UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

READINESS

APR - 1 2022

The Honorable Jack Reed
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Department's response to section 702(e)(2) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115–232), which requires the Secretary of Defense to submit a final report on the Pilot Program on Treatment of Members of the Armed Forces for Posttraumatic Stress Disorder (PTSD) Related to Military Sexual Trauma, is enclosed.

The report summarizes the Department's pilot program activities, partnerships, and assessments, and includes recommendations approved by the Department to strengthen its civilian intensive outpatient program (IOP) partnerships, while supporting continuity of care and ensuring military readiness. Based on pilot findings, the Department of Defense deems that wide-scale implementation of IOPs through civilian partnerships to treat Service members diagnosed with PTSD and other psychological sequelae from military sexual trauma is feasible, but advisable only in limited circumstances. Further, the Department does not endorse extending or making the pilot program permanent due to barriers associated with civilian IOP data collection and sharing, as well as inconsistent use of evidence-based treatment.

Thank you for your continued strong support for the health and well-being of our Service members. I am sending a similar letter to the Committee on Armed Services of the House of Representatives.

Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable James M. Inhofe
Ranking Member

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

READINESS

APR - 1 2022

The Honorable Adam Smith
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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Thank you for your continued strong support for the health and well-being of our Service members. I am sending a similar letter to the Committee on Armed Services of the Senate.

Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable Mike D. Rogers
Ranking Member

FINAL REPORT TO THE COMMITTEES ON ARMED SERVICES OF THE SENATE AND THE HOUSE OF REPRESENTATIVES

Pilot Program on Treatment of Members of the Armed Forces for Posttraumatic Stress Disorder Related to Sexual Trauma

April 2022

In Response to Section 702(e)(2) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Public Law 115–232)

The estimated cost of this report for the Department of Defense (DoD) is approximately $1,749,000.00 for Fiscal Years 2019–2022. This includes $1,480,000.00 in expenses and $269,000.00 in DoD labor.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Section 702 (e)(2) of the John S. McCain National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019 (Public Law 115–232) authorizes the Secretary of Defense to establish a pilot program to assess the feasibility and advisability of using intensive outpatient programs (IOPs) to treat members of the Armed Forces suffering from posttraumatic stress disorder (PTSD) resulting from military sexual trauma. Per section 702(b), the pilot program is to be carried out through partnerships with public, private, and non-profit health care organizations and institutions that: (1) provide health care to members of the Armed Forces; (2) provide evidence-based treatment for psychological and neurological conditions common among members of the Armed Forces, including PTSD, traumatic brain injury, substance abuse, and depression; (3) provide health care, support, and other benefits to family members of the Armed Forces; and (4) provide health care under the TRICARE program (as that term is defined in 10 U.S.C. § 1072).

In response, the Department of Defense (DoD) developed and executed a pilot project to evaluate the feasibility and advisability of partnering with civilian public, private, and non-profit health care organizations. To accomplish this goal, a feasibility study was executed to collect quantitative and qualitative data from clinic leaders and subject matter experts (SMEs) at outpatient behavioral health clinics (OBHCs) referring to IOPs; clinic leaders and SMEs at DoD IOPs; and clinic leaders and SMEs at civilian partner IOPs. Data collection occurred through semi-structured interviews and surveys from 22 sites including 15 DoD OBHCs, 2 DoD IOPs located in military medical treatment facilities (MTFs), and 5 civilian public IOPs. In addition to a literature review, information was gathered on barriers and facilitators to civilian partnerships as reported by our DoD SMEs and civilian partners. Barriers across the mental health industry (e.g., commercial, Centers for Medicaid and Medicare Services, and TRICARE) include length of time to approve referral to civilian partners, difficulty with obtaining approval for medical travel, and reimbursement issues. Based on the pilot data, the DoD deems that partnership with civilian IOPs to provide care for active duty Service members (ADSMs) reporting a history of sexual assault is feasible, but advisable only in limited circumstances. This report includes recommendations approved by the Department that may serve to improve DoD-civilian partnerships, while supporting continuity of care and informing military readiness. Based on pilot findings, the DoD does not endorse extending or making the pilot program permanent.

INTRODUCTION

Section 702(a) of the John S. McCain NDAA for FY 2019 (Public Law 115–232) authorizes the establishment of a pilot program to assess the feasibility and advisability of using IOPs to treat members of the Armed Forces diagnosed with PTSD resulting from military sexual trauma, including treatment for substance abuse, depression, and other issues related to such conditions. This report is in response to section 702(e)(2), which requires the Secretary of Defense to submit a final report to the Committees on Armed Services of the Senate and the House of Representatives on the pilot program. The report shall include a description of the pilot program, including the partnerships under the pilot program as described in section 702(b); an assessment of the effectiveness of the pilot program and the activities under the pilot program; and such recommendations for legislative or administrative action as the Secretary considers

appropriate in light of the pilot program, including recommendations for extension or making permanent the authority for the pilot program. DoD uses the terms "sexual assault" and "sexual harassment" to refer to two separate types of behaviors, while the Department of Veterans Affairs (VA) uses the term "military sexual trauma" to mean both sexual assault and sexual harassment. For the purposes of this report, the terms "sexual assault" and "sexual trauma" refer to the events experienced by the DoD population in this pilot project. The kick off meeting was held in December 2018, and planning of the methodology began at that time. In early 2019, an external workgroup was formed to gather subject matter expertise from stakeholders, including representatives from the DoD Sexual Assault Prevention and Response Office (SAPRO), U.S. Army Behavioral Health System of Care, VA, Navy Bureau of Medicine and Surgery, TRICARE, and Defense Health Agency (DHA) including the Psychological Health Center of Excellence (PHCoE). This workgroup oversaw the design of the pilot program. External workgroup meetings were held every other week throughout the 1-year design phase. The DoD submitted the Initial Report to the Committees on Armed Services of the Senate and the House of Representatives on June 10, 2019, which included a literature review and the initial plan for the pilot.

Systematic and Scoping Reviews

In anticipation of a relatively small sample size, which might limit pilot study results and subsequent interpretation, the DoD commissioned systematic and scoping reviews. The RAND National Defense Research Institute conducted the studies to help inform recommendations approved by the Department and strengthen pilot study findings. The RAND reports (Rollison et al., 2021; Gore et al., 2021) include analyses of numerous published studies of ADSMs, as well as studies of veteran populations. Systematic evidence reviews that carefully review, document, and synthesize published literature facilitate translation of research findings into evidence-based health care guidelines, promoting optimal clinical care.

The RAND systematic reviews identified over 10,500 articles for screening and completed a full-text review of more than 1,050 articles for the inclusion and exclusion criteria for each review. Sixty-seven studies met the inclusion and exclusion criteria. Due to the lack of published research on the psychological health of ADSMs who disclose sexual assault and harassment, the systemic review included studies that examined closely related veteran populations. An in-depth critical appraisal assessed key sources of bias and the quality of evidence of the selected studies. Detailed abstraction forms were used to standardize the data collection process, while at least two reviewers independently analyzed each article. The extant research appears to support the notion that sexual assault survivors are at increased risk for symptoms of PTSD, depression, and substance use disorder (SUD). Available research literature suggests a positive association between sexual harassment and symptoms of PTSD, depression, and SUD (Rollison et al., 2021).

The first study (Rollison et al., 2021) was a systematic review of synthesized literature related to treatment effectiveness, barriers and facilitators to treatment, and mental health symptoms associated with Service members seeking treatment for sexual harassment and sexual assault, with a focus on IOP programs.

The second study (Gore et al., 2021) focused on a review of TRICARE policy and practice related to delivery of IOP treatment to ADSMs who disclose sexual assault, both in DoD and civilian settings of care. The study examined secondary data, programs, and policies to understand clinical practices and TRICARE requirements associated with the utilization of IOPs to treat the psychological health consequences of sexual harassment and sexual assault in the military context. The systematic and scoping reviews documented several gaps in research, policy, or practice, including (Appendices A−B summarize additional relevant findings):

- Gaps exist in clinical management and care coordination policies, which are relevant to optimizing potential civilian partner programs.

- RAND concluded all DoD and some private sector IOP programs use evidence-based treatment approaches. Also, many private sector IOP programs do not meet TRICARE requirements for reimbursement or contracting. This finding that there is a lack of utilization of evidence-based practice across private sector IOPs represents an inherent limitation to the feasibility of collaborating with civilian IOPs across the mental health industry.

RAND reports document several limitations of the body of literature that impact interpretation of systematic review and scoping review findings (Rollison et al., 2021; Gore et al., 2021). For example, the body of literature reviewed was not confined to DoD data or DoD population and as such, definitions of sexual assault, sexual trauma, sexual harassment, and military sexual trauma varied across studies. The variability contributed to difficulties with meta-analysis and evidence synthesis across studies, as the populations and treatment outcomes under examination are likely to vary widely based on the construct used to define the study population. In addition, the current body of evidence notably focuses almost exclusively on women. Very few studies focus on males, transgender, non-binary individuals, or ADSMs of racial minority who experienced sexual assault in the military. RAND reported that few studies identify the length of time since assault and other information that may factor into symptom trajectory and recovery (Rollison et al., 2021).

Feasibility Analysis Plan

To determine the feasibility of a clinical intervention, the clinical intervention should meet a number of criteria as specified in the extant literature. More specifically, the clinical intervention must be: (1) clinically effective; (2) easily implementable (requiring analysis of barriers and facilitators); (3) acceptable to both patients and providers; (4) cost appropriate; and (5) pragmatic. This approach is an expansion of prior feasibility models requiring: (1) description of the program; (2) identification of implementation problems; and (3) given implementation problems, determination of feasibility of the clinical intervention (Bowen et al., 2009; Weiner et al., 2017; Wuest et al., 2015).

DESCRIPTION OF THE PILOT PROGRAM

Execution of the IOP pilot required approval from different stakeholders within the Department, including the Office of Research Protections Institutional Review Board (IRB). In

February 2020, the Office of Research Protections determined the pilot was exempt from IRB review as it was not a research project.

Pilot Site Selection Process

The pilot project involved 22 sites: 15 DoD OBHCs, 2 DoD IOPs, and 5 civilian IOPs (see Figure 1 for overview). To ensure Service representation, five OBHCs were selected from each Military Department, while taking into consideration for selection relatively higher rates of sexual assault reports and rates of sexual assault treatment compared to other installations (see Table 1). Overall, OBHC sites were geographically dispersed and relatively near DoD and/or civilian IOPs. The OBHCs were included in the pilot to obtain input from referring DoD providers who see ADSMs prior to and following IOP treatment, regardless of IOP treatment location. They provided a unique perspective related to their views on the impact of IOP treatment, logistics of getting ADSMs into both DoD and civilian IOPs, as well as relayed their experiences with barriers and facilitators for implementing IOP referral and treatment processes. Two DoD IOPs were selected for the pilot in order to compare their treatment referrals, outcomes, and processes to civilian IOPs. IOP selection adhered to the following criteria, per section 702 of the NDAA for FY 2019:

- Demonstration of efficacy.
- IOPs of short duration.
- Use of evidence-based and evidence-informed treatment strategies.
- Provision of health care, support, or other benefits to family members of the Armed Forces, as well as provision of health care under the TRICARE program.
- Annual assessment of outcomes of members of the Armed Forces individually and among the organizations participating in the pilot program.
- Agreement to share clinical and outreach best practices with other organizations and institutions in the pilot program through participation in an information-sharing network (ISN).

Figure 1. Overview of Sexual Assault IOP Pilot Project

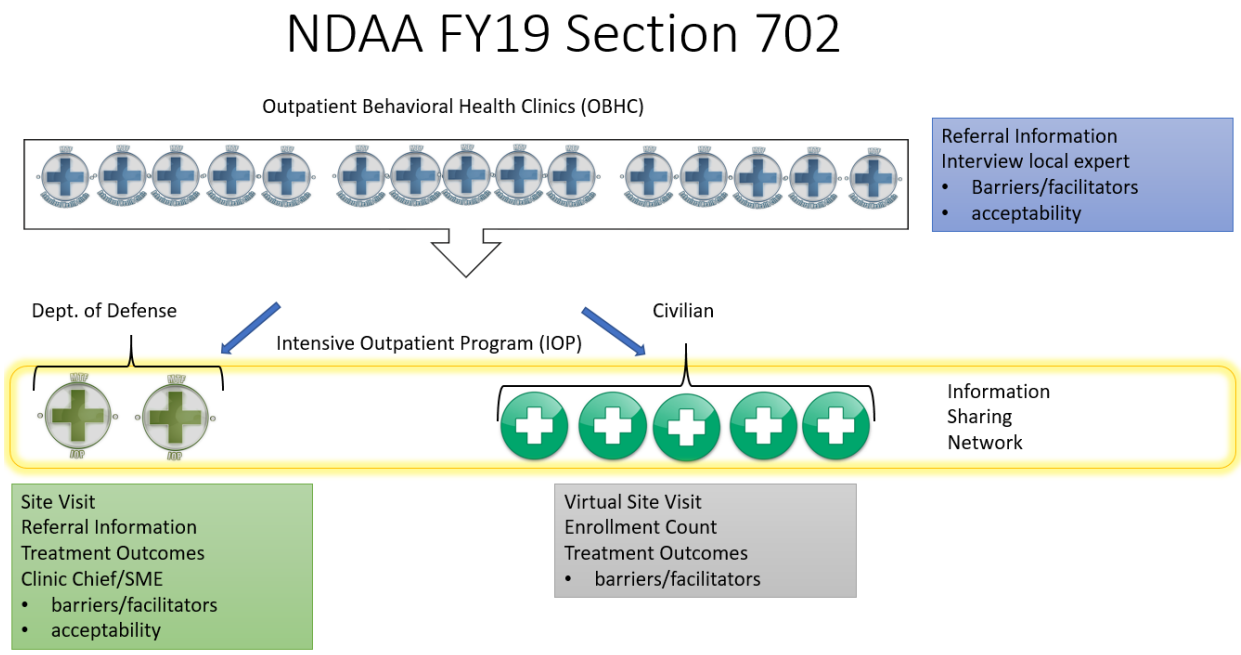

Table 1. Outpatient Behavioral Health Clinics (OBHCs) Participating in Pilot Project

Service Branch	MTF	Location
Army	Darnell Army Medical Center	Ft. Hood, TX
Army	Evans Army Medical Center	Ft. Carson, CO
Army	Irwin Army Community Hospital	Fort Riley, KS
Army	Womack Army Medical Center	Fort Bragg, NC
Navy	Navy Medical Center Camp Lejeune	Camp Lejeune, NC
Navy	Navy Medical Center Camp Pendleton	Oceanside, CA
Navy	Navy Medical Center Portsmouth	Portsmouth, VA
Navy	Navy Medical Center San Diego	San Diego, CA
Navy	Navy Medical Center Yokosuka	Yokosuka, Japan
Air Force	87th Medical Group Ambulatory Health Care Clinic	Joint Base McGuire-Dix-Lakehurst, NJ
Air Force	96th Medical Group Hospital	Eglin Air Force Base, FL
Air Force	David Grant USAF Medical Center	Travis Air Force Base, CA
Air Force	Wilford Hall Ambulatory Surgical Center	Joint Base San Antonio–Lackland, TX
Joint	Joint Base Elmendorf-Richardson Hospital	Joint Base Elmendorf-Richardson, AK
Joint	San Antonio Military Medical Center	Joint Base San Antonio–Fort Sam Houston, TX

For the DoD IOP clinics, data was collected through 60-minute orientation calls; a sexual assault IOP pilot semi-structured interview; a series of four 30-minute facilitated calls; and discussions held during the ISN meetings. To conduct a pilot under the TRICARE Program, modifications to the TRICARE manuals were required. Although the IOP-level of care is already a covered benefit (TRICARE Policy Manual (TPM) Chapter 7, Section 3.16), establishment of a pilot with additional requirements resulted in the development of the TRICARE Operations Manual (TOM) Chapter 18, Section 8, "Intensive Outpatient Program (IOP) Pilot to Address Behavioral Health Sequelae of Sexual Trauma." Additional requirements included reporting of treatment outcomes.

The Managed Care Support Contractors (MCSCs) selected the civilian IOP pilot sites based on criteria stated in section 702 of the NDAA for FY 2019 (see above). In addition to the legislative requirements, TRICARE applied the following additional criteria:

- Approved by the MCSCs based on the TOM requirements to provide intensive outpatient care under the pilot.
- Closest military installation size of 5,000 or greater.
- Expressed willingness to collect data.
- Provided more than 50 percent of care in-person (based on hours), rather than through telehealth (TOM Chapter 18, Section 8, paragraph 3.4.1).

These additional requirements were added to ensure sufficient ADSM participation in the pilot and receipt of in-person treatment (excluding programs that provided 100 percent telehealth). Ultimately, 5 private civilian IOP sites were eligible and subsequently selected (Table 2).

Table 2. List of IOP Clinics Participating in Pilot Project

Site	Clinic Type	Location	Closest Military Installation (Distance)
Oceans Behavioral Hospital	Civilian IOP	Waco, TX	Ft. Hood (63 miles)
Oceans Behavioral Hospital	Civilian IOP	Biloxi, MS	Keesler AFB (1 mile)
Help for Heroes Program	Civilian IOP	Englewood, CO	Buckley AFB (17 miles)
Strong Hope Military Program	Civilian IOP	Salt Lake, UT	Hill AFB (32 miles)
Aurora Behavioral Health Care	Civilian IOP	San Diego, CA	Naval Base San Diego (1 mile)
San Antonio National Military Medical Center	DoD	TX	Joint Base San Antonio (0 Miles)
Madigan Army Medical Center	DoD	WA	Joint Base Lewis-McChord (0 Miles)

Pilot Purpose

The purpose of the pilot was to examine the feasibility and advisability of developing partnerships with civilian health organizations for the treatment of Service members who reported psychological consequences of sexual trauma through use of Intensive Outpatient Treatment. Data were collected from SMEs at OBHCs who refer patients to a more intensive level of care (i.e., IOP, partial hospitalization, or inpatient care). To enable better understanding of both the potential partnership and its implementation, SMEs at DoD and civilian IOPs completed semi-structured interviews assessing acceptability, practicality, feasibility, and preferences of IOP treatment options. Information was also gathered regarding the referral process, clinic operations, and the specifics of evidence-based treatment. Initially, participating sites attended brief phone calls to orient them to the pilot objectives, eligibility requirements, and participation requirements. Semi-structured interviews were conducted to collect data from at least two SMEs at each clinic regarding perceived barriers and facilitators to sending Service members to civilian IOPs; perceptions of practicality of IOP treatment; perceptions of acceptability of available treatment options; and preferences for treatment options (to include IOP).

Several stakeholders were involved (e.g., VA, DoD SAPRO) in the pilot development and implementation plan. The sampling strategy increased generalizability of the pilot results, due to the geographic distribution of the sample participants and distribution across Military Departments (i.e., Army, Navy, and Air Force). The sample size was relatively small but appropriate for a pilot project. Substantial qualitative data were collected to inform pilot findings and provide a depth and characterization not typically available in solely quantitative analyses. Since data collection was limited in scope (by the questions posed), generalizability to other partnerships or settings may be limited. Other limitations include missing data, as well as lack of Service member input due to the IRB review process, which deemed the pilot study did not constitute research. Thus, individual patient-level data or opinions were not collected or analyzed. Treatment outcome data were not the central focus of the pilot project.

Pilot Sample Size

Last year, 6,290 ADSMs reported sexual assault during military service, while another 614 reported assault prior to military service. Research suggests that only 50 percent of sexual assault survivors continue to experience psychological symptoms three months after the assault (Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992). Many individuals, including ADSMs, choose not to seek treatment. Although their reasons vary, they often entail a desire to forget the assault and move on, concerns about negative impact on career, concerns that others will know they have been assaulted, perceptions of being weak, and feelings of shame (DoD Office of People Analytics, 2018). Additionally, most sexual assault survivors who seek treatment receive traditional outpatient therapy requiring one weekly 45–75 minute session for a total of 8–12 sessions. Accordingly, most Service members who disclose sexual assault can effectively receive treatment in the traditional outpatient behavioral health clinic treatment setting and note symptom improvement.

Individuals requiring more intensive treatment based on clinician judgment may progress to an IOP, which will increase the number of hours of treatment per day and per week. Accordingly, the annual number of ADSMs who disclose sexual assault, seek treatment, and require the elevated level of care associated with an IOP, is rather low. Preliminary estimates projected approximately 50 ADSM participants would receive treatment in an IOP during the course of the pilot based on typical referral patterns. Sixty-two Service members actually participated in the pilot. This population size was consistent with expectations for the number of treatment-seeking individuals after sexual assault who would need a more intensive level of care compared to the overall treatment-seeking population. The pilot project collected aggregated treatment outcome and clinical operations data on those 62 patients. Treatment outcomes included measures of PTSD, depression, and overall functioning. Collection of qualitative data from provider SMEs helped assess the feasibility of collaboration with civilian IOPs (e.g., barriers and facilitators to implementation and concerns around perceived acceptability of the intervention under study).

Section 702(c)(3) of the NDAA for FY 2019 states each organization or institution that participates in the pilot program shall "share clinical and outreach best practices with other organizations and institutions participating in the pilot program." To satisfy this requirement, the DoD developed and launched an ISN. The ISN included representatives from PHCoE,

TRICARE, and participating DoD and civilian IOPs. The group met in January, April, and July of 2021 to discuss best practices around topics such as implementation of evidence-based practices, adjunctive treatments, challenges encountered, and strategies for managing these challenges.

COVID-19 and Pilot Project Re-Scoping

Mid-March of 2020, DoD IOP sites suspended their groups and began following Centers for Disease Control and Prevention guidelines to shelter in place due to the emerging coronavirus disease 2019 (COVID-19) pandemic. As a result, many behavioral health clinics switched to telehealth psychotherapy. In response to the COVID-19 pandemic and associated safety precautions as well as increased burden on Military Health System providers, the Director of the DHA Behavioral Health Clinical Communities approved a re-scope of the pilot at the April 2, 2020 meeting. The re-scope of the project included a significant reduction in d the amount of time requested of providers, data collection was streamlined, and data requested regarding information about IOP referrals was revised to exclude March 2020 through September 2020 (the projected height of the pandemic).

EVALUATION METRICS

Before pilot program initiation, several evaluation metrics were selected to assess the effectiveness of pilot program implementation and activities. The metrics included pilot milestones, pilot deliverables, site retention, and execution of the ISN (per section 702(c)(3)). Analyses revealed 76 percent on-schedule completion of initial pilot milestones; 83 percent on-schedule completion of deliverables; and 90 percent retention of pilot sites throughout the duration of the pilot project (see Appendix A). Other metrics attempted, but not completed due to significant implementation barriers, included:

- Number of referrals by DoD providers to IOPs. (Since clinics were not accustomed to tracking referrals, the data received were inaccurate due to missing data).

- Improvement of MTF education around parameters and guidance to engage local partners and formalize collaboration.

All activities required by the statute were completed, including the engagement of civilian partners, and annual assessment of outcomes for members of the Armed Forces individually and among the organizations and institutions participating in the pilot program with respect to the treatment of conditions related to PTSD, depression, and SUD. As a feasibility study, the pilot project focused on pragmatic factors such as barriers and facilitators for implementation and feasibility. Accordingly, significant data were collected from DoD provider SMEs regarding barriers and facilitators to partnering with civilian IOP programs. (The following section summarizes information regarding barriers and facilitators associated with partnering with civilian institutions). Following a comparison of IOP aggregated treatment outcomes, analyses revealed that pre- and post-treatment outcome measures were comparable for DoD and civilian IOPs. This suggests that individuals who attended IOPs for the treatment of psychological symptoms resulting from sexual trauma noted treatment gains following IOP.

FINDINGS RELATED TO FEASIBILITY OF PARTNERSHIPS WITH CIVILIAN IOPs

As previously stated, feasibility and advisability determinations were based on the following data: (1) clinical treatment effectiveness; (2) clinical treatment implementation (requiring analysis of barriers and facilitators); (3) clinical treatment acceptability; (4) cost appropriateness; and (5) clinical treatment pragmatism. For ease of use, the findings were organized accordingly. Significant barriers exist that limit the feasibility and advisability of wide-scale implementation of using civilian partner IOPs to treat Service members suffering from the psychological consequences of sexual trauma, outlined below.

Clinical Treatment Effectiveness

Evidence-based care for specific mental disorders that may be associated with psychological sequelae of sexual assault is known to be effective in both the traditional outpatient behavioral health and IOP care settings. However, this pilot was unable to determine the extent to which the care delivered by participating IOPs was concordant with evidence-based practice. Available pilot data suggest moderate short-term clinical improvement appear to have occurred in most participating IOPs. Sustainability of achieved clinical improvement could not be demonstrated over longer follow-up periods due to both difficulties obtaining long-term data, and that the data obtained demonstrated lack of sustained clinical improvement.

It was not possible to assess clinical symptoms change associated with participation in the pilot project, since preliminary analyses suggested that estimated sample size (based on current rates of ADSMs who disclose sexual assault and seek treatment) would not provide enough power to detect numerous differences in treatment outcomes. As sexual assault is a low base rate phenomenon, studies require very large samples to detect statistically significant changes. Overall, aggregate IOP data revealed significant reductions in scores on instruments assessing symptoms of PTSD and depression, reflecting symptom improvement over time. Some improvement in functioning was noted overall. However, this finding was not statistically significant likely due to the small sample size. Recent research suggests that IOPs are effective for the treatment of psychological consequences of sexual trauma (Zalta et al., 2018). It is also important to note dropout rates for trauma-focused traditional outpatient behavioral health care range from 30−62 percent (Kehle-Forbes et al., 2016) whereas dropout rates for IOPs approach 5 percent (Ragsdale et al., 2020). The RAND study component of the pilot noted evidence-based treatment is not used consistently by all civilian IOPs. Pilot study data quality issues and sparse follow-up data precluded additional meaningful analyses; however, results suggested that reported treatment outcomes appeared comparable between DoD and civilian IOPs. A review of the extant literature suggests that the IOPs studied were effective if they were built on evidence-based practices, and that IOPs may have lower rates of attrition than traditional outpatient BHOCs. Two clinics dropped out of the pilot, as they were unable to report the requested data. One clinic reported a technical failure resulting in data loss, while the other clinic was overwhelmed with patient care and unable to provide the requested data. Other programs reported inaccurate data, resulting in exclusion of their reported data from analyses.

Care Models

The DoD IOP programs that participated in the pilot operated under the U.S. Army IOP model in accordance with their standardized operations manual. The U.S. Army currently has nineteen IOP clinics in operation. This IOP operational manual specifies a minimum number of hours for treatment, a maximum length of stay, and specific requirements for the number of sessions of individual therapy, group therapy, medication management, psychoeducation, pre-enrollment care, and aftercare. The typical DoD IOP provides 4 hours of treatment, 5 days per week for up to 6 weeks, providing approximately 90 hours of intervention (Hoyt et al., 2018). There appears to be no standardized IOP care model for the participating civilian pilot IOP sites. Although several civilian programs reported the use of aftercare, they did not report mandated numbers of individual or group therapy sessions. The number of intervention hours provided by civilian IOPs varies widely and may be as little as 6 hours per week. None of the civilian programs endorsed pre-enrollment care that provides psychoeducation and supportive counseling to ADSMs awaiting enrollment in the IOP.

Clinical Treatment Implementation (Including Barriers and Facilitators)

Substantial barriers exist that limit the feasibility of implementing IOP for ADSMs with civilian partners. This was particularly true of installations without access to geographically proximal partner IOP options. In general, installations with geographically limited civilian partners experienced challenges with referrals, information flow, lost duty-days, and cost of care.

Semi-structured interviews with provider SMEs noted numerous barriers to developing successful partnerships with civilian IOPs. A determination of the feasibility of treatment implementation requires a detailed review of barriers and facilitators across multiple levels to include the health system, treatment program, treatment provider, and individuals seeking treatment.

The RAND systematic review revealed potential individual barriers, which included privacy and confidentiality concerns (Turchik et al., 2014, Monteith et al., 2020), as well as barriers related to concerns that the provider would not believe the Service member's disclosure that they had been sexually assaulted (Turchik et al., 2014). Numerous barriers are best characterized as individual concerns such as perceptions of stigma and shame, concerns the trauma is not serious enough for treatment, and beliefs about seeking care for sexual trauma (Turchik et al., 2014, Monteith et al., 2020).

The systematic review also documented several barriers to the referral of Service members to civilian IOPs for the treatment of the psychological consequences of sexual assault. Approximately 90 documents were reviewed pertaining to psychological health IOPs and substance use IOPs. The review noted the referral process to civilian partners is lengthy, and reimbursement is relatively slow, as are responses to complaints about reimbursement. For example, the TRICARE contract specifies the MCSC has 10 days to respond to rejected claims, which lengthens reimbursement time. It remains unclear whether civilian IOPs provide ADSMs with SAPRO resources and information, which would provide additional support to ADSMs.

Section 702(c)(3) states each organization participating in the pilot program must "share clinical and outreach best practices" with other participating organizations. The ISN met three times during FY 2021 to share best practices and problem solving strategies. Issues discussed within these meetings included best practices for implementation of evidence-based practices offered by different IOPs, strategies for managing disruptive patients, promoting referrals to the IOPs, and managing issues occurring outside of office hours. IOPs shared strategies for resolving each of these issues and discussed many topics of interest, allowing the IOPs to learn from each other and offer feedback. Each session started with a clear definition of best practices: 1) practices must have evidence of success; 2) practices must contribute towards treatment goals; and 3) practices must be reproducible elsewhere. One example of a best practice is the implementation of aftercare sessions that provide psychoeducation to support Service members who transition out of IOP care. Table 3 summarizes some best practices discussed during the ISN meetings.

Table 3. Summary of Best Practices for IOP Treatment of Service Members for Sexual Assault Sequelae

Category	Best Practices
IOP structure	• Use of an orientation session to prepare patients, set expectations, and discuss treatment goals. • Implementation of aftercare support groups for four weeks. • Use of both individual and group formats for treatment delivery.
Case Management	• Provision of weekly updates by the case manager to the referring provider that convey a Service member's progress regarding readiness. • Ensuring a sufficient number of MTF case managers per site, which is critical for success, by determining case management load by site based on capacity and acuity.

RAND's systematic review of policies and procedures noted minimal guidance exists regarding the referral process from the DoD provider to the partner civilian IOPs. Provider SMEs across all settings also noted inconsistencies suggesting a lack of awareness of processes and existing policies standardizing referrals and discharges from civilian IOPs. Notably, DoD SMEs reported difficulty in knowing where civilian IOPs are located, how to contact them, and how to locate available treatment openings within civilian IOPs. DoD SMEs also noted a lack of sufficient number of MTF case managers to facilitate continuity of care, and a lack of standardized procedure for transition points in care. Additionally, DoD SMEs reported difficulties in communicating with civilian IOPs and obtaining documentation in a timely manner, as well as a lack of clinical data from civilian IOPs on Service members' treatment progress and symptom severity. Several quotations from the DoD SMEs are provided below that illustrate these concerns.

DoD Outpatient Behavioral Health Clinic Site Champion Perspective

"[The process would be improved] if there were a flowchart or Standard Operating Procedure disseminated to [Officers in Charge] OICs to clinic staff for the process to refer to the community."

"Case managers handle all issues and get patients where they need to be."

"It would be nice to have more DoD facilities that accepted patients. Going downtown is more difficult because we don't have access to records."

It would be helpful to have more DoD facilities because they understand military culture and because of the cost."

"The follow up and integration [with non-DoD IOPs] is a major challenge and having oversight and ease of communication is a major drag on time and resources that are not welcomed by providers nor a good use of their time."

Additional considerations raised by DoD SME participants included practical barriers to treatment. IOPs are outpatient programs that provide a more intensive level of care. Outpatient psychotherapy frequently involves weekly psychotherapy sessions of 45−75 minutes over the course of multiple months, whereas IOPs provide focused psychological treatment over several sessions per day, multiple days per week. IOPs offer more focused clinical intervention and allow the integration of multiple treatment modalities in service of treatment gains. The TPM defines IOPs as providing at least 6 hours of therapeutic services weekly, whereas most DoD IOPs provide at least 20 hours of treatment weekly. Although these programs appear to provide treatment gains quickly and are more resistant to treatment dropout, IOPs require Service members to spend significant amounts of time away from other responsibilities, such as work and childcare. Accordingly, most Service members need to seek care at an IOP within driving range to allow for the daily commute required to receive treatment.

Clinical Treatment Acceptability

In general, DoD provider SMEs found partnering with civilian IOP services to be acceptable. However, data suggest reported acceptability appears related to the proximity of available programming. Military installations without a local DoD IOP rated the acceptability of IOP partnerships higher than military installations that have a DoD IOP nearby.

Acceptability is an important element of feasibility. When stakeholders do not find an alternative treatment option to be acceptable, they do not make referrals to those services (rendering them practically unfeasible). Analyses of pilot data revealed that IOPs appear to be an acceptable form of treatment based on provider opinion, and in this pilot, providers voiced preferences for DoD IOPs over civilian IOPs.

Several factors were considered to determine the provider's perception of the level of acceptability of the use of IOPs to treat sequelae from sexual trauma, including the provider's level of satisfaction with treatment gains following IOP treatment and preferences for IOP options. Sixty-seven percent of provider SME respondents (9 out of 13 respondents) indicated they were "Satisfied" or "Very Satisfied" with treatment gains after ADSMs returned from an IOP. Most SMEs indicated while they were satisfied to see the functional improvements experienced by patients, these improvements did not always translate to a Service member's return to duty.

Additionally, DoD provider SMEs were asked to rank IOP options using a six-point scale from "Most Preferred" (1) to "Least Preferred" (6). Most (89 percent, 8 out of 9 respondents) rated DoD IOP programs located on their installation as their most preferred IOP treatment option. For providers from clinics that were within 25 miles of a Military Health System IOP, most (63 percent, 5 out of 9 respondents) rated DoD IOP clinics as their most preferred IOP treatment option. Differences in rankings were noted between sites with and those without a DoD IOP on their installation. Sites with a DoD IOP on their installation tended to rank DoD IOPs as their top preference, whereas sites without a DoD IOP on their installation tended to rank their preferences based on distance. DoD clinic leaders and provider SMEs were asked several questions regarding the acceptability, practicality, and feasibility of using both DoD IOPs and the civilian IOPs contracted by the MCSCs to provide clinical care. The availability of an on-site DoD IOP clinic largely appears to determine the practicality of partnership with civilian institutions. As expected, when asked about the feasibility of using a DoD IOP, providers from sites with IOPs on their installations tended to select "Agree" or "Completely Agree" more frequently than providers from sites without DoD IOPs on their installations. Conversely, sites without DoD IOPs on their installations tended to select "Agree" or "Completely Agree" regarding the feasibility of using TRICARE-contracted IOPs more often than sites that do have DoD IOPs on their installations

Cost Appropriateness

Partnering with civilian IOPs to provide IOP services for Service members reporting psychological symptoms due to sexual trauma is not cost appropriate.

SMEs were consulted to consider the cost of IOP care. They reported that IOP services provided within direct care (direct care defined as care provided by MTFs) are essentially provided at minimal cost as part of the system of care. In contrast, treatment by civilian partners requires expenditure of costs associated with additional claims processing, including costs for transportation and potentially lodging. The costs for Service members to travel to IOPs located outside of the market (defined as more than approximately 50 miles) must be absorbed by the local command unit (at the Service member's home installation) as an additional unbudgeted requirement deducted from the operating costs of the Service member's assigned unit. There are also indirect costs that were not calculated, but should be considered, to include duty time lost and impact on mission execution resulting from the Service member's extended absence to attend IOP when one is not available in close proximity to their installation. Data analyses also revealed that civilian programs averaged 56 days of care, which is inconsistent with a short-term model, and may be more disruptive to the Service member and the mission than shorter IOPs.

Pilot data suggest the typical DoD IOP program is approximately 4 weeks long (20 days of care), while the Army IOP operations manual (November, 2019) mandates the duration of care not to exceed 6 weeks (30 days of care).

Clinical Treatment Pragmatic and Logistical Concerns

As the distance between installations and partner IOP service options increases, pragmatic and logistical concerns from DoD stakeholders begin to outweigh perceived clinical benefit.

As intensive IOP treatment is an outpatient service, it makes sense that treatment should be local, if possible. Data revealed that referring DoD provider SMEs prefer to use DoD IOPs whenever possible for the reasons stated above. SMEs with DoD IOPs on site and SMEs without DoD IOPs on site were asked to rate the "feasibility of current-state IOPs" using a 5-point scale from "Completely Disagree" to "Completely Agree." Seventy-seven percent of site SMEs (10 out of 13 respondents) agreed that it is feasible to use IOPs to treat the population of interest (ADSMs reporting PTSD and other psychological symptoms following sexual trauma). Not surprisingly, 88 percent of site SMEs (7 out of 8 respondents) with a DoD IOP on the military installation tended to "Agree" when asked to rate the feasibility of using a DoD IOP. Conversely, sites without a DoD IOP on the military installation were more open to referring a patient to a civilian partner IOP (as there was no DoD IOP available within driving range). Overall, SMEs noted significant concerns about sending Service members to civilian IOPs. Please see report section on barriers and facilitators and Appendix A for additional details).

Feasibility and Advisability of Implementing Civilian-Partner IOPs

Based on the results of the pilot, partnering with civilian IOP programs for the treatment of Service members who disclose psychological sequelae because of sexual trauma, may be advisable only when all of the following conditions apply: (a) there is not a DoD IOP program within reasonable driving distance of the referring MTF; (b) the civilian partner IOP is within reasonable driving distance of the referring MTF; (c) the partner civilian program is familiar with DoD policy and fitness for duty standards; (d) the partner civilian program agrees to provide timely treatment and symptom updates to referring DoD providers; (e) the partner civilian program uses case managers to ensure continuity of care; and (f) the partner civilian program's cost is equivalent to the cost of attending treatment at a DoD IOP program.

DoD APPROVED RECOMMENDATIONS

The following recommendations approved by the Department will serve to strengthen the success of potential DoD-civilian partnerships related to IOP treatment for sexual trauma sequelae.

1. **Educate MTF providers and MTF staff about existing TRICARE policies regarding data sharing on Service members' treatment status and symptom severity.**

DoD providers need timely information on symptom severity from civilian IOPs to determine a Service member's fitness for duty and inform military readiness. As policies

regarding this data exchange exist, efforts should be made to educate MTF staff and providers about resources available to ensure timely data updates.

2. **Educate MTF providers and MTF staff about TRICARE policies and available resources to facilitate referral and discharge processes for Service members transitioning to and from civilian IOPs.**

Findings from the systematic review reveal inconsistencies among referral and discharge processes between DoD providers and civilian IOPs. Likewise, provider SMEs noted the lack of standardized processes as a gap. As these policies exist, this may be due to a gap in awareness of current TRICARE policy and procedures. Dissemination of resources to facilitate the referral process from DoD MTFs to civilian IOP partners will ensure accurate and timely exchange of information between systems of care, and assist the Service member with a careful transition during potential high-risk points of care. The existing policy specifies the data that the civilian IOP is required to provide to referring DoD providers.

3. **Educate MTF staff and providers regarding existing policy on establishing a timeline for the referral and discharge processes for IOP care in a civilian facility.**

Establishing a timeline supports prompt information exchange among MTFs and civilian providers.

4. **Ensure the number of DoD case managers is sufficient to support caseload for Service members referred to civilian IOPs.**

Ensuring there are sufficient DoD case managers available to support Service members contributes to the accomplishment of treatment goals.

5. **Develop and disseminate a master directory of DoD IOPs to treat sexual trauma sequelae, and keep the directory current.**

A master directory of services available for DoD beneficiaries for the treatment of sexual trauma sequelae facilitates the identification of available DoD supported IOPs and relevant specialty providers.

6. **Develop and implement a process to identify DoD IOPs with treatment availability quickly and easily.**

A standardized process for identifying which IOPs have treatment availability would expedite treatment access. Variability in clinic admissions serves to extend the search process for treatment availability, as providers may need to contact several clinics to find a timely treatment opening for Service members.

7. **Facilitate provider education on available local resources to ensure Service member access to local resources in a timely fashion, as needed.**

Service members who disclose sexual assault may be eligible for a variety of services and benefits from the DoD, including legal advocacy and potential change of duty station.

CONCLUSION

Based on the results of the pilot program, partnership with civilian IOPs is feasible, but advisable only in limited circumstances. Additionally, because the Department has existing authorities to implement partnerships with civilian IOPs and approved the recommendations outlined in this report, legislative action is not needed. Finally, the Department does not endorse extending or making the pilot program permanent due to the significant barriers that limit wide-scale implementation of partnering with civilian partner IOPs. Not all civilian IOPs appear able to collect or share treatment outcome data with DoD; DoD referring providers report frequent difficulties obtaining symptom severity data from the civilian IOPs (symptom severity is key information that directly informs military readiness and is critical to mission effectiveness of military operations); and use of evidence-based treatment appears inconsistent across civilian IOPs.

ACRONYMS

ADSM	active duty Service member
COVID-19	coronavirus disease 2019
DHA	Defense Health Agency
DoD	Department of Defense
FY	Fiscal Year
IOP	Intensive Outpatient Program
IRB	Institutional Review Board
ISN	information-sharing network
MCSC	Managed Care Support Contractor
MTF	military medical treatment facility
NDAA	National Defense Authorization Act
OBHC	outpatient behavioral health clinic
PHCoE	Psychological Health Center of Excellence
PTSD	posttraumatic stress disorder
SAPRO	Sexual Assault Prevention and Response Office
SME	subject matter expert
SUD	substance use disorder
TOM	TRICARE Operations Manual
TPM	TRICARE Policy Manual
VA	Department of Veterans Affairs

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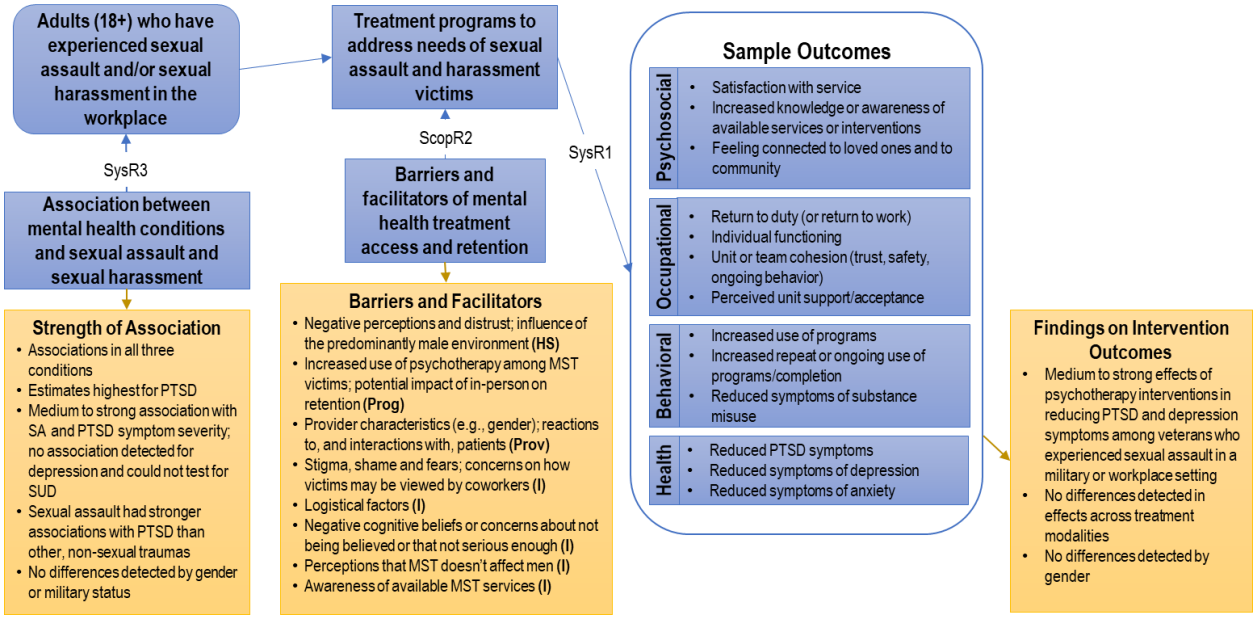
APPENDIX A: Analytic Framework with Summary of Barriers and Facilitators



HS = Health system; Prog = Program; Prov = Provider; I = Individual; SysR = Systematic Review; ScopR = Scoping Review

This analytic framework was used to illustrate the relationships between the populations, interventions, and outcomes of interest, and to guide the series of reviews. Generally, the population of interest is individuals aged 18 years and older who have been sexually assaulted or sexually harassed. The types of outcomes that treatment interventions may address include psychosocial, behavioral, health, and military factors.

APPENDIX B: Evidence Table

Barriers and facilitators to accessing and remaining in care for adults who have experienced sexual assault or sexual harassment (SAH) in military settings (citations used for figure in Appendix A).

Evidence Table: (Barriers and Facilitators to Mental Health Access and Engagement in Care) (N=17)

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Burns, 2014 *Funding*: William and Flora Hewlett Foundation; Wallace A. Gerbode Foundation *Geographic Setting*: Not Reported (NR) *Study Design*: Qualitative *Study Aims*: To conduct in-depth interviews with female Service members who had been deployed overseas about their experiences with and perceptions of Military Sexual Trauma (MST)	*Eligibility criteria*: Women of any military status who had been deployed overseas from 2001 or later and who were 18 years of age or older. *Sample Size:* 22 *Age:* 31.8% 18-24, 31.8% 25-29, 31.8% 30 and older. *Gender:* 100% female *Race/Ethnicity:* 86.4% White, non-Hispanic, 9.1% Hispanic	*SAH Type:* MST (Sexual Assault [SA] or rape during military service, including any type of sexual contact that is achieved or attempted without consent). *SAH Exposure*: 31.8% of participants experienced MST. *Health Care Setting:* New Mexico Veterans	*Total Population Analyzed:* 22 *Analysis Methods:* Analyzed data thematically in ATLAS.ti 6.2 with modified grounded theory methods. Each transcript was coded twice to ensure intercoder reliability. Summarized codes and organized them thematcially with representative quotes extracted. Initial codes a priori based on research questions. *Key Access Themes:* 1) Experiences of stigma or shame with seeking care on base. 2) Confidentiality.	*Limitations Identified by Study Author:* 1) Study findings represent the views of a small, nonrepresentative, predominantly White, convenience sample, and have limited generalizability. 2) Perceptions of women without first-hand experience of MST were included. 3) Focus on women's experiences does not necessarily reflect the perspectives of men who experience MST. 4) Results may be subject to recall bias, with 59% of participants having completed their most recent deployment in 2005 or earlier. Although only 3.3% of men versus 21.7% of women reported unwanted sexual contact since joining the military by someone in the military, this proportion reflects a large absolute number of men who experience MST.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
prevalence, reporting, and services.	*Military Branch(es):* 54.5% Army, 18.2% Navy, 18.2%, National Guard, 9.1% Marine Corps *Service Era(s):* NR	Affiars (VA) Health Care System *Data Collection Method:* Conducted 22 in-depth interviews via telephone.	3) Potential impact on career. *Key Retention Themes:* NR	
Cichowski, 2019 *Funding*: NR *Geographic Setting*: New Mexico *Study Design*: Qualitative *Study Aims*: 1) Examine use of Veterans Health Administration (VHA) services for MST, as well as outside services. 2) Offer specific recommendations for improving MST	*Eligibility criteria*: Veterans older than 18 years of age who could speak and understand English; a positive screen for MST via a validated MST screening questionnaire. *Sample Size:* 17 *Average Age:* 52 years *Gender:* 100% female	*SAH Type:* MST (Sexual harassment that is threatening in character or physical assault of a sexual nature that occurred while the victim was in the military). *SAH Exposure*: 100% experienced MST	*Total Population Analyzed:* 17 *Analysis Methods:* Qualitative analysis was conducted In Dedoose using grounded theory; codes were grouped into themes and subsequently organized into emergent concepts. Following constant comparative methodology, ideas were compared and combined between each focus group. *Key Access Themes:*	*Limitations Identified by Study Author:* 1) The female veterans who agreed to participate in the focus group may not be representative of the entire population, and particularly as survivors, may be reluctant to talk about their MST experience. 2) The participants in the focus groups were most commonly two decades past the MST, and their experience with therapy may differ from that of women more recently traumatized and engaged in therapy. 3) Recall bias may have affected how female veterans described their experiences with MST treatment. 4) Investigators did not inquire about the timing of therapy and whether these veterans sought VA care first, followed by community care, or vice versa.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
treatment for female veterans from the patient's perspective.	*Race/Ethnicity:* 41% Non-Hispanic White, 29% Hispanic, 24% American Indian, 6% Black *Military Branch(es):* NR *Service Era(s):* NR	*Data Collection Method:* Conducted five focus groups, each lasting three hours.	1) Trauma prevents victims from obtaining care. 2) Preferences for women providers in male-dominated VA. 3) Unequal treatment of female veterans. *Key Retention Themes:* NR	5) Although the data were analyzed separately by three investigators, biases in data analysis may arise with qualitative methods. .
Farmer, 2020 *Funding*: VHA, Office of Research and Development, Health Services Research and Development (HSR&D); VA Office of Academic Affiliations and HSR&D Service Research funds *Geographic Setting*: United States *Study Design*: Cross-sectional	*Eligibility criteria*: Inclusion: An International Classification of Disease-9 diagnosis of posttraumatic stress disorder (PTSD) present for at least one outpatient encounter in the year before the survey, and a self-reported perceived need for mental health care in the past year; *Sample Size:* 986	*SAH Type:* MST, SA *SAH Exposure*: 80.4% experienced MST or SA *Data Collection Method:* 6,287 participants completed a cross-sectional telephone survey.	*Total Population Analyzed:* 986 *Analysis Methods:* Logistc regressions to model the odds of any psychotherapy use; negative binomial regressions to model the number of psychotherapy visits in the year before the survey among women with at least one outpatient psychotherapy visit; generalized estimating equatsion to adjust variance estimation and standard errors for	*Limitations Identified by Study Author:* 1) Study findings cannot be generalized to women outside VHA; however, findings highlight important information about psychotherapy among women VHA users that past studies have not reported because women comprise only a small proportion of study samples. 2) Since psychotherapy use was calculated only for the year before the survey, this study may not have fully captured psychotherapy use intensity by not accounting for psychotherapy use that could have occurred before the observation period. 3) Varying definitions regarding a minimally adequate dose of psychotherapy in studies of VHA psychotherapy use; this study did not

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Study Aims: 1) Examine the proportions of women who used psychotherapy, pharmacotherapy, or both. 2) Examine retention in psychotherapy among women who used any psychotherapy services. 3) Examine individual factors related to psychotherapy use and retention.	*Age:* 42.1% 18–44 years; 51.7% 45–64 years; 6.2% 65 years or older *Gender:* 100% female *Race/Ethnicity:* 65.9% White, 21.7% African American/black, 12.4% Other *Military Branch(es):* NR *Service Era(s):* 28.1% Operation ENDURING FREEDOM (OEF)/Operation IRAQI FREEDOM (OIF)		clustering within facilities. *Key Access Themes:* 1) Increased psychotherapy use compared to other types of trauma. 2) Race (not MST-specific). *Key Retention Themes:* 1) History of MST showed higher psychotherapy retention. 2) Care delivered not according to patient needs and preferences (not MST-specific). 3) Gender-related factors (not MST-specific)	take into account session frequency or individual patient characteristics; 4) Psychotherapy visits may not have represented one of the evidenced-based treatments (EBTs) recommended for PTSD.
Gilmore, 2020 *Funding*: DoD *Geographic Setting*: Southeastern United States	*Eligibility criteria*: Inclusion: Female, 21 and older, screened positive for MST, and met Diagnostic and Statistical Manual	*SAH Type:* MST (Sexual assault or repeated, threatening sexual harassment	*Total Population Analyzed:* 136 *Analysis Methods:* A logistic regression was computed with treatment dropout as the outcome. Main	*Limitations Identified by Study Author:* 1) Self-report measures were used to assess emotion regulation, and the questions on these measures were not specific to emotion regulation in the presence of trauma cues.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Study Design: Prospective Cohort Study *Study Aims*: To examine the factors associated with treatment dropout among women veterans with MST-related PTSD enrolled in prolonged exposure both in person or via telemedicine.	(DSM)-5 criteria for PTSD or subthreshold PTSD. Exclusion: Active psychosis or dementia, suicidal ideation with intent, and alcohol and/or substance use disorders. *Sample Size:* 136 *Average Age:* 43.4 years *Gender:* 100% female *Race/Ethnicity:* 26.5% White, non-Latino *Military Branch(es):* NR *Service Era(s):* NR	experienced while in the military). *SAH Exposure*: 100% experienced MST *Data Collection Method:* Participants completed the baseline assessment before enrollment. Following, 136 participants were then randomly assigned (1:1) to one of the two individual exposure therapy treatment conditions:	predictors included treatment condition (telemedicine versus in person) and difficulties with emotion regulation. To examine correlates of reasons for treatment dropout, the same predictors (treatment condition, difficulties with emotion regulation, age, race/ethnicity, marital status, theater, baseline PTSD symptoms, and baseline diagnosis of depression) were examined as associated with reasons for dropout. *Key Access Themes:* Not Applicable (NA) *Key Retention Themes:* 1) Majority of drop out reasons were logistics-related or distress. 2) Emotional regulations issues	2) Did not assess trauma-related cognitions. 3) Treatment dropout was dichotomized in the current study, and those who began exposure components of treatment were in the same category as those who did not. 4) Only female veterans were included. 5) Excluded individuals with substance use disorders and did not fully assess childhood exposure to potentially traumatic events.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
		telemedicine or standard in-person delivery. After treatment, participants completed a post-treatment assessment.	impacts ability to stay in treatment. 3) Treatment modality had no effect on retention.	
Hahn, 2020 *Funding*: VHA, Office of Research and Development; National Center for PTSD; National Institute of Mental Health; National Institute on Drug Abuse *Geographic Setting*: United States *Study Design*: Cross-sectional *Study Aims*: To identify classes of negative beliefs about	*Eligibility criteria*: Inclusion: Veteran VHA users within three months of a positive screen for MST, veterans with perceived need for care, a valid mailing address in the medical record. Exclusion: Current diagnoses indicating cognitive impairment (i.e., dementia, brain injury), legal blindness, or an indication of a conservator or legally authorized representative.	*SAH Type*: MST *SAH Exposure*: 100% experienced MST *Data Collection Method:* 8,409 surveys were administered by mail; 2,220 participants returned the survey.	*Total Population Analyzed:* 1,185 *Analysis Methods:* Multiple-group latent class analysis (LCA) was conducted, the method classified individuals into mutually exclusive groups based on patterns of responses to discrete observed variables. LCA helped determine if patterns of item-response probabilities differed between men and women and compared latent class prevalence across men and women.	*Limitations Identified by Study Author:* 1) To conduct the LCA with the current sample size, the investigators dichotomized indicators and reduced items to 15 indicators. Although these decisions were based on previous research, this approach precludes exploration of the variation in the severity of treatment beliefs within each class. It is possible that relevant mental health beliefs were not or adequately captured by the dichotomous indicators. The LCA focused on negative beliefs about MST-related mental health care.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
MST-related mental health care among a national sample of male and female veterans who screened positive for MST within the VHA.	*Sample Size:* 1,185 *Average Age:* NR *Gender:* 67.2% female *Race/Ethnicity:* White (59.7% female, 65.1% male), Black (29.9% female, 23.4% male), American Indian/Alaska Native or Native Hawaiian/other Pacific Island or Other (10.4% female, 11.5% male) *Military Branch(es):* NR *Service Era(s):* 28.1% female and 10.5% male; served in Afghanistan and Iraq		Next, the four-class model was run again with the inclusion of demographic variables. Lastly, a series of chi-square tests were calculated to explore variation across classes with regard to the proportions of veterans who reported clinically meaningful mental health symptoms, barriers to care, and care experiences. *Key Access Themes:* 1) Potential stigma. 2) Negative mental health beliefs. 3) Logistical barriers (e.g., transportation, work, childcare, scheduling). *Key Retention Themes:* NA	

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Holder, 2019 *Funding*: VA Rehabilitation Research and Development Service; VA Office of Academic Affiliations, VA Advanced Fellowship Program in Mental Illness Research and Treatment. *Geographic Setting*: Southwestern United States *Study Design*: Randomized Control Trial *Study Aims*: To identify sociodemographic and psychosocial predicators of predictors of dropout from Cognitive Processing Therapy (CPT) among	*Eligibility criteria*: Inclusion: Veteran status with a diagnosis of MST-related PTSD, MST occurred at least three months prior to baseline assessment, MST was identified as the most distressing PTSD-related trauma, at least one clear memory of the MST, and no changes were made to psychiatric medication in the six weeks before baseline assessment. Exclusion: Substance dependence/abuse in the three months before baseline assessment, current psychotic symptoms, unstable bipolar disorder, severe cognitive	*SAH Type:* MST *SAH Exposure*: 100% experienced MST *Data Collection Method:* 60 female veterans randomized to the CPT condition were expected to receive a total of 12, one-hour psychotherapy sessions.	*Total Population Analyzed:* 56 *Analysis Methods:* Dropout was defined continuously (i.e., number of sessions attended). A multiple linear regression analysis was conducted using a stepwise regression method. Number of sessions attended was entered as the outcome variable. Predictor variables in this model included demographic factors (i.e., age, education, racial-ethnic self-identification), presence or absence of PTSD-related service connection (PTSD-SC), psychiatric symptom severity, trauma-related negative conditions (NCs), treatment expectations, and CPT fidelity). Dropout was also operationalized	*Limitations Identified by Study Author:* 1) Results may not generalize to male veterans, non-veterans, naturalistic treatment settings, settings other than the VA, veterans with PTSD related to traumas other than MST, other trauma-focused EBTs, or non-trauma-focused EBTs. 2) Veterans may experience logistical barriers (e.g., transportation, childcare) to attending mental health treatment sessions at the VA and these factors were not investigated directly in this study. 3) Statistical approaches utilized for this study (i.e., stepwise linear and backward stepwise logistic regression analyses) are data-driven.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
veterans with MST-related PTSD using multiple operational definitions of dropout, with an emphasis on generating hypotheses about dynamic predictors of dropout.	impairment, concurrent enrollment in a psychotherapy for PTSD, involvement in a violent intimate partner relationship, and/or suicidal/homicidal intent warranting immediate intervention. *Sample Size:* 129 *Average Age:* 44.6 years *Gender:* 100% female *Race/Ethnicity:* 44.6% Black, non-Hispanic; 32.1% White, non-Hispanic; 23.2% Other *Military Branch(es):* NR		dichotomously (i.e., 0 = attended fewer than six sessions, 1 = attended six or more sessions). Baseline characteristics were compared between dropout groups using chi-square analyses for categorical variables and independent sample t-tests for continuous variables. A backward stepwise logistic regression was conducted, with dropout entered as the outcome variable. *Key Access Themes:* NA *Key Retention Themes:* Higher negative cognitions about self-blame predicted higher CPT session attendance and lower negative cognitions about self predicted attending 6 or more sessions when	

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
	Service Era(s): NR		defined dichotomously (i.e., attending six or more sessions)	
Holland, 2016 *Funding*: NR *Geographic Setting*: United States *Study Design*: Cross-sectional *Study Aims*: To examine how barriers to accessing mental health care may exacerbate symptoms of depression and PTSD among male and female active duty personnel.	*Eligibility criteria*: Inclusion: Active duty Service members from the Army, Navy, Marine Corps, Air Force, and Coast Guard, with at least six months of service at the time the questionnaire is first fielded, and are below flag rank. *Sample Size:* 26,505 *Age:* NR *Gender:* 40.2% female *Race/Ethnicity:* NR *Military Branch(es):* 26.3% Air Force, 25.3%	*SAH Type:* MST *SAH Exposure*: 2% experienced MST *Data Collection Method:* 90,321 surveys administered online and on paper.	*Total Population Analyzed:* 26,505 for descriptives; 542 for Hypothesis 1, and 1,016 for Hypothesis 2. *Analysis Methods:* For MST survivors, two linear regressions were conducted with depressive symptoms, or PTSD symptoms were entered as the dependent variable while the perceived logistical access barriers and public stigma were entered as independent variables; sex/gender and deployment status were controlled. For non-victims, one linerar regression was conducted with perceived logistical access barriers and public stigma were	*Limitations Identified by Study Author:* 1) Secondary analysis of cross-sectional, correlational data prevents ability to draw definitive conclusions about the directionality of study findings (e.g., participants who suffer from PTSD and depression may be more likely to experience feelings of helplessness, which then increase perceptions of help-seeking barriers. At the same time, a cyclical relationship is possible, where perceived barriers exacerbate mental health symptoms which then reinforce those perceptions. 2) Consideration of how participants' actual use of MST resources/services affects their perceptions of barriers would have been useful (e.g., whether sexual assault survivors use any MST and/or mental health resources, and if so, how those experiences affected their perceptions of both logistical and stigma barriers). 3) Measure of sexual assault assessed experiences only in the past year; given the rates of sexual assault in the military, and sexual violence more generally, it is

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
	Army, 9.3% Coast Guard, 19.0% Marine, *20.1%* Navy *Service Era(s):* NR		entered as independent variables; sex/gender and deployment status were controlled. *Key Access Themes:* Survivors and non-victims of MST encountered stigma-related barriers more often than logistical barriers. *Key Retention Themes:* NA	likely that some of the "nonvictims" had faced sexual assault or abuse in the past.
Kehle-Forbes, 2017 *Funding*: VA, VHA, Office of Research and Development, HSR&D grant; HSR&D Career Development Award *Geographic Setting*: United States *Study Design*: Qualitative	*Eligibility criteria*: Inclusion: Eligibile if they returned a questionnaire fielded as part of a third-wave of data collection administered from 2010–2011); indicated their willingness to participate in an in-depth qualitative interview; had no change in their VA PTSD disability	*SAH Type:* MST *SAH Exposure*: 64.9% experienced MST *Data Collection Method:* 48 interviews were conducted via telephone by	*Total Population Analyzed:* 37 *Analysis Methods:* Audio-recordings were transcribed verbatim: data were analyzed using a modified grounded-theory approach. Following bottom-up, systematic coding strategies, two investigators sorted text segments into categories and applied pattern and thematic	*Limitations Identified by Study Author:* 1) While women with PTSD and history of MSA are a large and important consumer subset for VHA, the women in the sample represent only the subset of these veterans who have filed PTSD disability claims. 2) The study did not include veterans from OIF/OEF/or Operation NEW DAWN (OND). 3) The study did not directly ask participants about gender-specific VHA experiences; their comments were unsolicited and emerged during discussions of the recent trajectories of their PTSD symptoms. It cannot be

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Study Aims: To obtain a rich understanding of gender-specific challenges and successes encountered by midlife (e.g., Vietnam and postVietnam era) women veterans with PTSD and/or a history of military sexual assault in using VHA services one to two years after the issuance of the mandate for gender-sensitive primary care services.	benefits since the first-wave survey of this cohort (1998–2000); and demonstrated a clinically meaningful improvement or worsening in their PTSD symptoms and their work, role, and social functioning since the second-wave survey of the cohort (2004–2006) as the primary goal of the interviews was to explore factors associated with improvement and worsening. *Sample Size:* 48 *Average Age:* 54.7 years *Gender:* 100% female	professional health survey research interviewers (70–90 minutes in duration and audio-recorded).	codes and sub-codes derived from first impressions, common phrases, and common ideas that emerged from the data. Both analysts read and coded all transcripts and met periodically to collaboratively develop and refine codes, and to condense codes into higher-order abstract concepts (e.g., themes and domains). *Key Access Themes:* NA *Key Retention Themes:* 1) Many VHA services fell short of meeting female veterans' needs. 2) VHA's predominately male environment was unwelcoming to women.	assumed that those who did not discuss lacked opinions or relevant experience; the themes that emerged may have been different had all women been systematically asked about gender-specific VHA experiences. 4) The study did not specifically ask these women to compare their VHA care to non-VHA care; these women's non-VHA care experiences might have been as negative, or even more negative, than what they reported for the VHA.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
	Race/Ethnicity: NR *Military Branch(es):* NR *Service Era(s):* 45.9% Vietnam, 54.1% Post-Vietnam			
McBain, 2020 *Funding*: VA HSR&D Career Development Award *Geographic Setting*: United States *Study Design*: Cross-sectional *Study Aim*: To identify the percentage of veterans who reported a provider gender preference and did not receive a provider of their preference when discussing MST.	*Eligibility criteria*: Inclusion: Enrollment in VHA health care, having screened positive for MST between August 2013 and March 2014, and having received at least one VHA outpatient service during that time. Exclusion: Veterans who were legally conserved, cognitively impaired, legally blind, and/or listed as homeless (due to vulnerability and lack of a mailing address).	*SAH Type:* MST (A physical assault of a sexual nature, battery of a sexual nature, or sexual harassment which occurred while the veteran was serving on active duty or active duty for training, or inactive duty training). *SAH Exposure:* 100%	*Total Population Analyzed:* 1,591 *Analysis Methods:* Six one-way analyses of variance (ANOVAs) were conducted to examine how veterans' gender preference and provider gender match status related to veterans' ratings of perceived provider barriers, perceived provider competence, and comfort with provider. If provider preferences were significant, each ANOVA was followed by an analysis of covariance (ANCOVA)	*Limitations Identified by Study Author:* 1) The study only included veterans who identified their gender as "male" or "female;" results do not account for the experiences of transgender and non-binary veterans; 2) Although the study drew from a representative national sample, there were demographic differences among those who chose to participate in the study and this may affect its generalizability. 3) Results may not be generalizable to veterans seeking care outside of VHA or those who have not reported their MST. 4) Use of cross-sectional data limits the ability to draw conclusive causal relationships among study variables. 5) Sole reliance on self-reported data rather than actual observed interactions between veterans and providers. 6) Did not assess the extent to which MST was discussed and addressed, or

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
	Sample Size: 2,220 *Average Age:* 49.0 years *Gender:* 70.6% female *Race/Ethnicity:* 67.7% White, 22.2% Black, 1.4% Asian, 8.8% Other *Military Branch(es):* 49.8% Army *Service Era(s):* 79.0% Vietnam	experienced MST *Data Collection Method:* 8,681 veterans were invited to complete a survey	to test the relationship, while controlling for demographic factors (i.e., age, race, ethnicity, sexual orientation, relationship status, service era, military status, military rank), mental health factors (i.e., depression, PTSD), and pre-military sexual trauma (i.e., childhood sexual abuse, adolescent/adulthood sexual assault). *Key Access Themes:* 1) Men mostly preferred a female provider or had no preference. Most women preferred a women provider. Less than half of veterans were matched with their preferred provider. 2) Men and women associated perceived provider barriers and comfort with provider	the strength of provider gender preference. 7) Study-specific measures assessing patient comfort, perceived provider barriers, and perceived competence asked participants to aggregate their experiences with VHA providers if they had discussed MST with multiple providers so unclear whether participants' responses represented an experience with one provider with whom the participant had a particularly salient experience or a generalization of multiple experiences with providers.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
			gender preference. Women also associated provider competence with provider gender preference. *Key Retention Themes:* NA	
Monteith, 2020 *Funding*: VA; Rocky Mountain Mental Illness Research, Education, and Clinical Center *Geographic Setting*: Regional Mountain West *Study Design*: Qualitative *Study Aims*: 1) Describe MST survivors' perceptions regarding VHA care. 2) Identify their concerns regarding VHA care.	*Eligibility criteria*: Inclusion: Veteran with a history of MST. Exclusion: Inability to provide consent, severe cognitive impairment, and current severe psychiatric symptoms precluding participation (e.g., active psychosis, imminently suicidal). *Sample Size:* 50 *Average Age:* 46.8 years	*SAH Type:* Military sexual harassment, military sexual assault *SAH Exposure*: 98% experienced military sexual harassment; 72% experienced military sexual assault *Data Collection Method:* Semistructured intervews	*Total Population Analyzed:* 50 *Analysis Methods:* Qualitative analysis; two reviewers independently analyzed each transcript using the Braun and Clarke (2006) method of thematic analysis to identify and analyze patterns in the data. Analysis involved six stages: (1) familiarizing with the data; (2) generating initial codes; (3) searching for themes; (4) reviewing themes; (5) defining and naming themes; and (6)	*Limitations Identified by Study Author:* 1) Generalizability is limited, particularly considering the small sample sizes for specific subgroups (e.g., women who solely experienced sexual harassment, men who experienced sexual harassment or sexual assault). 2) Generalizability may be limited as all participants were presently enrolled in VHA care within the same regional health care system in the Mountain West and had used VHA outpatient care in the past year. 3) Sampling technique has potential for self-selection bias, as MST survivors who were uncomfortable discussing their experiences with VHA researchers may not have volunteered to participate. 4) Wording of the qualitative interview questions may have implicitly biased participant responses.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
(3) Elicit their suggestions for how VHA can support MST survivors in their recovery.	*Gender:* 64% female *Race/Ethnicity:* 52% Caucasian, 28% African American, 6% Native American, 14% Multiracial *Military Branch(es):* 74% Army, 12% Air Force, 14% Navy, 6% Marines, 2% Coast Guard *Service Era(s):* 20% Vietnam, 52% Post-Vietnam, 20% Desert Storm, 44% OEF/OIF/OND	(audio-recorded, transcribed, and checked for accuracy) were conducted. Information regarding utilization of VHA care in the year prior to participation was obtained from the VHA Corporate Data Warehouse program.	producing themes in a report. *Key Access Themes:* 1) Negative perceptions and reluctance to use VHA care. 2) Distrust of VHA. 3) Privacy of sensitive information. 4) Perceived stigma and shame. *Key Retention Themes:* 1) Lack of trustworthiness and compassion from VHA providers. 2) Do not want to continue care when required to change providers. 3) Gender-related distress.	5) Degree to which MST actually influenced the presence or absence of certain themes cannot be determined. This study does not examine the specific locations of women's facilities within different VHA settings in relation to MST survivors' utilization of care provided in those settings, as well as women's desire for care provided through modalities such as telehealth.
Murray-Swank, 2018 *Funding*: VA, VHA Office of Rural Health grant	*Eligibility criteria*: Inclusion: A "rural" or "highly rural" zip code, availability to attend one retreat,	*SAH Type:* MST *SAH Exposure*: 68%	*Total Population Analyzed:* 101 *Analysis Methods:* Conducted descriptive statistics on clinical	*Limitations Identified by Study Author:* 1) The study's sampling strategy limits generalizability of results in important ways; it remains unknown how these results would translate to the entire population of rural female veterans;

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Geographic Setting: Eastern Colorado *Study Design*: Cross-sectional *Study Aims*: 1) Examine diverse aspects of mental health among rural female veterans who elected to attend a wellness retreat, including psychological distress, PTSD, insomnia, MST, and suicidality. 2) Evaluate perceived barriers to seeking mental health assistance, including VA-specific concerns and internalized stigma about seeking services	and psychological capacity to participate in a residential, wellness-based program. Exclusion: Acute medical health conditions (e.g., need for oxygen, severe heart condition), acute suicidality (within past month), and current drug and/or alcohol abuse. *Sample Size:* 371 *Average Age:* 48.6 years *Gender:* 100% female *Race/Ethnicity:* 80% White, 10% Hispanic/Latina, 9% Black/African American, 1% Native American/	experienced MST *Data Collection Method:* All assessment measures were mailed to each veterans to complete; 101 participants completed the assessment measures and returned them in a stamped envelope.	outcomes and independent sample T tests to examine group differences. Missing data were handled by excluding cases with any missing values by analysis and conducting pairwise deletions (ranging from 0–2 depending on analysis). *Key Access Themes:* Perceived stigma and barriers to seeking mental health services: accessibility and availability, internalized stigma, distrust, logistics *Key Retention Themes:* NA	women interested in a wellness retreat may experience more difficulties because they are responding to a program invitation to enhance well-being and reduce stress (high reports of MST and PTSD indicate this might be the case). 2) The recruitment strategy generated a 18% response rate in a specific rural geographic locale; it remains unknown how these results would translate to diverse rural regions and to the entire population of rural female veterans. Both prevention efforts and response to suicide are imperative in rural settings;

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
	Alaskan Native, 1% Asian/Pacific Islander *Military Branch(es):* Army (41% active duty, 15% Reserve Component, 12% National Guard), Air Force (35% active duty, 7% Reserve Component, 4% National Guard), Navy (16% active duty, 6% Reserve Component), Marine Corps (3% active duty, 1% Reserve Component) *Service Era(s):* 10% Vietnam, 42% Post-Vietnam/peacetime, 55% Desert Storm/Desert Shield, 36% OEF/OIF/OND			

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Sexton, 2020 *Funding*: Ann Arbor Veterans Healthcare System Mental Health Service; University of Michigan Department of Psychiatry *Geographic Setting*: Midwest United States *Study Design*: Retrospective Cohort Study *Study Aims*: 1) Evaluate MST survivors' gender preferences among a larger sample of veterans accepting referrals for MST-specific care. 2) Examine relationships between identified preferences, if any, and attendance at consultation appointments.	*Eligibility criteria*: NR *Sample Size:* 197 *Average Age:* 44.9 years *Gender:* 73.6% female *Race/Ethnicity:* 69.2% White, 24.4% African American, 2.3% American Indian, 1.7% Latino/Latina *Military Branch(es):* 15.2% Air Force, 49.3% Army, 5.1% Marines, 30.4% Navy *Service Era(s):* 14.7% Vietnam, 20.6% Post-Vietnam, 24.1% Persian Gulf, 40.6% OIF/OEF/OND	*SAH Type:* MST (Sexual assault or severe sexual harassment experienced during military service) *SAH Exposure*: 100% experienced MST *Data Collection Method:* 197 veterans were asked their preferences (if any) for the gender of their assessing and treating clinician(s) and were then scheduled for a disgnostic evaluation and treatment-	*Total Population Analyzed:* 195 *Analysis Methods:* Associations between patient gender, provider gender preference, and evaluation attendance were examined using chi-square analyses. Logistic regression was used to evaluate the potential main effects of patient gender, gender preference, and the Primary Care-PTSD Screen (PC-PTSD) and the interaction of patient gender and gender preference with evaluation attendance. Phi coefficients were used to characterize the magnitude of significant effects. *Key Access Themes:* Reporting a gender preference for providers was associated with a higher	*Limitations Identified by Study Author:* 1) This study used a sample of treatment-seeking veterans that should be highly generalizable, but limited in the number requesting a male provider. 2) There was an inability to follow up with those who did not attend to identify any contibuting factors that may have influenced their lack of attendance. 3) This study was limited in the ability to collect other variables that may have influenced attendance, such as readiness for treatment, psychosocial stressors, or history of treatment seeking outside of the VHA clinic. Although the investigators included the PC-PTSD score, this is only a screening measure, and full indices of symptom severity were unavailable for those who did not attend the appointment. 4) Participants were limited to veterans who disclosed MST to their provider and accepted a mental health referral for care. .

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
		planning interviews. The MST Coordinators monitored whether consultation evaluations were attended and cross-checked this information with participant medical records.	attendance rate than not reporting a gender preference. *Key Retention Themes:* NA	
Turchik, 2013 *Funding*: VA Advanced Fellowship Program in Mental Illness Research and Treatment, VA Office of Academic Affiliations; National Center for Posttraumatic Stress Disorder; VA Palo Alto Health Care System (VAPAHCS)	*Eligibility criteria*: Inclusion: Male veterans, positive for MST, at least one VHA outpatient encounter in Fiscal Year (FY) 2009 or FY 2010 at VAPAHCS, and having not received any MST-related mental health care from VAPAHCS since FY 2006,	*SAH Type:* MST (sexual harassment or sexual assault that may have occurred during a veteran's military service; unwanted sexual experiences in the military)	*Total Population Analyzed:* 20 *Analysis Methods:* This study used a grounded theory approach for qualitative data analysis. After data collection, the qualitative data was coded into themes; the themes were then grouped into similar categories from which	*Limitations Identified by Study Author:* 1) Consists of data from a sample of only 20 male veterans from one health care facility and may not be generalizable to other male veterans who have experienced MST and use VHA care. 2) Many of the interview questions were phrased in an indirect rather than direct manner (e.g., "How do you think men would feel…" instead of "How do you feel…"), which may have affected their responses and led participants to provide fewer details about their own experiences.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Geographic Setting: California *Study Design*: Qualitative *Study Aims*: 1) Elucidate potential barriers to accessing MST-related care for male veterans. 2) Explore whether veterans have preferences regarding the gender of clinicians who provide MST-related care.	when VA began tracking MST-related care. Exclusion: Did not have a valid mailing address or if medical diagnoses indicated legal blindness and/or severe hearing impairment. *Sample Size:* 21 *Average Age:* 62.2 years *Gender*: 0% female *Race/Ethnicity:* 80% White, 5% Black, 10% Hispanic, 5% Asian/Pacific Islander *Military Branch(es):* 10% Air Force, 60%	*SAH Exposure*: 100% experienced MST *Data Collection Method:* Conducted 20 semi-structured in-person interviews of 45 minutes in duration.	overall theories were formed. *Key Access Themes:* 1) Stigma-related, personal discomfort/ internalized beliefs about seeking care for MST, concerns about social perceptions/ consequences. 2) Privacy/ confidentiality concerns. 3) Sensitivity and reactions of providers. 4) Fear of not being believed. 5) Gender-related. 6) Knowledge barriers. *Key Retention Themes: NA*	3) This study entailed only interviewing men who had not received any VHA MST-related mental health services. Therefore, it is unknown whether the perceived and actual barriers and preferences of men who have received services may differ from those who have not. .

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
	Army, 10% Navy, 20% Marines *Service Era(s*): 25% Korean War, 55% Vietnam War, 10% Post-Vietnam, 10% Persian Gulf War/OEF/OIF			
Turchik, 2014 *Funding*: VA Advanced Fellowship Program in Mental Illness Research and Treatment, VA Office of Academic Affiliations; National Center for PTSD; VAPAHCS *Geographic Setting*: California *Study Design*: Qualitative; Prospective Cohort Study *Study Aims*: 1) Collect qualitative data from male	*Eligibility criteria*: Inclusion: Male veterans who screened positive for MST at any time during VHA care, received at least one VHA outpatient encounter in FY 2009 or FY 2010 at VA Palo Alto Health Care System, and had not received any MST-related mental health care Health Care System since FY 2006. Exclusion: Incapacitated, legally blind, severe hearing	*SAH Type:* MST (threatening sexual harassment or sexual assault that occurred during military service) *SAH Exposure*: 100% experienced MST *Data Collection Method:* Conducted 20 45-minute interviews. The interview	*Total Population Analyzed:* Interview: 20 Psychoeducation Mail-Based Pilot Intervention: 153 *Analysis Methods:* NR *Key Access Themes:* 1) Gender-targeted brochures had more of an impact on the participants compared to the gender-neutral brochures. 2) Participant's ratings of words/texts and photos/graphics did not differ between groups; however, participants with gender-targeted brochure felt that they	*Limitations Identified by Study Author:* 1) The sample size may have made it difficult to detect modest differences in treatment use. 2) Six months was possibly not an adequate follow-up period to see differences emerge across the three groups. 3) Results of this research may not be generalizable to veterans outside VAPAHCS and/or veterans seeking care outside the VA. 4) This study did not assess need for treatment; it is also possible that some participants already received past treatment that was not captured in the electronic medical record. 5) This study used random assignment, so while differences in perceived need were presumably distributed similarly across groups, not accounting for perceived need may have weakened the

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
veterans who have experienced MST to design a gender-targeted psychoeducational MST brochure. 2) Quantitatively compare men's ratings of a gender-targeted versus a gender-neutral brochure. 3) Examine the effects of a psychoeducational mail-based pilot intervention on mental health care use and MST- related mental health care use over a six-month period following the intervention.	impairment, or if the veteran lived more than 25 miles from facility. *Sample Size:* Interview: 50; Psychoeducational Mail-Based Pilot Intervention*: 272* *Average Age:* 63.4 years *Gender:* 0% female *Race/Ethnicity:* 74.5% White, 11.8% Black, 0.7% American Indian, 4.6% Asian/Pacific Islander, 8.5% Missing/Unknown *Military Branch(es):* 51% Army, 31.4% Navy, 2.6% Marines, 2.6%	also asked participants to read and comment on the gender-neutral and gender-targeted brochure; 272 participants were randomized to one of three conditions, asked to read and comment on the brochure, and completed a 10-minute survey.	addressed issues important to male veterans and gave them a better overall rating compared to gender-neutral brochures. 3) The brochure condition had no effect on mental health visits in the following six months. *Key Retention Themes:* NA	ability to detect differences in utilization.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
	Coast Guard, 12.4% Air Force *Service Era(s):* 3.3% World War II, 19.6% Korean War, 5.2% between Korean and Vietnam, 51.0% Vietnam War, 9.8% Post-Vietnam War, 11.1% Perisan Gulf War/OEF/OIF			
Valentine, 2020 *Funding*: The Mental Health Service at VA Ann Arbor Healthcare System; Department of Psychiatry, University of Michigan *Geographic Setting*: United States *Study Design*: Prospective Cohort Study	*Eligibility criteria*: Inclusion: PTSD that resulted from MST. Exclusion: Active psychotic or bipolar disorder and were not deemed at high risk for harm to themselves or others. *Sample Size:* 171 *Average Age:* 44.4 years	*SAH Type:* MST *SAH Exposure*: 100% experienced MST *Data Collection Method:* 171 participants were offered Clinical Video Technology (CVT) or in-person and	*Total Population Analyzed:* 171 *Analysis Methods:* Chi-square, mean, and percentage analyses as appropriate. Pearson's r, Pearson's phi, and point-biserial correlations as warranted depending on the categorical or linear nature of the variables. *Key Access Themes:* Participants were more likely to complete	*Limitations Identified by Study Author:* 1) This study does not consider other variables that may be related to treatment completion, such as symptom changes through treatment, motivation, barriers to care, and treatment expectancies. 2) Number of CVT-enrolled veterans who selected home-based services was quite low; therefore, this study was not able to investigate engagement behaviors between home-based and community-based outpatient clinic-based CVT. 3) Due to the longitudinal nature of this research, there was a change in the version of the Clinician-Administered PTSD Scale (CAPS) used in this study,

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
Study Aims: To compare rates of veteran retention in PTSD treatment for MST delivered remotely or in-person.	*Gender:* 73.5% female *Race/Ethnicity:* 68.5% Caucasian non-Hispanic was the most represented ethnicity, 22.8% African American, 3.5% Latinx *Military Branch(es):* 15.4% Air Force, 46.3% Army, 1.2% Coast Guard, 9.9% Marines, and 27.2% Navy *Service Era(s):* 13.6% Vietnam, 25.9% Post Vietnam, 24.7% Persian Gulf, 35.8% OIF/OEF	Cognitive Processing Therapy or Prolonged Exposure. Session attendance data was used to determine speed to drop out.	treatment delivered in-person versus CVT. *Key Retention Themes:* NA	which limited ability to attend to severity in our analyses. Although CAPS-IV severity (CAPS that target DSM-IV criteria for PTSD) was similar between groups and accounted for the majority of veterans seen in this study, there were some differences noted between groups on the CAPS for DSM-5 (CAPS-5), which incorporates symptom changes in the diagnostic criteria and also changes the separate emphasis of symptom frequency and severity.
Waitzkin, 2018 *Funding*: Robert Wood Johnson Center for Health Policy at	*Eligibility criteria*: NR *Sample Size:* 233	*SAH Type:* MST *SAH Exposure*:	*Total Population Analyzed:* 23 *Analysis Methods:* Logistic regression	*Limitations Identified by Study Author:* 1) Inability to conduct a randomized control trial or similar methodology using a control group limited ability to reach definitive conclusions about the

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
the University of New Mexico *Geographic Setting*: United States, Afghanistan, South Korea, and Germany *Study Design*: Qualitative; Cross-sectional *Study Aims*: 1) Determine the personal characteristics of military personnel who receive care from a civilian network of volunteer professionals. 2) Ascertain the mental health diagnoses of these military personnel. (3) Analyze the characteristics most closely associated with mental health disorders, suicidal	*Avereage Age:* 48.6 years *Gender: 100% female* *Race/Ethnicity:* 80% White, 10% Hispanic/Latina, 9% Black/African American, 1% Native American/Alaskan Native, 1% Asian/Pacific Islander *Military Branch(es):* Army (41% active duty, 15% Reserve Component, 12% National Guard), Air Force (35% active duty, 7% Reserve Component, 4% National Guard), Navy (16% active duty, 6% Reserve Component),	22% experienced MST *Data Collection Method:* Conducted 233 brief interview immediately after referral (intake interview) and conducted follow-up interviews at two weeks and two months.	analyses, bootstrap logistic regression, and comparison of results from bootstrap and non-bootstrap analyses; for qualitative analysis focused on experiences and reasons for seeking care, coded notes from intake interviews, using "open coding" to clarify general themes and "focused coding" to identify repeated themes. *Key Access Themes:* Not approved for disability benefits *Key Retention Themes:* NA	impact of the work on the processes and outcomes of care. 2) Since clients are principally referred by the GI Rights Hotline, findings may not fully reflect the broader population of military personnel who seek civilian services through other channels. 3) Army personnel comprised a majority of the study sample, so the conclusions may not be generalizable to other military branches. .

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
ideation, and absence without leave. 4) Clarify the experiences that led military personnel to seek care outside military institutions.	Marine Corps (3% active duty, 1% Reserve Component) *Service Era(s):* 10% Vietnam, 42% Post-Vietnam/peacetime, 55% Operation DESERT STORM/Operation DESERT SHIELD, 36% OEF/OIF/OND			
Wolff, 2016 *Funding*: NR *Geographic Setting*: NR *Study Design*: Cross-sectional; Qualitative *Study Aims*: 1) Describe the experiences of a small group of women MST survivors who joined the military from World War II through	*Eligibility criteria*: NR *Sample Size:* 443 *Age:* NR *Gender:* 100% female *Race/Ethnicity:* NR *Military Branch(es):* 26.9% Air Force, 34.6% Army, 3.8%	*SAH Type:* MST *SAH Exposure*: 91.6% of interviewees, 44.2% of those who completed the questionnaire. *Data Collection Method:* 443 participants	*Total Population Analyzed:* 52 *Analysis Methods:* Responses to open-ended questions on the questionnaire and interviews were coded using Hyperresearch software. Data were analyzed using grounded theory techniques to identify themes that emerged from the data and for constant comparison	*Limitations Identified by Study Author:* 1) Since this is a small mixed-methods study, its results cannot be generalized to the larger population of female veterans. 2) Data could be biased because of selective memory, confusing particulars of events, or the complexities of living with trauma, including pain associated with retelling of events. 3) Study sample was selected from a group of veterans currently in a veterans' peace organization rather than a random selection. 4) Participants are fairly homogeneous regarding differences of race/ethnicity, class, and sexual orientation.

Study Details	Population	Research Parameters	Analytic Methods and Results	Limitations and Gaps
the Afghanistan and Iraq conflicts. 2) Explore veterans' difficulties with reporting incidents of MST and challenges to obtaining appropriate health care.	Marines, 34.6% Navy *Service Era(s):* 46.2% Pre-1973 (World War II, Korea, Vietnam, Cold War), 13.5% 1973–1978 (Vietnam, Lebanon, Cold War), 30.7% 1979–1992 (Cold War, Central America, Grenada, Persian Gulf), 9.6% Post-1992 (Middle East, Africa, Somalia, Bosnia, Haiti, Afghanistan, and Iraq) *Other:* 36.5% Officer, 63.5% Enlisted	completed a questionnaire and/or were interviewed.	between interview and questionnaire answers. *Key Access Themes:* 1) Veterans had positive, mixed, and negative experiences reporting sexual harassment while in the military. 2) Barriers to reporting. *Key Retention Themes:* 1) Facilitators to remaining engaged in services. 2) Barriers to receiving services.	5) Some interviewees may have taken the survey before their interview, which may have influenced answers. .

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