

Research Article

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A Comparative Study of Veterans' Sexual Trauma Experiences Over Time

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Abstract

Background: Military sexual trauma (MST) is a prevalent issue with many concomitants. In the last 25 plus years there has been an increase in VA policies aimed to support recovery of MST victims, but there is limited research investigating their success. There have also been policies enacted in the military to prevent sexual assault and improve the care of personnel reporting sexual assault but no research on their effectiveness.

Objective: Our aim is to compare a sample of Veterans in 2004-2006 to a sample of Veterans in 2017-2023 to see if these policies have improved recovery in the VA system or improved effectiveness in the military.

Design: Subjects completed a self-report questionnaire about their MST experience, recovery, and concomitants.

Participants: Study 1 included 110 Veterans with MST (19-79 yo; 85% F) from the Northport VA between 2004-2006; Study 2 included 100 Veterans with MST (20-71 yo; 91% F) from the San Diego VA between 2017-2023.

Main Measures: Physical and psychological concomitants were assessed (e.g. chronic pain, pelvic pain, migraines, panic attacks, psychiatric diagnosis, alcohol/drug use, and suicide attempt).

Key Results: Physical concomitants did not improve between Study 1 and 2. In fact, Study 2 subjects were more likely to report chronic pain ($X^2[1,N=199]=7.71$, p=.005), pelvic pain ($X^2[1,N=202]=8.45$, p=.004), migraines ($X^2[1,N=199]=10.59$, p=.001), and panic attacks ($X^2[1,N=199]=32.24$, p<.001) than Study 1 subjects. Most psychological concomitants did not improve except lifetime drug use ($X^2[1,N=209]=14.97$, p<.001) and consumption of 3+ drinks per day ($X^2[1,N=207]=25.67$, p<.001). Subjects in Study 2 were more likely to report a psychiatric diagnosis ($X^2[1,N=200]=13.40$, p<.001).

Conclusions: Most physical and psychological concomitants associated with MST have not improved between the studies suggesting that MST-focused policies implemented between 2006-2017 have not significantly improved recovery. A re-evaluation of the policies aimed at supporting these Veterans is needed.

1. Introduction

Military sexual trauma (MST) is a deeply concerning issue that affects both men and women. MST is defined by the Department of Veterans Affairs (VA) as experiences of sexual assault and sexual harassment experienced during military service and includes any experience of sexual activity that is against your will [1]. Although it is difficult to determine the exact prevalence of MST, a recent meta-analysis of studies of military personnel and Veterans reported that 15.6% have experienced MST, specifically 38.4% of women and 3.9% of men [2]. When screened by the Veterans Affairs (VA) healthcare, about 1 in 3 women and 1 in 50 men in the armed forces have experienced an incident of MST [3]. The actual rate of experienced MST is assumed to be much higher because this

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number only includes Veterans who have chosen to seek healthcare at the VA rather than at other institutions and it is likely that many incidents go unreported, especially because of the consequences correlated with reporting MST [1]. For example, in a 2014 survey conducted by the RAND National Defense Research Institute to assess of the rates of sexual assault, sexual harassment, and gender discrimination in the military, 52% of women perceived that they experienced professional or social retaliation after reporting a sexual assault [4]. Rates differ between different US military branches, with the Marines and the Navy having the highest rates and the Air Force having the lowest [4]. Nevertheless, MST is a pervasive problem among all US armed forces. Sexual trauma often affects one's physical and mental health in significant ways, even many years later [1]. There are numerous studies documenting the physical concomitants associated with sexual trauma [5-7]. These include liver disease, chronic pulmonary disease, obesity, weight loss, AIDS, chronic pain, menstrual problems, back pain, asthma, irritable bowel syndrome, headaches, gastrointestinal problems, hypothyroidism, chronic tension, and chronic fatigue [8,9].

In addition to increased physical health problems, sexual trauma is associated with an increase in psychological concomitants [10]. Sexual trauma has adverse impacts such as feelings of interpersonal betrayal and victim-blaming [11]. There are significantly higher rates of depression, panic disorder, somatization disorder, PTSD, and substance abuse in those with sexual assault compared to those with no sexual assault history [10,12-15]. In fact, women Veterans with MST were twice as likely to develop alcohol use problems than women Veterans with no MST and five times more likely to develop PTSD [16,17]. Studies have also shown that men with sexual trauma are more likely than females with sexual trauma to develop alcohol abuse [18,19]. Self-harm and suicide attempt are also more common in men who have experienced sexual trauma [20].

As awareness of sexual trauma prevalence and its concomitants have increased over the past few decades, the VA has taken steps towards addressing sexual violence [21]. In 1999, the VA mandated a national screening program and now every Veteran seen for health care at VA Medical Centers are asked whether he or she has experienced MST [1]. Over the years, the VA's MST services and policies have continued to evolve. For example, in 2000, VA Medical Centers were required to have an MST coordinator as a point person for all MST-related issues and the electronic medical records were set to have reminders for the mandated MST screening program at each appointment; in 2006, the national MST Support Team was created to provide education and training about MST; and in 2012, all VA mental health and primary care providers were required to complete mandatory training on MST [21].

However, despite the implementation of MST policies and services over the past 25+ years, the US armed forces continue to see persistent rates of sexual assault [11]. Prior studies have identified a need for further inquiry into MST survivors' service needs and also for additional research on the impact of MST on health behaviors and overall health consequences [11]. Additionally, although there have been many changes in VA MST policies since the early 2000s, there is limited research focused at comparing the changes in presentation and recovery in Veterans with sexual trauma. The aim of the current study is to look at the effects of sexual trauma in a sample of Veterans in the early 2000s and compare it to a sample of Veterans over a decade later to see if the MST-focused policies that have been implemented have resulted in any changes in recovery and concomitants of sexual trauma in Veterans. The study also aims to look at feedback directly from Veterans who have experienced sexual trauma to see if there are any suggestions or requests for continued improvement of MST-focused policies.

2. Methods

2.1 Procedures

This study compares two cross sectional surveys. Study 1 was conducted from 12/17/2004 to 7/28/2006 in primary care clinics at the VA Medical Center in Northport, New York. Study 2 was conducted from 5/10/2017 to 1/5/2023 in primary care clinics at the VA Medical Center in San Diego, California, although data collection was paused in 2020 and 2021 due to the COVID-19 pandemic.

Subjects from both samples were recruited from patients who presented for routine primary care appointments at the Veterans Affairs Outpatient Clinics. All Veterans are screened for history of military sexual trauma at primary care appointments as per VA policy. For the purpose of this study, sexual trauma was defined as experiencing (1) oral, anal, or vaginal intercourse, (2) clothed or unclothed fondling of the patient's or perpetrator's genitals, and/or (3) fondling of breasts or buttocks without consent. If the patient was younger than 16 years old, and the perpetrator more than 5 years older at the time of the incident, it was considered abuse even if the patient consented.

Both Veterans with and without a positive screen for MST were approached and given information about the study and asked if they wanted to participate in study one. Only patients with MST were recruited in study 2. Those who were willing were consented and those who were unable to read, write, and understand English were excluded.

After consent, the subjects filled out a simple self-report questionnaire that asked them to identify the nature of the trauma, the perpetrator, and whether they have any of the physical and psychological concomitants often associated with sexual abuse. The Principal Investigator and collaborators were available to answer any questions. Analysis was performed only on individuals who have experienced sexual trauma, and not controls.

2.2 Study 1

At the Northport VA, 110 Veterans (19-79 years old, mean = 43.9, SD = 12.8; 85% Female) with sexual trauma agreed to participate. Of these participants, 45% had a high school degree and 27% had higher education. The subjects were 58% White and 7% Hispanic.

2.3 Study 2

At the San Diego VA, 100 Veterans (20-71 years old, mean = 30.7, SD = 9.58; 91% Female) with sexual trauma agreed to participate. Of these participants, 49% had a high school degree and 29% had higher education. The subjects were 40% White and 28% Hispanic.

2.4 Analysis

Chi-square tests of independence with a 95% confidence interval were performed to examine the relationships between the different studies and each concomitant assessed in the survey. Subjects were not required to answer questions and some subjects declined to answer some of the questions that caused them discomfort. Cases with missing values were removed from each measure.

3. Results

3.1 Physical Concomitants

There was a significant difference between the two studies in the proportion of subjects who reported suffering from chronic pain $(X^2 [1, N = 199] = 7.71, p = .005)$. Subjects in Study 2 were more likely to experience chronic pain. Subjects in Study 2 were also more likely to experience pelvic pain $(X^2 [1, N = 202] = 8.45, p = .004)$, migraines $(X^2 [1, N = 199] = 10.59, p = .001)$, and panic

attacks (X2 [1, N = 199] = 32.24, p < .001).

There was not a significant difference between the two studies in the proportion of subjects who experienced IBS (X^2 [1, N = 202] = 0.23, p = .635), fibromyalgia (X^2 [1, N = 202] = 2.53, p = .112), or self-mutilation (X^2 [1, N = 202] = 0.10, p = .747; see Figure 1 and Table 1).

Type of Physical Concomitant	% Study 1	n	% Study 2	n	X2	p-value
Chronic pain	25.69%	109	44.44%	90	7.71	.005
Pelvic pain	11.01%	109	26.88%	93	8.45	.004
Migraines	35.78%	109	58.89%	90	10.59	.001
Panic attacks	37.61%	109	75.27%	93	32.24	<.001
IBS	22.94%	109	25.81%	93	0.23	.635
Fibromyalgia	17.43%	109	9.68%	93	2.53	.112
Self-mutilation	15.60%	109	13.98%	93	0.10	.747

Table 1: Chi-Squared Analysis of Physical Concomitants in Study 1 Compared to Study 2

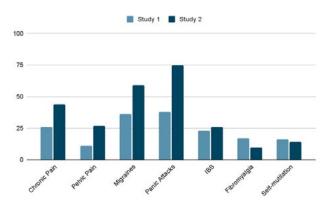


Figure 1: Frequencies of Physical Concomitants Observed in Study 1 and Study 2

3.2 Psychological Concomitants

The proportion of subjects reporting a diagnosis of a psychiatric disorder was statistically significant between the two studies. Subjects in Study 2 were more likely to report a psychiatric diagnosis (X^2 [1, N = 200] = 13.40, p < .001) than subjects in Study 1 and were more likely to report feelings of helplessness, loss of control, difficulty in relationships, betrayal, and/or the need to cling to someone at all times (X^2 [1, N = 207] = 30.80, p < .001). However, lifetime alcohol use did not differ (X^2 [1, N = 207] =

0.0006, p = .980) between studies and subjects in Study 1 were more likely to consume more than 3 drinks per day (X² [1, N = 207] = 25.67, p < .001). Current drug use did not differ between the two studies(X² [1, N = 208] = 0.07, p = .798), although lifetime drug use was more likely for subjects in Study 1 than Study 2 (X² [1, N = 209] = 14.97, p < .001). There was no difference between lifetime attempt of suicide between the two studies (X² [1, N = 209] = 2.85, p = .092; see Figure 2 and Table 2).

Type of Psychological Concomitant	% Study 1	n	% Study 2	n	X2	p-value
Psychiatric diagnosis	72	109	92.22%	90	13.40	<.001
Feelings of helplessness, loss of control, difficulty in relationships, betrayal, and/ or need to cling to someone at all times	66.36%	110	96.91%	97	30.80	<.001
Lifetime alcohol use	83.64%	110	83.51%	97	0.0006	.980
Consumption of 3+ drinks per day	44.55%	110	12.37%	97	25.67	<.001
Current drug use	8.18%	110	9.18%	98	0.07	.798
Lifetime drug use	49.09%	110	23.23%	93	14.97	<.001
Lifetime suicide attempt	50%	110	38.38%	99	2.85	.092

Table 2: Chi-Squared Analysis of Psychological Concomitants in Study 1 Compared to Study 2

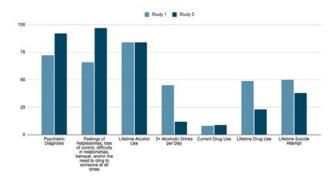


Figure 2: Frequencies of Psychological Concomitants Observed in Study 1 and Study 2

3.3 Perpetrator

Subjects were asked to identify the perpetrator of their MST. There were significant changes between Study 1 and Study 2. Study 1 subjects were more likely to report their direct supervisor as their

abuser (X2 [1, N = 210] = 35.68, p < .001) than Study 2 subjects. Study 2 subjects were more likely to report a colleague as their abuser X2 [1, N = 210] = 22.91, p < .001; see Table 3).

Perpetrator	% Study 1	n	% Study 2	n	X2	p-value
Supervisor	54.55%	110	15%	75	35.68	<.001
Colleague	27.27%	110	60%	90	22.91	<.001

Table 3: Chi-Squared Analysis of Perpetrators in Study 1 Compared to Study 2

3.4 Satisfaction with Military Response

When asked about their thoughts on how the military handled their case, subjects in Study 1 were unanimous in voicing disapproval on how their case was handled by the military and felt that they were treated unfairly. However, 10 of 100 subjects in Study 2 said that they were satisfied in how their case was handled by the military, showing that there was a significant increase in satisfaction with military response over time (X2 [1, N = 210] = 84.0, p < .001).

3.5 Suggests for Improvement

Subjects were also asked to report on steps that could be taken to improve their recovery and/or satisfaction with how their case was handled. Subjects from Study 1 suggested having a female reporting system, an apology and acknowledgement from the US Armed Services, to incarcerate the perpetrator, have a zero tolerance for sexual harassment, to end the military culture of losing status after reporting MST, and to spread public awareness of how widespread MST is. Common answers from Study 2 were to offer more therapy opportunities and education about coping skills, to have military culture encourage the reporting of MST, to ensure privacy if reporting MST and have a Civilian reporting system.

4. Discussion

We investigated the differences in sexual trauma's physical and psychological concomitants in two independent samples of Veterans over a decade apart to see if there has been any improvement for Veterans suffering from sexual trauma following changes to VA policies aimed at helping Veterans recover from MST. To our knowledge there have been no studies investigating these changes over time thus far.

We found that there was no decrease in physical concomitants from

Study 1 to Study 2. In fact, Study 2 had higher rates of chronic pain, pelvic pain, migraines, and panic attacks than Study 1, and there were no significant differences in rates of IBS, fibromyalgia, and self-mutilation. Over time, there has been no improvement in treating physical symptoms following sexual assault even though there have been countless new policies and advocacies for victims of MST.

When looking at changes in rates of psychological symptoms between Study 1 and Study 2, we found mixed results. Study 2 had higher rates of reported psychiatric diagnoses and feelings of helplessness, loss of control, difficulty in relationships, betrayal, and/or the need to cling to someone at all times. This suggests that despite VA efforts to focus on helping victims of MST recover in the past couple decades, there was unfortunately an increase in psychological symptoms instead of a decrease. In addition, there was no difference in rates of lifetime suicide attempt between the studies nor lifetime alcohol use or current drug use. However, lifetime drug use was higher in Study 1 than Study 2, suggesting that it is possible that the VA efforts to help MST victims may have helped decrease lifetime use of drugs.

We also assessed whether the perpetrators of the MST changed between studies. There were significant changes, with subjects from Study 1 more likely to have been abused by their direct supervisor and subjects from Study 2 more likely to have been abused by a colleague. This suggests that perhaps MST policies were helpful in reducing sexual harassment and abuse by supervisors but were not helpful in reducing MST between colleagues or equals.

In addition, we looked at the Veterans' satisfaction towards how their MST case was handled by the military. There was a significant increase in satisfaction between Study 1 and Study 2 with a 10% satisfaction rate in Study 2 compared to a 0% satisfaction rate in Study 1. While this increase is a positive sign that Military policies have been improving the treatment of MST victims, this remains quite a low rate of satisfaction. The handling of MST may directly play a role in overall patient satisfaction of coordination, education and information as satisfaction was found to be lower in female Veterans with a history of MST than in female Veterans with no history of MST in previous research [22,23].

5. Conclusion

Our study demonstrates that physical and psychological concomitants associated with MST have not improved between Study 1 and Study 2. This suggests that the MST-focused policies implemented between 2006 and 2017 have not significantly improved the recovery of MST victims. There is a need for further advocacy for Veterans with MST as well as a re-evaluation of the policies aimed at supporting their recovery.

6. Limitations

This study must be understood in the context of its limitations. The study consists of two different samples and two different locations. It is possible that there are institutional differences between the Northport and San Diego VA Healthcare Systems that could affect our outcomes. The nonrandom selection of participants may have also led to bias. For example, patients with severe abuse may have declined participation and those with milder cases of abuse may have been more willing to contribute to the research. Our sample size primarily consisted of women Veterans, and we should be cautious to generalize these findings to men as there are known gender differences in recovery from sexual trauma [24]. In addition, the COVID-19 pandemic may have had significant effects on the outcomes of Study 2. Research has shown that prevalence rates of alcohol use, anxiety, depression, PTSD, and suicide ideation have increased significantly in Veterans following the COVID-19 pandemic [25,26]. However, the majority of our Study 2 sample was recruited before the pandemic and only 15 of the 100 participants were recruited after the start of the COVID-19 pandemic.

7. Future Directions

Veterans from these two studies have given insightful suggestions on how to improve their care. A lot of the subjects mentioned therapy and counseling was and is needed for continued improvement in their recovery. However, Veterans often have to face multiple barriers to obtain mental healthcare services at the VA, so improvement is needed in order to make counseling and therapy more accessible [27-29]. Subjects from both studies mentioned that military culture makes the reporting of MST difficult. Previous studies have shown how military culture is an important aspect in the relationship between patients and mental healthcare providers and plays a role in Veterans' reluctance to seek treatment for mental illness or distress [30,31]. Reducing the stigma for mental health treatment among military culture is an important area to tackle in order to increase satisfaction in mental health treatment [32]. Also, subjects in these studies mentioned that underage drinking was one cause for assault and many chose to not

report their assault because of the fear of being reprimanded for underaged drinking. If military culture adapts more of a concern for the health and mental wellbeing of military personnel, victims may be more motivated to report their MST. Further education or initiatives to address this problem would validate the victims and help start their recovery process. Because of the changes we found in the perpetrators of the MST, it would also be helpful to implement more trainings and education about MST to all active military members, and not only those in supervisor roles.

Since our studies were exploratory in nature, more questions have been raised that will need to be addressed in future research studies. The characteristics of the assault, such as severity or frequency, were not covered in depth by our questionnaire, though this information would be valuable in our understanding of recovery from MST as assault characteristics are shown to impact outcomes such as the development of PTSD [33,34]. From speaking with the subjects, we did observe that subjects in Study 1 seemed to mention experiencing more violent attacks such as gang rapes. It would be worth collecting more information about this to see if this has affected recovery over time. Also, additional information on what VA resources the Veterans in the studies utilized to support their recovery would help us identify the strengths and weaknesses of our current system. Finally, as action and policy change regarding MST are continuously evolving, there is a need for further investigation of future changes.

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