33.0)	84 (32.8)
	Traditionalists	49 (9.4)	38 (14.4)	11 (4.3)
Rank	Enlisted	375 (72.8)	211 (80.8)	164 (64.6)
	Officer	140 (27.2)	50 (19.2)	90 (35.4)
Education	High School	32 (6.2)	25 (9.5)	7 (2.8)
	College/Technical	164 (31.8)	98 (37.4)	66 (26.1)
	College Graduate	319 (61.9)	139 (53.1)	180 (71.1)

Table 1 (continued)

Demographic		Total (N %)	Male (N %)	Female (N %)
Active Duty Time	< 1 year	11 (2.1)	4 (1.5)	7 (2.7)
	1 - 4 years	115 (22.2)	45 (17.0)	70 (27.5)
	4 - 10 years	153 (29.5)	60 (22.7)	93 (36.5)
	10 - 20 years	71 (13.7)	33 (12.5)	38 (14.9)
	> 20 years	169 (32.6)	122 (46.2)	47 (18.4)
Transition	20th Century	206 (39.6)	109 (41.3)	97 (37.9)
	21st Century	314 (60.4)	156 (58.7)	159 (62.1)

Frequency, Percent. Generation: Millennials (22 - 40 years old), Generation X (41 - 52 years old), Baby Boomers (53 - 71 years old), Traditionalists (72 - 84 years old).

### Exploratory Questions and Belief in a "Just World"

The first exploratory question stated, "Do you think the occurrence of sexual violence is higher in the military than in the civilian community?" Over half of the surveyed veterans did not think sexual violence was higher in the military (352, 67.7%) (Table 2). Examining the results based on gender indicated that 123 (48.0%) of female veterans considered sexual violence higher in the military, while only 45 (17.0%) of male veterans responded similarly. Results from the generational responses to the question were displayed in Table 2. The youngest generation, Millennials, considered sexual violence higher in the military (63, 40.6%) than Generation X (41, 28.3%), Baby Boomers (55, 32.2%) and Traditionalists (9, 18.4%). Statistically significant relationships existed between the belief that sexual violence was higher in the military and both gender ( $\chi^2 = 57.116$ ,  $p < .0005$ ) and generation ( $\chi^2 = 10.360$ ,  $p < .016$ ).

The confidentiality question, "Do you think a Service Member that experienced sexual violence would refuse to seek care or help from the military system due to

confidentiality concerns?" was confirmed by 396 (76.4%) of the respondents, while 122 (23.6%) did not feel a SM would refuse care. Of the male survey participants, 169 (64.5%) thought a SM would refuse care due to the confidentiality concern, while 227 (88.7%) of female respondents agreed. A significant association was present between confidentiality concerns and gender ( $\chi^2 = 42.005$ ,  $p < .0005$ ).

An overwhelming 496 (95.8%) of the participants in this survey did not believe in a "Just World". The decreased likelihood of this convenience sample believing in a "Just World" indicated the potential for a decreased adherence towards victim blaming as described by van den Bos & Maas (2009). Belief in a "Just World" and gender were shown to have a significant relationship based on the chi-square analysis ( $\chi^2 = 4.509$ ,  $p < .034$ ).

Table 2

*Responses to Exploratory and Belief in a "Just World" Questions*

Question	Respondents	No (N %)	Yes (N %)
Do you think the occurrence of sexual violence is higher in the military than in the civilian community?			
Total ( $\chi^2 = 57.116$ , $p < .0005$ )*		352 (67.7)	168 (32.3)
Male		219 (83.0)	45 (17.0)
Female		133 (52.0)	123 (48.0)
Generation ( $\chi^2 = 10.360$ , $p < .016$ )*			
Millennials		92 (59.4)	63 (40.6)
Generation X		104 (71.7)	41 (28.3)
Baby Boomers		116 (67.8)	55 (32.2)
Traditionalists		40 (81.6)	9 (18.4)

Table 2 (continued)

Question	No (N %)	Yes (N %)
Do you think a Service Member that experienced sexual violence would refuse to seek care or help from the military system due to confidentiality concerns?		
Total ( $\chi^2 = 42.005, p < .0005$ )*	122 (23.6)	396 (76.4)
Male	93 (35.5)	169 (64.5)
Female	29 (11.3)	227 (88.7)
Do you believe in a "Just World"?		
Total ( $\chi^2 = 4.509, p < .034$ )*	496 (95.8)	22 (4.2)
Male	246 (93.9)	16 (6.1)
Female	250 (97.7)	6 (2.3)

\*Chi-square test is significant at the 0.05 level.

### Empathy Questions

The first question addressing empathy, "Can you imagine a man's intense humiliation at being forced to have sex against his will?" indicated that 356 (68.6%) of participants could imagine a man's humiliation (reverse scored) (Table 3). An analysis of gender specific responses showed that 118 (44.7%) of males could not imagine a man's humiliation, compared to 45 (17.6%) of females in the survey. The second empathy question described an individual being "more sympathetic to a female sexual violence victim, in comparison to a male sexual violence victim?" and resulted in 500 (96.7%) participants reporting they were not more sympathetic to a woman. Sixteen men (6.1%) and 1 woman (0.4%) felt more sympathetic to a female victim in comparison to a male victim of sexual violence. (The majority of the expected frequencies of the cells in the sample were greater than five.) Both empathy questions showed statistically significant relationships between empathy for a male survivor and gender.

Table 3

*Responses to Empathy Questions*

Question	Respondents	No (N %)	Yes (N %)
Can you imagine a man's intense humiliation at being forced to have sex against his will? Reverse scored.			
Total ( $\chi^2 = 44.056, p < .0005$ )*		163 (31.4)	356 (68.6)
Male		118 (44.7)	146 (55.3)
Female		45 (17.6)	210 (82.4)
Would you be more sympathetic to a female sexual violence victim, in comparison to a male sexual violence victim?			
Total ( $\chi^2 = 13.155, p < .0005$ )*		500 (96.7)	17 (3.3)
Male		247 (93.9)	16 (6.1)
Female		253 (99.6)	1 (0.4)

\*Chi-square test is significant at the 0.05 level.

Female Rape Myth Questions

Of the four questions addressing female rape myths, the most common was that "A lot of women lead a man on, and then claim they were raped" with 130 (25.4%) of former military professionals agreeing with the statement (Table 4). Of the male veteran respondents, 97 (37.3%) agreed that "a lot of women lead a man on," compared to 33 (13.1%) of female respondents. Further examination of this particular rape myth showed that Traditionalists (21, 43.8%) supported the rape myth that "a lot of women lead a man on," more than Millennials (41, 26.6%), Generation X (33, 22.9%), and Baby Boomers (35, 21.1%). Traditionalists had the highest percentage of adherence to the other three female rape myths. The myth that "a lot of women lead a man on" and the generation variable were statistically significant ( $\chi^2 = 10.754, p < .013$ ). The education measure

indicated that 15 (50.0%) of high school graduates adhered to the rape myth that "a lot of women lead men on" compared to 58 (35.8%) of respondents with some college/technical school and 55 (17.5%) of college graduates. Significant associations were present between the rape myth that "women lead men on" and both gender ( $\chi^2 = 39.602$ ,  $p < .0005$ ) and education ( $\chi^2 = 29.424$ ,  $p < .0005$ ).

Overall disagreement with the myths that "A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex," and "Rape of a woman happens when a man's sex drive is out of control" were identical (458, 88.8%). The responses regarding skimpy clothing and forced sex reflect current knowledge that wardrobe choices are not responsible for rape (TNM, 2018). Those veterans that were high school graduates indicated the greatest percentage of adherence to the "skimpy clothing" rape myth (7, 22.6%) and "male sex drive out of control" rape myth (6, 18.8%). The most often rejected female rape myth was, "A woman must physically fight back to claim she was raped" with 472 (90.9%) of participants disagreeing with the statement. This rape myth was not associated with gender ( $\chi^2 = .112$ ,  $p = .738$ ). A statistically significant relationship was shown between gender and both the "skimpy clothing" rape myth ( $\chi^2 = 10.368$ ,  $p = .001$ ) and the "male sex drive out of control" rape myth ( $\chi^2 = 10.169$ ,  $p = .001$ ). Figure 3 illustrates the total responses for each female rape myth question.

Table 4

*Responses to Female Rape Myth Questions*

Statement	Disagree (N %)	Agree (N %)
<hr/>		
Respondents		
<hr/>		
A lot of women lead a man on, and then claim they were raped.		
Total ( $\chi^2 = 39.602, p < .0005$ )*	382 (74.6)	130 (25.4)
Male	163 (62.7)	97 (37.3)
Female	219 (86.9)	33 (13.1)
Generation ( $\chi^2 = 10.754, p = .013$ )*		
Millennials	113 (73.4)	41 (26.6)
Generation X	111 (77.1)	33 (22.9)
Baby Boomers	131 (78.9)	35 (21.1)
Traditionalists	27 (56.3)	21 (43.8)
Education ( $\chi^2 = 29.424, p < .0005$ )*		
High School	15 (50.0)	15 (50.0)
Some College	104 (64.2)	58 (35.8)
College Graduate	260 (82.5)	55 (17.5)
A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.		
Total ( $\chi^2 = 10.368, p = .001$ )*	458 (88.8)	58 (11.2)
Male	221 (84.4)	41 (15.6)
Female	237 (93.3)	17 (6.7)
Rape of a woman happens when a man's sex drive is out of control.		
Total ( $\chi^2 = 10.169, p = .001$ )*	458 (88.8)	58 (11.2)
Male	222 (84.4)	41 (15.6)
Female	236 (93.3)	17 (6.7)
A woman must physically fight back to claim she was raped.		
Total ( $\chi^2 = .112, p = .738$ )	472 (90.9)	47 (9.1)
Male	239 (90.5)	25 (9.5)
Female	233 (91.4)	22 (8.6)

\*Chi-square test significant at the 0.05 level.

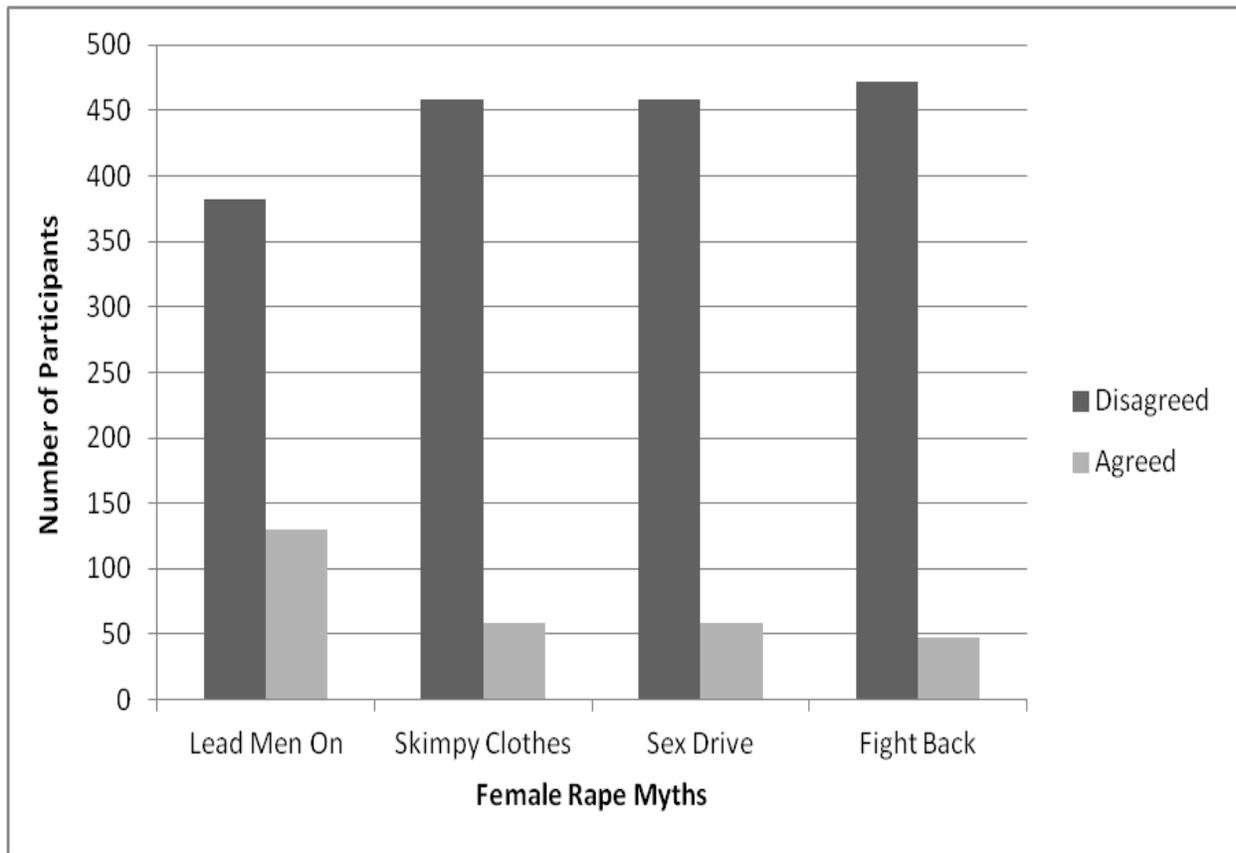


Figure 3. Total Responses to Female Rape Myth Questions

### Patriarchal Gender Attitudes

Three of the four patriarchal gender attitude questions were generally not adhered to: "Do you think women who carry condoms are "easy"?", "Do you think the intellectual leadership of a community should only be in the hands of men?," and "Do you think that fathers should have more authority in raising children than mothers?" (Table 5). However, "Do you think swearing and obscenities are more repulsive when spoken by women compared to men?" was agreed to by 123 (23.7%) of the survey participants. Males respondents indicated that 83 (31.4%) found obscenities by women to be more repulsive, while 40 (15.7%) of female respondents answered similarly. There

was a significant relationship between gender and "obscenities are more repulsive when spoken by women" ( $\chi^2 = 17.801, p < .0005$ ). The survey results showed that "intellectual leadership in the hands of men" was rejected by 511 (98.8%) of participants. There was no significant relationship between this patriarchal gender attitude question and gender ( $\chi^2 = 2.560, p = .110$ ). The "women who carry condoms are "easy"" and "fathers should have more authority" attitudes indicated a statistically significant association with gender.

The analysis of generational adherence to patriarchal gender attitudes was conducted for each gender attitude question and the results showed that Traditionalists subscribed to each patriarchal gender attitude more than other generations. However, the only significant generational association displayed in Table 5 was between generation and the "obscenities are more repulsive when spoken by women" attitude ( $\chi^2 = 45.854, p < .0005$ ). The increase in support of patriarchal gender attitudes among older Traditionalists may be attributed to stricter gender roles during childhood in comparison to later generations of veterans.

Table 5

*Responses to Patriarchal Gender Attitude Questions*

Question	Respondents	No (N %)	Yes (N %)
Do you think swearing and obscenities are more repulsive when spoken by women compared to men?			
Total ( $\chi^2 = 17.801, p < .0005$ )*		396 (76.3)	123 (23.7)
Male		181 (68.6)	83 (31.4)
Female		215 (84.3)	40 (15.7)

Table 5 (continued)

*Responses to Patriarchal Gender Attitude Questions*

Question	No (N %)	Yes (N %)
Respondents		
Generation ( $\chi^2 = 45.854, p < .0005$ )*		
Millennials	139 (89.7)	16 (10.3)
Generation X	115 (79.3)	30 (20.7)
Baby Boomers	120 (70.6)	50 (29.4)
Traditionalists	22 (44.9)	27 (55.1)
Do you think women who carry condoms are "easy"?		
Total ( $\chi^2 = 5.050, p = .025$ )*	485 (93.6)	33 (6.4)
Male	240 (91.3)	23 (8.7)
Female	245 (96.1)	10 (3.9)
Do you think the intellectual leadership of a community should only be in the hands of men?		
Total ( $\chi^2 = 2.560, p = .110$ )	511 (98.8)	6 (1.2)
Male	258 (98.1)	5 (1.9)
Female	253 (99.6)	1 (0.4)
Do you think that fathers should have more authority in raising children than mothers?		
Total ( $\chi^2 = 12.597, p < .0005$ )*	485 (93.8)	32 (6.2)
Male	237 (90.1)	26 (9.9)
Female	248 (97.6)	6 (2.4)

\*Chi-square test is significant at the 0.05 level.

Male Rape Myths

The most commonly held male rape myth 81 (15.6%) in this survey was, "Do you think it is impossible for women to sexually violate men?" (Table 6). Nearly equivalent numbers of male (41, 15.5%) and female (40, 15.7%) veterans considered it impossible for women to sexually violate men. This question reflected the denial myth and may be

attributed to the idea that some people simply do not consider it possible that women can sexually violate men, or they believe the perpetration is less egregious than sexual violation by another male (Arttime et al., 2014). Baby Boomers adhered to the myth more often (37, 21.8%) compared to the other generational responses. Those former military participants who had a high school education agreed with the myth the most (8, 25.0%), but there was no significance association between the "impossible for women to sexually violate men" myth and the education level ( $\chi^2 = 4.565$ ,  $p = .102$ ).

The least adhered to male rape myth was the reverse scored trauma question: "Do you think men need counseling after experiencing sexual violence?". Only 17 (3.3%) of survey participants felt men did not need counseling, while 500 (96.7%) felt counseling was needed. One woman felt that men did not need counseling after experiencing sexual violence. This female participant was an outlier for this particular question. However, the response was not removed from the analysis due to the exploratory and generalizing goal of this study, and the potential that there may be other female veterans who do not think men need counseling.

The two blame questions, "Do you think a man that has been raped or experienced sexual violence is weak?" and "Do you think male rape victims are somewhat to blame for being raped?" were each adhered to by 29 (5.6%) of the participants. There were 48 (9.2%) respondents who agreed with the question "Do you think only homosexual (gay) men sexually violate other men". More veterans (50, 9.8%) agreed with the question, "Do you think a man that experiences stimulation (an erection) from sexual violence means he was a willing participant/ enjoyed it?". The last male rape myth stating, "Do you think most rapists are unknown/strangers to a male victim?"

was affirmed by 59 (11.5%) of former military professionals. There was no statistically significant association between the most often agreed with rape myth, "impossible for women to sexually violate men" and gender ( $\chi^2 = .002$ ,  $p < .961$ ), while significant relationships were shown between each of the other male rape myths and the gender variable. Figure 4 depicts the total survey responses to male rape myth questions.

Table 6

*Responses to Male Rape Myth Questions*

Question	Respondents	No (N %)	Yes (N %)
Do you think it is impossible for women to sexually violate men?			
Total ( $\chi^2 = .002$ , $p = .961$ )		438 (84.4)	81 (15.6)
Male		223 (84.5)	41 (15.5)
Female		215 (84.3)	40 (15.7)
Generation ( $\chi^2 = 10.512$ , $p = .015$ )*			
Millennials		135 (87.1)	20 (12.9)
Generation X		131 (90.3)	14 (9.7)
Baby Boomers		133 (78.2)	37 (21.8)
Traditionalists		39 (79.6)	10 (20.4)
Education ( $\chi^2 = 4.565$ , $p = .102$ )			
High School		24 (75.0)	8 (25.0)
Some College		133 (81.6)	30 (18.4)
College Graduate		277 (86.8)	42 (13.2)
Do you think men need counseling after experiencing sexual violence? Reverse scored.			
Total ( $\chi^2 = 13.155$ , $p = < .0005$ )*		17 (3.3)	500 (96.7)
Male		16 (6.1)	247 (93.9)
Female		1 (0.4)	253 (99.6)

Table 6 (continued)

Question	Respondents	No (N %)	Yes (N %)
Do you think a man that has been raped or experienced sexual violence is weak?			
Total ( $\chi^2 = 18.765$ , $p = < .0005$ )*		489 (94.4)	29 (5.6)
Male		236 (90.1)	26 (9.9)
Female		253 (98.8)	3 (1.2)
Do you think male rape victims are somewhat to blame for being raped?			
Total ( $\chi^2 = 18.953$ , $p = < .0005$ )*		487 (94.4)	29 (5.6)
Male		234 (90.0)	26 (10.0)
Female		253 (98.8)	3 (1.2)
Do you think only homosexual (gay) men sexually violate other men?			
Total ( $\chi^2 = 12.521$ , $p = < .0005$ )*		471 (90.8)	48 (9.2)
Male		227 (86.3)	36 (13.7)
Female		244 (95.3)	12 (4.7)
Do you think a man that experiences stimulation (an erection) from sexual violence means he was a willing participant/enjoyed it?			
Total ( $\chi^2 = 12.355$ , $p = < .0005$ )*		462 (90.2)	50 (9.8)
Male		221 (85.7)	37 (14.3)
Female		241 (94.9)	13 (5.1)
Do you think most rapists are unknown/strangers to a male victim?			
Total ( $\chi^2 = 9.338$ , $p = .002$ )*		455 (88.5)	59 (11.5)
Male		220 (84.3)	41 (15.7)
Female		235 (92.9)	18 (7.1)

\*Chi-square test is significant at the 0.05 level.

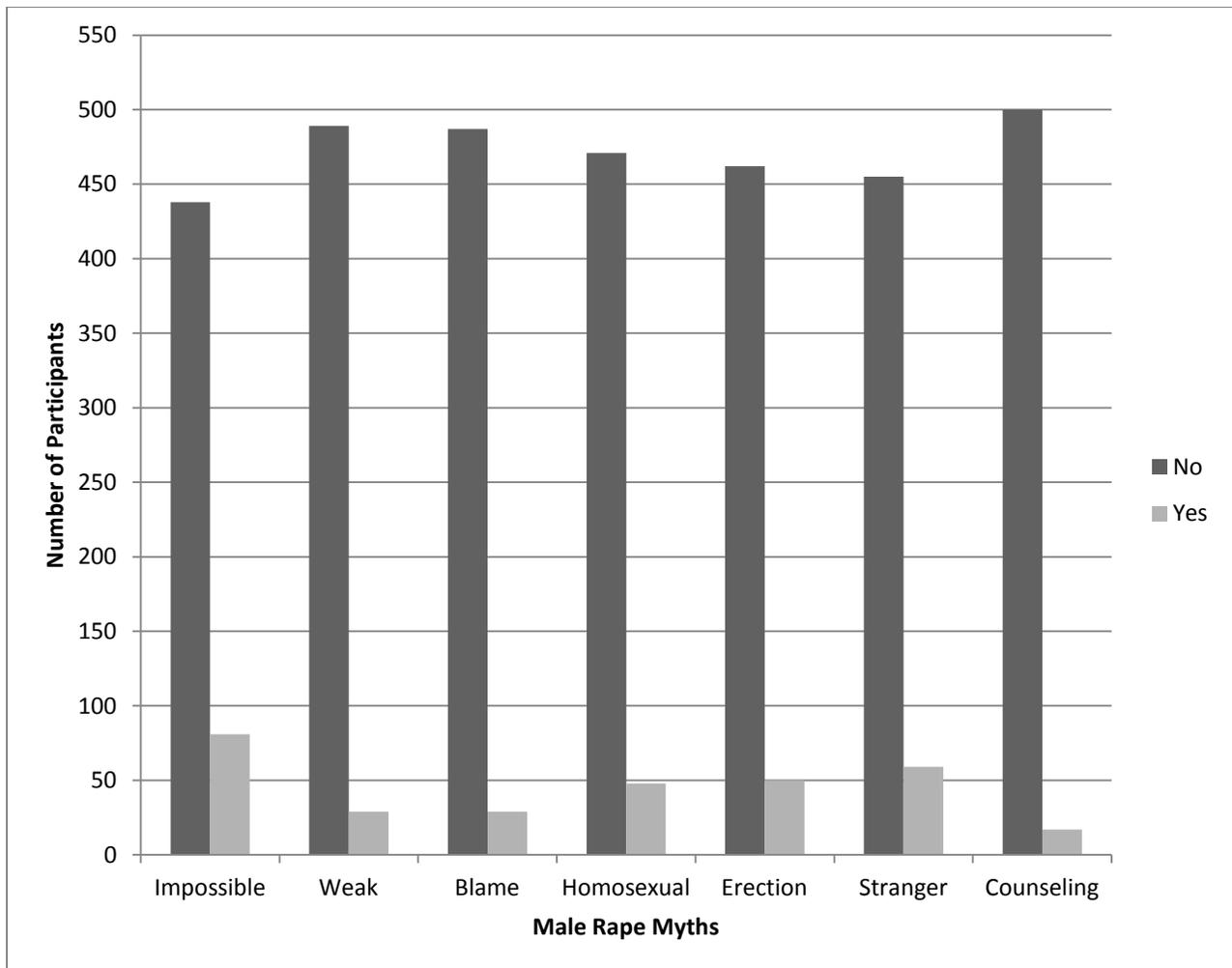


Figure 4. Survey Responses to Male Rape Myth Questions

### Composite Empathy for Male Survivor

A composite empathy measure was established based on veteran's agreement or disagreement with the two empathy question (Table 7). The composite empathy measure had 2 (.4%) missing values due to lack of responses. The highest empathy level for a male survivor was described by a negatively scored response to both empathy questions (293, 56.6%). Some empathy was determined by a participant's positively scored response to one of the two questions, (184, 35.2%), and the least

empathy for a male survivor was based on a positively scored response to both empathy questions as indicated by 41 (7.9%) of respondents. Based on these two questions, female veterans responded with increased empathy (176, 69.0%) in comparison to their male counterparts (117, 44.5%). This trend has been replicated in other studies that have shown women with increased empathy responses, perhaps because women more easily identify with victims (Olsen-Fulero & Fulero, 1997; Osman, 2011). Traditionalists showed the least empathy for male survivors in this study, 6 (12.2%) when compared to the other generations. Notable are the responses that indicated college graduates showed increased empathy (197, 61.9%). Chi-square tests indicated statistical significance between the composite empathy measures, and both gender and education. The results suggested the former military professionals completing this survey generally showed empathy for male survivors.

Table 7

*Frequencies and Significance Between Demographics and Composite Empathy Measure*

Demographic	Empathy (N %)	Some Empathy (N %)	Less Empathy (N %)
Total Respondents	293 (56.6)	184 (35.5)	41 (7.9)
Gender ( $\chi^2 = 40.127$ p < .0005)*			
Male	117 (44.5)	111 (42.2)	35 (13.3)
Female	176 (69.0)	73 (28.6)	6 (2.4)
Generation ( $\chi^2 = 8.411$ , p = .210)			
Millennials	77 (49.7)	66 (42.6)	12 (7.7)
Generation X	88 (61.1)	44 (30.6)	12 (8.3)
Baby Boomers	104 (61.2)	55 (32.4)	11 (6.5)
Traditionalists	24 (49.0)	19 (38.8)	6 (12.2)

Table 7 (continued)

Demographic	Empathy (N %)	Some Empathy (N %)	Less Empathy (N %)
Education ( $\chi^2 = 15.319, p = .004$ )*			
High School	10 (31.3)	18 (56.3)	4 (12.5)
Some College	81 (49.7)	66 (40.5)	16 (9.8)
College Graduate	197 (61.9)	100 (31.4)	21 (6.6)

\*Chi-square test is significant at the 0.05 level.

### Other Composite Measures

A composite measure was established for female rape myths, male rape myths, and patriarchal gender attitudes. The assignment of the composite measure was based on review of the data. The summation of adherence to the total number of myths for each participant were calculated and determined based on clear differences between adhering to none, one, and two or more myths or gender attitudes. Each of the composite measures had 1 (.2%) respondent assigned a missing value because too few questions were answered for the particular respondent. Chi-square tests were conducted to determine whether two variables were significant at the 0.05 level (2 tailed).

Composite Female Rape Myths. The following three categories were assigned to represent the composite female rape myth scores: a) the "No Adherence" category represented former Service Members that did not adhere to any of the female rape myths (311, 59.6%), b) the "Low Adherence" category represented adherence to one female rape myth (147, 28.3%), and c) the "High Adherence" category reflected adherence to two, three, or four of the female rape myths (61, 11.8%) (Table 8). Six (1.1%) males adhered to all four of the female rape myths. Males in the survey adhered

to female rape myths more often than women in the low adherence category, as well as in the high adherence category. Traditionalists and those veterans with a high school education displayed the highest adherence to some (one) and many (two - four) female rape myths when compared to others in their demographic. Female rape myths were all significantly associated with gender, generation, and education.

Table 8

*Frequencies and Significance Between Demographics and Composite Female Rape Myths*

Demographic	No Adherence (N %)	Low Adherence (N %)	High Adherence (N %)
Total Respondents	311 (59.6)	147 (28.3)	61 (11.8)
Gender ( $\chi^2 = 32.598, p < .0005$ )*			
Male	127 (48.1)	93 (35.2)	44 (16.7)
Female	184 (72.2)	54 (21.2)	17 (6.7)
Generation ( $\chi^2 = 26.665, p < .0005$ )*			
Millennials	98 (63.2)	42 (27.1)	15 (9.7)
Generation X	99 (68.3)	32 (22.1)	14 (9.7)
Baby Boomers	95 (55.9)	58 (34.1)	17 (10.0)
Traditionalists	19 (38.8)	15 (30.6)	15 (30.6)
Education ( $\chi^2 = 17.143, p = .002$ )*			
High School	11 (34.4)	15 (46.8)	6 (18.8)
Some College	87 (53.0)	53 (32.3)	24 (14.6)
College Graduate	210 (66.0)	78 (24.5)	30 (9.4)

\*Chi-square test is significant at the 0.05 level.

Composite Patriarchal Gender Attitudes. Survey participants did not adhere to all of the patriarchal gender attitudes, although four (.77%) male veterans adhered to three of the four patriarchal gender attitudes. Of the female veterans who completed this survey, 6 (2.4%) indicated high adherence to patriarchal gender attitudes compared to 28 (10.6%) of male veterans (Table 9). Results showed that 204 (80.0%) of female

participants did not adhere to any of the patriarchal gender attitudes in comparison to 159 (60.2%) of males. Traditionalists (12, 4.5%) displayed the highest adherence to patriarchal gender attitudes, while Millennials (127, 81.9%) had the greatest percentage of non-adherence. Patriarchal gender attitudes were significantly associated with the generational measure ( $\chi^2 = 48.802$ ,  $p < .0005$ ). Composite patriarchal gender attitudes were highest among those respondents with less formal education, although there was no significant association between the two variables ( $\chi^2 = 4.391$ ,  $p = .356$ ).

Table 9

*Frequencies and Significance Between Demographics and Composite Patriarchal Gender Attitudes*

Demographic	No Adherence (N %)	Low Adherence (N %)	High Adherence (N %)
Total Respondents	363 (69.9)	122 (23.5)	34 (6.6)
Gender ( $\chi^2 = 28.060$ , $p < .0005$ )*			
Male	159 (60.2)	77 (29.2)	28 (10.6)
Female	204 (80.0)	45 (17.6)	6 (2.4)
Generation ( $\chi^2 = 48.802$ , $p < .0005$ )*			
Millennials	127 (81.9)	22 (14.2)	6 (3.9)
Generation X	105 (72.4)	33 (22.8)	7 (4.8)
Baby Boomers	112 (65.9)	49 (28.8)	9 (5.3)
Traditionalists	19 (38.8)	18 (36.7)	12 (24.5)
Education ( $\chi^2 = 4.391$ , $p = .356$ )			
High School	18 (56.3)	11 (34.4)	3 (9.4)
Some College	112 (68.3)	39 (23.8)	13 (7.9)
College Graduate	229 (72.0)	72 (22.6)	17 (5.3)

\*Chi-square test is significant at the 0.05 level.

Composite Male Rape Myths. None of the participants adhered to all seven of the male rape myths, therefore the composite measures were distributed as none, low (adherence to one male rape myth) and high adherence (two through six male rape

myths) (Table10). Five (1%) of the survey participants, all male, adhered to six of the seven male rape myths. An evaluation of the composite male rape measures showed that slightly more than half (139, 52.5%) of the male veterans in this survey did not adhere to any male rape myths, while low adherence represented 72 (27.4%) of male veterans and high adherence was reported by 52 (19.8%) of male respondents. Of the female veteran respondents, 178 (69.5%) indicated no adherence to male rape myths, while 69 (27.0%) showed low adherence, and nine (3.5%) of females reflected high adherence. Generation X had the highest percentage of veterans (98, 67.6%) that did not adhere to composite male rape myths. Similar to the composite female rape myths measure, adherence to composite male rape myths was lowest for veterans with further formal education. College graduates in the survey population indicated the least agreement with male rape myths at 215 (67.4%). Rank was only analyzed for the composite male rape myths measure to help inform the male rape myth model, and was not illustrated in the tables describing other measures. Statistically significant relationships existed for the composite rape myth scores and gender, generation, education, and rank.

Table 10

*Frequencies and Significance Between Demographics and Composite Male Rape Myths*

Demographic	No Adherence (N %)	Low Adherence (N %)	High Adherence (N %)
Total Respondents	317 (61.1)	141 (27.2)	61 (11.8)
Gender ( $\chi^2 = 35.085, p < .0005$ )*			
Male	139 (52.9)	72 (27.4)	52 (19.8)
Female	178 (69.5)	69 (27.0)	9 (3.5)

Table 10 (continued)

Demographic	No Adherence (N %)	Low Adherence (N %)	High Adherence (N %)
Generation ( $\chi^2 = 14.048, p = .029$ )*			
Millennials	95 (61.3)	46 (29.7)	14 (9.0)
Generation X	98 (67.6)	29 (20.0)	18 (12.4)
Baby Boomers	104 (61.2)	47 (27.6)	19 (11.2)
Traditionalists	20 (40.8)	19 (38.8)	10 (20.4)
Education ( $\chi^2 = 22.654, p < .0005$ )*			
High School	15 (48.4)	8 (25.8)	8 (25.8)
Some College	84 (51.2)	51 (31.1)	29 (17.7)
College Graduate	215 (67.4)	81 (25.4)	23 (7.2)
Rank ( $\chi^2 = 8.521, p = .014$ )*			
Enlisted	220 (58.8)	101 (27.0)	53 (14.2)
Officer	94 (67.1)	39 (27.9)	7 (5.0)

\*Chi-square test is significant at the 0.05 level.

### Hypothesis 1

Overall, veterans supported one or more female rape myths (208, 40.1%) slightly more than agreement with one or more male rape myths (202, 39.0%), which was unexpected. The support for one or more patriarchal gender attitudes (156, 30.1%) trailed behind (Figure 5). Male respondents had a higher percentage of agreement with one or more female rape myths (137, 51.9%), than agreement with one or more male rape myths (124, 47.2%). Women showed higher support of one or more male rape myths (78, 30.5%) when compared to their agreement with one or more female rape myths (71, 27.9%). As shown in Table 10, males showed greater adherence to two or male rape myths (52, 19.8%) in comparison to two or more female rape myths (44, 16.7%). One or more patriarchal gender attitudes represented the variable least adhered to by male veterans (105, 39.8%), and female veterans (51, 20.0%). Males in

the convenience sample agreed with more total (one or more) female rape myths in comparison to total (one or more) male rape myths.

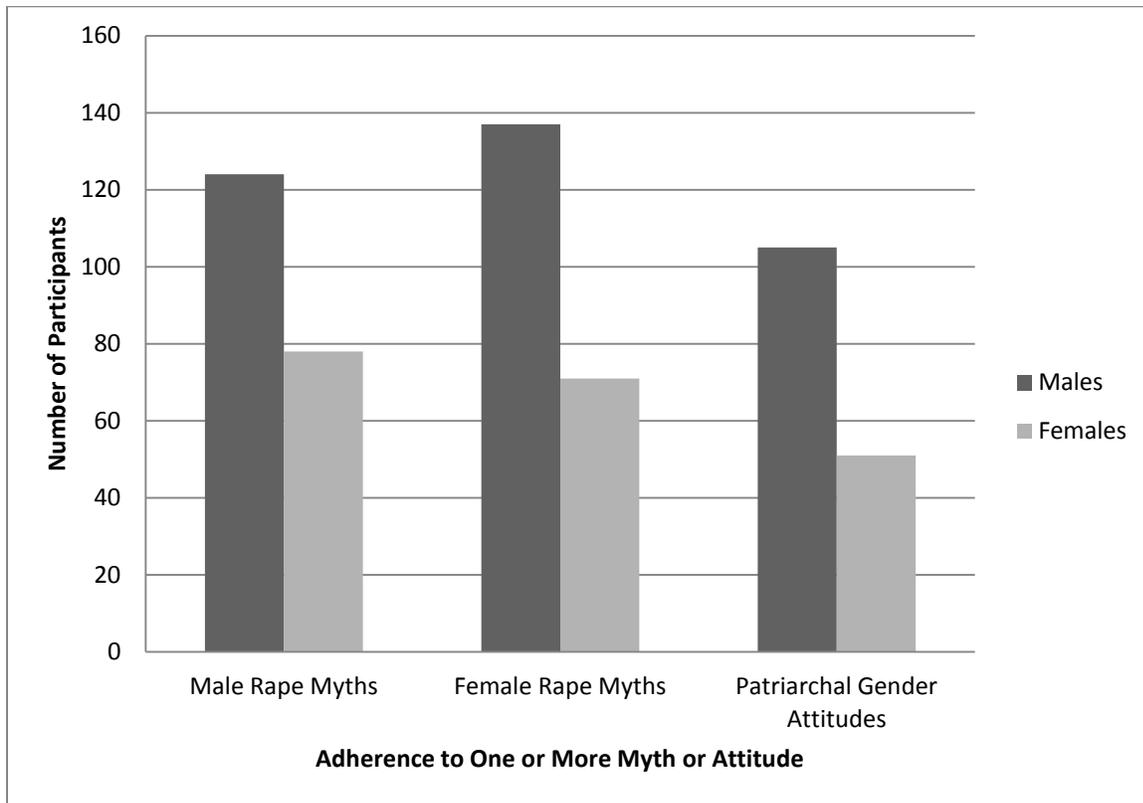


Figure 5. Adherence to One or More Myth or Attitude Based on Gender

Research Aim 2: Examine further associations between basic demographics, belief in a "Just World," empathy, patriarchal gender attitudes and prescription to rape myths in a sample of the veteran community.

### Hypothesis 2a

Analysis of Spearman's correlation coefficient followed the chi-square test. Spearman's coefficient was utilized due to the rank-order correlation of the dependent variable, composite rape myths. In this convenience sample, further education served

as a protective factor with a reduced adherence to female and male rape myths, and supported the hypothesis. As shown in Table 11, there was a statistically significant, yet weak negative correlation between education and adherence to male rape myths ( $\chi^2 = 22.654$ ,  $p < .0005$ ,  $r_s (512) = -.189$ ,  $p < .0005$ ). A similar negative correlation was shown between education and female rape myths ( $\chi^2 = 17.143$ ,  $p = .002$ ,  $r_s (512) = -.171$ ,  $p < .0005$ ), and reflected results of earlier studies (Anderson & Whiston, 2005; Kassing et al., 2005, Vonderhaar & Carmody, 2015).

A statistically significant, but weak positive correlation was displayed between generation (age) and female rape myths ( $\chi^2 = 26.665$ ,  $p < .0005$ ,  $r_s (517) = .135$ ,  $p = .002$ ), whereby older veterans were more likely to adhere to female rape myths. A statistical relationship existed between generation (age) and composite male rape myths ( $\chi^2 = 60.19$ ,  $p < .0005$ ), but there was no association ( $r_s (51) = .080$ ,  $p = .068$ ) between the two variables. Generation (age) did not serve as a protective factor.

In the convenience sample, the shift from men (0) to women (1) illustrated a reduction in rape myth adherence. A statistically significant, and weak negative association between adherence to composite male rape myths and gender ( $\chi^2 = 35.085$ ,  $p < .0005$ ,  $r_s (517) = -.210$ ,  $p < .0005$ ) was shown, and a similar association was shown for female rape myths and gender ( $\chi^2 = 32.598$ ,  $p < .0005$ ,  $r_s (517) = -.251$ ,  $p < .0005$ ). Additionally, there were no significant relationships between the amount of time spent on active duty and adherence to male ( $\chi^2 = 9.502$ ,  $p = .302$ ) or female rape myths ( $\chi^2 = 11.010$ ,  $p = .201$ ).

Table 11

*Nonparametric Tests for Variables and Composite Rape Myths*

Variables	Nonparametric Tests	
	Chi-square	Spearman's Rho
<b>Composite Male Rape Myths</b>		
Female Rape Myths	$\chi^2 = 60.19, p < .0005$	$r_s (516) = .253, p < .0005$
Gender	$\chi^2 = 35.085, p < .0005$	$r_s (517) = -.210, p < .0005$
Education	$\chi^2 = 22.654, p < .0005$	$r_s (512) = -.189, p < .0005$
Generation	$\chi^2 = 14.048, p = .029$	$r_s (515) = .080, p = .068$
Active Duty Time	$\chi^2 = 9.502, p = .302$	$r_s (516) = .034, p = .445$
Transition Period	$\chi^2 = 6.806, p = .033$	$r_s (517) = -.109, p = .013$
Rank	$\chi^2 = 8.521, p = .014$	$r_s (512) = -.097, p = .028$
<b>Composite Female Rape Myths</b>		
Gender	$\chi^2 = 32.598, p < .0005$	$r_s (517) = -.251, p < .0005$
Education	$\chi^2 = 17.143, p = .002$	$r_s (512) = -.171, p < .0005$
Generation	$\chi^2 = 26.665, p < .0005$	$r_s (517) = .135, p = .002$
Active Duty Time	$\chi^2 = 11.010, p = .201$	$r_s (516) = .041, p = .357$
Transition Period	$\chi^2 = 2.387, p = .303$	$r_s (517) = -.063, p = .154$
Rank	$\chi^2 = 5.708, p = .058$	$r_s (512) = -.105, p = .018$

Composite female rape myths scale. Chi-square test is significant at the 0.05 level.  
Males = 0 and females = 1.

## Hypothesis 2b

Support of patriarchal gender attitudes was shown to be significant and positively associated with increased adherence to male and female rape myths in this veteran population (Table 12). The association between patriarchal gender attitudes and female rape myths was moderately strong ( $\chi^2 = 86.652$ ,  $p < .0005$ ,  $r_s(517) = .305$ ,  $p < .0005$ ), and slightly more so than the association between gender attitudes and male rape myths, ( $\chi^2 = 63.461$ ,  $p < .0005$ ,  $r_s(516) = .292$ ,  $p < .0005$ ). Gender (male = 0 and female = 1) was significantly and negatively correlated with adherence to composite patriarchal gender attitudes ( $\chi^2 = 28.060$ ,  $p < .0005$ ,  $r_s(517) = -.226$ ,  $p < .0005$ ). The change from men (0) to women (1) illustrated a reduction in agreement with patriarchal attitudes. Composite patriarchal gender attitudes were not significantly associated with education, amount of time on active duty, or rank. A significant, but weak negative correlation existed between gender attitudes and transition from the military ( $\chi^2 = 9.080$ ,  $p = .011$ ,  $r_s(517) = -.131$ ,  $p = .003$ ). This result reinforces the weak positive association between adherence to patriarchal gender attitudes and generation ( $\chi^2 = 48.802$ ,  $p < .0005$ ,  $r_s(517) = .238$ ,  $p < .0005$ ), whereby older respondents adhered to more patriarchal gender attitudes.

Table 12

*Nonparametric Tests for Variables and Composite Patriarchal Gender Attitudes*

Variables	Nonparametric Tests	
	Chi-square	Spearman's Rho
Composite Patriarchal Gender Attitudes		
Female Rape Myths	$\chi^2 = 86.652, p < .0005$	$r_s (517) = .305, p < .0005$
Male Rape Myths	$\chi^2 = 63.461, p < .0005$	$r_s (516) = .292, p < .0005$
Gender	$\chi^2 = 28.060, p < .0005$	$r_s (517) = -.226, p < .0005$
Education	$\chi^2 = 4.391, p = .356$	$r_s (512) = -.074, p = .095$
Generation	$\chi^2 = 48.802, p < .0005$	$r_s (517) = .238, p < .0005$
Active Duty Time	$\chi^2 = 14.943, p = .060$	$r_s (516) = .055, p = .208$
Transition Period	$\chi^2 = 9.080, p = .011$	$r_s (517) = -.131, p = .003$
Rank	$\chi^2 = .173, p = .917$	$r_s (512) = -.002, p = .966$

Composite rape myths scale. Chi-square test is significant at the 0.05 level. Male = 0 and female = 1.

Hypothesis 2c

Belief in a "Just World," whereby people get what they deserve, had a weak positive association with an increased adherence to male rape myths ( $\chi^2 = 25.690, p < .0005, r = .179, p < .0005$ ) and female rape myths ( $\chi^2 = 26.000, p < .0005, r = .189, p < .0005$ ) (Table 13). Although belief in a "Just World" was strongly associated with an adherence to both male and female rape myths in an earlier study by Vonderhaar & Carmody (2015), this was not the case with the veteran population in this sample. The result could have been attributed to the restrictions inherent with only one basic

question on the survey that addressed the concept of a "Just World". There was a significant and weak positive correlation between a belief in a "Just World" and a decrease in empathy for male survivors ( $\chi^2 = 25.107, p < .0005, r = .221, p < .0005$ ). There were only 22 (4.2%) veterans in this study who adhered to the belief in a "Just World" which may be attributable to shifts in cultural outlook, or reflect views held by military professionals who have witnessed war or conflicts. The role of the belief in a "Just World" may have limited import for an educational training platform to help reduce rape myths in the military population. Belief in a "Just World" was weakly and positively associated with patriarchal attitudes, and showed a weak negative association with gender. Belief in a "Just World" was not associated with education, generation, time spent on active duty, transition period, or rank.

Table 13

*Nonparametric Tests for Variables and Belief in a "Just World"*

Variables	Nonparametric Tests	
	Chi-square	Spearman's Rho
Belief in a "Just World"		
Male Rape Myths	$\chi^2 = 25.690, p < .0005$	$r = .179, p < .0005$
Female Rape Myths	$\chi^2 = 26.000, p < .0005$	$r = .189, p < .0005$
Patriarchal Attitudes	$\chi^2 = 8.424, p = .015$	$r = .127, p = .004$
Empathy	$\chi^2 = 25.107, p < .0005$	$r = .221, p < .0005$
Gender	$\chi^2 = 4.509, p = .034$	$r = -.093, p = .034$
Education	$\chi^2 = .457, p = .796$	$r = -.004, p = .925$

Table 13 (continued)

Variables	Nonparametric Tests	
	Chi-square	Spearman's Rho
Generation	$\chi^2 = .182$ $p = .980$	$r = .003$ , $p = .949$
Active Duty Time	$\chi^2 = 9.248$ , $p = .055$	$r = .041$ , $p = .348$
Transition Period	$\chi^2 = 1.411$ $p = .235$	$r = .052$ , $p = .236$
Rank	$\chi^2 = .241$ , $p = .623$	$r = -.022$ , $p = .624$

Rape myths, patriarchal attitudes, and empathy are composite scales. Chi-square test is significant at the 0.05 level. Male = 0 and female = 1.

#### Hypothesis 2d

Less empathy for a male survivor was significantly and positively correlated with increased adherence to male and female rape myths, and patriarchal gender attitudes in the veteran sample (Table 14). The strongest association was between less empathy and increased adherence to male rape myths ( $\chi^2 = 60.196$ ,  $p = .0005$ ,  $r_s(515) = .284$ ,  $p = .0005$ ). This result has been replicated in other studies (King & Hanrahan, 2015; Miller, Amacker, & King, 2011; O'Donohue, Yeater, & Fanetti, 2003). Females veterans in the survey population were more likely to indicate increased empathy in comparison to male veterans ( $\chi^2 = 40.127$   $p < .0005$ ,  $r_s(516) = -.269$ ,  $p < .0005$ ). Reduced empathy for a male survivor had a weak negative association with education, while it had a weak positive association with the amount of time spent on active duty. Generation, transition period, and rank were not significantly associated with the composite empathy measure for male survivors.

Table 14

*Nonparametric Tests for Variables and Composite Empathy Measure*

Variables	Nonparametric Tests	
	Chi-square	Spearman's Rho
Composite Empathy for Male Survivor (Lack of Empathy)		
Male Rape Myths	$\chi^2 = 60.196, p < .0005$	$r_s (515) = .284, p < .0005$
Female Rape Myths	$\chi^2 = 12.387, p = .015$	$r_s (515) = .131, p = .003$
Patriarchal Attitudes	$\chi^2 = 27.427, p < .0005$	$r_s (515) = .216, p < .0005$
Gender	$\chi^2 = 40.127, p < .0005$	$r_s (516) = -.269, p < .0005$
Education	$\chi^2 = 15.319, p = .004$	$r_s (511) = -.161, p < .0005$
Generation	$\chi^2 = 8.411, p = .210$	$r_s (516) = -.042, p = .336$
Active Duty Time	$\chi^2 = 15.674, p = .047$	$r_s (515) = .102, p = .020$
Transition Period	$\chi^2 = .140, p = .932$	$r_s (516) = .015, p = .727$
Rank	$\chi^2 = 1.336, p = .513$	$r_s (511) = -.019, p = .661$

Rape myths, patriarchal attitudes, and empathy are composite scales. Chi-square test is significant at the 0.05 level. Male = 0 and female = 1.

Model: Ordinal Logistic Regression Model of Male Rape Myths

The ordinal logistic regression model with proportional odds was completed to determine the effect of gender, generation, rank, education, belief in a "Just World," empathy for male survivors, adherence to female rape myths, and adherence to patriarchal gender attitudes, on the adherence to composite male rape myths.

Interpretation of the ordinal measures compared two of the three levels, whereby the first two levels of each measure are compared to the third level. A second model

required recoding of the variables to analyze the unaccounted comparison among two of the three levels.

SPSS model fitting information showed that adherence to male rape myths was an enhancement to a model without the predictor variables ( $\chi^2 = 117.877$ ,  $p < .0005$ ). The deviance goodness-of-fit test ( $\chi^2 = 439.542$ ,  $p = .787$ ) indicated the model was a good fit to the observed data due to the non-statistical significance,  $p > .05$ . Based on the ordinal regression model, 12.8% (McFadden measure) and 24.8% (Nagelkerke measure) of the variance in the adherence to composite male rape myths was explained by the predictor variables.

Empathy for male survivors, female rape myths, patriarchal gender attitudes, and some college were shown to be significant ( $p < .05$ ) (Table 15). When examining the proportional odds ratio for the ordinal logistic regression model, the odds apply to a higher category of the dependent variable, adherence to male rape myths. The odds of respondents with the highest empathy for male survivors agreeing with male rape myths was 82% less likely, 95% confidence interval (CI) [0.087, 0.350] than respondents with the lowest empathy scores. The odds of respondents with some empathy for male survivors agreeing with male rape myths was 70% less likely, CI [0.151, 0.586] than respondents with the lowest empathy scores. The odds of veterans who did not adhere to any of the female rape myths agreeing to male rape myths was 61% less likely, CI [0.210, 0.709] in comparison to veterans who showed the highest adherence to female rape myths. The odds of veterans who adhered to one (low) female rape myth adhering to male rape myths were 48% less likely, CI [0.274, 0.975] in comparison to those who showed the highest adherence to female rape myths. The odds of the survey

participants who did not agree with patriarchal gender attitudes adhering to male rape myths were 80% less likely, CI [0.091, 0.434] versus participants who indicated high adherence to patriarchal gender attitudes. While the odds of veterans with some adherence to patriarchal gender attitudes agreeing to male rape myths were 71% less likely, CI [0.131, 0.655] than the highest adherence to patriarchal gender attitudes. Lastly, the odds of veterans with some college adhering to male rape myths was 68% higher, CI [1.092, 2.570] than college graduates. These findings indicated that surveyed veterans with a lower adherence to female rape myths and patriarchal gender attitudes, and increased empathy showed a decreased adherence to male rape myths. The other variables including gender, generation, rank, education, and belief in a "Just World" were not found to be statistically significant, when controlling for other factors in this sample.

Table 15

*Ordinal Logistic Regression Model*

Parameters	$\beta$	Sig.	Exp(B)	95% CI Lower & Upper	
<u>Dependent Variable</u>					
Composite Male Rape Myths					
No Adherence=0	-3.578	<0.0005	0.028	0.007	0.113
Low Adherence=1	-1.626	0.018	0.197	0.051	0.761
<u>Independent Variables</u>					
Composite Empathy for Male Survivors					
More Empathy=0	-1.744	<0.0005	0.175	0.087	0.350
Some Empathy=1	-1.211	<0.0005	0.298	0.151	0.586
Less Empathy=2	Reference				
Composite Female Rape Myths					
No Adherence=0	-0.953	0.002	0.386	0.210	0.709
Low Adherence=1	-0.661	0.041	0.517	0.274	0.975
High Adherence=2	Reference				

Table 15 (continued)

Parameters	$\beta$	Sig.	Exp(B)	95% CI Lower & Upper	
Composite Patriarchal Gender Attitudes					
No Adherence=0	-1.617	<0.0005	0.198	0.091	0.434
Low Adherence=1	-1.228	0.003	0.293	0.131	0.655
High Adherence=2	Reference				
Generation					
Millennials=0	-0.257	0.484	0.773	0.377	1.587
Generation X=1	-0.361	0.323	0.697	0.341	1.425
Baby Boomers=2	-0.153	0.662	0.858	0.432	1.704
Traditionalists=3	Reference				
Education					
High School=1	0.510	0.200	1.665	0.763	3.631
Some College=2	0.516	0.018	1.675	1.092	2.570
College Graduate=3	Reference				
Gender					
Male=0	0.218	0.300	1.244	0.824	1.879
Female=1	Reference				
Rank					
Enlisted=0	0.221	0.365	1.247	0.774	2.009
Officers=1	Reference				
"Just World"					
Disbelief in "Just World"=0	-0.708	0.117	0.493	0.203	1.194
Belief in "Just World"=1	Reference				

Parameter estimates ( $\beta$ ), odds ratio (Exp(B), confidence interval (CI).

Recoded Ordinal Logistic Regression Model. The original variables were recoded for all ordinal values to complete the final comparison between the unaccounted pairs. Female rape myths, patriarchal gender attitudes, empathy, generation, and education measures were all recoded to evaluate the pair-wise comparisons that were not able to be compared in the first model. The pair-wise comparisons examined those respondents with some empathy in comparison to those with more empathy, and veterans with low adherence to no adherence of both female rape myths and patriarchal gender attitudes. Empathy was the only significant measure in the recoded pairs. The

odds that veterans with some empathy adhered to male rape myths were 1.704 times more likely, CI [1.124, 2.582] than veterans with high levels of empathy.

The test of parallel lines, also referred to as the full likelihood ratio test, addressed the proportional odds assumption and served as a reliable test to compare the fit between the proportional odds model (ordinal logistic regression model) and the general model that lacks the proportional odds assumption (Laerd, 2015). This requirement was not met ( $\chi^2 = 36.026$ ,  $p = .001$ ). The differences were statistically significant ( $p < .05$ ) and indicated a general model with varying parameters was a better fit than a model with parameters that were the same for all categories. Based on the proportional odds assumption, the parameter estimates and odds ratio, should be similar for all measures in the ordinal logistic regression model. This prompted binomial logistic regression analysis to further analyze the parameter estimates ( $\beta$ ) and odds ratios (Exp(B)) associated with male rape myths.

Binomial Logistic Regression Models to Examine Odds Ratios. The assumption of proportional odds is based on the odds ratios being relatively equal after running binomial logistic regression and allows for determination of credible results. Two categories were established to examine the binomial logistic regression models and compare the results. Category 1 consisted of those veterans who adhered to zero or one male rape myths (low), and those veterans that agreed with two or more male rape myths (high). Category 2 included those participants with no adherence to male rape myths (none), and those participants adhering to one or more male rape myths (some). As shown below in Table 16, comparisons of similar odds ratio for Category 1 and 2 include: some empathy (Exp(B) = .140, Exp(B) = .157), low patriarchal gender attitudes

(Exp(B) = .204, Exp(B) = .179), high patriarchal gender attitudes (Exp(B) = .334, Exp(B) = .253), and college graduation (Exp(B) = 1.673, Exp(B) = 1.713). These variable levels were all tenable based on a difference in  $\text{Exp}(B) < 0.1$ . The aforementioned results suggested a reasonable trend across the data for empathy and patriarchal gender attitudes. The education variable was not significant in the recoded ordinal model.

The variation in the odds ratio for the majority of these measures was not expected. Results that were not supportable included those veterans with high adherence to composite female rape myths with an  $\text{Exp}(B) = .288$  for Category 1, in comparison to the  $\text{Exp}(B) = .716$  for zero versus some adherence to male rape myths (Category 2); a difference of .428. The dissimilarity of this odds ratio impacts the odds of the role of adherence to female rape myths as it relates to male rape myths. The discrepancy could be attributed to the importance of a larger sample size, an artifact of the statistical analysis, or the anti-conservative nature of the proportional odds model (O'Connell, 2006).

Table 16

*Binomial Logistic Regression Models to Analyze Odds Ratios*

Parameters	Significance Test		Difference
	Exp(B)	Exp(B)	
<u>Dependent Variable</u>	Category 1	Category 2	
Adherence to Male Rape Myths:	Low vs. High	None vs. Some	
<u>Independent Variables</u>			
Composite Empathy for Male Survivors			
More Empathy=0	Reference		
Some Empathy=1	.140	.157	.017
Less Empathy=2	.437	.251	.186

Table 16 (continued)

Parameters	Significance Test		Difference
	Exp(B)	Exp(B)	
Composite Female Rape Myths			
No Adherence=0	Reference		
Low Adherence=1	.257	.508	.251
High Adherence=2	.288	.716	.428
Composite Patriarchal Gender Attitudes			
No Adherence=0	Reference		
Low Adherence=1	.204	.179	.025
High Adherence=2	.334	.253	.081
Gender			
Male=0	Reference		
Female=1	2.702	1.073	1.629
Generation			
Millennials=0	Reference		
Generation X=1	1.011	.686	0.325
Baby Boomers=2	1.750	.544	1.206
Traditionalists=3	1.756	.735	1.021
Rank			
Enlisted=0	Reference		
Officer=1	2.167	1.111	1.056
Education			
High School=0	Reference		
Some College=2	2.034	1.421	0.613
College Graduate=3	1.673	1.713	0.040
"Just World"			
No Belief in "Just World"=0	Reference		
Belief in "Just World"=1	.383	.720	.337

Parameter estimates ( $\beta$ ), odds ratio (Exp(B)), confidence interval (CI).

Model: Binomial Logistic Regression Predicting Likelihood of Adherence to Male Rape

### Myths

Although the proportional odds model was not wholly successful, further logistical analysis prompted a review of the logistic regression model for Category 2 to determine the effects of the demographics on the likelihood that a veteran adhered to zero or some male rape myths. The model was similar to the ordinal logistic regression model

with the same independent variables, but the dependent variable was recoded to the dichotomous measure of adherence to zero or some rape myths. The model was statistically significant,  $\chi^2 = 86.189$ ,  $p < .0005$  and explained 21.2% (Nagelkerke  $R^2$ ) of the variance in male rape myths adherence. None of the four demographic variables, gender, generation (age), rank, and education were significant, nor was the belief in the "Just World" variable (Table 17). Empathy levels, high adherence to female rape myths, and high adherence to composite patriarchal gender attitudes were significant and contributed to the model. The odds of veterans with some empathy adhering to male rape myths was 60% higher than those respondents with increased empathy ( $\text{Exp}(B) = 1.602$ , CI [1.039, 2.471]). Participants with the least empathy for male survivors had 6.373 times higher odds, CI [2.740, 14.822] of adhering to male rape myths than veterans with more empathy. Former military professionals with high adherence to female rape myths had nearly 2 times higher odds, [CI .993, 3.904] of adhering to male rape myths than those with no adherence to female rape myths. A similar result was indicated by those respondents with high adherence to patriarchal gender attitudes. Their odds of supporting male rape myths were 5.598 times higher, CI [2.059, 15.219] than veterans with no adherence to patriarchal gender attitudes. The findings indicated that levels of empathy, high adherence to female rape myths, and high adherence to patriarchal gender attitudes were positively associated with adherence to male rape myths, and suggests the role of these variables may be predictors in a larger sample of veterans, or in active duty personnel.

Table 17

*Logistic Regression Model Predicting Likelihood of Adherence to Male Rape Myths  
Based on Demographic and Attitudes/Beliefs Variables*

Parameters	$\beta$	Sig.	Exp(B)	95% CI Lower & Upper	
Composite Empathy for Male Survivors					
More Empathy=0	Reference				
Some Empathy=1	.471	.033	1.602	1.039	2.471
Less Empathy=2	1.852	.0005	6.373	2.740	14.822
Composite Female Rape Myths					
No Adherence=0	Reference				
Low Adherence=1	.344	.137	1.410	.897	2.218
High Adherence=2	.677	.052	1.969	.993	3.904
Composite Patriarchal Gender Attitudes					
No Adherence=0	Reference				
Low Adherence=1	.347	.152	1.415	.880	2.275
High Adherence=2	1.722	.001	5.598	2.059	15.219
Gender					
Male	Reference				
Female	-.071	.746	.932	.607	1.430
Generation					
Millennials	Reference				
Generation X	-.231	.396	.794	.466	1.353
Baby Boomers	.069	.788	1.072	.648	1.773
Traditionalists	.377	.346	1.458	.666	3.194
Rank					
Enlisted	Reference				
Officers	-.105	.674	.900	.551	1.470
Education					
High School	Reference				
Some College	.187	.668	1.206	.513	2.833
College Graduate	-.351	.419	.704	.300	1.649

Table 17 (continued)

Parameters	$\beta$	Sig.	Exp(B)	95% CI Lower & Upper	
Belief in a "Just World"					
No Belief in a "Just World"	Reference				
Belief in a "Just World"	.328	.533	1.388	.495	3.891

Parameter estimates ( $\beta$ ), odds ratio (Exp(B), confidence interval (CI).

Research Aim 3: Provide policy guidance and suggestions based on the results of the study.

The results of the survey uncovered the attitudes and beliefs of 520 former SMs. The information helped to provide an understanding of the viewpoints of younger and older military professionals after they leave active duty service. Investigating rape myths was informative in gaining insights into the views of veterans. The goal is to provide instruction and awareness while individuals are on active duty with the hope that the education and knowledge can extend throughout one's lifetime. Based on the adherence to rape myths there is a definitive gap in the understanding of sexual violence, and efforts are needed to dispel false information that promotes stigma, disbelief and inequality. The proposed policy suggestions are not based solely on exhaustive evidence-based programs, although information is drawn from key components of two effective sexual violence programs, Safe Dates and RealConsent, that have been rigorously reviewed by the CDC. These two programs were further incorporated into the Principles of Effective Prevention Programs by Nation et al. (2003). Key principles of the Effective Prevention Programs were further packaged to coincide with the levels of the Spectrum of Prevention, the overarching strategic plan of

Aim Three (Cohen, Chávez, & Chehimi, 2010). The policy is a novel approach grounded in literature, the current social climate marked by a historical period of speaking out against sexual harassment and sexual violence, and the military community that remains 85% male and 15% female (DMDC, 2017). This policy is geared not only towards the Sexual Assault and Prevention Response program for active duty SMs, but towards organizations that work with veterans.

### Principles of Effective Prevention Programs

The Principles of Effective Prevention Programs prepared for the CDC's Division of Violence Prevention highlights nine principles, although six (a - f) have been chosen for the military setting. The applicable principles include: comprehensiveness, varied teaching methods, theory driven, socioculturally relevant, outcome evaluation, and well-trained staff (Nation et al., 2003). Sufficient dosage, appropriately timed programs, and positive relationships were not included in the plan based on limitations within the active duty population (Nation et al., 2003). Sufficient dosage and appropriately timed programs were not included because of the time constraints and demanding operating environment of some military units, and the various ages of participants. However, the intent is that all SMs are provided with training. Positive relationships were excluded due to the emphasis on the work environment and the hierarchical structure of the military setting, but aspects of positive relationships were included within the Spectrum of Prevention (Level 1).

A. Comprehensive. A multimodal approach to address the topic of sexual violence and rape myths within any branch of the military is necessary to be successful. Policy makers might consider investing in training that incorporates mixed modalities,

with only a portion of the program consisting of online training. Two systematically reviewed programs that offer several techniques applicable for active duty military personnel and veterans include Safe Dates and Real Consent (CDC, 2017b). The multimodal interventions must incorporate the importance of multiple settings that address sexual violence prevention not only in the daily workplace, but in the community, at home, and while in a deployed environment. Americans from diverse backgrounds join the military and definitions of healthy relationships and sexual violence vary among households and experiences. For this reason, the Safe Dates program, albeit developed for those aged 11 - 17 years old, highlights basic skills to prevent physical, sexual and emotional abuse. The importance of exposure to the basics should not be dismissed because these basic skills form a foundation for all subsequent interactions and serve as primary and secondary prevention measures in adults. The significance of educating SMs on the basics is reflected by Secretary Donald Rumsfeld's (2002) statement, "there are also unknown unknowns – the ones we don't know we don't know" (p.3). Portions of the instruction will be drawn from the nine sessions established in Safe Dates to include: 1) defining caring relationships and interactions, 2) defining abuse, 3) describing the causes and consequences of why people abuse, 4) how to help others and confront situations, 5) overcoming gender stereotypes and learning how they impact relationships, and 6) education on effective communication (Program Profile: Safe Dates, 2011).

RealConsent is another evidence based program that has demonstrated improvement on pro-social bystander behavior (Salazar, Vivolo-Kantor, Hardin, & Berkowitz, 2014). Although this program has been shown to be efficacious it is directed

at male college students and consists of web-based modules communicating objectives to prevent sexual violence directed against women. However, the typical format will be adjusted to include sexual violence directed against men and discuss commonly held rape myths, male gender roles, and cultural beliefs that subliminally support male and female rape myths. The bystander intervention is influential as a means to implement a culture of change by setting a standard for intervening, and recognizing the problem. Sexual violence is often presented as if a victim's gender was inconsequential, but numerous examples drawn from accounts of sexual violence survivors have shown that male and female sexual violence differs along a continuum (Carpenter, 2009; Clark, 2005).

B and C. Varied Teaching Methods and Theory Driven Approach. Oftentimes the military training environment is dominated by online classes. Teaching methods can be punctuated by web-based modules, but the multimodal approach should encompass speakers, videos, and educator-led blocks of instruction that cycle throughout the year, and cater to visual, aural and verbal styles of learning. Furthermore, Service Members should have the opportunity to provide their input on needed ways to make improvements within the culture of their military branch. A "one-size-fits-all" program generated from experts in Maryland or Washington without the counsel of SMs from all ranks and each branch of the Armed Forces may simplify the process and impair change.

Broad based theories are advantageous due to the diversity of personnel that are on active duty. The Positive Deviance (PD) model frames solutions surrounding sexual violence and rape myths. Subscription to rape myths are grounded in historical,

political, social, familial, and personal conditions (Gidycz & Kelley, 2016). The PD model includes an examination of the problem and how to best resolve the issue by utilizing assets or resources within the community or workplace (PDI, 2016). The model utilizes the members of the active duty military communities, and veterans, to exert ownership of the problem and develop strategies to reduce sexual violence and misinformation through behavioral and social changes. There are five basic steps required in the PD model: define the problem, determine the presence of PD individuals or groups, discover strategies, design activities to practice behaviors, and discern the effectiveness by monitoring and evaluation (PDI-Tufts University, 2010). The components of the PD model include: 1) determining PD individuals or groups in the military, 2) exerting ownership of the problem, and 3) developing strategies to counter masculine norms, e.g., men always have an insatiable sex drive, or men must never be over-powered, or men can never appear weak. These are sometimes fundamental concepts in military communities and novel approaches are essential. Military professionals are a tremendous resource and can offer suggestions and ways to reduce sexual violence within the military.

Incorporating the social ecological model (SEM) theory is another helpful approach to understand how an individual's attitudes and beliefs concerning sexual violence and rape myths interact within the microsystem (interpersonal), mesosystem (organizations), exosystem (society), macrosystem (culture), and the chronosystem (time), thereby driving behavior (Bronfenbrenner, 1977). Due to the network of factors that lead to beliefs in rape myths and pro-patriarchal gender norms, the SEM identifies how ideas of masculinity and sexual violence are incorporated into American society.

Exploring the rings of the SEM in a community and on a personal level allows for an analysis of the interpersonal, organizational, social, cultural, and timing of relationships that can inform sexual violence and future prevention strategies (CDC, 2015; Krug, Mercy, Dahlberg, & Zwi, 2002; Sethi, Marais, Seedat, Nurse, & Butchart, 2004). Due to the social and cultural nature of sexual violence and rape myths, the SEM is advantageous when investigating this type of wide public health problem. Coordination with multiple agencies such as schools, law enforcement, the judicial system, medical departments, and media are necessary to raise awareness concerning male rape myths and other difficulties surrounding the perpetration of sexual violence aimed at men and boys (Turchik & Edwards, 2012). The roots of sexual violence are deep and diverse, and not amenable to a “quick fix” or a single paradigm. The overarching masculine culture of the Armed Forces further influences military professionals that spend years within the organization.

The "looking-glass self" is a theoretical and critical component of the Principles of Effective Prevention Programs as it influences the ways in which individuals internally define their identity within the military community, and their self-image. Self-concepts are shifted and change based on dynamic interactions with others in the environment, and each system of the SEM. The “looking-glass self” narrows the introspection to an individual level, and is a process described by Charles Cooley (1998), that addresses appearances, judgments, and imaginations of others' feelings. The way a man perceives his sense of self and his masculinity are embedded within the social and cultural setting that he finds himself in as an active duty SM or as a veteran, and the subsequent public stigma or acceptance associated with that venue. Many men

examine their own behavior through the lens of manhood that defines men as physically strong, independent, and never defenseless, or sexually helpless. There is a huge discrepancy when men subsequently experience sexual violence and try to balance the crime with cultural gender role expectations within the framework of the "looking-glass self". The personal viewpoints of men and women are shaped by their "looking-glass self" and manifested in the subsequent agreement or disagreement with rape myths and sexual violence perpetrated against another. Educating SMs on the "looking-glass self" framework can encourage a shift in the overarching culture of the military by encouraging individuals to uncover their own actions or ideas that promote sexual violence. As Saul Alinsky (1989) stated, "The most unethical of all means is the non-use of any means" (p. 26).

D. Socioculturally Relevant. Each branch of the Armed Services has a unique culture whereby features of training packages may be more or less relevant, and further substantiates the importance of a multimodal approach supplemented with the input of the Service Members serving within the branch. Training must be tailored to accommodate the interests of the SMs, while still ensuring that the broad goals of the training plan are met to reduce sexual violence. Military culture differs from the civilian community due to the compliance with a chain of command, camaraderie among peers, cohesion within units, an emphasis on violence based on the nature of the profession, the success of hyper-masculinity in the community, and unique judicial, safety, medical and educational resources. Educational training to reduce sexual violence and raise awareness concerning male sexual violence will not succeed if multiple agencies are not integrated into the plan. Erroneous views regarding male rape may be

commonplace in some agencies and can cause another layer of long-term difficulties facing male rape survivors (Cohen, 2015; Javaid, 2017b, Turchik & Wilson, 2010).

The rank structure of the U.S. military is based on a system of inequality of power that is necessary for a military to be victorious in wartime and maintain order during combat operations. Accountability and justice are paramount in a successful military system, just as they are in a profitable business. Masculine identities and a strong patriarchy are the backbone of the military in America. Finding a way to balance a military tradition of unwavering strength and determination with the reality of sexual violence committed against men and women, by other men and women in the ranks coincides with the difficult balance of trying to increase empathy, while remaining prepared for the violence of war. The military system is further challenged due to the norms that frequently accompany a patriarchy, but it is ethical to protect SMs and veterans. A strong military with a rich history and a top-down command structure can accomplish this mission .

E and F. Outcome Evaluation and Well Trained Staff. Outcome evaluation should include sexual violence statistics and reports along with feedback from SMs that allows for quality improvement and the flexibility to continually improve the program. Policies and programs must remain relevant within the military culture and the larger societal climate of America. Current programs may not require a complete revamping, but an evaluation can allow for positive advancements in an ever-changing atmosphere. Reviewing the reactions to the training and other feedback are imperative to determine if changes need to be implemented or programs discontinued.

The results of the program are linked to instructors that are knowledgeable, competent and eager. The effects of instructors have been shown to be monumental in the learning process (Chetty et al., 2011). The military may be doing a critical disservice by selecting a disenchanted or non-promotable Service Member to instruct or coordinate a sexual violence prevention program. The importance of wisely choosing instructors cannot be over emphasized. There are male and female champions of prevention programs leading the way in the Armed Forces, but a low morale or disinterest can be a huge roadblock for progress. Healthcare staff, military police, support personnel, Judge Advocate General teams, family outreach, and command teams must be well trained to prevent failures to respond properly, or adequately acknowledge a valid sexual violence incident involving a male victim. Awareness training and education can help to eradicate rape myths, and allow staff members of the military community to successfully perform their jobs, while better assisting survivors.

### Spectrum of Prevention

Larry Cohen designed the Spectrum of Prevention that further guides rape prevention throughout America and is a six level strategic plan (Cohen et al., 2010). These levels comprise a complementary system reaching beyond education to incorporate the aforementioned topics of the positive psychology model, positive deviance, the social-ecological model, and the "looking-glass self." Level 1 consists of strengthening individual knowledge and skills regarding rape myths and providing examples of healthy relationships in military and civilian settings. Level 1 reinforces the idea of accountability and betrayal when one individual chooses to oppress another through acts of sexual violence (Jewkes, 2015). The importance of sexual education

that may be remiss in some school settings may find relevance in the military environment.

Level 2 is directed at community education and reaching groups of people through the use of guest speakers and large training venues. Providing SMs with an understanding of male survivor's reactions and perceptions of sexual violence underscores the issue and raises awareness. Use of violence is a component of the military profession and should not be marginalized for the very serious and essential role required on the battlefield. However, educators must illustrate the differences between battlefield violence and violence committed against, and within, the ranks of SMs. Idealized traditional male norms that marginalize anyone not perceived as equal may benefit from a shift, while still maintaining a strong identity that is critical in wartime. Inequality of power is a function of the military institution, but sexual violence is not. Addressing risk factors associated with a hyper-masculine military environment is a necessary prevention step. Moreover, explaining the psychological trauma, physical problems and sexual dysfunctions that can result from sexual assaults of men are another component of a comprehensive education program. Audiences may be surprised that male survivors of sexual violence have been shown to report higher levels of stress trauma than female survivors, and an increased lifetime history of psychological symptoms (Elliot, Mok, & Briere, 2004; Kimerling, Rellini, Kelly, Judson, & Learman, 2002). Acts of sexual violence directed against men can occur in the same ways as females, due to being "violently attacked with weapons, intimidated by threats or blackmail, entrapped in rooms, cars, or tied to beds, [or] assaulted while too intoxicated" (Struckman-Johnson & Struckman-Johnson, 1992, p.86). Reinforcing ideas

of camaraderie, and examining masculine social norms within military and veteran settings can stimulate change.

Educating staff is the topic of Level 3 and this is not only important to physical and mental health care providers, but to leaders at all levels from the young SM to the Commanding Officer. Health care workers, military police, and leaders frequently have direct interaction with sexual violence survivors and their depth of knowledge, personal bias, and empathy are vital. Male SMs have shown decreased willingness to discuss sexual violence, which is necessary to provide comprehensive treatment of male active duty SMs and veterans (Bell et al., 2014). Clinicians require specialized training when treating male SMs, either current or former, that have survived sexual violence, with a focus on the role of guilt and male rape indicators (Yeager & Fogel, 2006; Wolfe-Clark et al., 2017). Members of the military and civilian support personnel may not realize that male survivors of sexual violence are nearly equivalent in absolute numbers when compared to their fellow female survivors in the military (Bell et al., 2014; Department of Defense, 2015). However, broadening the understanding of sexual violence through education is paramount as research indicates that being a female or an officer in the military increases the stigma related to seeking mental health services (Yamawaki et al., 2016).

Level 4 includes fostering coalitions and networks between military communities and experts that work within the field of sexual violence to encourage the best possible programs and approaches for future and current veterans. This should include military and civilian personnel that are professionals within the field of sexual violence. The Level 4 coalitions and networks should strive to stop sexual violence from occurring

(primary prevention) and obstruct worsening of the problem (secondary prevention).

Media coverage addressing the topic of male sexual violence may heighten awareness and begin to alter cultural norms through tactfully designed commercials, written publications, and online advertising.

Changing organizational practices is described as Level 5. This will involve the long-term goal of the military systems to a) redefine the image of a strong male character that rarely seeks care, b) illustrate that sexual violence can occur as male on male, female on male, male on female, or female on female, and c) differentiate between not showing emotions to enhance military job performance and not allowing any emotions that can potentially lead to tragedy. The organization will benefit from a change in the masculine ideology by encouraging healthy behaviors and treatment options regardless if the trauma is from the loss of a limb or a sexual act. The organization should clearly enunciate the intolerance for sexual violence among the ranks and any atmosphere of acceptance should be dissolved. The impetus for changing organizational practices can be directly impacted by evaluation of current SAPRO policies and procedures utilized within each service branch. The sample of veterans indicated a concern with confidentiality, which requires a change at Level 5. Addressing the issue of confidentiality with active duty SMs may mimic the response from former military professionals. Legal, healthcare, military police, and other systems that are perceived as untrustworthy prevent sexual violence survivors seeking help. Improving the organization through system level changes is necessary to reduce the trivialization of sexual violence, particularly the perpetration of sexual violence against men in the military.

Influencing policy and legislation is level 6, and may prompt military systems to implement the six levels of the Spectrum of Prevention. Large-scale Department of Defense suggestions include a close inspection of the policies and loopholes that allow perpetrators initial entry into military service, and any waivers for new recruits that have committed acts of sexual violence. These perpetrators should never be permitted entry into military service. Enhanced screening procedures to prevent future sexual predators from entering the military is another policy improvement measure. Publicizing harsher punishments with imprisonment at Fort Leavenworth for convicted perpetrators may be a deterrent for committing acts of sexual violence. The Air Force, Navy, Army, Marines, Coast Guard, and veteran organizations have a wealth of knowledgeable members that can look beyond generic approaches and help determine the best ways to incorporate the six levels of the Spectrum of Prevention to prevent sexual violence (Figure 6). Specific suggestions are listed in the Spectrum of Prevention Plan, Appendix G.

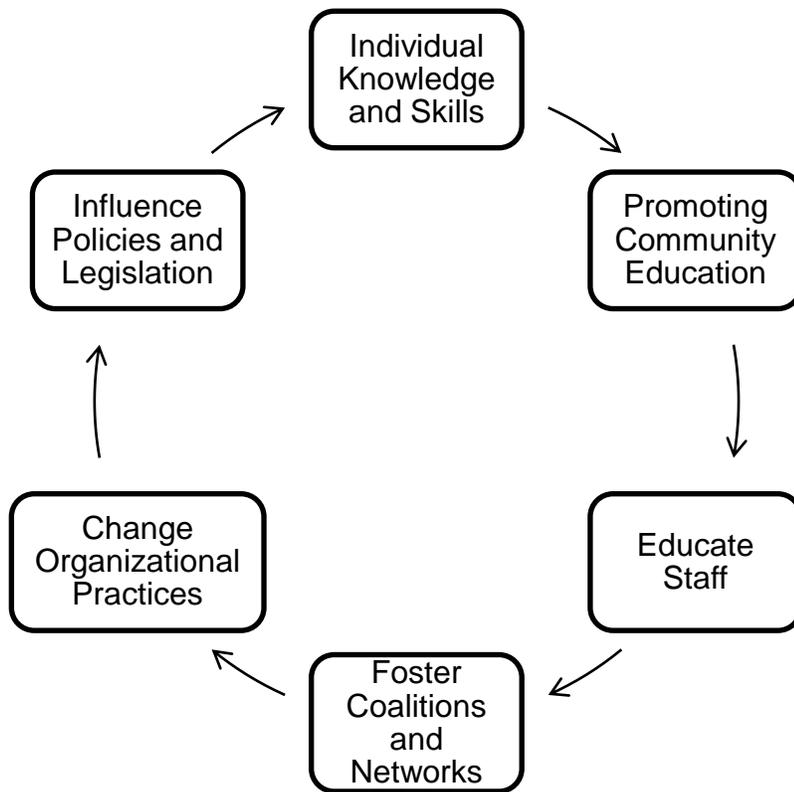


Figure 6. Spectrum of Prevention (adapted from Cohen, Chávez, & Chehimi, 2010).

## CHAPTER 5

### DISCUSSION

#### Overview of Study

The main goal of this research was to explore adherence to male rape myths by former military professionals and their subsequent adherence to female rape myths and patriarchal gender attitudes. By querying this convenience sample of veterans the objective was to offer frameworks and suggestions for military training plans that will benefit SMs throughout their lifetime. There are a host of differences between active duty SMs and veterans that include contractual obligation, work schedules, mandatory deployments, and camaraderie. Active duty SMs have schedules that extend beyond the typical work day, Monday through Friday, whether it is on a submarine, at training exercises, or deployed. The differences are important when addressing sexual violence in the military and adherence to rape myths because the military setting can make it difficult to avoid or confront, not only perpetrators, but deeply entrenched masculine norms. Views of veterans from this sample reflect a military of the past, and it is the responsibility of active duty personnel to improve the current system for the betterment of both men and women. Over the past 30 years in America, the prevalence rates of rape have remained relatively consistent (Carroll, Rosenstein, Foubert, Clark, & Korenman, 2016). The military can build a safer environment that not only protects the homeland, but protects those within the ranks.

This survey provided an understanding of the viewpoints of a sample of former SMs impacted by the dynamic social and political climate, personal beliefs, and their

cultural norms. Sometimes there is also a distinction between the public acknowledgments of certain beliefs and behaviors, and private beliefs. Adherence to male rape myths are on a continuum that includes female rape myths and patriarchal gender attitudes, and highlights issues surrounding equality and respect. It should be considered that inequality, disrespect, and a lack of knowledge are issues driving adherence to rape myths. Surviving rape is not only a woman's issue, nor are acts of sexual violence committed only by male offenders. This narrow vision speaks to the miscommunication of information, and only serves to reinforce social norms that perpetuate myths.

Combating these general statements and promoting factual information about sexual violence is relevant to changing norms. Most rapists are not strangers to male victims, with reports indicating the perpetrator is a stranger only 15.1% of the time and only 8.1% of the time when the victim is forced to penetrate another (Black et al., 2011). Assigning weakness and blame to a man that has been raped is a personal judgment, however, the threat of harm or death can outweigh a man's decision to fight back (Chapleau & Russell, 2008). It is wholly possible for women to sexually violate men with the use of drugs, coercion, power or authority (Roberts, 2013). Homosexual men are not the only perpetrators of sexual violence against men, and it is common for men that commit sexual violence against other males to identify as heterosexual (Groth & Oliveri, 1989; Singer, 2017). A man may have an erection or experience stimulation due to a physiological response in the body, but that does not indicate consent (Bullock and Beckson, 2011). Agreement with female rape myths are equally harmful as women may not fight back for the same reasons as men; due to fear of further harm or

immobility (Schetzer, 2017). Furthermore, skimpy clothing has been shown to not be the factor responsible for rape (TNM, 2018). The claim that women lead a man on and then claim rape is a misnomer for many reasons, including data that shows approximately two of three rapes are unreported (RAINN, 2018). Rape is not only a sexual crime, but is a violent crime; and the two are not always mutually exclusive (Cohen, Garofalo, Boucher, & Seghorn, 1971).

### Discussion of Results

Encouraging findings indicate that 61.1% of the surveyed veterans did not adhere to any male rape myths, and 59.6% did not agree with any female rape myths. This may be partially attributed to the current social movement regarding sexual violence. High adherence to two or more male rape myths was indicated by 11.8% of survey participants, but differences existed between male and female veterans in this survey population with 19.8% of men and 3.5% of females showing high adherence to male rape myths. Surprisingly, male respondents showed higher adherence to two or more female rape myths, compared to women, while women reported more adherence to the highest level of female rape myths than the highest level of male rape myths. Male participants agreed with slightly more (51.9%) female rape myths (low and high adherence combined), than (47.2%) male rape myths (low and high adherence combined). This may be attributable to traditional male views of female rape and victim blaming, while male rape myths continue to perpetuate negative stereotypes associated with male sexual violence (Lowe & Rogers, 2017). This convenience sample supports other research showing that male rape myths correlate with traditional gender roles (Davies et al., 2012). Increased agreement with patriarchal gender attitudes, higher

adherence to female rape myths, and reduced levels of empathy were shown to be significantly and positively associated with male rape myths in the sample.

Sexual violence was not considered higher in the military, when compared to the civilian community, by 67.7% of surveyed veterans. Although 48.0% of female veterans versus 17.0% of men considered military sexual violence to be higher. Some studies have indicated higher rates of rape in the military, although contradictory results exist (DoD, 2013; Lapp et al., 2005). Concerns about safety may be attributed to a sense of alertness that women feel regarding sexual violence and the warnings girls receive at a young age. Oftentimes, men do not possess the same consciousness regarding perpetration of sexual violence, and their sense of personal safety.

Leaders in the military may benefit by investigating circumstances surrounding confidentiality. Due to prior immersion in a military culture, 64.5% of men and 88.3% of women thought a SM would refuse care or help after experiencing sexual violence due to confidentiality concerns. The long-term consequences of sexual violence have been shown to lead to an abundance of health concerns, to include psychological distress, blame, confrontations, anger, PTSD, decreased performance at the workplace, sexual dysfunction, and physical health problems affecting multiple organ systems (O'Brien & Sher, 2013; Peterson, Voller, Polusny, & Murdoch, 2011; Turchik & Willson, 2010). Lack of assurance in the security and judicial system has devastating impacts on male and female survivors. Research has indicated that male survivors lack confidence in the police and criminal justice system, which can account for negative interactions with these agencies (Javaid, 2017a).

Another element that is easily overlooked is the long-term cost impacts of veterans that survive sexual violence. A recent study by Brignone et al. (2017) showed that veterans with a positive screen for military sexual trauma (MST) were associated with 50% higher usage of health care at the Veterans Health Administration, and five years costs were estimated at \$141 million for their sample population. Noteworthy is that a positive MST screen was associated with more non-MST-related health care visits for men (Brignone et al., 2017). This may signal that men seek care for secondary health issues, or care indirectly related to the sexual violence.

### Hypothesis 1

The percentage of veterans who displayed support for one or more female rape myths, 40.1%, was slightly higher when compared to 39.0% of the veterans that adhered to one or more male rape myths, and 30.1% that agreed with one or more patriarchal gender attitudes. An overwhelming adherence to male rape myths in comparison to female rape myths was not indicated. Analysis showed 47.2% of men and 30.5% of women adhered to one or more male rape myths, while 51.9% of men adhered to one or more female rape myths compared to 27.9% of women, and 39.8% of male veterans in this survey and 20.0% of female veterans agreed with one or more patriarchal gender attitudes. Support of female rape myths was shown to be associated with adherence to male rape myths in the sample. Male veterans in this convenience sample agreed with female rape myths more than male rape myths which was unexpected. The result may be helpful to inform ways to target education and awareness trainings, but further investigations with a larger sample is required.

Males adhered more often to individual male and female rape myths in this survey, however, nearly the same number of women and men thought it was "impossible for women to sexually violate men," 15.7% and 15.5% respectively. This shows both men and women adhere to false information, and reinforced the idea that men and women think it is inconceivable for a man to be overpowered by a woman. This male rape myth was agreed to the most by total respondents (81, 15.6%) accentuates the importance of educating current and future veterans on cases where women have sexually violated men. Research by Weiss (2010) indicated that 46% of men in her study had been raped by women, while other studies described a lower percentage of sexual assaults on men that include a female perpetrator (Stermac, Del Bove, & Addison, 2004). Also, men agreed with the rape myth that "most rapists are 0 to a male victim," and emphasized the educational aspects of a military program to dispel false information and alert men to the fact that most rapists are known by the victim.

### Hypothesis 2a

The weak negative correlations that existed between increased education and adherence to rape myths suggested that education may be an appropriate approach to broaden knowledge and reduce the propagation of false information surrounding male and female rape myths. The oldest generation of veterans, Traditionalists, in this sample showed the greatest percentage of adherence to one or more male rape myths (59.2%), followed by Baby Boomers (38.8%) which suggested that generational shifts in norms may have led to changes in adherence among the study population. However, there was no statistically significant association between generation and support of male rape myths, although a weak positive association between generation and

adherence to female rape myths was shown. The result suggested generation (age) was not a protective factor against female rape myths. A recent article addressed the generational divide among women in the #MeToo movement that has been characterized by differences in expectations among Millennials and Baby Boomers (Crary & Lush, 2018). Acknowledging these subtleties is important to further promoting change in norms and depth of understanding based on the generation (age) of the audience. In the study by Kassing et al. (2005) the endorsement of male rape myths was highest among older men, which the current study supports.

Modifying the way sons are raised may need to begin at a young age to foster an atmosphere of change surrounding male and female norms, while concurrently providing supportive role models in the home and in the community may be a. Although the following suggestions are derived from an article addressing "How to Raise a Feminist Son" the suggestions are pertinent through the scope of an equitable society and offer male children the chance to expand their roles (Cain Miller, 2017). Valuable suggestions for young boys include sharing the typical work between men and women, encouraging male friendships with girls, addressing stereotypes that pigeon-hole boys, and enforcing boyhood with typical boy activities and physical strength, but balancing that with emotions and the existence of vulnerabilities of both males and females (Cain Miller, 2017). These suggestions are influential because they engage the social ideals of masculinity and essentially expand norms that prevent men from discussing pain, emotions, embarrassment, powerlessness, and weakness.

Promoting the topic of sexual violence directed against men whether through a survey, blog, flyer or informational speaker are ways to stimulate awareness. The

importance of sexual violence directed against men benefits from an incorporation into the #MeToo movement because sexual violence is not one-sided and women are not the only survivors of the crime. If the #MeToo movement remains strictly a female movement then it neglects male sexual violence survivors and in some ways reinforces the patriarchal norms that oppress sexual violence committed against men, and aligns sexual violence as a male against female agenda. Men and women must unite in all communities to reinforce a joint gender mentality. The use of social media to promote the #MeToo movement is a platform available to male survivors to seek support and disclosure.

### Hypothesis 2b

Analysis of the data supported the hypothesis that adherence to patriarchal gender attitudes would be significantly and positively associated with increased adherence to rape myths. Former SMs in this survey (23.6%) found "swearing and obscenities are more repulsive when spoken by women compared to men". This response speaks to aspects of American culture that finds this discrepancy between men and women distinct, and regards "foul mouthed women" as repulsive. De Klerk (1991) found the use of expletives to indicate high intensity language, social power and masculinity, and a means to distinguish men from women. Gordon's (1997) research indicated that some women are considered of a lower social and moral class when they curse, versus women that do not curse.

The adherence of former military professionals varied from the responses of heterosexual college students (N = 899) in a 2014 Appalachian study. Although both surveys showed that males agreed more often with the "obscenities are more repulsive

when spoken by women" question, the Appalachian data showed 156 (55.3%) of male college students agreed that swearing by women was more repulsive, in comparison to 83 (31.4%) of former military men. Female college respondents (263, 42.6%) indicated higher adherence than the convenience sample of veterans (40, 15.7%) (Caldara, 2016). There were no significant associations between education levels and each of the gender attitude questions in the Appalachian survey.

Veteran survey responses to the three other gender questions all indicated 90% or more of respondents disagreed with the patriarchal statements. Also, college graduates (72%) and Millennials (81.9%) tended to not agree with any of the patriarchal attitudes.

### Hypothesis 2c

Even though this study indicated that veterans overwhelmingly did not believe in a "Just World" (95.8%), the hypothesis was supported by weak positive associations between belief in a "Just World" and rape myths. Researchers have associated the belief in a "Just World" theory with forgiveness and with justification, but in the surveyed population of veterans and possibly current SMs, the belief in a "Just World" may be less common theory than civilian counterparts (Bartholomaeus & Strelan, 2016; Hafer & Rubel, 2015). The two blame myths, "Do you think a man that has been raped or experienced sexual violence is weak?" and "Do you think male rape victims are somewhat to blame for being raped?" were each adhered to by a small percentage (5.6%) of the participants. These findings suggests that victim blaming by judgment, or justification, a tenet of the belief in a "Just World," were reduced in the sample of former military professionals that completed the survey. The result may spark additional

research within the active duty and veteran community to reveal an understanding of lack of a "Just World" belief with a larger sample of military professionals.

### Hypothesis 2d

Less empathy for male survivors was significantly and positively associated with increased adherence to rape myths in this sample, and reinforced the anticipated hypothesis. It was noteworthy that 44.7% of male veterans in this survey could not "imagine a man's humiliation at being forced to have sex against his will ". This highlights a lack of empathy, or a belief that men cannot be forced to have sex, or perhaps the idea that sex should never be unwelcomed. The male and female cultural norms that accompany what it means to be a man are a critical component of rape myths and the debate surrounding the topic of male sexual violence. The #NotAllMen hashtag has not seen the popularity of the #MeToo movement, but has brought the topic to the forefront of conversations for both genders.

### Models

Due to the data collection method of an online survey with a convenience sample of former SMs it was not possible to determine causal inferences with this data. However, there were significant associations which lead to suggestions regarding veterans' views on male rape myths and this information provided insight into some concepts that can be explored in the future. This convenience sample has afforded a glimpse into the attitudes that some veteran's hold regarding empathy for male survivors, adherence to patriarchal gender attitudes, and agreement with rape myths. Increased empathy for male survivors, adherence to female rape myths and patriarchal gender attitudes were shown to be significant in the ordinal logistic regression model,

while gender, generation, rank, education, and belief in a "Just World" were not significant. The evaluation of odds ratios indicated that increased empathy for male survivors and disagreement with some patriarchal gender attitudes were significantly associated with decreased acceptance of male rape myths in the sample of former military professionals. The final binomial logistic regression model predicting adherence to none or some male rape myths showed that veterans with the least empathy for male survivors had 6.373 times higher odds of adhering to male rape myths than veterans with more empathy, and participants with high adherence to patriarchal gender attitudes had 5.598 times higher odds of adhering to male rape myths than those with no adherence to patriarchal gender attitudes. These two measures were significant in the ordinal logistic regression model and the binomial model. The binomial model illustrated participants with high adherence to female rape myths had nearly 2 times higher odds of adhering to male rape myths than those with no adherence to female rape myths. These findings suggested that empathy, patriarchal gender attitudes and adherence to female rape myths, were predictors of male rape myth adherence that should be further explored during educational and awareness planning.

### Study Limitations

#### Non-Probability Based Sample

The most prominent limitation of this study is that the sample represented a non-probability based sample, and a cross-sectional analysis. These aspects precluded drawing conclusions about the former military population throughout America and hindered the ability to state causes describing adherence to male rape myths. However, respondent driven sampling is often utilized for hard to reach groups, such as a veteran

population (Baker et al., 2013). A proper assessment of the external and internal validity and the ability to generalize these findings across veterans in America was compromised as causal relationships could not be determined with this convenience sample of participants. Attempts to gain a random sample of this hidden population will potentially enhance understanding of veteran's views of male rape myths.

#### Data Collection Method

A second limitation of this study was the online access required to complete the survey. There were organizations that stated their members did not have frequent access to the Internet which severely limited this demographic to only those former SMs with online capabilities. Furthermore, veterans who were not associated with one of the 25 veteran organizations, websites, or Facebook networks that agreed to distribute the link never had knowledge of the survey. The segment of veterans who are homeless and consequently lacked internet access were a neglected population, as well.

Gatekeepers within an organization were also a limiting factor in this research study, whereby the individual receiving the introductory email describing the study decided the fate of the survey reaching intended veterans, based solely on his/her discretion. A larger sample size would allow for a more comprehensive understanding of acceptance of rape myths in this population.

Another potential limitation included the over-representativeness of female veterans that responded to the survey, 49.2% female and 50.8% male. The Armed Forces in America are comprised of approximately 15% women and 85% men, and future studies with active duty SMs may seek a larger sample size of male participants (DMDC, 2017). The increased responses of female veterans may be due to the specific

organizations that were willing to promote the survey, although research by McCabe, Couper, Cranford, and Boyd (2006) has shown that web surveys were more likely to be completed by males than by females. However, the opinions of both male and female veterans allowed for a comprehensive analysis and broader insights into the views held by both genders.

### Historical Effects

A limiting factor was the language used in previous rape myth questions. Despite outlining reliability and validity measures associated with the questions, this did not account for the increase in rape prevention programs, the change in colloquialisms, and the shifts in social norms. For these reasons, views of rape myths may have shifted with the passage of time and the validity of the rape myth questions should be reevaluated and updated to better reflect current trends (McMahon & Farmer, 2011).

### Social Desirability

Another prominent limitation was the presence of social desirability, or the tendency of respondents to provide socially expected answers that may not represent their true feelings (Grimm, 2010). The current climate in America depicted by the #MeToo hashtag may have impacted the participant's responses, despite the anonymity accompanying the survey. The #MeToo movement directed at sexual harassment and sexual assault against women has drawn attention to the topic at a national level and was ignited by the Harvey Weinstein scandal (Bennett, 2017). The attention to this topic has potentially shifted adherence to rape myths, especially female rape myths and patriarchal gender attitudes, due the sheer number of women, and the few men that have come forward to describe their experiences. This may be a historical period that is

amenable to rejecting rape myths, unlike the early 1990s when Anita Hill accused Clarence Thomas of sexual harassment, although the opposite response in the form of a backlash may also be possible.

### Hawthorne Effect

The sensitive questions comprising this survey may have been another limitation as some people do not feel comfortable answering questions on the topic of sexual violence or providing truthful answers. Despite the anonymity associated with the survey, the Hawthorne effect, altering one's behavior in an experimental situation, may be another limiting factor. Some participants may not want to acknowledge to themselves or others that they feel a certain way about a topic. Additionally, participants may not recognize that the acceptance of rape myths is an indication of discriminatory beliefs, and these norms have been shown to be a predictor in acts of sexual violence (Hinck & Thomas, 1999).

### Responses

Obtaining participants for a short survey is challenging and feedback was varied. Some former military professionals responded that the notion of a rape myth was a farce, and based on the number of respondents who declined to answer any questions on the survey (15.4%), there are veterans who had no interest in answering rape myth questions, or simply did not wish to spend the time. Some individuals did not feel the topic was appropriate or legitimate. There was a definitive lack of support from a prominent male survivor of MST which was curious, as the field of sexual violence benefits from champions of both genders striving to change the culture that ignores

many of the factors that contribute to false information surrounding male and female rape myths.

### Future Research

#### Research Study of Military Perpetrators

Interviews and in-depth discussions with military perpetrators of sexual violence will help to increase understanding of the acts of sexual violence. Information describing male and female perpetrators of male sexual violence in the military and in the civilian community is less prevalent than the literature describing male perpetrators of sexual violence directed against females. To better grasp the motives and factors of male and female perpetrators requires a deeper examination of sexual violence aimed at men. Documentation has shown that some men commit sexually violent acts as a means to exert control and power over other men (Javaid, 2014). A qualitative research approach based on inductive theory and careful analysis of common themes described by perpetrators will allow for an understanding of views and experiences. This information can then be utilized to enhance treatment of male sexual violence survivors, while simultaneously permitting researchers a level of comprehension to craft programs and alternatives to prevent future sexual violence, and further understand motives of perpetrators.

#### Research Study of Active Duty Service Members

A similar exploratory survey platform that utilizes reliable and valid rape myths questions to explore active duty SM's current beliefs about rape myths, patriarchal gender attitudes, and confidentiality is indispensable. Input and suggestions from active duty survey participants is needed to improve and modify current programs. The data

can be compared to veterans in an attempt to see if military programs can have a positive influence on SMs while on active duty, and in the long-term. The active duty survey must be thorough without impeding on time commitments, and garner the support of leadership teams. Access to young and old SMs can provide experts with insights on ways to best help sexual violence survivors while in the military and into their post-active duty years.

#### Research Study Aimed at Strategic Plan

The use of the military as a sample study population for an array of intervention trials is not advisable, but examining evidence-based programs such as Safe Dates and RealConsent that have been shown to be successful combined with novel approaches described in the policy suggestions grounded in the Spectrum of Prevention are necessary. Incorporating the suggestions of SMs, a key concept of the Positive Deviance model, has the potential to lead to an intervention that not only reduces rape myth beliefs and sexual violence, but encourages treatment for survivors, accentuates awareness, and strives to reduce negative stigmas. The continued pursuit to reduce rape myths, shift cultural norms that cripple discussions on the topic of male rape, enhance treatment for sexual violence survivors, and extend support services remain long-term goals that require advocates willing to strive for improvements in our military and civilian communities. The concept that sexual violence is an issue of men exerting dominance over women in a patriarchal setting requires expansion that incorporates the dimensions of sexually violent acts perpetrated against males and females of all ages. Sexual violence is a crime, and unlike the crime of burglary, whereby new items can be purchased, efforts to replace the loss of intangible emotions and feelings are not easily

accomplished. These abstract components should be included in an educational campaign within the policy suggestions. Further understanding of the long-term mental and physical impacts of sexual violence in the military setting is another factor that is worthy of study. This information can benefit clinicians, commanders, and leaders at all levels, along with families, friends, and future veterans by addressing the devastation that occurs from acts of sexual violence. Given that 85% of the military is male, it is appropriate to establish prevention measures and resources for not only female survivors of sexual violence, but male survivors as well, in an attempt to provide resources for everyone.

### Lessons Learned

A second version of this study to explore beliefs of former SMs should include a paper copy or handheld device that allows a participant to complete the survey regardless of connectivity access. A survey that is strictly online allows for wide distribution and ease of completion for participants at their leisure, but an entire segment of veterans is immediately prohibited from participation due to the delivery of the survey. A longitudinal study performed at a specific location such as a Veterans Administration or veteran's shelter will provide insights into the attitudes surrounding rape myths, especially if an intervention program is implemented.

The current culture surrounding sexual violence described in the media impacts social desirability and has the potential to impact agreement or disagreement with rape myths and patriarchal gender attitudes, but it may be a mask and not a reality. The "looking-glass self" and the perceptions of others may drive the responses to some of these rape myths and attitudes. The topic is at the forefront of many social media

outlets and is gaining attention for the problem surrounding sexual violence that exists not just in Congress and Hollywood, but throughout America.

A beneficial outcome of this research is that at least 520 veterans are aware of the issue of sexual violence perpetrated against men. The next objective is to provide the information obtained from the survey to interested veteran organizations and sexual violence prevention centers in America. Sexual violence directed at men and boys is a problem that exists across the world. With the flood of digital information, awareness can hopefully lead to consideration, which may prompt change. Although the topic of sexual violence committed against men is often overlooked, the contribution of this study is to expose the reality of the situation in our society.

### Conclusions

Agreement with male and female rape myths, despite efforts to reduce false information, still exists. This exploratory study demonstrated that 39% of participants adhered to one or more male rape myths, while 40.1% agreed with female rape myths. The multifactor contributors that promote stigma and support of male rape myths can begin at birth. Younger generations and adults should be provided with an increased knowledge surrounding male and female rape myths, patriarchal gender attitudes, and empathy in an effort to dispel false information. The Department of Defense should continue to provide skills and knowledge about sexual violence to the members in its ranks during their time in service; the effects can impact active duty service and continue throughout a lifetime.

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APPENDICES

Appendix A

Former Service Member Survey

This is a short survey to uncover current beliefs regarding sexual violence. Please provide your answers, with honesty, to better inform common rape myths and gender attitudes. This survey is anonymous and voluntary.

What is your gender:                      Male    Female

What is your current age: \_\_\_\_\_

When you left the military were you:                      Enlisted    Officer

In what calendar year did you transition from the military: \_\_\_\_\_

How long were you on active duty:

Less than 1 year

Between 1 - 4 years

Between 4 - 10 years

Between 10 - 20 years

More than 20 years

What is the highest grade or year of school you completed:

Grades 9 - 11 (Some high school)

Grade 12 or GED (High school graduate)

College 1 year to 3 years (Some college or technical school)

College 4 years or more (College graduate)

- |  |     |    |
|--|-----|----|
| 1. Do you think the occurrence of sexual violence is higher in the military than in the civilian community?  | Yes | No |
| 2. Do you think a Service Member that experienced sexual violence would <b>refuse</b> to seek care or help from the military system due to confidentiality concerns? | Yes | No |
| 3. Do you believe in a "Just World"? (A "Just World" is considered a world where there are no innocent victims and if something bad happened then it was deserved.)  | Yes | No |

The Center for Disease Control and Prevention (CDC) defines sexual violence as a sexual act committed against someone without that person's freely given consent. These sexual acts can include sodomy (anal or oral sex) and rape. These acts can involve the use of verbal pressure (words), physical force (punching, restraining), threats, alcohol, drugs, or weapons, to obtain sex from a person against their will. This is sexually violating another person.

- |  |       |          |
|--|-------|----------|
| 4. Do you think most rapists are unknown/strangers to a <b>male</b> victim?  | Yes   | No       |
| 5. Do you think a <b>man</b> that has been raped or experienced sexual violence is weak?   | Yes   | No       |
| 6. Do you think <b>male</b> rape victims are somewhat to blame for being raped?  | Yes   | No       |
| 7. Do you think it is impossible for <u>women</u> to sexually violate men?   | Yes   | No       |
| 8. Do you think only homosexual (gay) men sexually violate other men?  | Yes   | No       |
| 9. Do you think a man that experiences stimulation (an erection) from sexual violence means he was a willing participant/enjoyed it? | Yes   | No       |
| 10. Can you imagine a man's intense humiliation at being forced to have sex against his will?  | Yes   | No       |
| 11. Would you be <b>more</b> sympathetic to a female sexual violence victim, in comparison to a male sexual violence victim?         | Yes   | No       |
| 12. Do you think men need counseling after experiencing sexual violence?   | Yes   | No       |
| 13. If a woman doesn't physically fight back, you can't really say it was  | Agree | Disagree |

rape.

- |  |       |          |
|--|-------|----------|
| 14. A woman who dresses in skimpy clothes should <b><u>not</u></b> be surprised if a man tries to force her to have sex. | Agree | Disagree |
| 15. A lot of women lead a man on, and then claim they were raped.  | Agree | Disagree |
| 16. Rape of a woman happens when a man's sex drive is out of control.  | Agree | Disagree |
| 17. Do you think women who carry condoms are "easy"?   | Yes   | No       |
| 18. Do you think the intellectual leadership of a community should <b><u>only</u></b> be in the hands of men?            | Yes   | No       |
| 19. Do you think swearing and obscenities are more repulsive when spoken by women compared to men?                       | Yes   | No       |
| 20. Do you think that fathers should have more authority in raising children than mothers?                               | Yes   | No       |

## Appendix B

### Introductory Email Organization

Good Day,

The reason I am reaching out to you is that I am currently an active duty Service Member working on my doctorate in Public Health at East Tennessee State University (ETSU). I have spent the past two years at the university examining childhood and adult sexual violence. My research study is entitled Exploration of Rape Myths Among Former Military Personnel, and I am focusing on beliefs surrounding rape myths. Many people are not aware that 1 in 6 males under the age of 18 years old have experienced sexual violence, that 1 in 4 females experience sexual violence, and that every 98 seconds an American is sexually assaulted (DOJ, 2015; RAINN, 2016). Sexual violence has been shown to impact the long-term health of survivors in the military and in the civilian sector (CDC, 2016). I am hoping to learn about the attitudes and beliefs regarding current rape myths. Attention is often focused on acts of sexual violence directed against women and girls, however my focus has explored the perpetration of sexual violence directed against boys and men.

The purpose of my project is to raise awareness regarding male sexual violence, reduce stigma associated with sexual violence, dispel false rape myths by enhancing knowledge, and improve the health status of current and future veterans. Responses to this short survey will provide insights regarding current views on rape myths that can then expose ways to impact policy changes through education and awareness. My hope is that you will consider providing my introductory email with a link to the short (less than 10 minutes) survey, to the members of your organization, possibly through a

list serve or on your Facebook page. The survey is completely anonymous. There are six demographic questions that ask gender, age, Enlisted or Officer status, length of time on active duty, year of transition out of the military, and the highest grade of school completed. These questions are followed by 20 Yes/No, or Agree/Disagree questions regarding rape myths and gender attitudes. Honest and candid answers are critical to understanding current attitudes and beliefs. This survey has been approved by the ETSU Institutional Review Board and will be available for three weeks to allow participants to consider if they would like to complete the survey.

I hope you will consider my request to help increase knowledge regarding false rape myths and sexual violence stigma. Although this topic is often not discussed, it does not make the acts of sexual violence committed against boys and men any less traumatic, or less real. Men and women deserve factual information regarding rape myths and sexual violence, and equal access to treatment in an environment free of stigma associated with a horrific crime. Sexual violence survivors, both men and women, should not suffer in silence due to false rape myths and lack of resources. My contact information is [insert email here]. If you have any questions or concerns about the research and want to talk to someone who is not the researcher, you may call an IRB Coordinator at 423.439.6055 or 423.439.6002. My information and the Institutional Review Board contact information is also provided in the consent form that accompanies the survey.

If I can answer any questions, please let me know. Your help is greatly appreciated in this endeavor to assist current and future military veterans.

Very Respectfully,

Gabrielle Caldara

References:

Center for Disease Control and Prevention (CDC). (2016). *Sexual violence:*

*Consequences*. Retrieved from

<https://www.cdc.gov/violenceprevention/sexualviolence/consequences.html>

Department of Justice (DOJ). (2015). National Crime Victimization Survey, 2010-2014.

Office of Justice Programs, Bureau of Justice Statistics. Retrieved from

<https://www.bjs.gov/index.cfm?ty=dcdetail&iid=245>

Rape, Abuse & Incest National Network (RAINN). (2016). *Victims of sexual violence*

*statistics*. Retrieved from <https://www.rainn.org/statistics/victims-sexual-violence>

## Appendix C

### Introductory Email Veterans

Good Day,

The reason I am reaching out to you is that I am currently an active duty Service Member working on my doctorate in Public Health at East Tennessee State University (ETSU). I have spent the past two years at the university examining childhood and adult sexual violence. My research study is entitled Exploration of Rape Myths Among Former Military Personnel, and I am focusing on beliefs surrounding rape myths. Many people are not aware that 1 in 6 males under the age of 18 years old have experienced sexual violence, that 1 in 4 females experience sexual violence, and that every 98 seconds an American is sexually assaulted (DOJ, 2015; RAINN, 2016). Sexual violence has been shown to impact the long-term health of survivors in the military and in the civilian sector (CDC, 2016). I am hoping to gain your thoughts regarding current rape myths and gender attitudes. The purpose of this project is to raise awareness, reduce stigma associated with sexual violence, dispel false rape myths by enhancing knowledge, and improve the health status of sexual violence survivors.

This is a brief survey for former active duty Service Members/veterans using SurveyMonkey. It should take less than 10 minutes to finish. The survey is short, voluntary, and anonymous. This survey has been approved by the ETSU Institutional Review Board. There are six demographic questions that ask gender, age, Enlisted or Officer status, length of time on active duty, year of transition out of the military, and the highest grade of school completed. These questions are followed by 20 Yes/No, or Agree/Disagree questions regarding rape myths and gender attitudes. Honest and

candid answers are critical to understanding current attitudes and beliefs. Click on the following link to view the consent document, please check the appropriate box to begin the survey... [insert link here]. The survey can be ended at any time, if you do not wish to continue for any reason. The IP address tracking has been disabled to ensure anonymity, and SSL encryption is utilized.

If completing this survey has raised any concerns for you, contact the Veteran's Crisis Line at 1 800.273.8255 and press 1, the National Sexual Assault Hotline at 800.656.HOPE to have a confidential chat, or communicate with another source.

Your help is greatly appreciated to better understand sexual violence and is instrumental in developing ways to best assist current and future military veterans. If you would like information regarding any of these false rape myths, or if I can answer any questions, please feel free to contact me at [insert email here].

Very Respectfully,

Gabrielle Caldara

References:

Center for Disease Control and Prevention (CDC). (2016). *Sexual violence:*

*Consequences*. Retrieved from

<https://www.cdc.gov/violenceprevention/sexualviolence/consequences.html>

Department of Justice (DOJ). (2015). National Crime Victimization Survey, 2010-2014.

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<https://www.bjs.gov/index.cfm?ty=dcdetail&iid=245>

Rape, Abuse & Incest National Network (RAINN). (2016). *Victims of sexual violence*

*statistics*. Retrieved from <https://www.rainn.org/statistics/victims-sexual-violence>

## Appendix D

### Informed Consent Online

Dear Participant:

My name is Gabrielle Caldara and I am a student in the College of Public Health at East Tennessee State University. I am working on my doctorate in public health and my research study is entitled Exploration of Rape Myths Among Former Military Professionals.

The purpose of this study is to explore adherence to rape myths held by former active duty Service Members immersed in a military culture. The study will provide insights regarding current views on rape myths, and subsequently allow for identification of strategies to raise awareness surrounding sexual violence perpetrated against males, and provide education intended to reduce stigma. This is a brief survey for former Service Members using SurveyMonkey. It should take less than 10 minutes to finish, and I kindly request your honesty in answering the questions. You will be asked anonymous questions about rape myths and gender attitudes. Since this study deals with your opinions regarding rape myths there are no psychological, physical, economic, social or legal risks. Although there are no direct benefits from completing this survey, the hope is to raise awareness concerning the topic of rape myths and sexual violence. This may allow for a more informed understanding of rape myths that may impact veterans, active duty Service Members, family members, friends, and the community.

The survey is anonymous, but the use of technology provides no guarantees regarding the interception of data sent over the Internet by any third parties, just like with emails. SurveyMonkey has security features that will allow me to disable the IP

addresses, so they are not collected, while utilizing SSL encryption. Although your rights and privacy will be protected, the East Tennessee State University (ETSU) Institutional Review Board (IRB) and the dissertation committee reviewing this research can view the anonymous study records.

Taking part in this study is voluntary and anonymous. You may decide not to take part in this study. You can quit at any time. You may skip any questions you do not want to answer or you can exit the online survey form if you want to stop completely, although completion of each question is very helpful.

If you have any research-related questions or problems, you may contact me, Gabrielle Caldara, at [insert email here]. If you are interested in more information regarding rape myths and sexual violence, please contact me, or your local community resources. Also, you may call the chairperson of the IRB at ETSU at (423) 439.6054 if you have questions about your rights as a research subject. If you have any questions or concerns about the research and want to talk to someone who is not the researcher, you may call an IRB Coordinator at (423)439.6055 or (423)439.6002.

Respectfully,

Gabrielle Caldara

## Appendix E

### Introduction Facebook

Good Day,

I have spent the past two years examining childhood and adult sexual violence, while working on my doctorate in Public Health at East Tennessee State University (ETSU). My research study is entitled Exploration of Rape Myths Among Former Military Professionals, and I am focusing on current beliefs surrounding rape myths.

Many people are not aware that 1 in 6 males under the age of 18 years old have experienced sexual violence, that 1 in 4 females experience sexual violence, and that every 98 seconds an American is sexually assaulted (DOJ, 2015; RAINN, 2016). Sexual violence has been shown to impact the long-term health of survivors in the military and in the civilian sector (CDC, 2016). I am hoping to gain your thoughts regarding current rape myths. The purpose of this project is to raise awareness regarding the perpetration of sexual violence against men, reduce stigma associated with sexual violence, dispel false rape myths by enhancing knowledge, and improve the health status of sexual violence survivors.

This is a brief survey for former active duty Service Members/veterans using SurveyMonkey. It should take less than 10 minutes to finish. The survey is short, voluntary, and anonymous. This survey has been approved by the ETSU Institutional Review Board. Please answer honestly as it will allow for a better understanding of this topic. Click on the following link to view the consent document, please check the appropriate box to begin the survey... [insert link here]. The survey can be ended at any time, if you do not wish to continue for any reason. The IP address tracking has been

disabled to ensure anonymity to the fullest extent possible, and SSL encryption is utilized.

Thank you for your time. If you know of other former active duty personnel/veterans, please consider forwarding this message to them. The more participants that complete the survey allows for a better understanding of rape myths and sexual violence, and subsequently, better ways to assist current and future military veterans. If you would like information regarding any of these false rape myths, or if I can answer any questions, please feel free to contact me through Facebook.

Very Respectfully,

Gabrielle

References:

Center for Disease Control and Prevention (CDC). (2016). Sexual violence:

Consequences. Retrieved from

<https://www.cdc.gov/violenceprevention/sexualviolence/consequences.html>

Department of Justice (DOJ). (2015). National Crime Victimization Survey, 2010-2014.

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Rape, Abuse & Incest National Network (RAINN). (2016). Victims of sexual violence

statistics. Retrieved from <https://www.rainn.org/statistics/victims-sexual-violence>

## Appendix F

### Organizations Contacted

Organization	
American Legion	Make the Connection
Veterans of Foreign Wars (VFW)	California Vet
Disabled American Veterans (DAV)	Virginia Veteran Family & Support
American Veterans (AMVETS)	Veterans Nation
Iraq and Afghanistan Veterans of America (IAVA)	Beauties in Boots
Military Officers Association of America (MOAA)	American Veterans Center
Enlisted Association	Protect Our Defenders / Invisible War
National Association for Black Veterans (NABV)	Nevada Dept. of Veteran Services
Wounded Warrior Project (WWP)	Rolling Thunder Washington D.C.
National Veterans Foundation	Rolling Thunder Michigan
AMVETS Magazine	Rolling Thunder Milwaukee
U.S. Veteran's Magazine	Rolling Thunder New York
Veterans View	Army and Navy Union USA
Tri-Cities Military Affairs	Warfighter Media
Veterans Service Officer	National Association for Black Vets
Operation Enduring Warrior	Center for Veterans Issues
American Military News	Fort Refuge
Dysfunctional Veterans	Women Veterans - Virginia
Disgruntled Vets	Elks Lodge - New York
Combat Veterans	Elks Lodge - New York
Grow For Vets	Elks Lodge - New York
Veterans Alternative	Women Veterans
Operation Hug a Veteran	1st Cavalry Division
Veteran Nation	1st Cavalry Division Association
Veterans Nation	North Carolina Military and Vet Affairs
We Are Veterans	Oscar Mike
Pandora's Project, Activist - James Landrith	Got Your Six
Gary Sinese Foundation	Nine Line
Bob Woodruff Foundation	GovX
Disabled Veterans National Foundation (DVNF)	Paving the Way
Operation Second Chance	GruntStyle

Organization	
Hope for the Warriors	DDT Inc.
Operation Support Our Troops (OSOT) America	Bullets to Bandages
Mission Continues	Patriot Alliance
Operation Gratitude	Art Vets New York
Centerstone	Alabama Dept. of Veteran Affairs
Vote Vets	Alaska Dept. of Military and Veteran Affairs
Team Red White and Blue	Arizona Dept. of Veteran Services
Colorado Dept. of Veteran Affairs	Virginia Veteran
Connecticut Dept. of Veteran Affairs	Washington Veteran
Delaware Commission of Veteran Affairs	West Virginia Veteran
Florida Veteran	Wisconsin Veteran
Georgia Dept. of Veteran Services	Rhode Island Veteran
Hawaii Veteran	Wyoming Veteran
Illinois Veteran	North Carolina Veteran
Idaho Division of Veteran Services	Montana VFW
Hire Heroes USA	Montana American Legion
Student Veterans of America	Catholic War Veterans
Mission 43	Rolling Thunder South Dakota
Indiana Dept. of Veteran Affairs	Rolling Thunder Colorado - Chapter
Iowa Dept. of Veteran Affairs	Rolling Thunder Florida - Chapter
Kansas Commission of Veteran Affairs	Rolling Thunder Florida - Chapter
Kentucky Dept. of Veteran Affairs	Rolling Thunder Florida - Chapter
Louisiana Veteran	Rolling Thunder Florida - Chapter
Maine Veteran	Rolling Thunder Indiana - Chapter
Maryland Veteran	Rolling Thunder Kentucky - Chapter
Michigan Veteran	Rolling Thunder Kentucky - Chapter
Minnesota Veterans Affairs Agency	Rolling Thunder Massachusetts - Chapter
Montana Veteran	Rolling Thunder Michigan - Chapter
Missouri Veteran	Rolling Thunder New Hampshire - Chapter
Nebraska Dept. of Veteran Affairs	Rolling Thunder New Jersey - Chapter
Nevada Dept. of Veteran Services	Rolling Thunder New Jersey - Chapter
New Hampshire Veteran	Rolling Thunder New Jersey - Chapter
New Jersey Veteran	Rolling Thunder New Mexico - Chapter
New Mexico Veteran	Rolling Thunder New York - Chapter
New York Veteran	Rolling Thunder New York - Chapter
North Dakota Veteran	Rolling Thunder North Carolina - Chapter
Ohio Veteran	Rolling Thunder North Carolina - Chapter

Organization	
Oklahoma Dept. of Veteran Affairs	Rolling Thunder Ohio - Chapter
Oregon Veteran	Rolling Thunder Ohio - Chapter
Pennsylvania Veteran	Rolling Thunder Ohio - Chapter
South Carolina Veteran	Rolling Thunder Ohio - Chapter
South Dakota Veteran	Rolling Thunder Oklahoma - Chapter
Tennessee Veteran	Rolling Thunder Tennessee - Chapter
Texas Veteran	Rolling Thunder Tennessee - Chapter
Utah Veteran	Rolling Thunder Tennessee - Chapter
Vermont Office of Veteran Affairs	Rolling Thunder Texas - Chapter
Rolling Thunder Virginia - Chapter	Pennsylvania - Chapter
Rolling Thunder Washington - Chapter	South Carolina - Chapter
Rolling Thunder Wisconsin - Chapter	South Dakota - Chapter
Rolling Thunder Wisconsin - Chapter	Tennessee - Chapter
Italian American War Vets	Tennessee - Chapter
Jewish Veterans	Texas - Chapter
Road Home Program	Texas - Chapter
Smart Policy Works	Washington - Chapter
Warfighter Disaster Response Team	West Virginia - Chapter
Service Women Action Network	Wisconsin - Chapter
Marine Corp Leagues	Wisconsin - Chapter
National Association of County Veteran Service Officers	Wyoming - Chapter
National Association of County Veteran SO - Illinois	Veterans of Vietnam War, Inc.
Colorado Division of Veteran Affairs	Air Force Sergeants Association
Unite US	Korean War Veterans
Polish Legion of American Veterans	Military Order of World Wars
Swords to Plowshares	Navy Club of USA
The Retired Enlisted Association (TREA) - Chapters	US Submarine Veterans
Arizona - Chapter	Women Army Corp Veterans
California Chapter	American Military Retirees
California Chapter	American Division Vets Association
Colorado - Chapter	American Veterans for Equal Rights
Colorado - Chapter	TREA National Headquarters
Colorado - Chapter	Japanese American Veterans
Florida - Chapter	Help Heal Veterans
Georgia - Chapter	Korea Veterans of America
Georgia - Chapter	National American Indian Veterans
Illinois - Chapter	National Association of American Veterans

Organization	
Iowa - Chapter	National Association of Black Women Veterans
Kansas - Chapter	Navy League of U.S.
Maryland - Chapter	Navy Nurse Corp Association
Maryland - Chapter	Navy Seabee Veterans of America
New York - Chapter	Team Rubicon
North Carolina - Chapter	Forty and Eight Organization
Oklahoma - Chapter	River Rats Pilots Association
Oklahoma - Chapter	Travis Manion (USMC)
Oklahoma - Chapter	USA Warrant Officers
Pennsylvania - Chapter	U.S. Navy Cruiser Sailors Association
Coast Guard Chief Petty Officer Association	New Mexico MOAA
Veterans and Military Families For Progress	Student Veterans of America - Chapters
Veterans for Common Sense	New York x1 Point of contact (POC)
Veterans for Modern Warfare	Ohio x2 POCs
Vietnam Veterans Memorial Fund	Colorado x2 POCs
Vietnam Veterans Women's Memorial Fund	Colorado x2 POCs
Women's Memorial	Colorado x1 POC
Women's Marines Association	New York x1 POC
Women's Overseas Service League	California x2 POCs
Veteran Service Officers (VSO) Massachusetts	Maryland x1 POC
VSO Mississippi	Texas x2 POC
VSO Connecticut	Texas x1 POC
VSO California	Texas x1 POC
VSO New Jersey	South Carolina x1 POC
VSO New York	Kentucky x1 POC
Student Veterans of America - Chapters	Hawaii x1 POC
California x3 POCs	Maryland x1 POC
California x3 POCs	Ohio x1 POC
California x1 POC	Tennessee x1 POC
Ohio x1 POC	Florida x1 POC
California x1 POC	Washington x1 POC
Missouri x1 POC	New Jersey x2 POCs
California x2 POCs	Washington x2 POCs
Pennsylvania x1 POC	California x1 POC
Michigan x1 POC	Florida x2 POCs
Iowa x1 POC	Texas x2 POCs

Organization	
Minnesota x2 POCs	Texas x2 POCs
New York x3 POCs	Texas x2 POCs
Georgia MOAA	New York x2 POCs
Georgia MOAA	South Carolina x2 POCs
Georgia MOAA	Texas x2 POCs
Wyoming MOAA	Tennessee x2 POCs
West Virginia MOAA	Ohio x2 POCs
Kansas MOAA	Texas x2 POCs
Kansas MOAA	Texas x2 POCs
Maryland MOAA	Georgia x2 POCs
Hawaii MOAA	New York x2 POCs
Connecticut MOAA	New York x2 POCs
New Mexico MOAA	New York x1 POC
Pennsylvania x1 POC	Kansas x1 POC
California x2 POCs	California x2 POCs
Arizona x2 POCs	Georgia x2 POCs
Nebraska x2 POCs	Maine x2 POCs
Pennsylvania x2 POCs	Iowa x2 POCs
Florida x1 POC	Arizona x2 POCs
Florida x1 POC	Kansas x2 POCs
Florida x2 POCs	Wyoming x2 POCs
Florida x2 POCs	Michigan x2 POCs
MOAA - Individual Chapters	New York x2 POCs
Alaska MOAA	Massachusetts x2 POCs
North Dakota MOAA	Florida x2 POCs
Connecticut MOAA	Florida x2 POCs
Connecticut MOAA	Lehigh Office of Veterans Affairs, PA
Mississippi MOAA	Non-Commissioned Officer Association
Mississippi MOAA	Veterans Helping Veterans Heal
South Dakota MOAA	Air Force Association
South Dakota MOAA	Fleet Reserve Association
Wisconsin MOAA	Montford Point Marine Association
Wisconsin MOAA	Florida MOAA
Kansas MOAA	Alabama MOAA
Kansas MOAA	Arkansas MOAA
Kansas MOAA	Arizona MOAA
Delaware MOAA	California MOAA
Delaware MOAA	California MOAA
Ohio MOAA	California MOAA

Organization	
Ohio MOAA	Colorado MOAA
South Carolina MOAA	North Virginia MOAA
South Carolina MOAA	Iowa MOAA
Louisiana MOAA	Idaho MOAA
Louisiana MOAA	Illinois MOAA
New York MOAA	Indiana MOAA
New York MOAA	Indiana MOAA
New York MOAA	Kentucky MOAA
Texas MOAA	Massachusetts MOAA
Texas MOAA	Maine MOAA
Texas MOAA	Michigan MOAA
Student Veterans of America - Chapters	Minnesota MOAA
Maryland x2 POCs	Missouri MOAA
Montana MOAA	Rhode Island MOAA
North Carolina MOAA	Tennessee MOAA
Nebraska MOAA	Tennessee MOAA
New Hampshire MOAA	Utah MOAA
New Jersey MOAA	Vermont MOAA
Nevada MOAA	Washington MOAA
Oklahoma MOAA	Rolling Thunder Tennessee - Chapter
Oregon MOAA	AMVETS Post TN
Pennsylvania MOAA	AMVETS Post VA

## Appendix G

### Spectrum of Prevention Plan

#### Level 1. Individual Service Member Knowledge and Skills

1. Incorporate Positive Deviance theory, Social Ecological Model, and the "looking-glass self."
2. Strengthen individual knowledge and skills regarding rape myths and misnomers regarding sexual violence. Reinforce concepts: an individual chooses to oppress another through acts of sexual violence.
3. Providing examples of healthy relationships by utilizing Safe Dates and RealConsent.

#### Level 2. Promote Community Education

1. Use of guest speakers, web based modules, videos, educator-led blocks of instruction, and large training venues.
2. Reveal misinformation in a comprehensive education program.
3. Provide an understanding of male survivor's reactions and perceptions of sexual violence. Explain the psychological and physical trauma that can result from sexual violence.

#### Level 3. Educate Providers, Safety, Legal, and Leadership Teams

1. Target healthcare staff, police and safety personnel, Judge Advocate General, and command teams with specialized training.
2. Incorporate Positive Deviance theory, Social Ecological Model, the "looking-glass self," Principles of Effective Prevention Programs, and the Spectrum of Prevention at the team level.

#### Level 4. Foster Coalitions or Networks

1. Include military and civilian experts to create a web of resources.
2. Assimilate the media and local publications to assist with awareness and promotion of resources.
3. Offer primary and secondary interventions. Prevention as a necessary step.

#### Level 5. Change Organizational Practices

1. Slowly shift cultural norms by balancing health care seeking behaviors with personal strength and stoicism.
2. System level changes, confidentiality.

#### Level 6. Influence Policy and Legislation

1. Tighten entry into military service for sexually related incident (perpetrator).
2. Publicize harsher punishments for acts of sexual violence.
3. Continuously evaluate training programs for success and relevance with input from SMs and experts.

VITA

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