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National Variations in VA Mental Health Care for Women Veterans

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A B S T R A C T

Objectives: Although the Veterans Health Administration (VA) has recently adopted new policies encouraging gender-specific mental health (MH) care delivery to women veterans, little is known about the potential difficulties local facilities may face in achieving compliance. We assessed variations in women's mental health care delivery arrangements in VA facilities nationwide.
Methods: We used results from the VA Survey of Women Veterans Health Programs, a key informant survey of senior women's health clinicians representing all VA facilities serving more than 300 women veterans, to assess the array of gender-sensitive mental health care arrangements (response rate, 86%; $n = 195$). We also examined organizational and area factors related to availability of women's specialty mental health arrangements using multivariable logistic regression.
Results: Nationally, over half (53%) of VA facilities had some form of gender-sensitive mental health care arrangements. Overall, 34% of sites reported having designated women's mental health providers in general outpatient mental health clinics (MHCs). Almost half (48%) had therapy groups for women in their MHCs. VAs with women's primary care clinics also delivered mental health services (24%), and 12% of VAs reported having a separate women's MHC, most of which (88%) offered sexual trauma group counseling. Assignment to same-gender mental health providers is not routine. VAs with comprehensive women's primary care clinics were more likely to integrate mental health care for women as well.
Conclusion: Local implementation of gender-sensitive mental health care in VA settings is highly variable. Although this variation may reflect diverse local needs and resources, women veterans may also sometimes face challenges in accessing needed services.

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Background

Over the last three decades, the Department of Veterans Affairs (VA) has been working to adapt its health care system to the needs of the small but growing population of women veterans. These adaptations were, at least in part, a result of U.S. Government Accountability Office (GAO) reports in the 1980s and 1990s that pointed to the lack of gender-specific services for women veterans, and highlighted privacy concerns in VA primary care and in-patient settings (U.S. GAO, 1982, 1992). With the recognition that many women serving in current conflict zones are returning with posttraumatic stress disorder (PTSD), and that a significant proportion of military women experience sexual trauma—a recognized risk factor for depression, anxiety disorder, panic disorder, and PTSD—the VA has focused increasing attention on provision of gender-sensitive outpatient mental health services for women veterans (Coyle, Wolan, & Van Horn, 1996; Goldzweig, Balekian, Rolon, Yano, & Shekelle, 2006; Kimerling, Gima, Smith, Street, & Frayne, 2007; U.S. GAO, 1998). In fact, the most important determinant of women veterans coming to the VA for PTSD treatment is the availability of

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specialized mental health treatment programs for women (Fontana & Rosenheck, 2006).

Not all sites have such specialized programs for women, and not much is known about how mental health services for women veterans are organized nationally. Given that the VA health care system has a long history of delivering care predominantly to men, women may face challenges navigating through a system not originally designed to meet their needs. Not unlike care outside the VA, veterans enrolled in the VA health care system typically have their first contact with care in primary care clinics, where they may be screened for mental health conditions (e.g., depression, substance abuse, military sexual trauma [MST] and PTSD). In some cases, management of mental health conditions detected in the primary care setting is provided by primary care clinicians, but many women with mental health conditions have mental health needs that require the expertise of a mental health specialist. Because of the longstanding and well-documented mental health burdens among many veterans, the VA has a fundamental clinical mission to deliver a wide spectrum of mental health services to which primary care providers may readily refer patients as an uncapped benefit. Virtually all VA medical centers have general outpatient mental health clinics and many provide subspecialty mental health services as well (e.g., PTSD, addictions treatment). As an extreme gender minority in the VA, women veterans have historically encountered primary care waiting rooms overwhelmingly occupied by men, and clinicians with relatively limited experience delivering care to women (Vogt et al., 2001; Vogt et al., 2006; Yano et al., 2010). Similar problems may exist in mental health settings, especially at sites with low numbers of female patients. Although some VAs have innovated specialized women's mental health programs that prioritize gender-sensitive delivery of care, until recently, there has been no uniform VA-wide guidance on optimal approaches.

In 2008, the VA Office of the Under Secretary for Health issued formal guidance on the delivery of "Uniform Mental Health Services in VA Medical Centers and Clinics" (VHA Handbook, 1160.01, U.S. Department of Veterans Affairs, 2008), as a guide to the health care benefits that VA facilities are expected to deliver. The handbook specifically encourages VA facilities to give veterans being treated for MST and other conditions (male or female) the option of a same-gender provider regarding gender-specific issues, and specifies that staff must have training about military and veterans' culture. Adding to this national policy guidance, a revision of VHA Handbook for "Health Care Services for Women Veterans" (VHA Handbook, 1330.01, U.S. Department of Veterans Affairs, 2010) encourages provision of gender separate therapy groups, and states that mental health services for conditions related to MST must be available at all facilities. Although substantively advancing VA policy in gender-sensitive mental health care delivery, neither of these policy initiatives mandates detailed organizational structures or processes for local implementation. The extent and design of local efforts to comply with such guidance is not yet known, and, in fact, there is virtually no national baseline against which to evaluate innovations that may overcome barriers to delivering gender-sensitive mental health care to small caseloads of women and in VA facilities that may have limited availability of trained staff and space constraints.

Overcoming such organizational barriers is of significant concern, given the substantial mental health burden among women veterans using the VA health care system, with nearly 40% of VA users having one or more mental health conditions (Frayne et al., 2007). In this paper, we have provided the first national portrait of gender-sensitive mental health care delivery arrangements for women veterans using the VA health care system, before issuance of the Uniform Mental Health Services policy. The data we report not only serve as a baseline for evaluating progress toward implementation of national policy recommendations, but also provide insights into the challenges local facilities may face in achieving them.

Methods

Study Design

This study represents a cross-sectional secondary analysis of existing data at area and organizational levels to 1) describe variations in implementation of gender-sensitive mental health care arrangements (within or outside of mental health clinics), and 2) examine factors predictive of women's specialty mental health arrangements.

Data Sources

We assessed mental health organizational arrangements using key informant survey data from the Senior Women's Health Clinician module of the VHA Survey of Women Veterans Health Programs and Practices. The module was fielded in 2007 to a census of all VA facilities (VA medical centers [VAMCs] and community-based outpatient clinics [CBOCs]) serving 300 or more unique women veterans in the year before survey administration. The key informant survey was administered to senior clinicians identified by the chief of staff (i.e., medical director) at each VA facility as the person responsible for and/or most knowledgeable about health care delivery for women veterans at each geographically distinct site of care under their purview. We achieved an 86% response rate ($n = 195$ facilities; $n_{VAMCs} = 142$ and $n_{CBOCs} = 53$). The sample represented all Veteran Integrated Service Networks, and urban and rural locations.

Women veteran workload (i.e., visit rates) and caseload (i.e., patient volume) data were obtained from the VA's centralized data repository (National Patient Care Database, Outpatient Clinic file). Area-level factors (e.g., urban/rural location) for testing of associations with the presence of women's specialty mental health arrangements were obtained from the 2008 Area Resource File (U.S. Department of Health and Human Services, 2008).

The study was approved by the VA Greater Los Angeles Healthcare System's Institutional Review Board as an exempt protocol.

Measures of Mental Health Care Arrangements

Survey items asked about specific organizational arrangements and features of women's specialty mental health services (i.e., those delivered by a general mental health clinic-based designated provider [G-MHC DP] and/or services offered in a separate women's mental health clinic [W-MHC]). Measures of women's organizational features of the general mental health clinics (MHCs) included the presence and types of designated women's mental health providers to whom women veterans are preferentially assigned; how designated providers (DPs) are organized into the clinic structure; number of half-days per week DPs are available to see women veterans; proportion of women

veterans assigned to same-gender providers for mental health care; and therapy groups specifically for women. Measures of the features of separate W-MHCs included space arrangements, number of half-days per week the clinic meets, and types of services offered.

We also asked about organizational arrangements where mental health services may have been co-located in women's primary care (WHC/PC) and/or gynecology (GYN) clinics. Specifically, we asked about routine availability of mental health care and social work services in WHC/PCs, routine involvement of psychiatrists and psychologists in the WHC/PC, and the availability of other specialty care such as mental health in any separate GYN clinics at each site.

Dependent and Independent Variables for the Multivariate Model

In addition to reporting national frequencies, we examined the relationship between area (e.g., urban/rural) and organizational (e.g., academic affiliation) predictors of presence of a women's specialty mental health care arrangement. We defined availability of women's specialty mental health care arrangements (yes/no) as the presence of a designated women's health provider in the general outpatient MHC and/or presence of a separate W-MHC (our dependent variable).

We hypothesized that the presence of specialized women's primary care services might be associated with the creation of other specialized women's programs, and that site-specific levels of women's health resources, and authority over women's health organizational planning, might influence the degree to which specialized services can be developed anywhere, including mental health. Independent variables therefore included the presence of gender-specific features in primary care; specifically, we examined the presence of a designated women's health provider in primary care and the presence of a women's health clinic in primary care (WHC/PC), either for gender-specific care or for annual gender-specific examinations. We also examined relationships with sufficiency of women's health care resources ($k = 8$; Cronbach's alpha $= 0.79$), and perceived authority over women's health staff, space and clinical care, and operations ($k = 8$; Cronbach's alpha $= 0.85$), and developed two standardized scales for these measures (0–100). We controlled for other organization-level characteristics, including academic affiliation, whether the facility was a VAMC or CBOC, and the number of unique women veteran patients seen. We included measures of census region and urban/rural location from the Area Resource File.

Statistical Analysis

We report descriptive data on women's mental health care arrangements using simple national frequencies. We examined location, workload/caseload, and organizational factors related to women's specialty mental health practice arrangements noted in survey responses (G-MHC DP and/or W-MHC vs. neither arrangement) by merging VA Austin Automation Center data on the number of female patients and visits delivered at each VA facility, and urban/rural location from Area Resource File data. We then used *t*-tests and chi-square tests to examine variations. We tested associations of organization- and area-level characteristics with the presence of women's specialty mental health services. In our unadjusted comparisons, we found no significant area-level differences, so these measures were not included in the final multivariate logistic regression (StataCorp, 2009).

Results

Mental Health Care Arrangements for Women Veterans

Overall, 104 (53%) of VA facilities had some form of mental health arrangements specifically for women. Reported arrangements fall into several categories with overlap (i.e., one facility may have more than one arrangement; Figure 1). Sixty-seven of 195 sites (34%) reported having DPs in the general mental health clinic (G-MHC DP), and 24 sites (12 %) reported having a separate W-MHC. In addition, 47 sites (24%) said they had mental health services in a WHC/PC (36% of 131 sites having such a clinic). We did not systematically ask about mental health services in GYN; however, we did ask respondents to specify services "other" than gynecology offered in such clinics. Relevant responses for services co-located in GYN included mental health, MST counseling, social work, psychiatric services, PTSD, depression, domestic violence program, chaplain, support groups, social worker for OEF/OIF female veterans, and psychology social services. Of 86 sites with gynecology clinics, 10 indicated offering one or more of these services in the clinic. Details of mental health arrangements for women veterans are shown in Table 1.

Use of G-MHC DP

The majority of DPs to whom sites preferentially assigned women in the MHC were integrated into the general mental health structure (81% of 67 sites with G-MHC DPs), as opposed to a women's mental health team located in the general clinic (15%). Types of DPs included psychiatrists, psychologists, social workers, and clinical nurse specialists in psychiatric nursing.

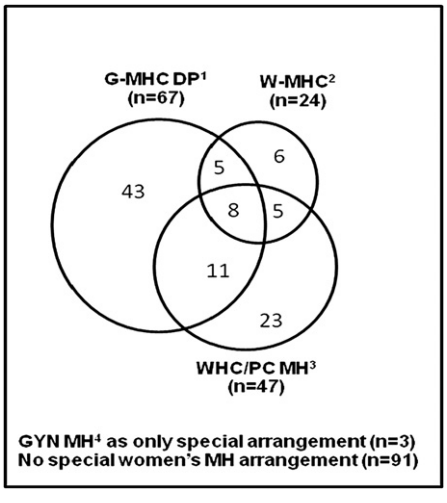

Figure 1. Arrangements for provision of mental health services to women veterans ($n = 195$ VA sites). Overlapping circles depict relationship of delivery arrangements, but sizes of circles are not drawn to scale. Women's specialty mental health arrangements[(1 or 2)] are present in 78 of the 195 (40%) sites. Mental health is also delivered in women's primary care[(3)] and gynecology clinic settings. At least one women's mental health arrangement[(1, 2, 3, and/or 4)] is present in 104 of 195 (53%) sites. [1]G-MHC DP denotes DP for women in general mental health clinic; 67 of 195 (34%) sites. [2]W-MHC denotes a separate mental health clinic for women; 24 of 195 (12%) sites. [3]WHC/PC MH denotes mental health delivered in women's primary care clinic; 47 of 195 (24%) sites, 47 of 131 (36%) WHC/PC sites. [4]GYN MH denotes gynecology clinic with co-located MH; seven sites have GYN MH plus other women's MH arrangements[(1, 2, or 3)]; three sites have GYN MH only.[(4)]

G-MHC DPs were reported to be available to see women close to 7 half-days per week, on average, with a range of fewer than 1 half-day to 10 half-days. Almost half (48%) of sites reported the presence of therapy groups specifically for women in the general MHC.

Separate W-MHC

Services and space arrangements of separate W-MHCs are summarized in Table 1. Most W-MHCs delivered sexual trauma group counseling or MST groups (88% of 24 clinics). Substance abuse treatment (58%), stress management (67%), and social work (67%) were available in more than half of the W-MHCs, and smoking cessation was available in 42% of the W-MHCs. Most sites said they delivered more than one of these services in their W-MHC. For example, eight sites said they offered all five of the specified services (i.e., sexual trauma, substance abuse, smoking cessation, and social work) in their W-MHC(s), whereas 12 offered two to four of these services. Two sites reported offering services other than those we asked about, including other trauma, a women's PTSD group, women's combat group, grief management, and domestic violence program.

We asked about how facilities with separate W-MHCs used clinic space. Exclusive (i.e., set aside fulltime for the care of women) or reserved (i.e., used exclusively by women at designated times but may be used by men at other times) examination room space was available at 58% of W-MHCs, with exclusive or reserved waiting room and hallway space available at just over one third (Table 1). Across sites, the W-MHC was reported to meet an average of 5.75 half days ($SD = 4.11$; range, <1–10; $n = 16$).

Availability of Same-Gender Providers

Although only 7% of sites indicated that all or almost all women veterans are assigned to same-gender providers for care in their general MHCs, another 37% said that most to about half are so assigned. Only five sites said none are gender matched. Same-gender provider assignment was more common in W-MHCs. Eleven of the W-MHC sites (46%) reported that women veterans are assigned to same-gender providers all or almost all of the time in the W-MHC; another five (21%) said most to about half are so assigned (Table 1). None reported few or zero gender matches.

Organization-Level and Area-Level Variations in Women's Mental Health Care Arrangements

In unadjusted bivariate comparisons (Table 2), we evaluated variations in organizational characteristics associated with the presence of women's specialty mental health care (G-MHC DPs and/or W-MHCs). We found that sites with a WHC/PC were more likely to have women's specialty mental health arrangements, whereas those with WHC/PCs that only focused on gender-specific examinations or had no WHC/PC were less likely to have them ($p < .001$). Sites reporting having higher levels of authority over women's health staff, space and operations (mean values of 26.9 vs. 22.6; $p < .05$), having higher rates of academic affiliation (70% vs. 54%; $p < .05$), being at a VAMC (vs. CBOC; 77% vs. 61%; $p < .05$), and having significantly larger women veteran patient populations (mean 2,898 vs. 2,038; $p < .001$) were significantly more likely to have implemented women's specialty mental health care arrangements. Area-level factors (e.g., region, urban/rural location) were not associated with the presence or absence of such arrangements.

Table 1
Women's Specialty Mental Health Arrangements: In G-MHC ($n = 195$) and in W-MHC ($n = 24$)

	n (%)
G-MHC	
Designated providers in G-MHC	
G-MHC DP* ($n = 67$)	67 (34%)
Designated providers integrated into general mental health structure	54 (81%)†
Designated providers in distinct women's health team within general mental health structure	10 (15%)†
Other arrangement	3 (4%)†
Therapy Groups in G-MHC ($n = 195$)	
Therapy groups specifically for women	94 (48%)
Separate W-MHC‡ ($n = 24$)	
Available services other than general mental health in W-MHC	
Sexual trauma group counseling or MST group	21 (88%)
Substance abuse treatment	14 (58%)
Stress management	16 (67%)
Social work	16 (67%)
Smoking cessation	10 (42%)
Exclusive§ or reserved¶ use of clinic space in W-MHC	
Hallway(s) outside the examination rooms	8 (34%)
Examination rooms	14 (58%)
Waiting room(s)	9 (37%)
Provider assignments	
In G-MHC ($n = 195$)	
All or almost all women veterans (90%–100%) assigned to same-gender provider	13 (7%)
Most to about half of women veterans (40%–89%) assigned to same-gender providers	73 (37%)
In W-MHC ($n = 24$)	
All or almost all women veterans (90%–100%) assigned to same-gender provider	11 (46%)
Most to about half of women veterans (40%–89%) assigned to same-gender providers	5 (21%)

Abbreviations: G-MHC, general outpatient mental health clinics; W-MHC, women's mental health clinics.

* Women veterans preferentially assigned to one or more designated women's health providers in the G-MHC; 67 of 195 sites had G-MHC DPs.

† Denominator is 67.

‡ Clinic specifically for the delivery of mental health services to women veterans, separate from the G-MHC, the women's health clinic for primary care (WHC/PC), or gynecology clinic (GYN clinic); 24 of 195 sites had W-MHCs.

§ Space used solely for the care of women veterans.

¶ Space used exclusively by women veterans at designated times but may be used by male veterans at other times.

Multivariate Regression Predicting Presence of Women's Specialty Mental Health Arrangements

After controlling for facility characteristics and size (using caseload as a proxy), we found that having a WHC/PC was negatively associated with the presence of women's specialty mental health services (Table 3). However, facilities reporting greater authority over women's health were more likely to report offering women's specialty mental health care arrangements (odds ratio, 1.03; 95% confidence interval, 1.00–1.06; $p < .05$).

Discussion

This study represents the first effort to systematically describe mental health care arrangements for women veterans in the VA health care system on a nationwide basis. Except for one study of VA practice environments for MST care delivery (Hall, Sedlacek, Berenbach, & Diekmann, 2007), a recent

Table 2
Facility Characteristics by Presence of Women's Specialty Mental Health Care Arrangements ($n = 195$)[*]

	All Sites ($n = 195$)	Sites with G-MHC DPs[†] and/or W-MHC[‡] ($n = 78$)	Sites with Neither Arrangement ($n = 117$)
Designated WH primary care provider in general primary care clinic[‖]	42%	50%	37%
Women's health clinic for primary care[¶]			
WHC/PC[§] with gender-specific examinations[**] and PC	38%	55%	27%
WHC/PC with gender-specific examinations[**] but no PC	29%	21%	35%
No WHC/PC	33%	24%	38%
Sufficiency of resources for women's health care (mean ± SD)	73.4 ± 14.8	73.3 ± 13.3	73.4 ± 15.8
Authority over women's health staff, space, and clinical operations[††] (mean ± SD)	24.4 ± 13.9	26.9 ± 12.9	22.6 ± 14.3
Academic affiliation[††]	60%	70%	54%
VA medical center (vs. CBOC)[††]	68%	77%	61%
Census region			
Northeast	16%	18%	14%
Midwest	22%	20%	23%
South	38%	35%	41%
West	24%	27%	22%
Rural/urban location			
Metropolitan counties with ≥1 million population	42%	47%	38%
Metropolitan counties with <1 million population	47%	40%	52%
Nonmetropolitan counties	11%	13%	10%
Women veteran caseload (no. of women veteran patients; mean ± SD)[‡‡]	2,384 ± 1,894	2,898 ± 2,197	2,038 ± 1,573

Abbreviations: G-MHC, general outpatient mental health clinics; SD, standard deviation; W-MHC, women's mental health clinics; WHC/PC, women's health clinic for primary care.

[*] We compared categorical variables using chi-square tests and continuous variables using *t*-tests.
[†] G-MHC DP denotes designated provider for women in general mental health clinic.
[‡] W-MHC denotes separate women's mental health clinic.
[§] WHC/PC denotes women's health clinic for primary care.
[¶] $p < .001$.
[‖] $p < .10$.
[**] For example, reproductive health examinations, pap smears, mammograms.
[††] $p < .05$.
[‡‡] $p < .01$.

systematic literature review of women veterans' health research identified no studies of organizational features of mental health care delivery for women veterans (Bean-Mayberry et al., 2010). Our findings suggest that national implementation of gender-sensitive outpatient mental health care arrangements for women in 2007 warranted the VA's subsequent policy initiatives to achieve more uniform services. Overall, such services were available at approximately half of the VA facilities we surveyed, but in greatly varying forms, from more rudimentary to more sophisticated approaches, equally likely to be based in mental health or women's health clinics. Given the privacy advantages and convenience of offering women's mental health services in medical settings already reserved for women, and the VA's emphasis on integration of mental health care with primary care in general (Post & Van Stone, 2008), co-location of mental health services in women's medical settings may have advantages as an alternative or complementary arrangement for delivery of gender-sensitive mental health services.

Service provision in numerous venues and formats within and outside of outpatient mental health clinics, although likely adaptive to local resources (e.g., space, provider expertise), presents a complex web of care delivery options (and lack of options in some facilities) that could pose barriers to women veterans in search of patient-centered mental health care. However, although delivery in multiple venues could represent fragmentation of care, it may also reflect a suitable "fit" for particular mental health conditions (e.g., DPs in general mental health for depression; separate W-MHC for trauma services), or help solve site-specific space and resource problems. Research into the effectiveness of and patient satisfaction with these different arrangements is needed to guide implementation of VA policy and to ensure spread of best practices for delivery of women's mental health care in VA settings.

For women's specialty mental health arrangements, preferentially assigning women veterans to a designated provider in outpatient mental health clinics seems to be the predominant model VA facilities have adopted. However, with just about one third of surveyed sites relying on DPs, predominant does not mean common. Although DPs were more often psychologists than other mental health provider types, we did not find any particular trends for particular professionals being designated to provide women's mental health care. Most of these professionals were described as being integrated into the general mental health structure, as opposed to special teams for women, likely a result of generally small female mental health caseloads, possibly limited staff and resources for the building of separate teams, and/or limited perceived need for establishing more than one provider with women's health focused mental health expertise. Availability of DPs is high (average of nearly 7 half-days per week), but they are not available in clinic on a full-time basis at all sites, and the range (<1 half-day to full time) reflects substantial national variation.

We did not assess the types of care offered by G-MHC DPs, or the criteria used by sites in their selection. Because the incidence, experience and comorbid occurrence of various mental health conditions (e.g., depression, anxiety, PTSD, and substance abuse) differ for women and men (Burt & Stein, 2002; Frayne et al., 2007; Grella, 2008; Grella, Polinsky, Hser, & Perry, 1999; Somers, Goldner, Waraich, & Hsu, 2006; Tolin & Foa, 2006), as do the experience and mental health consequences of sexual and

Table 3
Logistic Regression predicting the Presence of Women's Specialty Mental Health Care Arrangements ($n = 195$)

Determinants of Provision of Specialty Mental Health Care Arrangements	Odds Ratio (95% CI)
Designated WH provider in general primary care clinic[*]	1.93 (0.97–3.80)
Women's health clinic in primary care (WHC/PC)[†]	
WHC/PC with gender-specific[‡] and primary care[§]	0.24 (0.10–0.57)
WHC/PC gender-specific[‡] examinations but no primary care	0.34 (0.14–0.83)
No WHC/PC	Reference
Sufficiency of resources for women's health care[‖]	0.98 (0.96–1.01)
Authority over women's health staff, space and clinical operations[¶,**]	1.03 (1.00–1.06)
VA facility academically affiliated with medical school	0.73 (0.27–2.01)
CBOC (vs. VA medical center)	0.95 (0.37–2.45)
Mean number of women veteran patients (1000s)	1.19 (0.96–1.50)

[*] $p < .10$.
[†] $p < .001$.
[‡] E.g., reproductive health exams, pap smears, mammograms.
[§] $p < .01$.
[‖] Sufficiency scale was derived from survey items asking key informants to describe the level of sufficiency of resources in women's health at their VA facility (e.g., staff, space, clinical expertise) (k = 8, Cronbach's alpha = 0.79).
[¶] $p < .05$.
[**] Authority scale was derived from survey items asking key informants to describe the level of authority they had as senior women's health clinicians over staffing arrangements (e.g., hiring, reallocating), space (e.g., adequately equipped exam rooms) and clinical operations (e.g., ability to implement clinical practice guidelines) (k = 8, Cronbach's alpha = 0.85).

combat trauma during military service (Kimerling et al., 2007; Kimerling, Street, Gima, & Smith 2008; Street, Gradus, J.L., Stafford, & Kelly, 2007; Street, Vogt, & Dutra, 2009), provider qualifications for delivering mental health services to women veterans may vary with training and exposure to female patients. We did not assess female caseload sizes of DPs in our survey; however, McNeil and Hayes (2003) have suggested that primary care providers caring for women need a certain minimum caseload of female patients to maintain clinical expertise. Ascertaining minimum training qualifications and caseload expectations may be important for ensuring that mental health providers serving women veterans have the requisite knowledge and experience.

Some women with a sexual trauma history have reported anxiety about invasive examinations and male providers in primary care (Lee, Westrup, Ruzek, Keller, & Weitlauf, 2007). As recognized by current VA guidelines, they may also feel anxiety toward male mental health providers and should have the option of requesting a female provider if preferred. Not all women seen in mental health have experienced sexual trauma, and not all of those who have trauma histories may prefer a woman provider, making choice of provider gender the key feature of the guideline. Relatively few sites reported routinely assigning women veterans to female providers in the mental health clinic, but well over half said that at least some women are so assigned. However, we did not assess local procedures for determining patient preferences, so we cannot validate these findings. Further research is needed to determine how frequently such preferences are elicited and met. And, although a large proportion of VA mental health providers are female, more research is also needed on potential barriers to ensuring access to comparably trained, same-gender providers when requested.

We initially hypothesized that separate mental health clinics for women might be an emerging care delivery model. Viewing the comprehensive women's health clinic in primary care as a model arrangement for women's medical care services (Yano, Goldzweig, Canelo, & Washington, 2006), we theorized that women's MHCs might be similarly organized, that is, mirroring the service content of the general MHC, while providing additional services uniquely suited to the needs of women in a secure and private physical environment reserved for them. Given that only 58% of sites with a W-MHC said they had exclusive or reserved examination room space for women and even fewer had exclusive or reserved waiting room space (i.e., their space was fully integrated with clinics for men), few of the 24 W-MHCs were likely physically free-standing clinics. Even if they were not organized as formal stand-alone clinics, however, the designation of certain groupings of women's mental health services as a "separate" entity may have been based on their placement away from the main mental health clinic, without co-location in a women's medical setting (e.g., care delivered by a MST coordinator in another setting to reduce potential stigma).

Because we asked sites to tell us what services "other than general mental health" were available in their W-MHCs, we cannot say whether these separate entities offered general mental health plus other services, or a set of women-only trauma, stress, and/or addiction services without general mental health. Given the high proportion of W-MHCs offering sexual trauma group counseling or MST counseling, however, it may be that sites with separate clinics perceived sexual trauma as requiring the most gender-sensitive attention, and that they co-located selected other woman-specific services with MST-related offerings (e.g., other trauma services such as domestic violence), rather than with general mental health for women. More than half of sites with W-MHCs also had DPs in the general MHC, and mental health services in women's primary care, and most offered multiple gender-focused services, supporting the notion that these separate clinics were focused on specialized mental health services, such as trauma.

It should probably not be surprising that larger VA facilities (e.g., VAMCs with larger women veteran caseloads, which themselves tend to be academically affiliated) are more likely to have women's specialty mental health care arrangements. The business case for establishing such models of care likely hinges on caseload, raising substantive and practical issues in how to deliver such care in smaller facilities with fewer resources (including space and personnel with needed expertise). Telepsychiatry may open up options for facilities with smaller volumes of women veterans just as it has for male veterans in rural facilities (Ruskin, et al., 2004).

Interestingly, VA facilities with women's health clinics were indeed more likely to have women's specialty mental health care models on average. However, when we adjusted for size and facility type, which are major markers of organizational resources, we found the reverse was true, namely that VA's with women's clinics were less likely to have DPs in mental health or separate W-MHCs. In this case, larger VA's have tended to integrate mental health services within their women's clinics, obviating the need for separate programs.

As a cross-sectional appraisal of women's mental health care arrangements, our study does not permit us to directly assess the merits and limitations of the organizational features individually or in combination that we identified in the field. However, our results provide a necessary baseline for future evaluation of VA's policy shift toward greater recognition of the potential value of mental health care arrangements that acknowledge gender differences in care preferences. These findings also provide

a foundation for future research to explore the appropriateness, effectiveness, and sustainability of different approaches to such care. We also relied on a key informant approach to developing this national assessment of care variations, which in turn led to identification of senior women's health clinicians at each VA facility. Although these respondents were considered the most knowledgeable about women's health in their respective locales, an alternate respondent would have been the head of each mental health program. Whereas another national VA organizational survey has been conducted among the chiefs of mental health, no questions focused on women's mental health care arrangements. We anticipate that both surveys, combined with results from qualitative interviews conducted among clinic managers at VA facilities with DPs or W-MHCs (MacGregor, Hamilton, Oishi, & Yano, 2011), will support generation of a more specific survey tool in the future, which could also be used to evaluate progress toward VA policy goals. Further, our reliance on the term "gender-sensitive" mental health arrangements should not be construed as implying that all other VA arrangements are lacking in the sensitivity with which they deliver mental health care to women veterans. Providers in other settings may be well attuned to women veterans' needs and may have developed care environments that feel safe, private, and secure, but were not reflected in the answers to questions we posed to key informants.

Policy Implications

By 2007, arrangements for provision of mental health services to women veterans included DPs in general mental health settings, a small number of separate W-MHCs, and co-location of mental health services in women's medical settings. This baseline serves as a comparison against which to measure continuing efforts to comply with provisions recently set forth in VA policies, while offering insights into potential barriers to scaling up new care arrangements nationally. Research and policy should focus on further elucidation of the 1) appropriateness, effectiveness, and sustainability of gender-sensitive arrangements for women's mental health care delivery within and outside MHCs; 2) the qualifications and minimum caseload requirements of DPs; 3) inquiry into women's provider-gender preferences; and 4) novel programs, especially at sites with small caseloads and resource challenges.

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References

Bean-Mayberry, B., Batuman, F., Huang, C., Goldzweig, C. L., Washington, D. L., Yano, E. M., et al. (2010). Systematic review of women veterans health research 2004–2008. Final Report. VA-ESP Project #05-226. VA HSR&D Evidence-based Synthesis Program, Los Angeles, CA: VA HSR&D.

Burt, V., & Stein, K. (2002). Epidemiology of depression throughout the female life cycle. *The Journal of Clinical Psychiatry*, 63(Suppl. 7), 9–15.

Coyle, B. S., Wolan, D. L., & Van Horn, S. (1996). The prevalence of physical and sexual abuse in women veterans seeking care at a veterans affairs medical center. *Military Medicine*, 161, 588–593.

Fontana, A., & Rosenheck, R. (2006). Treatment of female veterans with posttraumatic stress disorder: The role of comfort in a predominantly male environment. *Psychiatric Quarterly*, 77, 55–67.

Frayne, S. M., Yu, W., Yano, E. M., Ananth, L., Iqbal, S., Thrailkill, A., et al. (2007). Gender and use of care: Planning for tomorrow's Veterans Health Administration. *Journal of Women's Health*, 16, 1188–1199.

Goldzweig, C., Balekian, T., Rolon, C., Yano, E. M., & Shekelle, P. G. (2006). The state of women veterans' health research: Results of a systematic literature review. *Journal of General Internal Medicine*, 21, S82–S92.

Grella, C. E. (2008). From generic to gender-responsive treatment: Changes in social policies, treatment services, and outcomes of women in substance abuse treatment. *Journal of Psychoactive Drugs, SARC*(Suppl. 5), 327–343.

Grella, C. E., Polinsky, M. L., Hser, Y., & Perry, S. M. (1999). Characteristics of women-only and mixed-gender drug abuse treatment programs. *Journal of Substance Abuse Treatment*, 17, 37–44.

Hall, M. E., Sedlacek, A. R., Berenbach, J. R., & Diekmann, N. F. (2007). Military sexual trauma services for women veterans in the Veterans Health Administration: The patient-care practice environment and perceived organizational support. *Psychological Services*, 4, 229–238.

Kimerling, R., Gima, K., Smith, M. W., Street, A., & Frayne, S. (2007). The Veterans Health Administration and military sexual trauma. *American Journal of Public Health*, 97, 1–7.

Kimerling, R., Street, A. E., Gima, K., & Smith, M. W. (2008). Evaluation of universal screening for military-related sexual trauma. *Psychiatric Services*, 59, 635–640.

Lee, T. T., Westrup, D., Ruzek, J., Keller, J., & Weitlauf, J. C. (2007). Impact of clinician gender on examination anxiety among female veterans with sexual trauma: A pilot study. *Journal of Women's Health*, 16, 1291–1299.

MacGregor, C., Hamilton, A. B., Oishi, S., & Yano, E. (2011). Description, development, and philosophies of mental health service delivery for female veterans in VA: A qualitative study. *Women's Health Issues*. this issue.

McNeil, M., & Hayes, P. (2003). Women's health care in the VA system: Another "patchwork quilt." *Women's Health Issues*, 13, 47–49.

Post, E. P., & Van Stone, W. W. (2008). Veterans Health Administration primary care-mental health integration initiative. *North Carolina Medical Journal*, 69, 49–52.

Ruskin, P. E., Silver-Ayalian, M., Kling, M. A., Reed, S. A., Bradham, D. D., Hebel, J. R., et al. (2004). Treatment outcomes in depression: comparison of remote treatment through telepsychiatry to in-person treatment. *American Journal of Psychiatry*, 161, 1471–1476.

Somers, J. M., Goldner, E. M., Waraich, P., & Hsu, L. (2006). Prevalence and Incidence Studies of anxiety disorders: A systematic review of the literature. *Canadian Journal of Psychiatry*, 51, 100–113.

StataCorp. (2009). *Stata: Release 11. Statistical Software*. College Station, TX: Author.

Street, A. E., Gradus, J. L., Stafford, J., & Kelly, K. (2007). Gender differences in experiences of sexual harassment: Data from a male-dominated environment. *Journal of Consulting and Clinical Psychology*, 75, 464–474.

Street, A. E., Vogt, D., & Dutra, L. (2009). A new generation of women veterans: Stressor faced by women deployed to Iraq and Afghanistan. *Clinical Psychology Review*, 29, 685–694.

Tolin, D. F., & Foa, E. B. (2006). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychological Bulletin*, 132, 959–992.

U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions. (2008). *Area resource file (ARF)*. Rockville, MD: Author.

U.S. Department of Veterans Affairs, Kussman, M. J., Under Secretary for Health. (2008). *Uniform mental health services in VA medical centers and clinics. VHA Handbook 1160.01*. Washington, DC: Office of Mental Health Services.

U.S. Department of Veterans Affairs, Petzel, R. A., Under Secretary for Health. (2010). *Health services for women veterans. VHA Handbook 1330.01*. Washington, DC: Author.

U.S. General Accounting Office (U.S. GAO). (1982). *Actions needed to ensure that female veterans have equal access to VA benefits (Pub. No. GAO/HRD-82–98)*. Washington, DC: Women Veterans Health Strategic Health Care Group.

U.S. General Accounting Office (U.S. GAO). (1992). *VA health care for women: Despite progress, improvements needed (Pub. N. GAO/HRD-92–93)*. Washington, DC: Author.

U.S. General Accounting Office (U.S. GAO). (1998). *Women veterans' health care: VA efforts to respond to the challenges of providing sexual trauma counseling. (Pub. No. GAO/T-HEHS-98–138)*. Washington, DC: Author.

Vogt, D. S., Stone, E. R., Salgado, D. M., King, L. A., King, D. W., & Savarese, V. W. (2001). Gender awareness among Veterans Administration health-care workers: Existing strengths and areas for improvement. *Women & Health*, 34, 65–83.

Vogt, D., Bergeron, A., Salgado, D., Daley, J., Ouimette, P., & Wolfe, J. (2006). Barriers to Veterans Health Administration care in a nationally

representative sample of women veterans. *Journal of General Internal Medicine*, 21(Suppl. 3), S19–S25.
Yano, E. M., Goldzweig, C., Canelo, I., & Washington, D. (2006). Diffusion of innovation in women's health care delivery: The Department of Veterans Affairs' adoption of women's health clinics. *Women's Health Issues*, 16, 226–235.
Yano, E. M., Hayes, P., Wright, S., Schnurr, P., Lipson, L., Bean-Mayberry, B., et al. (2010). Integration of women veterans into VA quality improvement research efforts: What researchers need to know. *Journal of General Internal Medicine*, 25(Suppl. 1), 56–61.

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