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Patient-Centered Mental Health Care for Female Veterans

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Abstract

Objective—Mental health services for women vary widely across the Veterans Health Administration (VHA) system, without consensus on the need for, or organization of, specialized services for women. Understanding women’s needs and priorities is essential to guide the implementation of patient-centered behavioral health services.

Methods—In a cross-sectional, multisite survey of female veterans using primary care, potential stakeholders were identified for VHA mental health services by assessing perceived or observed need for mental health services. These stakeholders (N=484) ranked priorities for mental health care among a wide range of possible services. The investigators then quantified the importance of having designated women’s mental health services for each of the mental health services that emerged as key priorities.

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Results—Treatment for depression, pain management, coping with chronic general medical conditions, sleep problems, weight management, and posttraumatic stress disorder (PTSD) emerged as women’s key priorities. Having mental health services specialized for women was rated as extremely important to substantial proportions of women for each of the six prioritized services. Preference for primary care colocation was strongly associated with higher importance ratings for designated women’s mental health services. For specific types of services, race, ethnicity, sexual orientation, PTSD symptoms, and psychiatric comorbidity were also associated with higher importance ratings for designated women’s services.

Conclusions—Female veterans are a diverse population whose needs and preferences for mental health services vary along demographic and clinical factors. These stakeholder perspectives can help prioritize structural and clinical aspects of designated women’s mental health care in the VHA.

Implementation of patient-centered behavioral health services in primary care is improving the quality of mental health care in the Veterans Health Administration (VHA) (1) and may be especially effective in improving the quality of care for underrepresented populations (2–5). For example, a patient-centered approach helps address the unique mental health needs of women in VHA care, who constitute only 6% of all veteran users in a predominantly male system (6,7) but who are one of the most rapidly growing subpopulations of patients within the VHA (8). Historically, women utilizing VHA services have faced gender disparities in access to and quality of primary care, preventive services, and mental health care (9,10), which led to the implementation of comprehensive primary care for female veterans across the system (11,12). Mental health services for women still vary across the VHA, without consensus on the need for, or organization of, services specialized for women (13). Over half of VHA facilities have some type of designated women’s mental health services or settings, such as specialized women’s primary care and behavioral health teams, specialty women’s mental health clinics, or designated providers for women in specialty mental health settings (14). In efforts to continue to improve services to female veterans, obtaining data concerning women’s needs and priorities is essential to guide the implementation of patient-centered behavioral health services.

Behavioral health care is especially important to the care of women in the VHA. Compared with male veterans, female veterans are more likely to suffer from a mental health condition as well as comorbid chronic general medical conditions (15). When screened by their VHA providers, nearly one-quarter of women reported sexual trauma during military service, which is associated with increased risk of a range of general health and mental health conditions (16,17). Military experiences, comorbid health conditions, or demographic characteristics may influence women’s perspectives on health care, including preferences for mental health services and settings that are specifically designated for women. Knowledge of priorities and treatment needs of veteran patients who are women is important to guide patient-centered implementation of mental health services designated for women.

This study used the VA Women’s Health Practice-Based Research Network (WH-PBRN) (18) to identify a subset of female veteran primary care users who are potential stakeholders for mental health services and to quantify their priorities for mental health services. In a

cross-sectional survey, we identified these female veteran stakeholders from a VHA primary care population by assessing perceived or observed need for mental health services. These women ranked priorities for mental health care among a wide range of possible services. We then quantified the importance of designated women's services specific to each of the mental health services that emerged as key priorities. Given that female veterans are a diverse population whose needs and preferences vary, we examined the associations of demographic and clinical factors with the importance of having services designated for women. In an effort to further inform the implementation of women's mental health services, we also examined associations with relevant treatment preferences, including preferences for colocation of mental health services in primary care and the acceptability of tele-mental health modalities for obtaining specialized mental health services for women. Taken together, these stakeholder perspectives can help in prioritizing the structural and clinical aspects of designated women's mental health care in the VHA.

METHODS

This study was a multisite cross-sectional survey of 515 female veterans using VHA primary care services. The project served as an Implementation Evaluation Project to demonstrate the feasibility of conducting multisite research through the WH-PBRN (18). Data were collected at four diverse PBRN sites (Palo Alto and Los Angeles, California; Iowa City, Iowa; and Durham, North Carolina) between April and November 2012. This study was approved by the U.S. Department of Veterans Affairs (VA) Central Institutional Review Board.

Recruitment and Sample

Potentially eligible women were identified from VA administrative data available in the National Patient Care Database (NPCD) (19). Selection criteria included the following characteristics: age \geq 18, veteran status, two or more VA primary care visits in fiscal year (FY) 2011 at one of the four WH-PBRN sites, and no active diagnosis of dementia or psychosis in FY 2011. Women who met these criteria (N=3,129) were mailed a brief study description informing them of possible contact along with a prepaid opt-out letter, and they were recruited sequentially over eight months at primary care visits. Recruitment was stratified on median past-year primary care utilization (four visits) to limit bias toward high utilizers. Exclusion criteria were limited to marked inability to participate because of severe illness or impairment (such as acute suicidal ideation or alterations in consciousness) at the time of the medical visit. Participants provided verbal informed consent to trained, female WH-PBRN staff in a private office. On study completion, participants were given a beverage mug imprinted with the WH-PBRN logo as a thank you gift.

Of the 687 eligible women who were contacted for recruitment, 75% (N=515) participated in the study. Compared with nonparticipants, participants were more likely to be white (70% versus 54%, $\chi^2=33.3$, $df=2$, $p<.001$) but did not differ in age, the presence of a past-year mental diagnosis, or having had a past-year mental health visit.

Measures

Mental health utilization and diagnoses were abstracted from utilization records in the NPCD (19). Axis I mental conditions were categorized from *ICD-9* codes according to prior research that used the Agency for Healthcare Research and Quality Clinical Classifications Software framework (20), with diagnoses recorded at two or more past-year encounters (21). Comorbid mental illness was defined as mental diagnoses in two or more categories.

Participants completed a brief survey with WH-PBRN staff that assessed demographic and military service characteristics and mental health need. Perceived mental health need was defined according to prior research (22) with an item that queried whether a woman had “wanted (or needed) help with personal or family problems from a mental health professional, such as a psychologist, psychiatrist, counselor, social worker, or therapist” in the past year. Observed need was defined as a positive response to one or more of the mental health screens and survey items regarding psychological distress described next.

Sleep quality was measured with item 6 of the Pittsburgh Sleep Quality Index (PSQI) (23): “During the past month, how would you rate your sleep quality overall?” Poor sleep quality was defined as ratings of “fairly bad” or “very bad.” Pain was coded positively if the two items of the bodily pain subscale of the 36-Item Short Form (pain in the past month and pain interference with work) (24) were rated as moderately or greater. Smoking frequency was assessed with the Fagerström Test for Nicotine Dependence (25). Smokers reporting any interest in quitting or reducing smoking were considered to have potential need for treatment. Alcohol misuse was screened with the Alcohol Use Disorders Identification Test (26), where a score ≥ 3 indicates hazardous drinking. Scores ≥ 2 on the Diagnostic Interview Schedule–Drug Disorder Screener (27) were used to identify potential drug misuse. The Patient Health Questionnaire eating disorder module (PHQ-ED) (28) was used to identify bulimia nervosa symptoms (binge eating and purging behaviors twice per week for three months) and binge eating disorder symptoms (item on binge eating without purging behaviors). Items 3a (anxiety attack) and 5a (anxiety and worry) of the PHQ (29) were used to screen for panic and generalized anxiety disorder. Depression was identified as a score ≥ 3 on the two-item depression screen of the PHQ (PHQ-2) (30). Posttraumatic stress disorder (PTSD) screening used a cut-off score of 3 on the Primary Care PTSD screen (31). Any positive item on the HARK (Humiliation, Afraid, Rape, Kick [32]) screen was used to identify intimate partner violence. Military sexual trauma was indicated if scores were greater than 7 on the MST subscale of the Deployment Risk and Resilience Inventory (33). Satisfaction with sexual functioning was evaluated with item 5 from the Female Sexual Function Index (17), “How satisfied have you been with your overall sexual life?” A score of 2, “moderately dissatisfied,” or 1, “very dissatisfied,” indicated potential need.

Relationship distress, parenting distress, and caregiver distress were globally assessed with a 5-point Likert scale. Each item queried, “In the past month, how much have you felt overwhelmed or upset by ...?” Responses to any of these items that were rated 3, “about half the time,” or greater were coded as a potential need for services.

After completion of the survey, participants engaged in a modified card-sorting activity facilitated by the interviewer. Participants were given 15 cards describing a wide range of

mental health services. Each card named a specific type of mental health service on one side, and the other side provided a brief description of the symptoms addressed by that service and common interventions provided in that service context. Text on the cards was developed from standard VHA patient education materials and revised with a modified Delphi process with input from primary care and mental health providers who had expertise in care for female veterans.

The services described were for treatment of depression, PTSD, military sexual trauma, eating disorders, smoking cessation, intimate partner violence, parenting support, family therapy, couples counseling, sexual functioning and intimacy, substance misuse, weight management, coping with chronic general medical conditions, physical pain, and sleep problems. Participants ranked up to five current treatment priorities. For each service selected as a priority, participants responded to questions about current and past-year utilization and rated the importance of several characteristics using a 5-point Likert scale, such as services designated for women (“a setting specifically for women”), primary care colocation (“in the clinic where you receive your primary care, as opposed to a specialized mental health clinic”), and willingness to receive tele-mental health services in order to obtain specialized women’s services.

Data Analysis

Stata, version 10 (34), was used for statistical analyses. Frequency distributions were calculated for priority ratings for mental health services and for importance ratings for service characteristics. Odds of higher importance ratings (rated from 1 to 5, with 5 indicating most important) for designated women’s services were modeled with ordered logit regression models as a function of demographic factors; deployment in Operations Enduring Freedom, Iraqi Freedom, or New Dawn (OEF/OIF/OND); clinical characteristics, on the basis of screens for military sexual trauma, PTSD, depression and alcohol misuse; and other importance ratings (35). Acceptability of tele-mental health services and importance of primary care colocation were dichotomized as covariates. Models were also calculated with a random coefficient to account for site clustering, but results were identical to the logit regressions and are not presented here.

RESULTS

A total of 515 women completed the survey. A large majority (94%) of the sample met this definition, and all subsequent analyses were focused on this stakeholder group (N=484). Table 1 describes their demographic and service characteristics. In this population, stakeholders for VHA mental health services were defined as female primary care users with a perceived or observed need for mental health services.

Almost all female veteran stakeholders (98%, N=476) prioritized at least one of the 15 mental health services as important, and the modal number of services identified as important was five, at 81% (N=394) of stakeholders. Figure 1 illustrates the number of women who prioritized each of the 15 services. Six services were ranked most frequently and emerged as priorities: depression, pain management, coping with chronic medical conditions, sleep disturbance, weight management, and PTSD. A majority of the veteran

stakeholders (98%, N=473) selected at least one of these six services as important, and 80% (N=386) selected at least three of the six services as important. A majority of women who prioritized each of these six services reported that they either had used this type of service in the past year or were quite a bit or extremely likely to use this type of service within the next six months (ranging from 62% [N=155] for weight management to 96% [N=258] for coping with chronic medical conditions).

Figure 2 displays women's importance ratings for designated women's services for the six most prioritized mental health services. Importance ratings for each service were bimodally distributed, where substantial proportions of importance ratings for designated women's services were either "not at all" important or "extremely" important. Services for PTSD, depression, and coping with chronic medical conditions were most likely to be rated as extremely important, and services for pain, sleep, and weight management were most frequently rated as not at all important.

Predictors of ratings of higher importance for each of the six mental health services are shown in Table 2. For all of these services, preference for primary care colocation was strongly associated with higher importance ratings for designated women's services, with adjusted odds of higher importance ratings ranging from 4.80 to 6.40. For treatment of depression, pain management, sleep problems, and PTSD, black women reported higher importance ratings for designated women's services. For sleep problems, minority race and Hispanic ethnicity were associated with higher importance ratings for designated women's services. For pain management and traumatic stress, lesbian or bisexual sexual orientation was associated with higher importance ratings for women's services. For all services except pain management and weight management, PTSD symptoms were significantly associated with higher importance ratings for designated women's services. For traumatic stress treatment, military sexual trauma was associated with higher importance ratings for women's services, where OEF/OIF/OND deployment was associated lower importance ratings. Finally, for pain management and traumatic stress treatment, psychiatric comorbidity was associated with assigning significantly higher importance to having designated women's services.

DISCUSSION

Female veteran stakeholders for VHA mental health services expressed distinct priorities for mental health services designated specifically for women. Mental health services for women would most broadly address population needs by focusing on depression, pain management, coping with chronic general medical conditions, sleep disturbance, weight management, and PTSD. Although designated women's services were most often cited as not at all important for pain management, sleep problems, and weight management, designated women's mental health services even among these services were rated as extremely important to substantial proportions of women. These data suggest that many women can be treated in gender-integrated mental health settings, but when gender-specialized services are preferred, these preferences are likely to be strong.

Nearly one-third of primary care users in the study were diagnosed as having a comorbid psychiatric disorder, and a large majority of the female veteran stakeholder sample identified multiple mental health treatment priorities. More research is particularly needed that addresses gender-related issues in the treatment of pain and coping with chronic medical conditions. Preferences for and availability of designated women's services may be important aspects of shared decisions between veteran and provider in the process of addressing competing mental health treatment priorities for these women.

Our data provide some preliminary guidance for these decisions. Strong preferences for primary care colocation of mental health services was the most consistent and robust correlate of preferences for designated women's mental health services. These results suggest that women's primary care clinics, which are available at many VHA facilities, are a strategic setting to enhance implementation of women's mental health services through integration of primary care and mental health care (36). These data are also consistent with prior research that has found that designated women's primary care services are associated with greater satisfaction among female veterans (37,38), as well as higher ratings of patient centeredness, such as patient-provider communication, provider's interest in mental health, provider's expertise with women, and shared decision making (39). Future research should examine whether meeting these preferences is similarly associated with greater engagement and satisfaction with mental health services.

Minority race and sexual orientation were associated with assigning greater importance to having designated women's services. Veterans who are underrepresented in gender, race, or sexual orientation in the health care system may differ from the majority in beliefs about belongingness, stigma, or therapist-client match (40,41) and may perceive that specialized services will better address unique health care needs. Collaborative care approaches that specifically target patient culture, needs, and preferences for health services have been shown to reduce racial disparities in mental health care (42). More research is needed to assess whether addressing other demographic and cultural factors, such as gender, could similarly improve treatment engagement or outcomes.

PTSD treatment bears further consideration for provision of women's services. A positive PTSD screen was associated with greater importance of designated women's services among the stakeholders seeking services for coping with depression, chronic medical problems, and sleep disturbance. Designated women's services may benefit from incorporating trauma-informed care for these conditions. For PTSD treatment, the value of women-designated services may depend on the source of the trauma. Military sexual trauma was associated with an increased importance, and OEF/OIF/OND deployment with decreased importance, of designated women's services. These results are consistent with anecdotal data across the system suggesting that women have strong preferences for designated women's services for PTSD from military sexual trauma. On the other hand, women are increasingly returning from recent deployments with combat-related PTSD, and they may feel more comfortable in mixed-gender treatment settings to be among more veterans with similar combat exposure experiences than would be available with women's-only services.

This study should be considered in light of several important limitations. The initial four PBRN sites used for this study included only four VA facilities with strong women-specific services. Prior positive experiences could have influenced importance ratings. Although these facilities were diverse in size and rurality, national studies are needed to fully represent geographic variation in preferences. In addition, this study focused on only the most frequently prioritized services. Less common gender-related clinical issues, such as intimate partner violence or eating disorders, may be associated with particularly strong preferences for women-specific services.

CONCLUSIONS

This study provides a first description of female veterans' priorities and preferences for mental health care. Designated women's mental health services are not preferred by all female VHA users but may be especially important for specific subpopulations or conditions. Ideally, the importance of designated women's services is an issue discussed collaboratively between patient and provider as part of care coordination and management of mental diagnoses. Results also highlight the importance of primary care–mental health integration addressing depression and PTSD in women's primary care clinics. This study used a PBRN to engage female veteran stakeholders in research that will inform implementation of mental health services. Continued focus on stakeholder engagement and patient-centered evolution of women's mental health services will serve the VA's mission to promote access to care and patient satisfaction among female veterans.

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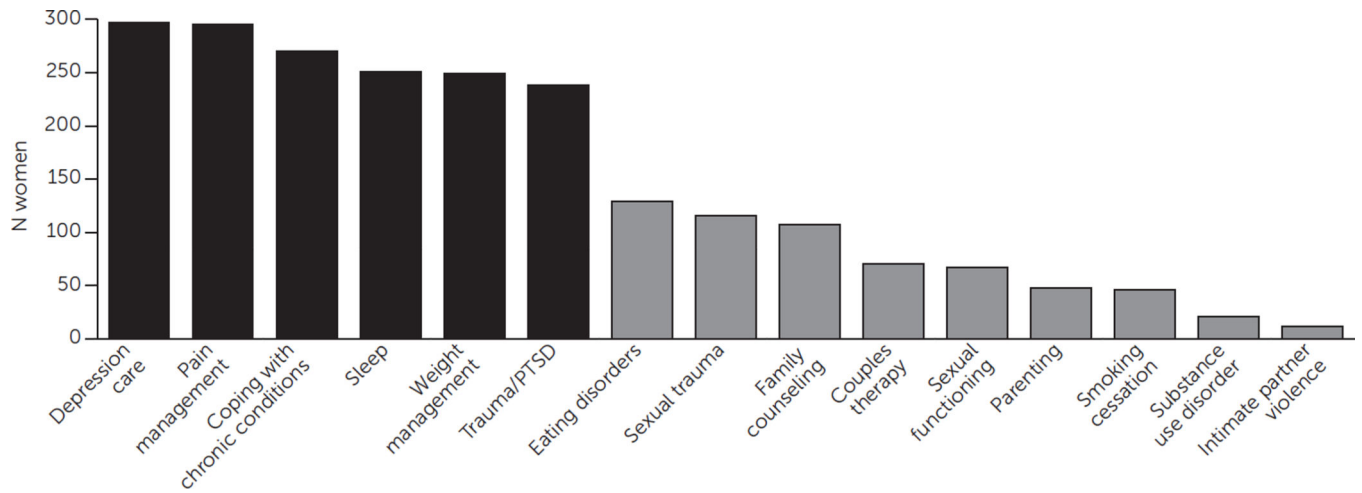


FIGURE 1.
 Prioritized mental health services among 484 female veteran stakeholders^a
^aShaded bars indicate the top six prioritized services.

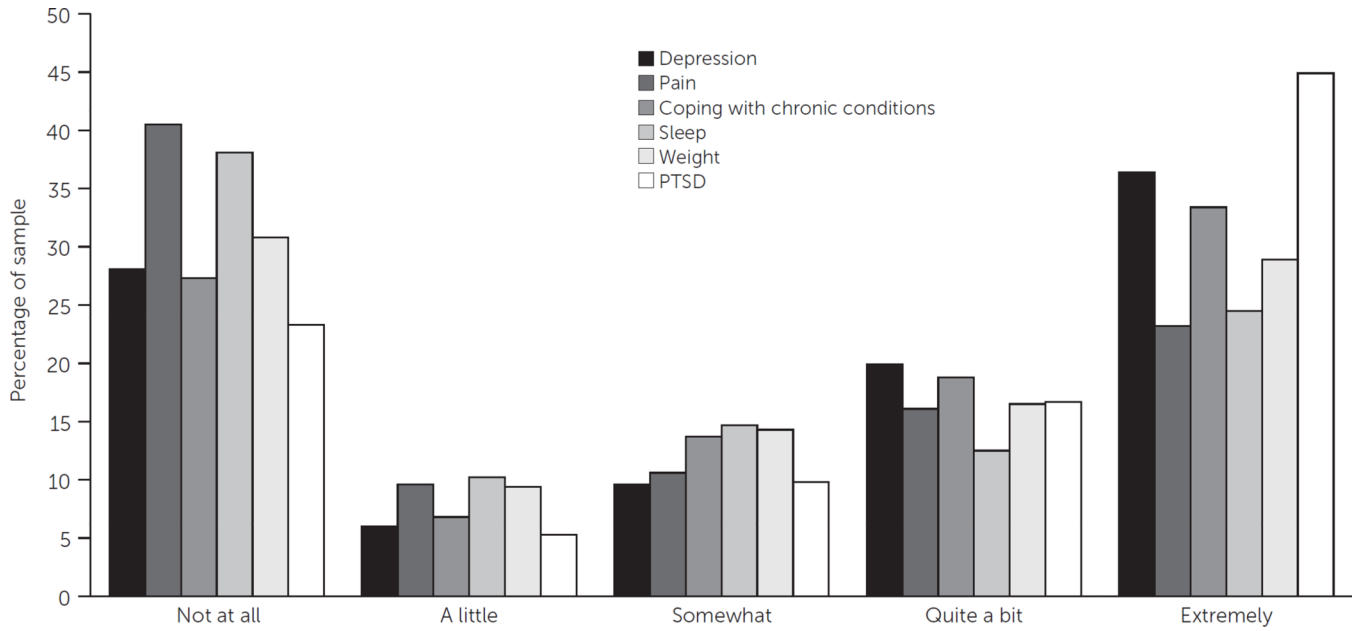


FIGURE 2. Importance of having mental health services designated specifically for women, by top six services prioritized by 484 female veterans

TABLE 1

Demographic characteristics of 484 female veteran stakeholders in mental health service provision

Variable	N	%
Age group		
18–44	135	28
45–64	295	61
65	54	12
Race ^a		
Caucasian	308	64
African American	114	24
Asian or other	59	12
Hispanic ethnicity ^a	49	10
Education		
Grade 12 or GED	38	8
College 1–3 years	267	55
College 4 years	108	22
Graduate or professional school	71	15
Marital status ^a		
Married or unmarried couple	186	38
Divorced, separated, or widowed	211	44
Never married	86	18
Sexual orientation ^a		
Heterosexual	458	89
LGB/not sure ^b	51	11
Children in the home	103	21
Employment ^a		
Employed	187	39
Unemployed	47	8
Out of labor force	120	25
Disabled	127	26
Military branch ^a		
Army	233	48
Navy	105	22
Air Force	94	19
Marines	30	6
Coast Guard, National Guard	16	3
Service era		
Pre-Vietnam war	35	7
Vietnam war	124	26
Post-Vietnam war	221	46
Persian Gulf war	238	49

Variable	N	%
OEF/OIF/OND service ^c	86	18
Past-year psychiatric diagnosis		
No	202	42
1 diagnosis	120	25
>1 diagnosis (comorbidity)	162	33
Past-year mental health visit	259	54

^aThree participants were missing data for race, 4 missing for ethnicity, 1 missing for marital status, 5 missing for sexual orientation, 3 missing for employment, and 1 missing for military branch.

^bLGB, lesbian, gay, or bisexual

^cService in Operation Enduring Freedom, Operation Iraqi Freedom, or Operation New Dawn

Predictors that female veterans would assign higher importance to receiving their top six mental health services as designated women’s mental health services^a

TABLE 2

Characteristic	Depression care (N=298)		Pain management (N=296)		Coping with chronic medical conditions (N=271)		Sleep (N=252)		Weight management (N=249)		Traumatic stress or PTSD (N=239)	
	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI
Black (reference: white)	2.64	1.50–4.62	2.09	1.23–3.57	1.09	.62–1.90	2.33	1.30–4.20	1.16	.62–2.16	2.28	1.17–4.47
Asian or other (reference: white)	.86	.37–1.99	1.18	.51–2.77	1.37	.59–3.19	4.17	1.67–10.44	1.16	.51–2.68	1.32	.60–2.90
Hispanic ethnicity (reference: not Hispanic)	.48	.20–1.11	.59	.22–1.57	1.09	.41–2.87	4.04	1.33–12.34	1.19	.51–2.80	1.39	.61–3.17
Lesbian, gay, or bisexual (reference: heterosexual)	1.81	.92–3.55	2.41	1.12–5.17	1.29	.60–2.76	1.39	.67–2.90	1.67	.75–3.70	3.00	1.33–6.77
Age 45–64 (reference: 18–44)	.94	.54–1.62	1.41	.80–2.46	.96	.54–1.70	2.43	1.27–4.64	2.39	1.21–4.73	1.10	.60–2.02
Age 65 (reference: 18–44)	.52	.22–1.23	1.48	.63–3.48	.81	.34–1.88	1.29	.48–3.50	1.09	.43–2.79	.81	.28–2.35
Tele-mental health acceptable (reference: no)	1.11	.69–1.79	1.49	.92–2.40	.91	.56–1.48	1.15	.66–2.01	.66	.37–1.17	1.18	.69–1.99
Primary care colocation important (reference: no)	5.08	3.19–8.10	5.16	3.21–8.31	6.40	3.75–10.92	4.80	2.84–8.11	5.28	3.15–8.85	4.94	2.83–8.63
Positive PTSD screen (reference: no)	1.90	1.17–3.09	1.37	.82–2.31	1.88	1.06–3.34	2.64	1.49–4.67	1.06	.60–1.89	—	—
Military sexual trauma (reference: no)	1.13	.69–1.85	.88	.53–1.46	.95	.57–1.56	1.18	.69–2.03	1.11	.66–1.87	1.99	1.14–3.49
OEF/OIF/OND deployment (reference: no) ^b	.67	.36–1.22	.69	.35–1.37	1.00	.51–1.96	.84	.40–1.74	.73	.34–1.55	.51	.27–.98
Any mental disorder (reference: no diagnosis)	1.20	.67–2.14	1.62	.94–2.81	1.39	.77–2.51	.66	.35–1.23	.88	.49–1.58	1.70	.87–3.30
Psychiatric comorbidity (reference: no diagnosis)	1.25	.71–2.21	2.06	1.13–3.76	1.21	.66–2.25	1.10	.58–2.09	1.38	.75–2.54	2.18	1.17–4.06

^a All other variables in the model were used in adjusted odds ratios (AORs). AORs with 95% confidence intervals that do not include 1 are statistically significant at p<.05. Odds ratios for alcohol misuse and depression screens were not associated with importance ratings among any services and are not shown.

^b Deployment in Operation Enduring Freedom, Operation Iraqi Freedom, or Operation New Dawn.