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Research Report

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Behavioral Health Care for National Guard and Reserve Service Members from the Military Health System

More than one-third of U.S. military personnel are members of the National Guard or reserves, collectively known as the reserve component (RC). More than 1 million RC personnel serve alongside the 1.3 million full-time military service members of the active component (AC) (Kapp and Torreon, 2020). The Military Health System (MHS) aims to improve the health of all military personnel, provide the highest quality of care possible, maintain low per capita health care costs, and support overall military readiness. These goals are the cornerstone of MHS efforts and are collectively known as the MHS Quadruple Aim (Defense Health Agency, 2013; Defense Manpower Data Center, 2019).

Behavioral health (BH) care is among the services that the MHS provides, but there has been little research to date on the quality of the BH care that RC service members receive or how their care compares with that of AC service members. This report provides a targeted comparative analysis of how BH care utilization and quality vary between the RC and AC and whether care quality differs for RC personnel as a function of their geographic remoteness from a military treatment facility (MTF). The findings may have implications for MHS policy and decisionmaking.

KEY FINDINGS

- Reserve-component (RC) and active-component (AC) personnel diagnosed with posttraumatic stress disorder (PTSD), depression, substance use disorder, or a combination of these conditions differed in their utilization of behavioral health care and the quality of care they received.
- RC personnel were more likely than AC personnel to receive behavioral health care from primary care and private-sector providers.
- RC personnel were less likely to receive psychotherapy and recommended medication follow-up visits.
- RC personnel were less likely to receive recommended initial care for PTSD and depression, as well as timely follow-up after a psychiatric hospitalization.
- There were differences between RC service members who lived in areas that were remote from military treatment facilities and those who did not, with remote RC service members being generally less likely to receive recommended behavioral health care.

Prior research has highlighted key demographic differences between RC and AC service members, including a greater tendency for RC personnel to be married and to live in rural areas (Brown et al., 2015). Perhaps most striking is that, over a five-year period from 2007 to 2012, approximately half of RC personnel and 10 percent of AC personnel resided for at least some time in areas that were geographically remote from *any kind* of BH care, defined as more than a 30-minute drive (Brown et al., 2015).[1] Historically, analyses have been sparse with respect to how geographic remoteness affects the quality of MHS care for BH conditions, a result of data availability limitations and the lack of a formal system to monitor access to care, among other factors. Beneficiaries who are geographically remote from an MHS care provider face unique challenges in accessing evidence-based care for BH conditions (Brown et al., 2015).

In support of MHS priorities to provide ready access to high-quality BH care, the U.S. Department of Defense (DoD) asked the RAND Corporation to evaluate the quality of BH care for service members with posttraumatic stress disorder (PTSD), depression, and substance use disorders (SUDs). A primary goal was to determine how the quality of care for these BH conditions varied between service members who lived in areas remote from an MTF and those in non-remote locations. In the resulting report (Hepner et al., 2021), we identified several important differences across three primary domains: initial care, medication management, and care transitions. On nearly every quality measure in these domains, remote service members were less likely to receive recommended care. Although RC personnel were included in the overall sample, the report did not explicitly examine differences between RC and AC personnel on these quality measures or whether differences between remote and non-remote service members in the larger MHS sample extended to remote and non-remote RC personnel.

However, we found that RC and AC service members differ in key ways that may relate to the quality of BH care they receive through the MHS. Such factors include demographics, changes in military status, cyclical changes in TRICARE Prime eligibility, and geographical location relative to MTFs. Given these potential differences between RC and AC personnel—as well as evidence that the quality of BH care delivered by the MHS differs according to service members' remoteness from an MTF and the lack of targeted analysis of the BH care that RC service members receive through the MHS—these issues warrant greater attention. Thus, we extended our research to support the MHS Quadruple Aim by describing utilization patterns and quality of BH care for RC personnel. We further explored the extent to which quality of care differs between the RC and AC and evaluated whether there are differences between RC personnel who live in areas that are remote versus non-remote from MTF care.

Abbreviations

AC	active component
AUD	alcohol use disorder
BH	behavioral health
DoD	U.S. Department of Defense
MHS	Military Health System
MTF	military treatment facility
OUD	opioid use disorder
PTSD	posttraumatic stress disorder
RC	reserve component
SUD	substance use disorder
VA	U.S. Department of Veterans Affairs

The Composition and Role of the Reserve Component

The RC comprises the Army National Guard, Air National Guard, Army Reserve, Navy Reserve, Marine Corps Reserve, Air Force Reserve, and Coast Guard Reserve. National Guard personnel are "citizen-soldiers," balancing dual military and civilian identities (Vest, 2013). Members of the reserves also balance dual roles but, unlike the National Guard, these personnel serve only on federal missions, for which they are activated routinely to support AC personnel and provide specialized skills (Kapp, 2020). RC personnel can pursue civilian careers while serving as part-time service members, typically training for one weekend per month plus two weeks in the summer (Hofscher et al., 2017), until they are called to active

duty when needed during times of war or national emergency. This means that, at any given time, there are both active and inactive RC members. In contrast, the AC is made up entirely of active full-time military personnel.

RC personnel accounted for approximately one-third of U.S. military forces deployed during Operations Enduring Freedom and Iraqi Freedom between 2001 and 2010 (Institute of Medicine, 2013a). As of May 2020, more than 45,000 National Guard and nearly 6,000 reserve service members had been activated to respond to the COVID-19 pandemic (DoD, 2020). Given the strategic importance of the RC within the U.S. armed forces and the need to maintain mission readiness, research on the unique BH needs of these personnel and the quality of care they receive is critical.

Behavioral Health Needs of Reserve-Component Service Members

PTSD, depression, and SUDs are prevalent behavioral health conditions among U.S. service members and a high priority for the MHS. However, past studies have reported considerable variation in estimated prevalence rates among RC personnel due to such factors as changing diagnostic definitions and differences in sample composition or methodology across studies (Cohen et al., 2015).

Findings have been mixed regarding estimated rates of PTSD among RC personnel (Fulton et al., 2015), but a comprehensive review of population-based studies indicated that pooled prevalence rates may be similar to those in the AC—approximately 10 percent among RC personnel and 9 percent among AC personnel (Cohen et al., 2015). These rates are consistent with recent findings from the 2018 DoD Health Related Behaviors Survey, which found that an estimated 9 percent of active-duty RC respondents had probable PTSD (Meadows et al., 2021).

It may be that RC and AC personnel have similar rates of PTSD immediately after returning from a deployment and that these rates increase among deactivated RC service members while remaining the same among AC personnel in subsequent years (Griffith, 2010; Thomas et al., 2010). Aggravating factors among RC personnel may include greater non-combat stressors in the deployment cycle due to competing demands and related interruptions in civilian work and family life (Griffith, 2010). Research also suggests that prevalence rates depend on military experiences. One study found higher rates of self-reported symptoms on the PTSD Checklist (Military version) (Bliese et al., 2008) among National Guard than among reserve personnel (Hofscher et al., 2017), while another found that overall rates of symptoms consistent with a diagnosis of PTSD differed by military service branch rather than membership in the National Guard versus reserve (Russell et al., 2015).

With respect to depression, there is wide variability in estimates of prevalence, but similar pooled prevalence rates have been observed between RC (6 percent) and AC (7 percent) personnel (Cohen et al., 2015). Relatedly, higher rates of suicidal ideation and suicide attempts have also been observed among previously deployed RC personnel than among previously deployed AC personnel (Lane et al., 2012). That said, there may be differences within the RC between the National Guard and reserves. Recent estimates of suicide mortality were highest for National Guard personnel, followed by AC personnel, with lower suicide mortality among reserve personnel (Tucker, Smolenski, and Kennedy, 2019).

RC populations have also had high rates of alcohol use disorder (AUD). A meta-analysis of prevalence estimates revealed that the pooled prevalence for AUD was significantly higher in the RC (15 percent) than in the AC (12 percent) (Cohen et al., 2015). Similarly, active-duty RC service members reported using substances other than alcohol in the year prior to the 2018 DoD Health Related Behaviors Survey at a significantly higher rate than AC service members (Meadows et al., 2021).

MHS Care for Reserve-Component Service Members

The MHS delivers care through its TRICARE health care program via two mechanisms: direct care, which is provided in MTFs and to which AC and active-duty RC personnel have priority access, and private-

Reserve-component personnel face unique barriers due to changes in benefit eligibility as they cycle between active duty and inactive status.

sector care (also referred to as *purchased care*), which is delivered by civilian providers and facilities that contract with TRICARE. More than 60 percent of all MHS care is delivered by private-sector providers who treat military family members, retirees, and retirees' family members in addition to RC and AC service members (Adirim, 2019). Private-sector MHS care was designed to be used by active-duty RC and AC service members when there is not capacity at a nearby MTF to provide the requisite services. Certain inactive-status RC service members may also be eligible to receive both direct and private-sector care.

TRICARE Coverage

The MHS provides direct and private-sector care through TRICARE during periods of eligibility as an earned benefit to RC personnel. While on active duty on federal orders for 31 days or more, RC personnel are eligible to enroll in TRICARE Prime or TRICARE Prime Remote. TRICARE Prime is the insurance plan for AC service members, for whom enrollment is mandatory (DHA, 2019a). TRICARE Prime beneficiaries have historically utilized direct care at MTF hospitals and clinics, obtaining referrals and prior authorizations for private-sector care only when MTF care is unavailable (DHA, 2019a, 2019d). The TRICARE Prime Remote plan is intended primarily for eligible active-duty RC service members who live and work remotely from an MTF (DHA, 2017). TRICARE Prime is the largest TRICARE plan, with an estimated 4.6 million beneficiaries in 2018 (DHA, 2019b).

Another type of coverage for RC service members is the TRICARE Reserve Select plan, a premium-based plan for which RC service members may be eligible during periods of inactive status or while on active duty for fewer than 31 days (DHA, 2019c). Unlike TRICARE Prime, which has no annual fee or deductible for active RC or AC service members, most TRICARE Reserve Select beneficiaries pay an enrollment fee, yearly deductible, monthly premiums, and applicable copayments or cost-shares (DHA, 2020). RC personnel with TRICARE Reserve Select utilize private-sector care from TRICARE-authorized community providers but can receive care at an MTF if space is available (DHA, 2019c). Certain inactive-status RC service members are not eligible for any direct or private-sector MHS care.

In sum, RC service members cycle in and out of TRICARE Prime or Prime Remote, depending on (unpredictable) periods of active-duty service. When they are not on active-duty orders, RC service members might be covered by insurance provided through an employer or spouse, or they can elect to purchase TRICARE Reserve Select. Like AC service members, RC service members on active-duty orders may also seek care at U.S. Department of Veterans Affairs (VA) facilities under certain conditions. Thus, in a given year, it is possible for a National Guard or reserve service member to receive BH care from three different TRICARE sources (Prime, Prime Remote, and Reserve Select), VA, and two or more sources of civilian coverage.

Barriers to Receiving Behavioral Health Care

RC personnel face unique barriers to receiving military BH care due to changes in benefit eligibility as they cycle between active duty and inactive status over their military careers (Griffith, 2017; Werber et al., 2013). Different TRICARE plans have different rules for covered services and providers, and the same is true for employer and public exchange health plans that RC personnel may utilize during periods

of inactive status. The cost of care varies by health plan, and some may require referrals or prior authorizations for certain services. RC personnel also have a lower priority status at MTFs during these inactive periods, constituting another potential barrier.

Geographic location may also affect access to care. RC personnel do not experience mandatory relocation as often as do AC service members, but RC service members who do not live near their assigned units must travel for training and assignments (National Academies of Sciences, Engineering, and Medicine, 2019). Changes in military duty status or physical location may thus have implications for the type of care that RC personnel are eligible to receive.

Monitoring and Improving the Quality of Behavioral Health Care

Monitoring the quality of BH care is challenging. However, the learning BH system model—a variation on the learning health care system proposed by the Institute of Medicine in 2012—can provide a framework and strategies for delivering high-quality BH care (Stein, Adams, and Chambers, 2016). The model assumes that every health care system has areas that need improvement, and the core strategy to support continuous improvement is the transparent use of data. Identified variations in care can inform quality-improvement efforts, and ongoing monitoring can help assess the effectiveness of those efforts. Calculating performance rates for specific areas of care and sharing this information with health care providers and the public can create a learning environment that facilitates care improvement. The Defense Health Agency has shown its support for this model. Its manual for MHS clinical quality management describes a process of quality improvement through clinical measurement, knowledge sharing, and feedback (DHA Procedures Manual 6025.13, 2019a, 2019b).

Three dimensions of care are commonly assessed: structure (e.g., characteristics of care settings and personnel), process (e.g., activities related to the provision of care), and outcomes (e.g., results of care, such as patient symptoms or functioning) (Donabedian, 1988). Quality measures provide a means to evaluate the extent to which a recommended structural component, process of care, or outcome was achieved. Quality measures draw on evidence-based clinical practice guidelines and are computed from various sources, such as administrative data, medical records, and patient surveys. Computed scores may be presented as a percentage of eligible facilities, encounters, or patients achieving the desired aspect of care (numerator) out of the total population of eligible facilities, encounters, or patients (denominator). These scores can be compared with a desired target or benchmark and monitored over time as part of a continuous quality assessment.

Assessing the Quality of MHS Behavioral Health Care for Reserve-Component and Remote Service Members

Little is known about the quality of BH care that RC personnel receive or how it compares with care in the AC. Self-report data from the 2018 Health Related Behaviors Survey revealed that the percentage of active-duty RC personnel who received BH services at a civilian health care facility (10 percent) was higher than the percentage who received services at an MTF (6 percent) or VA facility (5 percent) (Meadows et al., 2021). An estimated one-fifth of active-duty RC service members reported receiving some kind of BH services (from a specialty or general medical provider) in the previous year, and RC personnel were equally likely to report receiving BH treatment from a specialty mental health provider (14 percent) and from a general medical provider (13 percent) (Meadows et al., 2021). Beyond these self-report data, the utilization patterns and quality of BH care for RC personnel remain largely unknown.

Providing quality BH care is further complicated by the geographical remoteness of many RC service members.[2] Direct care provided at MTFs may differ in quality from private-sector care, something that may be challenging for the MHS to measure and track. Aside from a recent RAND study (Hepner et al., 2021), research on differences in the quality

of BH care between remote and non-remote service members has been scarce. However, that study highlighted several important differences in the quality of BH care received through the MHS. For example, remote service members were less likely to receive at least minimally adequate care (defined as two evaluation and management visits or four psychotherapy visits) in the first eight weeks following a new treatment episode of PTSD or depression. Remote service members with PTSD, depression, or SUDs were also less likely than non-remote service members to receive psychotherapy or psychosocial interventions.

Similar findings were reported in a study of depression care among civilians living in rural areas, who were less likely to receive psychotherapy than their non-rural counterparts (Fortney et al., 2010). Other research has indicated that, among veterans diagnosed with depression, anxiety, or PTSD, those in rural areas are less likely to receive psychotherapy and receive fewer psychotherapy visits than veterans in urban areas (Cully et al., 2010; Mott et al., 2015).

Although the RAND study found that rates of adequate duration of newly prescribed medication were similar for remote and non-remote service members, remote service members were less likely to receive timely follow-up after initiation of medication treatment (Hepner et al., 2021). Among those with SUD diagnoses, a higher percentage of remote service members initiated SUD care, but a lower percentage maintained engagement with that care over time. A particularly concerning finding was that remote service members were less likely to receive a timely follow-up visit after discharge from a mental health hospitalization or mental health emergency department visit (Hepner et al., 2021).

Collectively, this prior research suggests areas for improvement in the quality of care provided to remote MHS beneficiaries, but more information is needed regarding the factors underlying the negative impact of geographical remoteness from care on the quality of BH care in the MHS. This report presents key findings about the quality of BH care for RC personnel with specific BH diagnoses, highlights comparisons with their AC counterparts, and further examines variations in care quality between remote and non-remote RC personnel.

Geographically remote service members are less likely to receive minimally adequate behavioral health care.

We describe the characteristics, health care utilization patterns, and quality of BH care for National Guard and reserve personnel diagnosed with PTSD, depression, or SUDs in the MHS between January and December 2016. Using administrative data, we assessed how the quality of care provided to RC service members through the MHS compared with that of AC service members for these conditions. We also assessed whether the BH care that RC service members received varied depending on whether they were remote from MTF care.

Methodological Approach

The following analyses are an extension of a comprehensive assessment of access to and quality of BH care provided by the MHS to remote service members (Hepner et al., 2021), which describes the study methods in more detail.

Identifying Service Members with Specific Behavioral Health Conditions

We assessed service member characteristics, TRICARE coverage, care utilization, and quality of BH care using several existing administrative data sets. Health care data came from the MHS Data Repository and included records of all inpatient and outpatient health care encounters for service members seen in MTFs (i.e., direct care) or treated by civilian providers paid for by TRICARE (i.e., private-sector care). We used several eligibility criteria to identify a population of service members who were likely to have received all or the majority of their BH

care through the MHS during the period we examined (e.g., stable TRICARE coverage, not separated from the military). To be included in the study, RC and AC service members needed to meet the following criteria:

1. had at least one inpatient or outpatient encounter with a diagnosis of PTSD, depression, or SUD in 2016
2. maintained stable enrollment in TRICARE (i.e., at least five months' enrollment in the initial six-month observation period)
3. resided in a non-overseas location
4. not deployed or separated during the six-month observation period
5. had stable remote status during the six-month observation period.

Remote status is an indicator of the distance a service member lives from an MTF and was defined for the purpose of this study as eligibility for TRICARE Prime Remote—that is, at least a 40-mile Euclidean ("as the crow flies") distance from an MTF to a zip code centroid (geometric center of zip code area), with some exceptions for large geographic barriers, such as lakes and mountain ranges. Although service members could be excluded based on multiple criteria, more RC service members than AC service members did not have stable TRICARE enrollment (26 percent versus 15 percent, respectively).

The resulting BH cohort (n = 93,347) included individuals with at least one qualifying diagnosis (PTSD: n = 28,659, depression: n = 64,335, SUD: n = 21,636). Note that service members who had been diagnosed with more than one of the target BH conditions were included in multiple diagnostic cohorts. Changes in service members' components were negligible in the overall sample: Fewer than 40 service members switched between the RC and AC during the observation window. Military service and demographic characteristics were collected upon entry into the initial diagnostic cohort (i.e., upon diagnosis of PTSD, depression, or SUD).

Analyses

We analyzed demographic characteristics, TRICARE coverage, health care utilization patterns, and quality of BH care for RC and AC service members. This report further examines differences between remote and non-remote RC personnel. We compared service and demographic characteristics (i.e., component, service branch, paygrade/rank, sex, age, race/ethnicity, and remote status) and patterns of health care utilization (i.e., direct versus private-sector care, types of providers seen, and receipt of psychotherapy) for these subpopulations. These analyses included care utilization associated with the treatment of BH conditions in the six-month period after the first qualifying diagnosis (i.e., PTSD, depression, or SUD).

To assess BH care quality, we applied administrative data-based process measures with a focus on outpatient care to determine whether patients received care consistent with clinical practice guidelines (Hepner et al., 2021). These measures addressed three domains of BH care: initial care, medication management, and care transitions. We assessed initial treatment for a new episode of PTSD, depression, or SUD and examined whether treatment was received in a timely fashion and at a minimally adequate frequency. We assessed the use of medications to treat AUD or opioid use disorder (OUD), the duration of new medication prescriptions for PTSD and depression, and timely follow-up after initiation of a new medication. For care transitions, we assessed timely outpatient follow-up after discharge from a mental health hospitalization.

Quality measures in the study focused on three domains of behavioral health care: initial care, medication management, and care transitions.

Based on the results of these analyses, we were able to associate the demographic and service characteristics of RC personnel with patterns in the BH care that these personnel received, highlighting key findings related to their BH care utilization and the quality of that care. An accompanying online appendix presents additional data to support these analyses.[3]

Demographics and Service Characteristics of National Guard and Reserve Personnel

Our overall sample included 93,347 service members, with 83 percent in the AC and 17 percent in the RC. Table 1 presents selected military service and demographic characteristics of this cohort by component. RC service members were approximately evenly divided among active National Guard, inactive National Guard, active reserve, and inactive reserve and were approximately evenly split between active and inactive status. Although most RC and AC service members were in the Army, the Army accounted for a larger proportion of RC service members (72 percent versus 52 percent in the AC). Most RC personnel were enlisted service members, with nearly two-thirds being senior enlisted (E-5–E-9: 65 percent). An even larger majority of AC personnel were enlisted service members (88 percent), but fewer were senior enlisted (E-5–E-9: 49 percent). Likewise, a higher proportion of RC personnel were officers (17 percent versus 12 percent in the AC).

Service members in our overall sample were predominantly male and white, but the AC sample was more diverse in terms of race/ethnicity; RC personnel were more likely to be female and tended to be older. Differences between RC and AC service members were most pronounced with regard to remote status. Slightly more than half of RC personnel were remote (54 percent). In contrast, AC service members were almost entirely non-remote (96 percent), suggesting that they were more likely to live on or near a military installation. Finally, fewer RC personnel were continuously enrolled in TRICARE over a nine-month observation period.[4]

We examined military and demographic differences between RC service members who were remote from an MTF and those who were not (Table 2). A larger share of remote RC personnel were in the National Guard, while a larger share of non-remote RC personnel were in the reserves. The Army accounted for the largest proportion of both remote and non-remote RC personnel, but this share was highest among remote personnel (82 percent). Remote and non-remote RC personnel differed in terms of paygrade/rank: A smaller proportion of remote personnel were O-4–O-8s or warrant officers. Remote RC personnel were also more likely to be male and white. This group also tended to be younger.

More than half of reserve-component service members lived in areas geographically remote from MHS care.

Findings and Observations

Five key findings from our analyses illustrate patterns of care utilization and quality of BH care for RC personnel compared with AC personnel. We also present summary observations highlighting how remote and non-remote RC personnel compared on the same utilization and quality measures. When we describe the proportion of overall BH care received through direct and private-sector care, we include both inpatient and outpatient BH care (Figure 1). The remaining results that describe BH care utilization, such as receipt of psychotherapy and the types of BH providers seen, reflect outpatient BH care. The measures that assess the quality of BH care also focus on outpatient care.

TABLE 1

Demographic and Service Characteristics, by Component, 2016–2017

Characteristic		Reserve Component		Active Component	
		%	*n*	%	*n*
Total		100.0	16,088	100.0	77,259
Component	Active component	0.0	0	100.0	77,259
	National Guard, active	28.1	4,518	0.0	0
	National Guard, inactive	22.5	4,094	0.0	0
	Reserve, active	25.4	3,627	0.0	0
	Reserve, inactive	23.9	3,849	0.0	0
Service branch	Army	72.4	11,652	51.8	40,057
	Air Force	15.6	2,514	18.3	14,121
	Marine Corps	2.7	437	9.3	7,196
	Navy	8.5	1,366	18.4	14,217
	Coast Guard	0.7	119	1.6	1,220
	Unknown	0.0	0	0.6	448
Paygrade/rank	C-1, E-1–E-4	17.6	2,833	38.5	29,776
	E-5–E-9	65.2	10,491	49.3	38,092
	O-1–O-3	7.0	1,128	5.3	4,068
	O-4–O-8, warrant officer	10.2	1,636	6.9	5,323
Sex	Female	29.4	4,736	25.9	20,034
	Male	70.6	11,352	74.1	57,225
Age	18–24	7.1	1,138	29.8	23,054
	25–34	37.9	6,098	38.1	29,424
	35–44	32.9	5,287	25.9	20,031
	45–64	22.2	3,565	6.1	4,749
	Unknown	0.0	0	0.0	1
Race/ethnicity	American Indian/Alaskan Native	1.0	153	1.5	1,155
	Asian/Pacific Islander	2.5	408	4.6	3,576
	Black, non-Hispanic	14.5	2,337	21.7	16,792
	White, non-Hispanic	71.7	11,541	55.7	43,045
	Hispanic	8.7	1,406	13.6	10,541
	Unknown	1.5	243	2.8	2,150
Number of deployments	No deployments	36.9	5,933	39.5	30,499
	Deployed 1–3 times	56.9	9,153	47.5	36,669
	Deployed 4–6 times	4.8	769	10.7	8,272
	Deployed 7 or more times	0.7	113	1.2	927
	Unknown number of deployments	0.7	120	1.2	892
Remote status	Remote	54.1	8,706	3.9	2,993
	Non-remote	45.9	7,382	96.1	74,266
9 months of continuous TRICARE enrollment		78.6	12,645	88.3	68,211

NOTES: Statistical significance calculated with chi-square tests of RC versus AC populations for all categories of each variable. Differences for all characteristics were statistically significant at $p < 0.001$.

TABLE 2

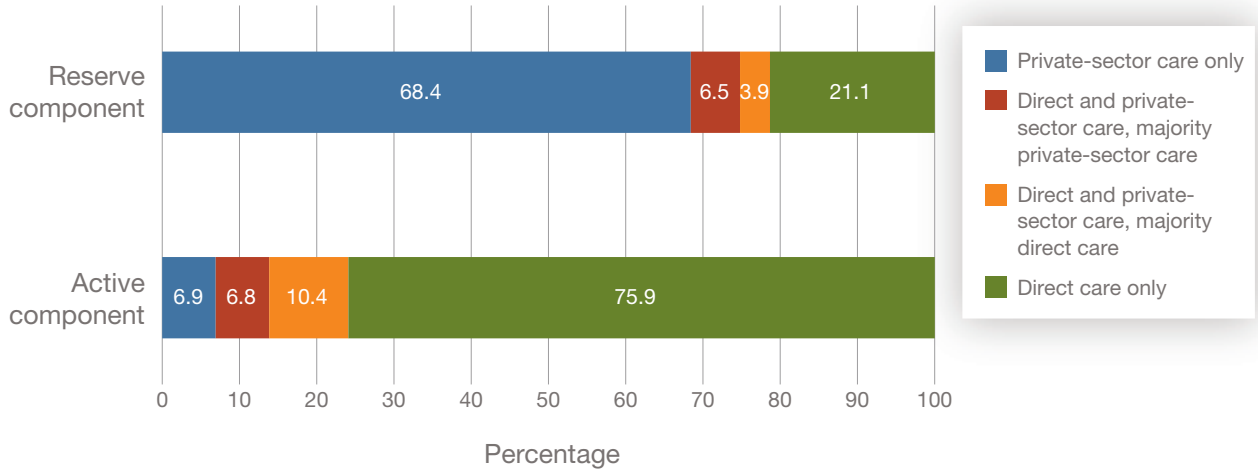
Reserve-Component Demographic and Service Characteristics, by Remote Status, 2016–2017

Characteristic		Remote RC		Non-Remote RC	
		%	*n*	%	*n*
Total		100.0	8,706	100.0	7,382
Component	National Guard, active	33.8	2,941	21.4	1,577
	National Guard, inactive	32.5	2,832	17.1	1,262
	Reserve, active	15.4	1,345	30.9	2,282
	Reserve, inactive	18.2	1,588	30.6	2,261
Service branch	Army	81.8	7,121	61.4	4,531
	Air Force	12.3	1,071	19.5	1,443
	Marine Corps	1.3	117	4.3	320
	Navy	3.9	342	13.9	1,024
	Coast Guard	0.6	55	0.9	64
Paygrade/rank	C-1, E-1–E-4	18.6	1,623	16.4	1,210
	E-5–E-9	67.1	5,838	63.0	4,653
	O-1–O-3	6.7	580	7.4	548
	O-4–O-8, warrant officer	7.6	665	13.2	971
Sex	Female	27.5	2,392	31.8	2,344
	Male	72.5	6,314	68.2	5,038
Age	18–24	7.8	676	6.3	462
	25–34	39.9	3,476	35.5	2,622
	35–44	31.9	2,776	34.0	2,511
	45–64	20.4	1,778	24.2	1,787
	Unknown	0.0	0	0.0	0
Race/ethnicity	American Indian/Alaskan Native	0.9	74	1.1	79
	Asian/Pacific Islander	1.9	162	3.3	246
	Black, non-Hispanic	12.2	1,059	17.3	1,278
	White, non-Hispanic	77.2	6,724	65.3	4,817
	Hispanic	6.9	597	11.0	809
	Unknown	1.0	90	2.1	153
Number of deployments	No deployments	36.6	3,156	37.6	2,777
	Deployed 1–3 times	58.9	5,126	54.6	4,027
	Deployed 4–6 times	3.9	341	5.8	428
	Deployed 7 or more times	0.6	52	0.8	61
	Unknown number of deployments	0.4	31	1.2	89

NOTES: Statistical significance calculated with chi-square tests of remote RC versus non-remote RC populations for all categories of each variable. Differences for all characteristics were statistically significant at $p < 0.001$.

FIGURE 1

Service Members Who Received Direct Versus Private-Sector MHS Care Associated with a Behavioral Health Diagnosis



NOTES: Based on the number of days on which care was received. The chi-squared omnibus test of RC (n = 16,088) versus AC (n = 77,259) difference in private-sector care only, direct care only, and direct and private-sector care (the remaining categories, aggregated) was significant at $p < 0.001$. The small number of cases (n = 909, 1.0% of the total) for which days of private-sector care were equal to days of direct care were assigned to "majority private-sector care."

RC Service Members Were More Likely to Receive Behavioral Health Care from Private-Sector and Primary Care Providers

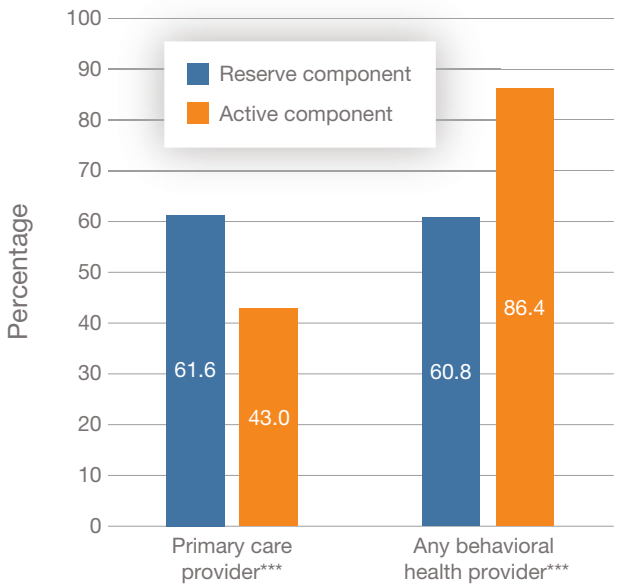
RC and AC service members differed in terms of where and from whom they received BH care. Figure 1 describes the source of all BH care received by RC and AC service members, including both outpatient and inpatient care associated with a BH diagnosis. Two-thirds (68 percent) of RC personnel received BH care entirely from private-sector providers, compared with only 7 percent of those in the AC (Figure 1). In contrast, one in five RC service members (21 percent) received all their BH care from direct care providers (i.e., at MTFs), compared with 76 percent of AC service members. Comparatively few RC or AC service members received BH care from both private-sector and direct care (10 percent and 17 percent, respectively). These findings indicate that RC personnel rely much more heavily on private-sector providers for their BH needs.

RC and AC service members differed significantly in terms of the types of providers they saw for BH care. Specifically, RC service members were more likely to receive BH care from a primary care provider (Figure 2). Significantly fewer RC personnel saw a specialty provider, such as a psychiatrist (RC: 25 percent; AC: 49 percent; $p < 0.001$), clinical psychologist (RC: 24 percent; AC: 49 percent; $p < 0.001$), social worker (RC: 25 percent; AC: 42 percent; $p < 0.001$), or other BH provider (RC: 16 percent; AC: 25 percent; $p < 0.001$).

It should be noted that the provider type indicators are not mutually exclusive: A service member could be counted more than once if they received BH care from more than one provider type. For example, more than a quarter of all service members received BH care from both a primary care provider and a BH care provider, though a smaller proportion of RC service members did so (RC: 27 percent; AC: 36 percent; $p < 0.001$). Overall, the findings suggest that RC personnel are much more likely than their AC counterparts to receive BH care from primary care providers.

FIGURE 2

Receipt of Behavioral Health Care from Primary Care and Behavioral Health Care Providers



NOTES: Statistical significance calculated with chi-square tests of RC (n = 16,088) versus AC (n = 77,259) cohorts. *** $p < 0.001$.

Remote RC Service Members Were More Likely Than Their Non-Remote Counterparts to Receive Behavioral Health Care from Private-Sector and Primary Care Providers

We separately compared utilization patterns between remote and non-remote RC personnel. These personnel differed significantly in terms of the source of their BH care (i.e., direct versus private-sector care; $p < 0.001$). Specifically, 83 percent of remote RC service members received BH care from private-sector providers only, compared with 51 percent of their non-remote counterparts. Conversely, only 10 percent of remote RC personnel received BH care through direct care only, compared with 35 percent of non-remote RC personnel. Few remote and non-remote RC service members received both types of care (7 percent and 14 percent, respectively).

We also observed significant differences between remote and non-remote RC personnel by the provider type seen for BH care (all tests of significance were $p < 0.001$). Significantly fewer remote RC personnel received BH care from a psychiatrist (21 percent versus 29 percent), clinical psychologist (19 percent versus 30 percent), or social worker (21 percent versus 28 percent). Remote RC personnel were significantly more likely to receive their BH care from a primary care provider (60 percent versus 55 percent). As mentioned, service members could be counted more than once if they received BH care from more than one provider type. Although the magnitude of these differences was not as large, the pattern of differences as a function of remoteness parallels that observed in our comparisons of RC and AC personnel: Remote RC personnel were more likely than non-remote RC personnel to receive BH care from primary care providers. These findings are also consistent with prior research indicating that service members who were remotely located from an MTF had fewer visits with specialty BH providers (Brown et al., 2015).

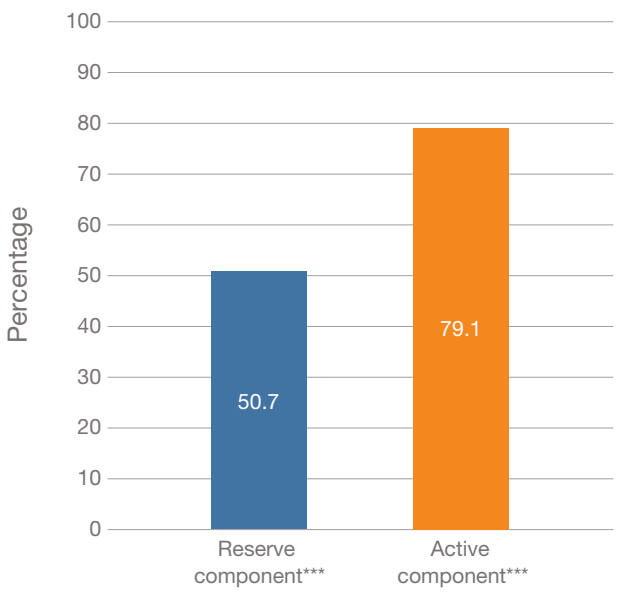
RC Service Members Were Less Likely to Receive Psychotherapy

Specific types of psychotherapy are recommended as a first-line treatment option for PTSD, depression, and SUD; thus, ensuring access to psychotherapy is an essential component of high-quality BH care for patients with these diagnoses. Although we were not able to determine whether the type of psychotherapy received was evidence-based or consistent with recommendations for these BH conditions, we observed differences in rates of psychotherapy utilization between RC and AC personnel and by remote status within the RC.

Fewer RC service members (51 percent) than AC service members (79 percent) received some kind of psychotherapy in the six months of care (see Figure 3). This difference extended to both individual and group psychotherapy. A significantly lower proportion of RC personnel received individual therapy (RC: 50 percent; AC: 78 percent; $p < 0.001$) or group therapy (RC: 4 percent; AC: 21 percent; $p < 0.001$). The observed differences in rates of psychotherapy are consistent with the higher likelihood that RC personnel received BH care in a primary care setting and from a primary care provider. RC service members were also significantly less likely to receive a psychiatric diagnostic evaluation or psychological testing (RC: 37 percent; AC: 63 percent; $p < 0.001$).

FIGURE 3

Percentage of Service Members Who Received Psychotherapy



NOTES: Statistical significance calculated with chi-square tests of RC (n = 16,088) versus AC (n = 77,259) cohorts. *** $p < 0.001$.

Collectively, these findings suggest that National Guard and reserve service members may be less likely to receive a first-line treatment option for certain BH diagnoses, such as PTSD. Evidence from the civilian literature suggests that most patients prefer psychotherapy when that option is offered (McHugh et al., 2013). Further, patients who receive a treatment that does not align with their preferences may have worse outcomes, even if that treatment is a recommended, evidence-based treatment (Lindhiem et al., 2014). Although preferences may differ, our findings raise important questions regarding the availability of patient-preferred treatment options for service members.

Remote RC Service Members Were Less Likely Than Their Non-Remote Counterparts to Receive Psychotherapy

When examining the association between remoteness and receipt of psychotherapy among RC personnel only, we found that fewer remote personnel received any psychotherapy (45 percent versus 57 percent for non-remote RC personnel; $p < 0.001$). However, rates were still much lower across both these groups than for AC personnel. This finding appears to be driven primarily by the receipt of individual psychotherapy. Remote RC personnel were less likely (45 percent) than non-remote RC personnel (56 percent) to receive individual therapy ($p < 0.001$). They were also less likely to receive group psychotherapy (3 percent versus 6 percent; $p < 0.001$). In addition, remote RC service members were significantly less likely to receive a psychiatric diagnostic evaluation or psychological testing than their non-remote counterparts (33 percent versus 42 percent; $p < 0.001$).

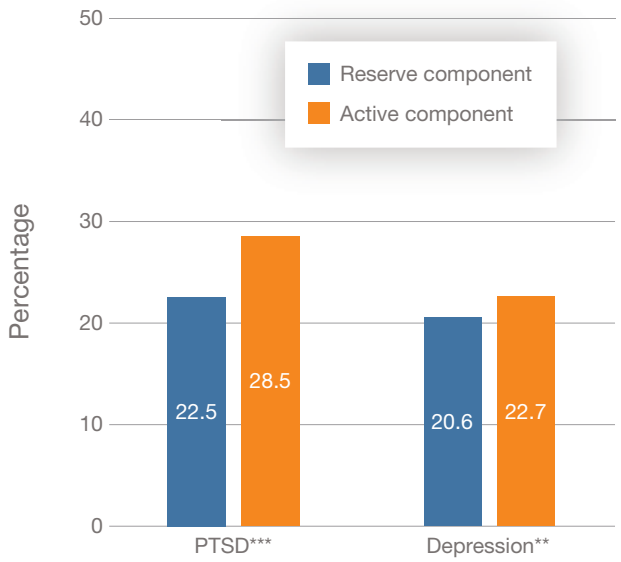
RC Service Members Were Less Likely to Receive Recommended Initial Care for PTSD and Depression

One quality measure assessed whether patients received recommended initial care for a new treatment episode of PTSD or depression. The measure requires either four condition-related psychotherapy visits or two evaluation and management visits (indicative of medication management) in the eight weeks after the diagnosis visit. Receipt of this level of initial care among RC personnel was significantly lower than for AC personnel (see Figure 4). These findings were driven, at least in part, by the lower percentage of RC service members who received any condition-related psychotherapy. Although we observed significantly lower percentages for RC

Ensuring access to psychotherapy is an essential component of high-quality care for PTSD, depression, and substance use disorders.

FIGURE 4

Receipt of Initial Recommended Care for PTSD or Depression Within Eight Weeks of a New Treatment Episode



NOTES: Statistical significance calculated with chi-square tests of RC PTSD (n = 907) versus AC PTSD (n = 3,552) and RC depression (n = 3,153) versus AC depression (n = 17,619) cohorts. ** $p < 0.01$; *** $p < 0.001$.

personnel, it is notable that rates were low (under 30 percent) for all service members regardless of component.

To assess initial care for patients with a new treatment episode for a SUD, we measured SUD treatment initiation and engagement.[5] This quality measure has two parts: initiation of SUD care within 14 days of diagnosis and at least two SUD-related visits in the subsequent 30 days (i.e., engagement). The measure has been endorsed by the National Quality Forum since 2009 and is included in the Healthcare Effectiveness Data and Information Set (National Quality Forum, various dates; National Committee for Quality Assurance, undated).

Rates of care initiation and engagement varied significantly between the RC and AC populations, with a higher percentage of initiation of treatment among RC personnel (21 percent versus 16 percent; $p < 0.001$) but a lower rate of engagement with treatment (4 percent versus 7 percent; $p < 0.001$).

Even when treatment is initiated, retention can be challenging; this can impede progress, as positive outcomes have been associated with engagement and longer treatment duration (Harris et al., 2010). Previous research has found that RC service members have limited access to military BH care for SUDs when they are not on active duty, suggesting that care may be more fragmented for RC personnel than for AC personnel (Institute of Medicine, 2013b). As our data show, a significant proportion of military personnel in need of treatment services for SUDs did not receive them, and when they did, a very low percentage had the recommended initial visit. The low rates at which these personnel received adequate initial care reflect a complex challenge driven by multiple factors affecting not only patients with SUDs but those with other BH conditions as well.

Remote and Non-Remote RC Service Members Received Recommended Initial Care for PTSD and Depression at Similarly Low Rates

When evaluating initial care for service members in the RC only, we found no significant difference in the percentages of remote and non-remote service members who received recommended initial care for PTSD (remote RC: 21 percent; non-remote RC: 25 percent). Likewise, for depression, a similar proportion of remote RC and non-remote RC service members received either four psychotherapy visits or two evaluation and management visits in the first eight weeks after diagnosis, though these differences were not statistically significant (19 percent versus 22 percent). It is promising that remote and non-remote RC personnel received similar levels of care following a diagnosis of PTSD or depression, but the findings highlight a need to increase overall rates of provision for all service members regardless of component or remote status.

We found no statistically significant differences in initiation and engagement for SUD care among remote and non-remote RC personnel (19 percent and 22 percent, respectively). However, a significantly lower percentage of remote (3 percent) than non-remote RC personnel (6 percent) engaged in care within 30 days ($p = 0.02$). Understanding which bar-

riers account for the lower rates of engagement for remote RC personnel can help increase both initiation and engagement with care.

RC Service Members Were Often Less Likely to Receive Recommended Medication Follow-Up Visits

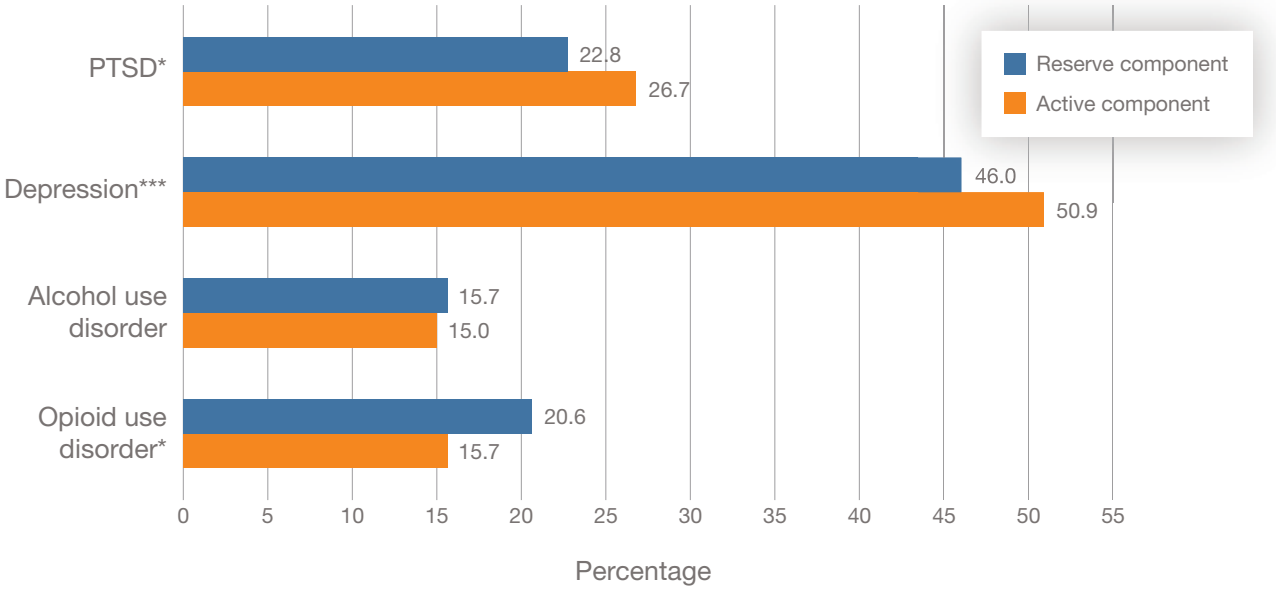
Medication is a recommended first-line treatment for PTSD, depression, and SUDs (including AUD and OUD), with appropriate treatment involving use of a recommended medication, receiving the medication for an adequate duration, and receiving follow-up medication management to adjust treatment as necessary. For RC and AC personnel, receipt of any appropriate medication treatment varied by target BH condition (Figure 5). Among those who began a new episode of treatment for PTSD or depression, RC personnel were significantly less likely than AC personnel to receive any recommended medication. Receipt of any recommended medication for AUD was similar for the RC and AC. In contrast, the proportion of RC personnel who received any recommended medication for OUD was significantly *higher*.

We used two quality measures to assess whether patients who initiated medication treatment received an adequate duration of medication—specifically, 60 days of a selective serotonin reuptake inhibitor (SSRI) or serotonin and norepinephrine reuptake inhibitor (SNRI) for PTSD or six weeks of an antidepressant for depression. RC service members were more likely to receive this recommended care. Specifically, those who initiated medication treatment for depression were significantly more likely than their AC counterparts to receive an adequate trial (73 percent versus 71 percent; $p < 0.05$), though the magnitude of this difference was not large. We found no significant difference in the likelihood of receiving an adequate duration of treatment among those who initiated medication treatment for PTSD (RC: 78 percent; AC: 75 percent).

When new medication treatment is initiated, timely follow-up visits ensure that the provider can assess the patient's response, including any side

FIGURE 5

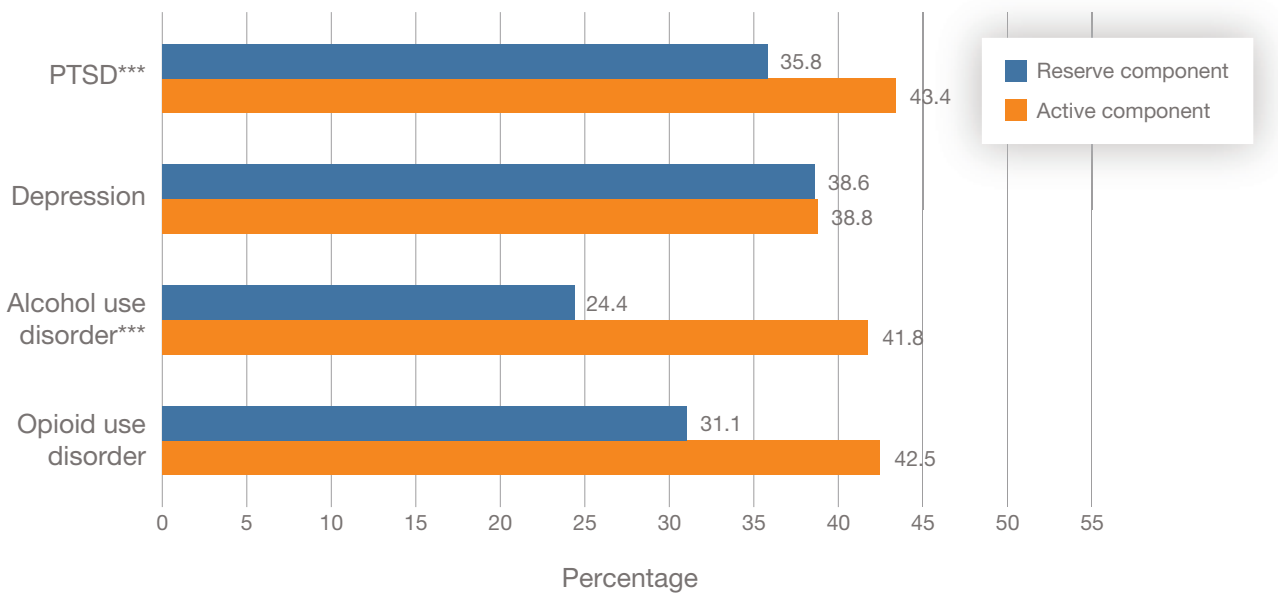
Receipt of Any Recommended Medication for New Treatment Episode of Target BH Conditions



NOTES: Statistical significance calculated with chi-square tests of RC PTSD (n = 930) versus AC PTSD (n = 3,637), RC depression (n = 3,259) versus AC depression (n = 18,585), RC AUD (n = 1,593) versus AC AUD (n = 15,770), and RC OUD (n = 359) versus AC OUD (n = 1,442) cohorts. * $p < 0.05$; *** $p < 0.001$.

FIGURE 6

Timely Follow-Up After Initiation of a New Medication



NOTES: Statistical significance calculated with chi-square tests of RC PTSD (n = 671) versus AC PTSD (n = 3,511), RC depression (n = 2,631) versus AC depression (n = 12,744), RC AUD (n = 250) versus AC AUD (n = 2,361), and RC OUD (n = 74) versus AC OUD (n = 226) cohorts.
*** $p < 0.001$.

effects, and adjust treatment as needed. We used four quality measures to assess whether patients received a follow-up medication management visit within 30 days of initiating medication treatment for the target diagnosis (Figure 6). RC personnel were less likely than AC personnel to receive a timely follow-up visit after initiating medication treatment for PTSD or AUD. There were no significant differences in timely follow-up after initiating medication treatment for depression or OUD. This finding may be related to a comfort among primary care practitioners in treating depression relative to PTSD or SUDs (Amaral-Sabadini, Saitz, and Souza-Formigoni, 2010). As noted earlier, RC service members were more likely to receive BH care in primary care settings. We also examined the receipt of medication, duration of new medication treatment, and follow-up for newly initiated medication treatment for PTSD, depression, and SUDs among remote and non-remote RC personnel. These analyses did not reveal significant differences (data not shown).

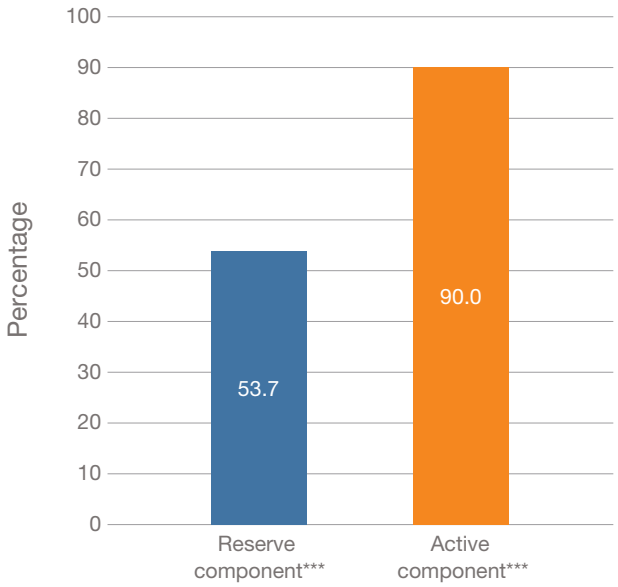
When new medication treatment is initiated, timely follow-up visits ensure that the provider can assess the patient's response, including side effects.

RC Service Members Were Less Likely to Receive Timely Follow-Up After Psychiatric Hospitalization

Timely outpatient follow-up after discharge from a psychiatric hospitalization is essential to ensuring continuity of care for patients who are at risk of negative outcomes, such as suicide or rehospitalization

FIGURE 7

Follow-Up Within Seven Days After Mental Health Hospitalization



NOTES: Statistical significance calculated with chi-square test of RC (n = 804) versus AC (n = 7,307) hospitalizations. *** $p < 0.001$.

(Viggiano, Pincus, and Crystal, 2012). We assessed whether patients received an outpatient visit within seven days and 30 days after discharge. This measure is endorsed by the National Quality Forum (various dates) and included in the Healthcare Effectiveness Data and Information Set (National Committee for Quality Assurance, undated). RC personnel were significantly less likely than AC personnel to receive timely outpatient follow-up within seven days of being discharged from a psychiatric hospitalization (54 percent versus 90 percent; Figure 7). There were similar differences for follow-up visits within 30 days of discharge (RC: 69 percent; AC: 96 percent; $p < 0.001$).

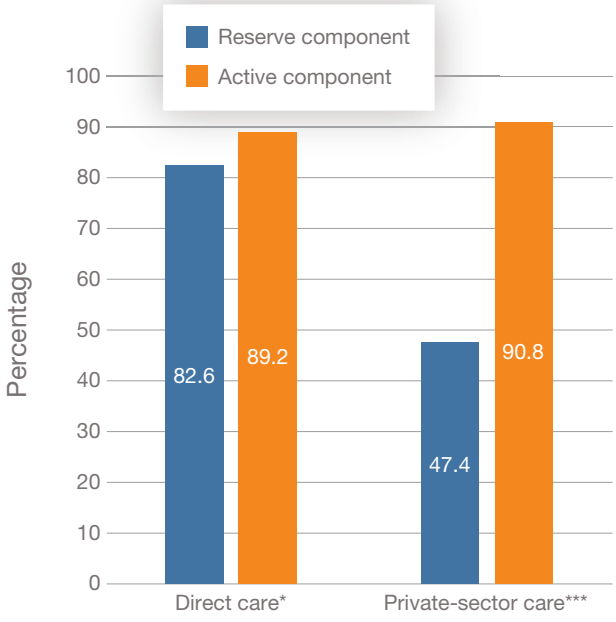
Remote RC Service Members Were Less Likely Than Their Non-Remote Counterparts to Receive Timely Follow-Up After Psychiatric Hospitalization

There was also notable variation based on RC service members' remoteness. Remote RC service members were less likely than their non-remote counterparts to receive timely follow-up after hospitalization; this difference held for both seven-day (44 percent versus 64 percent; $p < 0.001$) and 30-day (61 percent versus 78 percent; $p < 0.001$) follow-ups. Given the critical importance for timely outpatient follow-up (Mitchell and Selmes, 2007), every effort should be made to improve rates of follow-up for all service members, but especially for remote RC personnel.

As noted earlier, RC personnel rely heavily on private-sector providers for their BH care, while AC rely heavily on direct care. For this reason, we examined whether rates of outpatient follow-up differed by whether the patient was discharged from a direct care or private-sector facility (Figure 8). RC service members had lower rates of follow-up within seven days, regardless of the type of facility from which they were discharged. The findings are particularly striking for service members who were discharged from private-sector facilities, with more than a 40-percentage-point difference between RC and AC personnel.

FIGURE 8

Follow-Up Within Seven Days After Mental Health Hospitalization, by Discharge Facility Type



NOTES: Statistical significance calculated with chi-square tests of RC direct care (n = 144) versus AC direct care (n = 3,725) hospitalizations and RC private-sector (n = 660) versus AC private-sector (n = 3,577) hospitalizations. * $p < 0.05$; *** $p < 0.001$.

It is important to explore reasons for differences in timely follow-up because patients are at high risk after a psychiatric hospitalization.

Prior analyses have shown lower rates of timely follow-up for AC personnel after discharge from a private-sector facility rather than a direct care facility (Hepner et al., 2017). Although the reason for this difference is unclear, policies and procedures that support timely follow-up may contribute to improved performance at MTFs. Furthermore, private-sector facilities serve a wider variety of patient populations than MTFs; they may see few TRICARE service members and may be less likely to have established mechanisms to facilitate care transitions for these patients. It is also possible that RC personnel are less actively tracked for follow-up than their AC counterparts. Because these patients are at high risk immediately after a psychiatric hospitalization, it is important to further explore the potential reasons for these differences and improve rates of timely follow-up.

Strengths and Limitations of the Research

Although the companion RAND study (Hepner et al., 2021) evaluated similar domains of care quality, the focus was on identifying differences between remote and non-remote service members, without differentiating between RC and AC personnel. This report focuses on BH care received through the MHS by RC personnel, a unique and sizeable portion of the U.S. military. To date, there have been few studies on BH care for this population. We described the sources of care used and reported results from quality measures in three key domains of BH care for PTSD, depression, and SUDs: initial care, medication management, and care transitions. Although RC personnel were more likely than AC service members to reside remote from an MTF, approximately half of the RC BH population did not. Given evidence that the quality of BH care delivered by the MHS differs according to service members' geographical remoteness from an MTF, we also examined whether remoteness from an MTF was a potential barrier to receiving BH care for RC personnel specifically, analyses not previously reported in the prior RAND study. These analyses identified differences that may indicate lower access to care or poorer quality of BH care for these personnel.

There were some limitations to our analyses, however. For example, we relied on administrative data to describe and assess BH care quality. We could not account for visits that may not have been appropriately coded (e.g., diagnosis, treatment delivered) or for aspects of care not documented in the administrative data (e.g., whether patients received an evidence-based psychotherapy). Administrative data are also limited in that they do not include important aspects of care that are documented only in the patient's medical record, including patient preferences for care or contraindications to recommended care.

We also were not able to assess care that may have been provided outside of the MHS through insurers other than TRICARE (e.g., employer-based coverage). RC service members, whose TRICARE plan eligibility varies, may have been more likely to receive care that we could not capture in our analyses (e.g., care paid for out of pocket or by other insurance coverage). Furthermore, it is unclear how representative our sample of RC personnel was relative to the broader RC population with a BH diagnosis who did not receive MHS care. It is possible that our sample of AC personnel is more representative, due to their increased likelihood of relying on the MHS for their BH care. Nonetheless, the strength of this research is in characterizing care for RC personnel who have accessed the MHS for their BH needs, given the limited information on this population.

The MHS is in the process of consolidating the administration and management of all MTFs under the Defense Health Agency in a phased approach that is scheduled to be completed by October 2021 (Adirim, 2019). Because this transition is ongoing, it is unclear what future impact these changes could have with regard to the pattern of differences in our analyses. Finally, additional research would provide more-detailed insights into the reasons for the variations in care that we observed in our study.

Recommendations and Policy Implications

Monitor and Improve Access to High-Quality Behavioral Health Care for Reserve-Component Service Members

In general, our analyses found that RC service members who accessed BH care through the MHS were less likely than AC service members to receive recommended care. RC service members were also less likely to receive recommended initial care for PTSD or depression, including initiation of appropriate medication treatment or psychotherapy. Notably, RC personnel were markedly less likely to receive timely outpatient follow-up after discharge from a psychiatric hospitalization, particularly when they were discharged from private-sector facilities. Patients who do not receive recommended care are at risk for worse outcomes. For example, patients who are discharged from a psychiatric hospitalization are at increased risk for such negative outcomes as a deterioration in symptoms, rehospitalization, and suicide. A timely follow-up outpatient visit can facilitate continuity of care and identify and mitigate negative outcomes. We note that there were a few areas in which RC service members were *more* likely to receive recommended care (e.g., treatment initiation for SUD, receipt of pharmacotherapy for OUD), highlighting variability in patterns of high-quality BH care for this population.

Reducing the observed differences in care for RC service members should be a high priority for the MHS. As the Defense Health Agency transitions care delivery away from the service branches and toward a centralized oversight and delivery model, it is developing approaches to monitor and improve BH care, including a core set of quality measures for routine monitoring. Quality measures for BH care should be tracked for the MHS overall and separately for populations that are at risk of receiving poorer care. Our findings suggest that BH quality measures should be routinely evaluated to identify differences in care received by RC personnel. Using a learning health care system framework, these data will inform targeted quality improvement efforts. For example, transitions in TRICARE coverage may be a barrier for RC personnel and present increased challenges for continuity of care. RC personnel with BH diagnoses may benefit from additional support during these transitions to ensure that they can continue working with their current BH provider or easily initiate care with a new provider.

Our analyses showed that RC personnel with BH needs rely heavily on private-sector providers and are more likely to be geographically remote from an MTF than their AC counterparts. These findings highlight the importance of ensuring that private-sector providers deliver the same high-quality care that is expected of MTFs. Prior research has suggested incorporating rigorous accountability mechanisms into TRICARE contracts with private-sector providers, including routine reporting on access and quality of care (Institute of Medicine, 2010). Specifically, the MHS should consider building into TRICARE contracts a requirement for private-sector providers to provide information to support monitoring of access and quality of care using measures like the ones included in this report. Access and quality measures should be monitored routinely, identifying strengths and targeting areas for quality improvement.

Furthermore, RC personnel may benefit from increased access to real-time patient-provider interactive video or telephone (i.e., synchronous telebehavioral health). We previously recommended that the MHS increase the use of synchronous telebehavioral health to meet the needs of remote service members (Hepner et al., 2021). Since we conducted that research, the COVID-19 pandemic has required a rapid expansion of telehealth in the MHS (Larsen, 2020). The MHS should capitalize on the changes and

innovations that it has implemented to deliver care during the pandemic to increase access to synchronous telebehavioral health care for RC personnel over the long term. Successful widespread implementation of telehealth will require addressing the substantial barriers that remain. Adequate capacity to support telehealth is needed, including reliable bandwidth, necessary equipment (e.g., computers with cameras), and a platform to deliver care. This will likely require a significant financial investment. Additional provider training will be needed to ensure that providers (and their patients) can access and use telehealth-associated technology, deliver care that is comparable to face-to-face care, and be prepared to address patient safety issues that may arise. In addition, other asynchronous telehealth and digital solutions could enhance access to BH care for RC personnel, including mobile phone apps, secure patient messages, remote monitoring and wearables, and web-based educational modules.

Identify Barriers for Reserve-Component Service Members Who Access Behavioral Health Care Through the Military Health System

Although research has documented approximately similar prevalence rates of BH diagnoses between RC and AC personnel, RC personnel may face additional barriers to receiving high-quality BH care. Our findings suggest that BH care may be more fragmented for RC personnel, who rely more heavily on private-sector care and may be more likely to experience disruptions to their care as a result of changes in TRICARE coverage. Although the impact of these factors is unclear, these personnel may be more likely to experience changes in providers, limited availability of specialty BH providers, or other administrative and financial hurdles. Such fragmentation may be related to factors inherent in RC military service, such as repeated breaks in active service, cyclical changes in TRICARE Prime eligibility, and a propensity to live in locations that are remote from MTFs (or, at least, off base).

Nonetheless, these factors give rise to potential secondary consequences, including increased stress, greater financial burdens, and decreased psychological health and wellness—all of which have a negative impact on mission readiness. Barriers to care, their causes, and the impact of these challenges with respect to RC service members' access to high-quality BH care are not well understood. More research is needed to clarify the unique barriers that RC personnel face in receiving BH care through the MHS and to identify the drivers of the differences in receipt of recommended BH care that we observed. Surveys or qualitative research methods would be valuable in assessing the diverse experiences of RC service members in accessing BH care, along with the specific barriers faced by this population.

The MHS aims to ensure that all beneficiaries—including RC personnel—can receive high-quality BH care when it is needed. In this brief report, we highlighted key differences in the utilization and quality of care for RC personnel when compared to AC personnel. We also examined differences in care among RC personnel based on their geographic remoteness from MTF care. These findings will be useful in informing ongoing efforts within the MHS to continue improving BH care for these personnel.

Notes

[1] Note that, in our study, we defined *remote* as eligibility for TRICARE Prime Remote, or residing at least a 40-mile Euclidean ("as the crow flies") distance from an MTF to a zip code centroid (geometric center of zip code area), with some exceptions for large geographic barriers, such as lakes and mountain ranges.

[2] Physical distance presents a barrier to both physical and mental health care (Billi, Pai, and Spahlinger, 2007; Syed, Gerber, and Sharp, 2013). Existing evidence suggests that transportation is a particularly salient barrier to seeking mental health care (Mojtabai et al., 2011), although further comparative research is needed to determine how physical distance affects care seeking and utilization across different conditions and types of care.

[3] The appendix is available for download with this report at https://www.rand.org/pubs/research_reports/RRA421-1.html.

[4] We calculated nine months of continuous TRICARE enrollment by extending the original six-month observation period by three months and examining the number of service members who changed enrollment status. The nine-month period for assessing stability in TRICARE coverage was selected because it was the maximum period of time supported by our data.

[5] The quality measure uses the phrase *alcohol or other drug use disorder*.

An appendix with additional measures of behavioral health care quality accompanies this report online at www.rand.org/t/RRA421-1.

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About This Report

More than 1 million reserve component personnel—those in the National Guard and reserves—serve alongside the 1.3 million full-time service members of the U.S. military's active component. Although providing ready access to high-quality behavioral health care to all personnel is a high priority for the Military Health System, little is known about the quality of the care that reserve component personnel receive or how their care compares to that of members of the active component. Even less is known about how this care differs for "remote" reserve-component personnel—those who live in areas that are far from behavioral health care providers at a military treatment facility.

Prior RAND research evaluated the quality of behavioral health care for service members with posttraumatic stress disorder, depression, and substance use disorders with a focus on identifying variations in care between remote and non-remote populations. This report uses the same measures to explore differences between active- and reserve-component personnel and between remote and non-remote reserve-component personnel. The findings and recommendations are intended to support policy- and decisionmaking to help meet the behavioral health care needs of reserve-component service members.

This study was approved by RAND's institutional review board, with concurrence from the Psychological Health Center of Excellence Human Research Protection Program. The Defense Health Agency and Defense Manpower Data Center also approved all data access and analytic plans. The research reported here was completed in July 2020 and underwent security review with the sponsor and the Defense Office of Prepublication and Security Review before public release.

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For more information on the RAND Forces and Resources Policy Center, see www.rand.org/nsrd/ndri/centers/frp or contact the director (contact information is provided on the webpage).

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