

FORUM

Translating research into quality health care for veterans

November 2008

Commentary

The Evolution of Women's Health Care Services in VA

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Military Sexual Trauma

The number of women veterans utilizing VA health care will likely double in the next 2 to 4 years. Given this growth, the VA must evaluate current services and develop an implementation plan to enhance services for women veterans.

Women veterans have been chronically underserved by VA. The market penetration for women from 2003 to 2007 increased only from 11 percent to 14.6 percent, while the market penetration for male veterans during the same period was consistently at 22 percent. In addition, we know that even while utilizing VA services, women more often have sought outside services than have men, especially for women's gynecological conditions.²

Women Veterans' View of Health Care

A very worrisome outcome of our predominant models of primary care is fragmentation, with women seeing one provider for primary care, and another in a separate clinic visit for gender-specific care. VA recently released data indicating poorer performance for women vs. men on quality clinical indicators, raising questions about the overall care provision to women and how examination of the various models of care might inform quality improvement efforts.

Women's view of health care varies on their own particular experience and whether they see a primary care internal medicine practitioner, a family medicine provider, or an Ob/Gyn who meets most or all of their health care needs. To a large extent, the health care services delivered to women veterans have grown up in a patchwork fashion, with the delivery model based in part on the academic leanings of the women's health champion onsite. In some facilities, no particular model was developed and a default system of heavy utilization of fee basis care arose. Fortunately, a significant body of research defining health care provision models now exists, and this research provides data on the outcomes associated with each model.

The face of women veterans is changing. Even though the greatest proportion of women veterans seen in VA is from the Vietnam War era, there is a tremendous influx of women recently deployed and discharged from service in OEF/OIF, where the active duty military is 14 percent female. Among new military recruits, the proportion of females is growing, with women comprising 20 percent of the "freshman class." Cumulative data indicates that 42.2 percent of all discharged women have utilized VA health care at least once, and of that group, 45.6 percent have visited from 2 to 10 times.³ While the number of male veterans is steadily declining, the number of women veterans is and will continue to be on a pronounced upward course. Given this trajectory, the proportion of women veterans seeking VA health services will likely top 15 percent by 2020.

In FY 2006, the mean age of women veterans was 49.5 years; this compares with a

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Director's Letter



Traumatic Brain Injury (TBI) is considered the signature injury of the Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF) conflicts. Penetrating TBI is clearly observable and receives immediate care. Closed TBIs are less apparent and can go undiagnosed—this has been particularly true for mild TBIs. Symptoms of mild TBI can include dizziness, nausea, blurred vision, ringing in ears and depression—all of which

can be very debilitating. However, if properly diagnosed, mild TBIs can be effectively treated. Of particular importance, therefore, are screening characteristics and associations of the VA's TBI screening instrument. Considerable research efforts are necessary to evaluate and improve, if necessary, its performance.

While VA HSR&D now has a growing portfolio of TBI studies, we recently solicited concept papers for Service Directed Research projects examining the quality, usefulness, and potential improvement of VA's screening for TBI. Of the 19 concept papers we received and reviewed, 8 were approved for full proposals and many of the others were encouraged to submit Investigator Initiated Research proposals to the VA ORD comprehensive TBI solicitation that included an HSR&D component. HSR&D researchers are encouraged to consider investigations around operational definitions for TBI, TBI screening instruments, and tools that measure the long-term outcomes for veterans with TBI.

I strongly encourage health services researchers, clinical researchers, and epidemiologists to continue to consider this rapidly growing area of investigation. It is a key concern for VA and for our OEF/OIF veterans and their families.

Seth A. Eisen, M.D., M.Sc. Director, HSR&D

mean age for male users of 61 years. However, it is important to realize that almost all new women veterans entering VA care are under age 40, and of childbearing age, creating a need for a significant shift in provision of health care. A major project is underway to involve patients and providers in counseling about desire for conception, informed consent, and use of teratogenic medications. Some classes of medication that are prescribed frequently to women and that carry a high birth defect risk include psychotropics and medications for some dermatological conditions. In VA, we have an opportunity to address intentions for becoming pregnant, utilizing CPRS VISTA to address veterans' sexual activity and risks, and to reduce the potential risk of birth defects from some prescription medications.

A National Model for Women's Health Care Delivery

Leadership and policy have played an important role in driving change in care provision to women veterans. While in earlier VHA Handbooks provision of gender related care onsite in VA was mandated, in the 2003 VHA Handbook 1330.1 genderspecific care provision was relegated to "preferred." A decline in onsite offering of gynecology has occurred in the interim. In March 2008, the Under Secretary for Health, Michael Kussman, M.D., charged a workgroup to establish women's health at every VA, with a consensus definition:

That every women veteran has access to a VA primary care provider who can meet all her primary care needs, including gender-specific care, in the context of an ongoing patient-clinician relationship.

And in July 2008, Secretary Peake and Dr. Kussman announced that the position of Women Veterans Program Manager would be full-time at every facility by December 2008.

"While the number of male veterans is steadily declining, the number of women veterans is and will continue to be on a pronounced upward course. Given this trajectory, the proportion of women veterans seeking VA health services will likely top 15 percent by 2020."

The tides have changed, and VA is moving quickly to implement clinic enhancements and provision of care that will address the needs of women veterans. In addition, a major campaign is underway to involve every service and every aspect of VA care in the responsibility to provide the best care anywhere. The goal is not simply to provide a model for care of women in the VA, but to provide a national model for delivery of comprehensive women's health care.

Research plays an important role in this evolution. Not only do sufficient populations of women veterans now exist for inclusion in research paradigms, research is needed to inform specific health care strategies and models. The time may be here for additional focused supports for research on the health of women veterans.

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Response to Commentary

Achieving Equitable High-Quality Care for Women Veterans

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Women have been an extreme numerical minority in VA settings for many years, settings that once reflected the historical 2 percent cap on their participation in the military. These settings offered limited acknowledgment of women veterans' contributions and the risks they faced while serving their country. As a consequence, few VA providers have much experience seeing women patients, and few women veterans know much about their veteran benefits; fewer still are aware of the availability of women's health services in the VA.²

Among those women who use VA care, many now have the option of being seen in women's health clinics, their growth rate roughly paralleling increases in women veteran caseloads. However, recent evidence suggests that, on average, these clinics are open roughly half-time—reducing access—and that over 40 percent of these clinics focus on gender-specific exams only. While comprehensive women's primary care clinics exist, they are the exception rather than the rule. As Dr. Hayes points out, however, changes are taking place at an unprecedented rate, and VA researchers are in a unique position to support and inform the transitions ahead.

History of VA Women's Health Research

VA women's health research has had a relatively brief but highly dynamic and productive evolution in recent years. In 2003, in response to inquiries from policymakers, the VA Office of Research & Development (ORD) sponsored establishment of a VA women's health research agenda. A national planning group combined an appraisal of VA's research portfolio with a systematic literature review

and secondary analyses of existing databases to serve as the foundation for a national consensus development conference designed to set evidence-based research priorities.³ Subsequently, following an unexpectedly high number of submissions, HSR&D funded a special issue of the *Journal of General Internal Medicine*, which came out in 2006, that focused on women veterans' health and health care. In the intervening years, the virtual explosion of women veterans' related research literature has led to the funding by VA HSR&D's Evidence Synthesis Program (ESP) of an updated systematic review, which is now underway.

VA HSR&D Service has explicitly made women's health services research a priority solicitation area for over a decade. While only a handful of women's health projects were funded in the early years, this changed significantly following the establishment of the VA women's health research agenda. VA HSR&D has funded a broad range of research related to this agenda, including: assessing women veterans' chronic physical and mental illnesses (Sambamoorthi & Findlay, East Orange VA); their unmet health care needs and fragmentation (Washington, West Los Angeles VA); the quality of breast cancer care received in VA settings (Luther, Gainesville VA); determinants of changes in how VA care is organized (Yano, Sepulveda VA); resource use and outcomes among OEF/OIF women veterans compared to men (Brandt, Haskell & Justice, West Haven VA); sexual violence and gynecologic health (Sadler, Iowa City VA); evaluation of MST screening and treatment (Kimerling, Palo Alto VA); MST effects of PTSD and behavior among women Marines (Shipherd, Boston

VA); physical and sexual assault among deployed women (Sadler, Iowa City VA); and, stigma and barriers to care (Vogt, Boston VA), among others.

Spotlight on VA Women's Health Services Research

VA women's health services research now has the direct attention of national leaders in VA Central Office, and beyond. While the spotlight can be bright, this attention brings with it an unprecedented opportunity to conduct research that is highly policy relevant to a waiting audience. VA managers and clinicians are facing enormous challenges ahead, as the numbers of women veterans double. Almost all of the women veterans' research literature reflects descriptive or observational studies, leaving an enormous hole—and opportunity—for designing and conducting studies of quality improvement interventions that can help improve women's health care and address gender disparities.

Interventions for promoting provider skills, proficiency, and comfort in treating women veterans are needed, as are interventions for improving women veterans' knowledge and awareness of their VA benefits, and their entree to VA care. Given the substantial amount of care that women veterans receive in the community, via fee basis and contract care, studies are needed that evaluate the quality of care delivered. Coordination of care among multiple providers, especially for women with comorbid mental health conditions, is another important research area.

While the VA has mandated inclusion of women in all VA studies since 1983, I believe that most "non-compliance" is unlikely purposeful but instead a function of the difficulties inherent in recruiting available women in sufficient numbers. Creation of a women veterans' practice-based research network would help remedy this structural limitation by setting up the infrastructure for trials in VA medical centers with larger volumes of female patients. As members of the VA research community, it is incumbent on all of us to be mindful of not only the

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Needs of Women Veterans Must be Carefully Considered in Building Tomorrow's VHA

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Women have served in the U.S. military since our country's birth. However, as a numeric minority in VA, they received little special attention until the 1990s, when multiple clinical programs were launched. Research on the health care needs of women veterans grew during the same period, but did not keep pace with this service expansion.

Therefore, in 2004, as part of a VA-wide initiative of the VA Office of Research & Development, experts from around the country participated in development of a women veterans' health research agenda, designed to ensure that VA is positioned to provide high quality, evidence-based care to this rapidly growing population.1 The agenda identified an important next step: taking stock of the health care needs of women veterans, benchmarked against male veterans. In response, the research described here used VA's 2002 National Patient Care Database to characterize gender differences in diagnoses, utilization, and cost of VA care at a macro level.

Not All Women VA Patients are Veterans

Surprisingly, this analysis found that half the women who use VA are not veterans.² Employees constitute the biggest group of non-veterans. Other non-veteran women who use VA include those eligible under Tricare or CHAMPVA. Since non-veteran status is far more common in women than in men, it is important to account for veteran status in gender disparities research; if non-veterans are included, the female sample is disproportionately enriched with a healthy group of low utilizers (e.g., employ-

ees). VA investigators doing gender research need to decide up front whether their research question calls for inclusion of nonveterans, and ensure their methods account for this issue. As a result, the researchers decided to limit the focus of their work to veteran VA patients.

Characteristics of Women Veteran VA Patients

Since women are joining the military in increasing numbers, it made sense that women veteran VA patients were on average younger than their male counterparts: 43 percent of women versus 9 percent of men were under age 45.3 Despite their younger age, the majority of women veteran VA patients, like male veterans, suffer from at least one chronic medical condition (74 percent of women, 79 percent of men). More women veterans than male veterans, however, had a mental health condition (38 percent vs. 30 percent). Within every age stratum, women used VA outpatient services more heavily than did men, and at higher cost, although the magnitude of difference was small after adjusting for age and medical conditions. The 31 percent of women who had both medical and mental health conditions had the highest health care utilization and costs of care. Indeed, while women overall averaged 17 outpatient encounters per year, the subgroup with comorbid medical and mental illness averaged 31.

Using broad strokes, this research paints a picture of women veteran VA patients as a group with a heavy illness burden, frequent outpatient utilization, and substantial costs

of care. Male veteran VA patients are known to be sicker than men in the general population. These findings suggest that the women veterans we serve are likely to require a comparable intensity of care.

Research Gaps Remain

Subsequent work will need to fill in the finer details of this picture, such as: Where should we focus efforts to improve quality of care, so as to have the greatest impact? What health care delivery systems most effectively address the health care needs of women veterans? Do findings apply to women veterans who do not use VA? Investigators will be able to pursue these questions because VA HSR&D has made women veterans' health a major focus. For example, HSR&D partnered with the Journal of General Internal Medicine to create a special women veterans issue in 2006. VA HSR&D has distributed special solicitations in women's health, and encourages grant reviewers to note whether even projects without a women's health focus include women and, if feasible, characterize findings by gender. Women's health is one of the 11 special focus areas overseen by a specific portfolio manager.

All of these initiatives point to VA HSR&D's commitment to expanding the knowledge base upon which our clinical care of women veterans rests. Women are joining VA in rapidly increasing numbers. There is a pressing demand for VA investigators to address gaps in this field so as to respond to women's needs today and better prepare for the VA of tomorrow.

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Posttraumatic Stress Disorder in Women Veterans

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The wars in Iraq and Afghanistan have focused attention on the issue of posttraumatic stress disorder (PTSD) in women veterans. Many people, including those in the media, have questioned whether PTSD prevalence is elevated in female OEF/OIF personnel because of the unique roles performed by these women—specifically the greater direct exposure to combat relative to the exposure women had in prior wars. The question is especially important given the high prevalence of women among OEF/OIF veterans who use the VA: according to a May 2008 report by VHA's Office of Public Health and Environmental Hazards, women comprise 12 percent of the OEF/OIF veterans who have sought VA health care.

Prevalence of PTSD Among Women

Among civilians, PTSD prevalence is higher in women than in men. According to the National Comorbidity Survey Replication, 9.7 percent versus 3.6 percent have lifetime PTSD. The gender difference in PTSD is partially explained by a gender difference in traumatic exposure. A recent meta-analysis found that women are more likely than men to experience the kind of traumas, such as rape and sexual assault, that carry a high risk of PTSD in both men and women.1 Differential exposure also occurs in veterans. Investigators in an ongoing HSR&D-funded study recently reported that the prevalence of military sexual trauma (MST) in VA patients was 21.8 percent in women and 1.1 percent in men.² However, the meta-analysis found that the odds ratio for PTSD following MST was much higher in the women (8.8) than in the men (3.0), paralleling findings that women are also more likely than

men to develop PTSD in response to other events, including nonsexual assault or disasters. Warzone exposure may be unique. In the meta-analysis, there was no gender difference in the prevalence of PTSD due to warzone exposure among veterans.

To understand these findings, it is helpful to look back to the National Vietnam Veterans Readjustment Study, which was based on a nationally representative sample of veterans that included an oversampling of women. Lifetime PTSD prevalence was 26.9 percent in women and 30.9 percent in men, and current PTSD prevalence (in the mid-1980s) was 8.5 percent in women and 15.2 percent in men. The likely explanation for the gender difference is that the men and women who served in Vietnam differed on numerous risk and protective factors, e.g., the women were older, more educated, more likely to be officers and to serve in medical roles, and less likely to experience combat.

Fast forwarding to the present, a recent report by the Rand Corporation on OEF/OIF veterans illustrates the importance of accounting for differences in individual characteristics and type of warzone exposure when comparing PTSD prevalence in male and female veterans.³ In unadjusted analysis, the relative risk of PTSD was 1.03 among women (vs. men), but in analyses that adjusted for demographic and exposure variables, the relative risk was 1.69—significantly higher among women than men.

Range of PTSD Studies

But prevalence is only the tip of the iceberg. PTSD is associated with psychiatric and physical comorbidity, impaired functional status, reduced quality of life, health risk behaviors, and increased service utilization. HSR&D has supported a number of studies to facilitate greater understanding about these aspects of PTSD in women veterans. Past studies have examined the physical health burden associated with PTSD, the antecedents and consequences of military sexual harassment, and gender differences in compensation and pension claims approval process.

The portfolio of current studies addresses a wide range of topics too. In the Women Veterans Cohort Study, Brandt and colleagues are assembling a longitudinal cohort of male and female OEF/OIF veterans to examine gender disparities in utilization and outcomes, including PTSD. Another longitudinal cohort study is a follow-up of male and female Marines who were initially assessed at Parris Island between 1997 and 1999; this study will examine the effects of MST on PTSD and health behaviors. One study is focusing on the effects of physical and sexual assault on women who served in the Reserves or National Guard, who may have increased risk of PTSD and poor outcomes.

Studies like these are complemented by HSR&D-funded projects of ways to enhance the treatment of PTSD in both male and female veterans, including telehealth delivery, the use of decision aids, integrated primary care, and combined treatment for PTSD and substance abuse. Through their efforts, VA researchers are helping to meet the needs of our newest veterans as well as those with chronic PTSD—and the unique needs of women remain at the forefront of these efforts.

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Ambulatory Care Among Women Veterans: Access and Utilization

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Women are one of the fastest growing segments of the veteran population, projected to comprise 14 percent of VA health care users by 2010. However, their numerical minority within the VA has created challenges to designing delivery systems that ensure their equitable access to high quality, gender-appropriate care. Determining current patterns of VA and non-VA ambulatory care use by women veterans is important in gauging how well the VA is meeting its access and patient satisfaction goals. These patterns also have implications for the organization and scope of services that the VA should provide to women veterans to improve their access to care.

In numerous veteran studies, sociodemographic and health-related predictors of VA use included: being low income, lacking private medical insurance, having poor health status, having a serviceconnected disability, and being an ethnic minority group member. Compared with male veterans, women veterans are more likely to have low income, lack insurance, have poor health status, and be an ethnic minority group member. However, women veterans' proportionate use of VA ambulatory care and inpatient services is less than that of male veterans. This finding suggests that additional gender-related influences on VA use remain.

Perceptions Among Women Veterans

A population-based VISN22 regional study of women veterans' ambulatory care use identified several additional influences on VA use. This study identified numerous barriers to women veterans' VA use, including lack of information about VA eligibility and

services, perceptions of limited availability of gender-appropriate services, concerns about the VA environment, privacy and quality of care, and inconvenient VA locations and hours.^{1, 2} In contrast, reasons cited for VA use included affordability, women's health clinic availability, quality of care, and convenience. Interestingly, the study identified several factors that serve as both barriers and facilitators to VA use, highlighting a VA user/nonuser paradox in perceptions about VA accessibility, service availability, and health care quality.

In qualitative research, conducted to gain greater insight into the factors underlying women veterans' perceptions about and experiences with VA care, VA nonusers described dated Hollywood images of old soldiers in ward beds, antiquated facilities, and less qualified doctors.2 A few women veterans based their perceptions on remote VA contact that occurred prior to the VA quality transformation and expansion of women's health care services. However, most VA nonusers based their perceptions on non-VA sources—primarily media portrayals of VA health care or word-of-mouth. Some women who had used VA health care services refuted these perceptions. But only an actual visit dispelled this image for both VA users and VA nonusers. Women veterans often started using VA health care after losing health insurance or other access to non-VA care, but remained VA users after becoming familiar with available health care services and their quality.

At VA medical centers and larger community-based outpatient clinics (i.e., those serving 400 or more women), basic women's health care services—those deliverable by a

primary care provider—are almost universally available onsite. Delivery arrangements include designated providers in general primary care clinics, women's health clinics for gender-specific examinations only, and comprehensive women's health clinics. By contrast, to ensure availability of lower volume specialized women's health services, VA sites have adopted varied onsite and off-site arrangements, including referral to larger VA sites, contract care, fee-basis care, or onsite delivery in gynecology clinics. Internal marketing to VA clinicians and other staff, about the scope and referral mechanisms for women's health services, may improve women veterans' access to and use of these services.

Barriers for Women Veterans Merit Further Study

Women veterans prefer to receive both women's health care and other primary care from the same provider or clinic.1 However, women veterans often received fragmented care. Fragmentation means that different components of women's basic health care are provided by different types of providers and in different settings, with varying degrees of coordination of care. In addition to the fragmentation inherent in the VA women's health service delivery arrangements, we found that 51 percent of women veteran VA users also split their care across VA and non-VA systems of care. Barriers to VA use that lead some women veterans to go outside the VA for selected health care services, and others to forego VA care altogether, are foci for interventions to improve women veterans' equitable access to coordinated comprehensive care.

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Military Sexual Trauma

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Attention to women's health issues in VA has led to increased recognition and treatment resources for military-related sexual assault and harassment, referred to as Military Sexual Trauma (MST). Evaluation of these programs suggests important gender-specific health care needs for both women and men.

Beginning in 1992, public law authorized VA to provide up to one year of treatment to women veterans for psychological trauma resulting from "physical assault of a sexual nature, battery of a sexual nature, or sexual harassment" occurring during military service. Sexual harassment was defined as "repeated, unsolicited verbal or physical contact of a sexual nature which is threatening in character." Since then, a series of public laws and VA directives reflected the growing knowledge that these issues, referred to by VA as 'military sexual trauma' affect both women and men and are associated with lasting health consequences. VA has now implemented training for all staff, universal screening, and unlimited care for all MSTrelated conditions for all veteran patients.

Screening Uncovers Mental Health, Chronic Conditions

In FY 2007, 22.2 percent of females and 1.3 percent of males seen in VA outpatient care reported MST when screened.¹ Because VA patients are predominantly male, the size of each clinical population that reports MST is actually similar: 45,570 women and 47,764 men. Screening is important in the detection of MST because individuals seldom disclose such stigmatizing experiences unless asked. Standardized universal screening frames this as a mainstream health care issue, which helps many veterans cope with feelings of isolation and self-blame.

"Treatment of MST among OEF/OIF veterans presents new challenges for VA providers. We will be able to detect and treat sexual trauma more closely following separation from military service, allowing new opportunities to prevent potentially chronic health and mental health consequences."

Researchers at the Center for Health Care Evaluation and the National Center for PTSD examined the gender-specific burden of illness associated with positive MST screens in an effort to guide the health care services authorized for MST-related conditions.2 The study found that MST was associated with a broad range of mental health conditions. Diagnoses of PTSD, other anxiety disorders, and alcohol use disorders were overrepresented among all patients with MST, but effect sizes were significantly stronger for women than men. In contrast, effects for adjustment disorders were significantly stronger among men compared to women.

While fewer associations with physical health conditions were observed, a number of behaviorally-linked chronic medical conditions, such as liver disease and pulmonary disease, were associated with MST for both men and women. Associations of obesity and hypothyroidism were unique to women and an association of MST with HIV/AIDS was unique to men. MST screening, therefore, detects a significant burden of illness and calls for a gender-specific approach to treatment.

MST Screening Promotes Use of Mental Health Services

Since MST was most strongly associated with mental health conditions, a key outcome by which to evaluate universal screening is utilization of mental health treatment. We compared utilization before and after screening, to assess whether patients with positive screens were more likely to initiate or continue mental health treatment. We found that the majority of patients who reported MST had not received mental health treatment prior to screening. However, for both women and men, a positive MST screen was associated with a significantly increased likelihood of post-screen mental health care, as compared to patients with negative screens. We found that one additional patient receives mental health care for every five women and seven men with positive MST screens. While screening appears to be somewhat more effective in promoting treatment for women as compared to men, these low numbers indicate that universal screening is an efficient way to help both women and men with MST access mental health care.3

MST Care for the Newest Generation of Veterans

Treatment of MST among OEF/OIF veterans presents new challenges for VA providers. We will be able to detect and treat sexual trauma more closely following separation from military service, allowing new opportunities to prevent potentially chronic health and mental health consequences. Access to mental health care should be a key focus, especially with VA's dissemination of evidence-based treatments for PTSD, which have demonstrated effectiveness for sexual trauma. Coupled with the younger age of these patients, we may also need research into broader foci of treatment, such as preventing revictimization and treating reproductive health issues among women. VA has implemented one of the most comprehensive programs to detect and treat interpersonal violence of any health care setting. Continued focus in this area will help to provide a strong basis for treating the full range of

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requirements but also the value of including women veterans in our research.

The time is ripe for advancing VA women's health research in ways that we did not even envision during the agenda-setting process a few short years ago. I invite you to join the growing consortium of researchers working in this arena, and challenge you to consider innovative ways to integrate women veterans into your current research.

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deployment-related stressors among OEF/OIF veterans in VA care.

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