A Prospective Study of Racial and Ethnic Variation in VA Psychotherapy Services for PTSD

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Objectives: To determine whether there are racial or ethnic disparities in receipt of U.S. Department of Veterans Affairs (VA) psychotherapy services for veterans with posttraumatic stress disorder (PTSD), the authors examined the odds of receipt of any psychotherapy and of individual psychotherapy among self-identified racial and ethnic groups for six months after individuals were diagnosed as having PTSD.

Methods: Data were from a national prospective cohort study of 6,884 veterans with PTSD. Patients with no mental health care in the prior year were surveyed immediately following receipt of a PTSD diagnosis. VA databases were used to determine mental health service use. Analyses controlled for treatment need, access to services, and treatment beliefs.

Results: Among veterans with PTSD initially seen in VA mental health treatment settings, Latino veterans were less likely than white veterans to receive any psychotherapy, after the analyses controlled for treatment need, access, and beliefs. Among those initially seen in mental health settings who received some psychotherapy services, Latinos, African Americans, and Asian/Pacific Islanders were less likely than white veterans to receive any individual therapy. These racial-ethnic differences in psychotherapy receipt were due to factors occurring between VA health care networks as well as factors occurring within networks. Drivers of disparities differed across racial and ethnic groups.

Conclusions: Inequity in psychotherapy services for some veterans from racial and ethnic minority groups with PTSD were due to factors operating both within and between health care networks.

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More than 500,000 veterans receive treatment for posttraumatic stress disorder (PTSD) in the U.S. Department of Veterans Affairs (VA) health care system. Both pharmacotherapy and psychotherapy services are available throughout the VA health care system to meet the clinical needs of this population (1,2). Among veterans newly diagnosed as having PTSD, approximately 40% initiate psychotherapy (3).

The VA provides a number of different psychotherapy services for veterans with PTSD—some are offered in a group format, whereas others are delivered only individually (1,4). Psychotherapy, particularly individual psychotherapy, is a time- and resource-intensive clinical service. One common strategy to maximize use of limited clinician resources is to provide psychotherapy in a group format. Although utilization of group psychotherapies allows health care systems to extend the reach of services to more patients, available evidence suggests that treatment effect sizes are significantly smaller for group-formatted therapies for PTSD compared with similarly focused individual psychotherapies (4–6).

Given this nonequivalence, providers must make cost-benefit determinations regarding which patients to triage to the more resource-intensive individual psychotherapy rather than to group therapy. Although there have been no direct evaluations of VA PTSD providers' decision-making processes regarding therapy referral decisions, qualitative studies of referrals to the (mostly individual) trauma-focused evidence-based psychotherapies have shown that providers are reluctant to refer patients to these treatments if they do not deem the patients to be appropriate candidates for psychotherapy or if they do not consider the patients to be "ready" for the treatment (7–9). The concept of readiness or appropriateness for psychotherapy is not new or unique to evidence-based manualized psychotherapies; mental health providers commonly make determinations about patient appropriateness for psychotherapy (9–11).

Although conceptually fuzzy, readiness is considered a "pivotal factor" for the potential success of a course of psychotherapy, and it involves careful selection of "suitable" candidates (8,10). In VA PTSD residential treatment programs, determinations of appropriateness or readiness for exposure-based treatments appear to rely on providers' impressions of patients' motivations, cognitive limitations, or other mental health symptomatology (7), even though there is no evidence that such factors are associated with treatment effectiveness (12).

However, providers' impressions of readiness may be influenced by stereotypes—including racial and ethnic stereotypes—or

influenced by implicit racial biases, and these stereotypes or biases may contribute to decisions about mental health treatment assignment (13,14). Racial and ethnic health care disparities are more common in clinically ambiguous situations in which stereotypes and implicit biases can influence the clinical decision-making process (13–16). For example, providers' assumptions regarding "medical cooperativeness" or need for pain medications are influenced by patient race (17,18). Assessments of patient appropriateness or readiness for psychotherapy or for individual psychotherapy may be similarly influenced by racial and ethnic stereotyping or implicit biases.

Available evidence suggests the presence of possible racial-ethnic disparities in VA psychotherapy services. One study of psychiatric patients from a VA administrative database found that black veterans were less likely to receive any psychotherapy, and if they did, they were less likely to receive individual therapy compared with non-Hispanic white (hereafter called white) veterans (2). Similarly, a single-site VA PTSD study found a racial difference in referrals for individual psychotherapy versus group psychotherapy (19). Because neither study could control for treatment need, it is unclear whether these differences in care observed among racial-ethnic groups reflected actual disparities or differences in treatment need.

If veterans of minority race or ethnicity were less likely to be referred for psychotherapy, if they received fewer therapy services, or if they were referred to only group therapy because they had less treatment need or less positive attitudes about psychotherapy, the variations in care would not reflect a treatment disparity as defined by the Institute of Medicine (16). If, however, providers make psychotherapy treatment decisions on the basis of nonclinical factors, we would expect the percentage of veterans from racial or ethnic minority groups who receive any psychotherapy services or any individual psychotherapy to be smaller compared with the percentage of white veterans with comparable treatment need.

Health care disparities may occur because patients of different races and ethnicities treated in the same health care system receive different types or quality of treatments unrelated to variation in clinical need ("within-network" sources of disparities [20]). Within-network sources of disparities include those attributable to such things as biases in provider behavior, clinic processes, or access factors operating within a given health care system that have a differential impact on racial or ethnic groups (20,21). Disparities may also occur because patients of a particular racial or ethnic group disproportionately receive care in lower-performing networks or facilities ("between-network" sources of disparities [20]). If disparities in PTSD psychotherapy services exist, determining whether they occur within or between health care networks is a necessary starting point to develop appropriate interventions (20).

We investigated whether veterans with PTSD who were members of racial or ethnic minority groups were equally as likely as whites to receive psychotherapy given comparable treatment need, access to care, and beliefs about psychotherapy. Further, among those who received any psychotherapy services, we investigated whether veterans from racial or ethnic minority groups were equally as likely as whites to receive more resource-intensive individual psychotherapy services. As detailed below, we examined possible drivers of variations in psychotherapy receipt among racial and ethnic groups.

METHODS

Overview

We conducted a prospective national cohort study to examine receipt of any group and individual psychotherapy in a national sample of veterans diagnosed as having PTSD. The larger study from which these analyses stem has been described previously (3,22). We identified veterans who had received a diagnosis of PTSD and who were at the beginning of a possible episode of care, collected survey data from them, and followed them for six months to assess receipt of VA psychotherapy services.

Participants

As detailed elsewhere, our sample consisted of veterans diagnosed as having PTSD (*ICD-9* code 309.81) during an outpatient visit at any VA facility from June 2008 to July 2009 (3,22). Veterans who received antidepressants or antipsychotics or who had any mental health diagnoses or appointments except for substance misuse in the year before the PTSD diagnosis were excluded, as were those with moderate to severe cognitive disorders or schizophrenia spectrum disorders or with no available mailing address. The study was approved by the local VA institutional review board.

To examine possible group differences, we sampled all women, Latino men, and men of any minority race other than black. White men, black men, and men of unknown race were randomly sampled by using sampling fractions derived from expected rates of group membership and findings from prior work (22). Data on outpatient encounters are uploaded daily, and SAS files of encounter data are updated every two weeks; new cases were identified with each update. The final sample included 6,884 patients, of whom 3,166 (46%) had at least one psychotherapy appointment in the six-month follow-up period. [A flowchart illustrating the selection of the final sample is available as an online supplement to this article.]

Procedures

Surveys. We surveyed veterans immediately following the appointment at which they were given a diagnosis of PTSD by using a modified Dillman approach (23). First, we sent an introductory explanatory letter, followed by a packet including a cover letter, survey, and a $10 cash incentive. Nonresponders were sent an additional cover letter and

survey packet after ten days. Persistent nonresponders were sent a third cover letter and survey packet via Federal Express.

Study outcomes. Current Procedural Terminology codes in administrative databases were used to identify psychotherapy appointments during the follow-up period and to classify them as group or individual therapy. Patients who had at least one appointment for either individual or group psychotherapy provided by a mental health clinician were considered to have received some psychotherapy. Patients were then further classified as having received any individual psychotherapy or group therapy only. Those who received both group and individual therapy were categorized as having received individual psychotherapy.

Explanatory Variables

Demographic variables. Gender and age were abstracted from the VA National Patient Care Database (NPCD). Race-ethnicity was assessed by the survey, which allowed for multiple endorsements. Patients were classified as white, African American/black, Native American/Alaskan, Asian/Pacific Islander (including Native Hawaiian), and Latino/Hispanic. Few respondents endorsed multiple races or ethnicities with two exceptions. Many who endorsed Latino or Native American also endorsed white, and they were included in the Latino and Native American groups, respectively.

Treatment need variables. PTSD symptom severity was assessed by using the PTSD Checklist–Military version (PCL-M) (24) (sample α=.94). Mental health quality of life and physical health quality of life were assessed by using the Veterans 12-Item Short-Form Health Survey (vSF-12) mental health components score (MCS) and physical health components scores (PCS) (25,26). Perceived need for mental health care was assessed by patients' dichotomized agreement or disagreement with the item, "At this time I feel I need help to deal with emotional problems, PTSD, and/or stress in my life" (3).

Access variables. Treatment setting where PTSD was diagnosed (mental health clinic or primary care clinic) and drive time from a patient's residence to the nearest VA facility were abstracted from VA databases. Recent deployment (Operation Enduring Freedom [OEF]/Operation Iraqi Freedom [OIF] status) and anticipated access barriers were assessed by the survey, as previously described (3,22). Because the VA has performance measures for OEF/OIF veterans' mental health service access, we included OEF/OIF status as an access factor. Anticipated access barriers were determined by a survey checklist including appointment times, cost, travel distance, reliability of transportation, care of dependents, and lack of knowledge about how to obtain treatment. Endorsements of multiple barriers were permitted, and results were scored as 0, 1, or $\geq$2.

Beliefs about psychotherapy. Psychotherapy beliefs were assessed by using an abbreviated version of the Beliefs About Psychotherapy Scale, which assesses attitudes about the use of psychotherapy to address emotional problems (sample α=.67) (27). The scale has been used in veteran samples, has good psychometric properties and concurrent validity, is sensitive to cultural differences, and predicts service use (3,27).

Health care network. The VA is organized into 21 regional Veterans Integrated Service Networks (VISNs), which share geography, administrative oversight, and resources. The VISN of the facility where the PTSD diagnosis occurred was abstracted from the NPCD. In analytic models, VISN was used as a proxy for health care network.

Data Analyses

First, we used a Markov chain Monte Carlo multiple imputation to impute values of missing dichotomous, ordinal, and interval survey items. Ten different imputed values were constructed for each missing item, creating ten complete imputed data sets. For each of these data sets, we constructed multinomial logistic regression models for the remaining categorical variables, using all other survey items as predictors to impute values for missing items. We then completed parallel sets of analyses, applying the following methods to each of the ten imputed data sets, and then aggregated results by using standard methods for multiple imputation.

To examine possible variations among racial-ethnic groups in receipt of any psychotherapy, we used the entire surveyed sample to construct hierarchical logistic regression models for the receipt of any psychotherapy versus no psychotherapy. To evaluate possible drivers of variation in psychotherapy receipt, we entered explanatory factors into analytic models in four sequential blocks to determine if the addition of each block substantially changed the estimated odds of psychotherapy receipt across racial-ethnic groups while controlling for factors entered in previous blocks. Block 1 included race-ethnicity, gender, age, and treatment need variables. Block 2 included access variables and an interaction term for race-ethnicity $\times$ treatment setting (mental health specialty versus primary care). The interaction term was included because the likelihood of receiving psychotherapy differs by clinical setting and patients of various racial-ethnic groups access mental health services unequally across settings (3,28). The Beliefs About Psychotherapy Scale and VISN comprised blocks 3 and 4, respectively. Block 3 added the Beliefs about Psychotherapy Scale to the model, and Block 4 added VISN.

These analyses were weighted for survey inclusion, with bootstrapped estimation of standard errors, and adjusted for survey nonresponse. To derive adjusted weights, we developed a logistic regression model for survey response by using the administrative data as covariates, stratified the population by the estimated propensities, and adjusted the

TABLE 1. Characteristics of 6,884 veterans diagnosed as having PTSD during an outpatient visit to any VA facility, June 2008–July 2009[a]

	Total (N=6,884)		Received psychotherapy (N=3,166)	
Predictor	N	%	N	%
Race-ethnicity				
Native American	653	9.5	275	8.6
African American/black	1,393	20.2	675	21.3
Asian/Pacific Islander	345	5.0	145	4.6
Latino/Hispanic	1,493	21.7	716	22.6
White	3,000	43.6	1,355	42.8
Women	1,069	15.5	578	18.3
Men	5,804	84.3	2,585	81.6
OEF/OIF veteran[b]	1,921	27.9	1,066	33.7
Other era veteran	4,935	71.7	2,089	66.0
Primary care setting	3,670	53.3	1,065	33.7
Mental health setting	3,214	46.7	2,101	66.4
Anticipated access barriers[c]				
0	3,251	47.2	1,499	47.3
1	1,803	26.2	852	26.9
≥2	1,830	26.6	815	25.7
Perceived need for care				
Yes	5,395	78.4	2,823	89.2
No	1,331	19.3	287	9.1
	M	SD	M	SD
Age	51.7	16.2	49.2	15.8
vSF-12 MCS score[d]	33.4	11.7	31.2	11.0
vSF-12 PCS score[d]	36.34	11.3	37.0	11.3
PTSD Checklist score[e]	57.6	15.0	60.3	13.7
Beliefs About Therapy Scale score[f]	12.2	1.9	12.4	1.8
Drive time (minutes)[g]	39.4	51.2	38.0	48.4

[a] Percentages may not add to 100 because of rounding and missing items. PTSD, posttraumatic stress disorder. VA, U.S. Department of Veterans Affairs
[b] Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF)
[c] Choice of appointment times, cost, travel distance, reliability of transportation, care of dependents, and lack of knowledge about how to obtain treatment.
[d] Veterans 12-Item Short-Form Health Survey (vSF-12) mental health components score (MCS) and physical health components score (PCS). Possible scores range from 0 to 100, with higher scores indicating better physical health quality of life (PCS) and better mental health quality of life (MCS).
[e] Possible scores range from 17 to 85, with higher scores reflecting more PTSD symptoms.
[f] Possible scores range from 5 to 20, with higher scores reflecting more positive attitudes.
[g] From patient's residence to the nearest VA facility

original sample inclusion probabilities by the response rates within these strata. Given the exploratory nature of the research questions, we report confidence intervals for odds ratios but did not adjust p values for multiple comparisons (29,30).

To examine possible racial-ethnic variation in the odds of receiving individual psychotherapy, we restricted the analysis to those who received at least one psychotherapy appointment for either format. We implemented a weighted hierarchical analysis with multiple imputation and adjustment of sampling weights similar to that described above.

RESULTS

Item nonresponse was negligible, even for survey-derived data. The scale most likely to have missing data, the Beliefs About Psychotherapy Scale, was complete for 96% (N=6,616) of the sample; the PCL-M and vSF-12 MCS were complete for 99% (N=6,858). [Survey response rates are available in the online supplement.]

Although about half of patients were diagnosed as having PTSD in a primary care setting, the percentage of patients who received any psychotherapy services was approximately twice as high among patients who were diagnosed in a mental health setting (Table 1). Despite greater availability of psychotherapy services in mental health settings, Latino veterans who were diagnosed in a mental health setting were less likely than whites to receive any psychotherapy, and this difference was not attributable to treatment need, beliefs about psychotherapy, or problems with access (Table 2). The rate of psychotherapy receipt for all veterans varied by health care network (range 35%–58.9%; mean±SD=46.6%±7.1%). Health care network factors accounted for much, but not all, of the reduced odds of psychotherapy receipt among Latino veterans (Table 2).

Among patients who received any psychotherapy, there were also disparities in receipt of individual versus group psychotherapy, primarily—although not exclusively—among patients who were initially seen in mental health settings. Black and Latino veterans who received psychotherapy were less likely to receive individual therapy compared with white veterans (Table 3). Although health care network factors accounted for a portion of this racial-ethnic variation, within-network factors were more contributory, particularly for black veterans.

Nonpropensity-adjusted imputed models showed the same pattern of results, with one exception—the elevated rate of individual psychotherapy among Native Americans seen in primary care was greatly attenuated and was no longer significant (data not shown).

DISCUSSION

Using data from a large, prospective national cohort study, we found that self-identified Native American, black, Asian/Pacific Islander, and white veterans had comparable odds of psychotherapy receipt in the six months after a PTSD diagnosis. However, Latino veterans had lower odds than white veterans of psychotherapy receipt in mental health settings. Because the lower odds were not attributable to group differences in treatment need, beliefs about psychotherapy, or access barriers, they reflect a treatment disparity. In large part, this disparity was due to the health care networks in which Latino veterans are more likely to seek care; those networks provide fewer psychotherapy services for their PTSD patients overall.

Among veterans who had any psychotherapy, the odds of receiving individual psychotherapy, particularly in mental

TABLE 2. Predictors of receipt of any psychotherapy among 6,884 veterans diagnosed as having PTSD during an outpatient visit to any VA facility, June 2008–July 2009[a]

	Block 1: demographic characteristics and treatment need			Block 2: access factors			Block 3: therapy beliefs			Block 4: health care network		
Predictor	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p
Race-ethnicity (reference: white)												
Hispanic/Latino	.95	.80–1.14	ns									
Native American	.86	.65–1.15	ns									
African American/black	1.02	.87–1.21	ns									
Asian/Pacific Islander	.81	.60–1.08	ns									
Race-ethnicity × primary care setting (reference: white)												
Hispanic/Latino				1.12	.88–1.41	ns	1.11	.88–1.40	ns	1.16	.90–1.50	ns
Native American				.86	.58–1.26	ns	.84	.57–1.24	ns	.84	.57–1.24	ns
African American/black				1.16	.91–1.47	ns	1.13	.89–1.42	ns	1.17	.92–1.49	ns
Asian/Pacific Islander				.77	.54–1.09	ns	.77	.54–1.10	ns	.88	.61–1.27	ns
Race-ethnicity × mental health setting (reference: white)												
Hispanic/Latino				.73	.55–.97	<.05	.73	.55–.96	<.05	.76	.57–1.02	<.1
Native American				.98	.66–1.45	ns	.98	.66–1.46	ns	.99	.67–1.47	ns
African American/black				.88	.70–1.12	ns	.86	.68–1.10	ns	.91	.70–1.17	ns
Asian/Pacific Islander				.73	.45–1.18	ns	.72	.45–1.17	ns	.83	.50–1.37	ns

[a] Explanatory factors were entered into analytic models in four sequential blocks to determine if the addition of each block substantially changed the estimated odds of psychotherapy receipt across racial-ethnic groups. Block 1 included race-ethnicity, gender, age, PTSD Checklist score, Veterans 12-Item Short-Form Health Survey mental health components and physical health components scores, and perceived need for care. Block 2 included access variables (primary care versus mental health setting, drive time from patient's residence to the nearest VA facility, anticipated access barriers [appointment times, cost, travel distance, reliability of transportation, care of dependents, and lack of knowledge about how to obtain treatment], and Operation Enduring Freedom/Operation Iraqi Freedom status) and an interaction term for race-ethnicity × treatment setting (mental health specialty versus primary care). The Beliefs About Psychotherapy Scale and health care network comprised blocks 3 and 4, respectively. The Veterans Integrated Service Network of the facility where the PTSD diagnosis occurred was used as a proxy for health care network

health settings, were comparable for Native American and white veterans but were lower for both Latino and black veterans. These findings are largely consistent with those documented by others (2,19), and because they are not attributable to group differences in treatment need, beliefs, or access, they too reflect a treatment disparity. Estimates of receipt of individual therapy were also lower for Asian/Pacific Islander veterans compared with whites, but the difference did not reach statistical significance, probably because the number of veterans in this group is relatively small. Although health care network factors also contributed to these disparities, within-network factors were also important, particularly for black veterans. Contributions to disparities within networks did not seem to be due to differential treatment access across groups within a VISN. Because we have no information about how patients and their providers made decisions about which psychotherapy services to offer, we do not know what patient-provider factors might have contributed to the within-network disparities. Other studies of racial and ethnic disparities in mental health care have found patient-provider interaction factors to be important drivers of disparities, and these should be explored in future studies (31–33).

Although mental health treatment disparities in primary care settings have been reported in some non-VA settings (34), we observed disparities in psychotherapy service for veterans with PTSD primarily in mental health settings. In primary care settings, white veterans had greater rates of any psychotherapy than Native American or Asian/Pacific Islander veterans and greater rates of individual psychotherapy than Latino, black and Asian/Pacific Islander veterans; however, these differential rates were not statistically significant, most likely because of power limitations. The study design did not allow for identification of factors that could underlie the differences in disparities in VA primary care and mental health settings, and these factors should be examined in future studies.

This study had a number of strengths. We merged patient surveys and administrative databases in a large cohort of PTSD patients, used a prospective research design, and identified patient race and ethnicity by using self-report. There were also a number of limitations. We do not know what types of individual or group psychotherapy were offered to veterans or the quality of these therapies. For example, it is possible that evidence-based psychotherapies (35) may have been preferentially offered to one group more than another or offered in some health care systems and not others. Information about the quality and the type of psychotherapy services provided would help to determine the magnitude of the disparities. Because we do not have information about treatment outcome, we do not know if treatment gains were comparable despite variation in treatments received. It is also possible that veterans who

TABLE 3. Predictors of receipt of individual psychotherapy among 3,166 veterans who received any psychotherapy for PTSD during an outpatient visit to any VA facility, June 2008–July 2009[a]

	Block 1: demographic characteristics and treatment need			Block 2: access factors			Block 3: therapy beliefs			Block 4: health care network		
Predictor	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p
Race-ethnicity (reference: white)												
Hispanic/Latino	.63	.42–.95	<.05									
Native American	1.48	.79–2.79	ns									
African American/black	.49	.37–.73	<.01									
Asian/Pacific Islander	.62	.32–1.21	ns									
Race-ethnicity × primary care setting (reference: white)												
Hispanic/Latino				.62	.31–1.25	ns	.62	.31–1.25	ns	.77	.36–1.67	ns
Native American				3.05	1.14–8.17	<.05	3.14	1.17–8.44	<.05	4.04	1.33–12.33	<.05
African American/black				.65	.36–1.20	ns	.67	.36–1.23	ns	.92	.49–1.70	ns
Asian/Pacific Islander				.58	.01–51.64	ns	.59	.01–52.50	ns	.86	.01–130.71	ns
Race-ethnicity × mental health setting (reference: white)												
Hispanic/Latino				.61	.40–.94	<.05	.62	.40–.95	<.05	.84	.49–1.42	ns
Native American				1.20	.57–2.53	ns	1.21	.57–2.53	ns	1.46	.67–3.17	ns
African American/black				.43	.30–.67	<.001	.44	.29–.68	<.001	.61	.38–.97	<.05
Asian/Pacific Islander				.61	.30–1.23	ns	.61	.30–1.25	<.05	1.03	.49–2.18	ns

[a] Explanatory factors were entered into analytic models in four sequential blocks to determine if the addition of each block substantially changed the estimated odds of psychotherapy receipt across racial-ethnic groups. Block 1 included race-ethnicity, gender, age, PTSD Checklist score, Veterans 12-Item Short-Form Health Survey mental health components and physical health components scores, and perceived need for care. Block 2 included access variables (primary care versus mental health setting, drive time from patient's residence to the nearest VA facility, anticipated access barriers [appointment times, cost, travel distance, reliability of transportation, care of dependents, and lack of knowledge about how to obtain treatment], and Operation Enduring Freedom/Operation Iraqi Freedom status) and an interaction term for race-ethnicity × treatment setting (mental health specialty versus primary care). The Beliefs About Psychotherapy Scale and health care network comprised blocks 3 and 4, respectively. The Veterans Integrated Service Network of the facility where the PTSD diagnosis occurred was used as a proxy for health care network

identified as members of racial or ethnic minority groups were more likely to seek mental health care outside the VA, and we did not have information about non-VA health care use. However, available evidence suggests that veterans with PTSD prefer the VA for mental health care and that whites are more likely than other veterans to receive non-VA care, suggesting that these disparities may be even greater if non-VA care were known (36). Finally, although we conducted our analyses in such a way as to parse out contributions to disparities from within the health care network and between networks, it is always possible that factors not included in our models were significant drivers of disparities and that our results may have differed had these unknown factors been included.

CONCLUSIONS

Racial and ethnic disparities in psychotherapy services at mental health clinics for veterans diagnosed as having PTSD are complex and include network-level factors as well as factors operating within health care networks. Future studies should include evaluation of organizational factors, such as the availability of specific types of providers, and clinical process factors, such as informal provider determinations of patient appropriateness for psychotherapy, in their assessment of drivers of health care disparities. Health care inequities among racial and ethnic groups threaten VA's ability to fulfill its primary mission of "serving and honoring the men and women who are America's veterans." Broad policy initiatives currently underway aimed at increasing mental health service access may partially diminish disparities in PTSD treatment for some veterans from racial and ethnic minority groups, but these findings suggest that more actions will be needed to eliminate these disparities.

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