Development of a Perceived Access Inventory for Community Care Mental Healthcare Services for Veterans

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ABSTRACT Introduction: Access to high-quality healthcare, including mental healthcare, is a high priority for the Department of Veterans Affairs (VA). Meaningful monitoring of progress will require patient-centered measures of access. To that end, we developed the Perceived Access Inventory focused on access to VA mental health services (PAI-VA). However, VA is purchasing increasing amounts of mental health services from community mental health providers. In this paper, we describe the development of a PAI for users of VA-funded community mental healthcare that incorporates access barriers unique to community care service use and compares the barriers most frequently reported by veterans using community mental health services to those most frequently reported by veterans using VA mental health services. Materials and Methods: We conducted mixed qualitative and quantitative interviews with 25 veterans who had experience using community mental health services through the Veterans Choice Program (VCP). We used opt-out invitation letters to recruit veterans from three geographic regions. Data were collected on sociodemographics, rurality, symptom severity, and service satisfaction. Participants also completed two measures of perceived barriers to mental healthcare: the PAI-VA adapted to focus on access to mental healthcare in the community and Hoge's 13-item measure. This study was reviewed and approved by the VA Central Institutional Review Board. Results: Analysis of qualitative interview data identified four topics that were not addressed in the PAI-VA: veterans being billed directly by a VCP mental health provider, lack of care coordination and communication between VCP and VA mental health providers, veterans needing to travel to a VA facility to have VCP provider prescriptions filled, and delays in VCP re-authorization. To develop a PAI for community-care users, we created items corresponding to each of the four community-care-specific topics and added them to the 43-item PAI-VA. When we compared the 10 most frequently endorsed barriers to mental healthcare in this study sample to the ten most frequently endorsed by a separate sample of current VA mental healthcare users, six items were common to both groups. The four items unique to community-care were: long waits for the first mental health appointment, lack of awareness of available mental health services, short appointments, and providers' lack of knowledge of military culture. Conclusions: Four new barriers specific to veteran access to community mental healthcare were identified. These barriers, which were largely administrative rather than arising from the clinical encounter itself, were included in the PAI for community care. Study strengths include capturing access barriers from the veteran experience across three geographic regions. Weaknesses include the relatively small number of participants and data collection from an early stage of Veteran Choice Program implementation. As VA expands its coverage of community-based mental healthcare, being able to assess the success of the initiative from the perspective of program users becomes increasingly important. The 47-item PAI for community care offers a useful tool to identify barriers experienced by veterans in accessing mental healthcare in the community, overall and in specific settings, as well as to track the impact of interventions to improve access to mental healthcare.

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INTRODUCTION

Access to high-quality healthcare, including mental health-care, is a high priority for the Department of Veterans Affairs (VA). In 2012, the VA Office of Inspector General (OIG) noted the need for relevant measures of access to mental healthcare. The OIG recommended that VA "reevaluate alternative measures or combinations of measures that could effectively and accurately reflect the patient experience of access to mental health appointments" (page 7).[1]

As reported elsewhere, in response to the need for patient-centered measures of access, we used a multiphase, sequential mixed-methods approach to develop the Perceived Access Inventory for VA mental health services (PAI-VA).[2] The PAI-VA includes 43 items addressing perceived access to VA mental health service use across five domains (see Table I for definitions): Logistics (5 items), Culture (3 items), Digital (9 items), Systems of Care (13 items), and Experiences of Care (13 items). These domains reflect and expand upon the re-conceptualization of access to healthcare generated through the 2010 VA Health Services Research and Development Service (HSR&D) State-of-the-Art Conference on access.[3,4] The PAI-VA is structured so that most items consist of two parts. Part One is a Yes/No question assessing the presence/ prevalence of that potential barrier. Respondents who answer "Yes" to Part One are asked to rate the impact of that barrier using a 5-point Likert scale ranging from no interference with getting needed mental health services to complete interference.

In 2014, the Veterans Access, Choice, and Accountability Act (VACAA) authorized the Veterans Choice Program (VCP), a temporary program to enable eligible veterans to receive inpatient, outpatient, pharmacy and ancillary medical services in the community.[5] The VCP is one of several programs through which a veteran can receive care from a provider who is not a VA employee. Emphasis on securing community healthcare services for veterans continued with the VA MISSION (Maintaining Systems and Strengthening Integrated Outside Networks) Act of 2018 and the 2018 Joint Action Plan for supporting veterans during their transition from uniformed service to civilian life.[6,7] The VA MISSION Act of 2018 combines VCP and six other programs authorizing coverage for non-VA-delivered healthcare into a single Community Care program. The Joint Action Plan includes expansion of community care partnerships to improve access to mental healthcare and suicide prevention resources for service members transitioning to veteran status.

In addition, the 2019 VA budget request merges the VA Community Care and VA Medical Services accounts into one budget.[8] Each of these legislative actions is designed to strengthen veteran access to community care.

Community care for mental health services can currently be accessed through the VCP or through VA fee-basis care arrangements. We limited this study to veterans using VCP mental health services because it appears that the VA Office of Community Care will use the VCP experience as the basis for building future community care networks.

To use the VCP, veterans must be enrolled in the VA healthcare system. The veteran or a VA provider can then request a VA community care referral to the VA Care Coordination staff within a VA medical center. Veterans may be authorized to seek care through VCP if: (1) VA cannot provide the services needed, (2) they are informed by a local VA medical facility that an appointment cannot be scheduled within 30 days of either the date requested by their VA provider or the date requested by the veteran, (3) they live 40 miles or more (driving distance) from a VA medical facility that has a full-time primary care physician, (4) they must travel by air, boat, or ferry to seek care from their local VA facility or incur excessive traveling burden (e.g., medical, geographic, or environmental), or (5) they meet specified conditions for veterans living in Alaska, Hawaii, parts of New Hampshire, or a US territory other than Puerto Rico. Once approved for care through the VCP, veterans may choose to receive care from a VA provider or from an eligible VCP provider.

Perceived barriers to mental health services through VCP are likely to be similar but not identical to barriers to VA-delivered mental healthcare. Comprehensive measures grounded in veterans' experience are essential to support VA's efforts to increase access to mental health services in the community. A measure developed without extensive input from veterans who have sought VCP mental healthcare may fail to capture the full range of barriers that matter most to veterans and thus be inadequate for identifying modifiable barriers to service use. We built on the approach used in developing the PAI-VA to create a patient-centered measure of access to VCP mental health services. This paper describes the development of the PAI for community care mental health services (PAI-CC) and summarizes our qualitative and quantitative findings regarding access barriers to VCP mental health services and their overlap with previously identified barriers to accessing VA mental health services.

TABLE I. Domain Definitions

Domain	Definition
Logistics	Geographical, temporal, and financial issues that are perceived by veterans to affect their use of mental health services
Culture	Veterans' beliefs, values, and attitudes regarding mental health symptoms and treatments
Digital	Any existing technology veterans use that affects communication with mental health providers
Systems of care	Mental health service structures and processes and how these affect veterans' experiences or perceptions of access to services
Experiences of care	Veterans' experiences with mental health providers and facilities

METHODS

Design

We conducted mixed qualitative and quantitative interviews with 25 veterans to explore the complex issues associated with access to community mental health services paid for by VA. We specifically focused on the veteran experience using VCP mental health services. The VCP interviews were added to the ongoing study to develop the PAI-VA with supplemental funding from the VA South Central Mental Illness Research, Education and Clinical Center (MIRECC). In developing the PAI-CC, we replicated the procedures and used the same study team that developed the PAI-VA.[2,9] The VCP interviews were conducted by telephone from September to December 2017. Verbal informed consent procedures were conducted prior to conducting the research interview. This study was reviewed and approved by the VA Central Institutional Review Board (CIRB).

Sampling Frame

We used data from the VA's national administrative database, the Corporate Data Warehouse (CDW), to identify veterans who had used VCP mental health services in the previous year. Initially we limited the sampling frame to residents of the same states involved in the PAI-VA study. However, under those constraints, the number of veterans who met inclusion criteria was too small ($N < 30$) for study purposes. Therefore, we expanded geographic eligibility from 3 (Northern California, Arkansas, and Maine) to 11 states (original states plus Texas, Louisiana, Mississippi, Massachusetts, Connecticut, Vermont, New Hampshire, and Rhode Island) and expanded the window for VCP mental health service use from one to two years which resulted in identification of 159 potentially eligible veterans. The final CDW data inclusion criteria were: (a) residential address is one of 11 states, (b) age 18–70, (c) screened positive for PTSD, depression, or alcohol use problems within the past 2 years, and (d) made at least one mental health visit to a VCP provider within the past two years.

Recruitment

The recruitment procedures used to identify the VCP sample were similar to those used in identifying the PAI-VA sample.[2] Briefly, opt-out informational letters were sent to all potentially eligible veterans.[10] These letters stated that, if the veteran did not contact the team by phone or mail within 2 weeks of the date of the mailing to request no further contact, study personnel might call the veteran to explain the study in greater detail. Potential participants were categorized by geographic region, rural/urban residence, and gender. Selection of veterans to call was purposive, designed to ensure inclusion of specific groups of veterans needed to gain a comprehensive understanding of perceived access to VCP mental healthcare (e.g., female veterans were over-sampled to ensure that the

sample would include at least 20% women). An additional inclusion criterion, experiencing stress-related or emotional problems related to PTSD, depression or alcohol within the past 2 years, was assessed during the phone interview. The only exclusion criterion was lack of access to a telephone.

Data Collection

Both qualitative and quantitative data were collected over the phone. Qualitative data were collected first, followed by quantitative data collection and administration of the PAI. The qualitative interview guide was similar to that used to develop the PAI-VA except that it focused on VCP mental healthcare rather than on mental healthcare provided at a VA medical center or clinic. Investigators who interviewed participants about their experiences seeking mental healthcare through the VCP were the trained and experienced qualitative researchers who had collected qualitative and quantitative data for the PAI-VA study. Qualitative interviews were audio-recorded and transcribed verbatim for analysis. Transcripts were entered into the Atlas.ti software program to facilitate data management and analysis.[11]

Quantitative data were collected on participant sociodemographics, perceived treatment barriers, service-connected disability, and symptom severity (PTSD, depression, alcohol use, and generalized anxiety). Sociodemographic data included age, gender, self-reported race, education, marital status, employment status, and zip code. Residential status (rural/ urban) was defined using census-tract-based Rural Urban Commuting Area (RUCA) codes.[12] Perceived barriers to mental health treatment were measured using Hoge's 13-item measure (possible score range: 13 to 65; higher scores indicate more severe barriers).[13] Participants also completed a 43-item PAI-CC which differed from the PAI-VA only in rewording questions to make them relevant to veterans' experience using VCP mental health services, e.g., changing "VA mental healthcare" to "Choice Act mental healthcare." Mental health symptom severity (higher scores indicate greater symptom severity) was measured using the 4-item VA Primary Care PTSD screen (PC-PTSD; possible range 0–4),[14] the Patient Health Questionnaire 9-item depression module (PHQ-9, possible range 0–27),[15] the Alcohol Use Disorders Identification Test (AUDIT-C, possible range 0–12),[16] and the 7-item generalized anxiety disorder screener (GAD-7, possible range 0–21).[17] Participant satisfaction with care received was measured using the 8-item Client Satisfaction Questionnaire (CSQ-8, possible range 8–32; higher scores indicate greater satisfaction).[18] The CSQ-8 was modified by asking the Veterans to focus on their experiences receiving mental health care from a VA Choice Provider in the introduction to the CSQ-8 and replacing the term "our program" in the original CSQ-8 with "VA mental health Choice services."

Data Analysis

Qualitative data analysis used blended deductive (model testing) and inductive (model development) content analysis techniques similar to those used in developing the original PAI-VA.[2] Briefly, qualitative analysis began with a provisional list[19] of deductive codes derived from the previous analysis of PAI-VA qualitative data. The qualitative team met biweekly to analyze interview content using an interdisciplinary team-based approach[20] designed to maximize creativity, credibility, and reliability of coding.[21] Investigators read and coded interview transcripts primarily from their own geographic region, because they were more familiar with geographical references and local culture. Throughout the independent coding process, the team evaluated consistency in code assignment and coder agreement by auditing three transcripts per region. Inter-coder agreement was obtained by resolving differences in code application through discussion until consensus was reached among qualitative team members.

To help communicate qualitative findings to the larger research team, members of the qualitative team generated analytic summaries of themes raised for each of the VCP code domains (Logistics, Culture, Digital, Systems of Care, and Experiences of Care; see Table I). The summaries were presented sequentially to the larger research team to facilitate discussion. Discussion focused on similarities with and differences from themes raised in corresponding domains in the original PAI-VA interviews. Coded content from the VCP transcripts that was not covered in PAI-VA interviews was identified as source material for the design of new, community-care-specific PAI items as described below.

Quantitative data were used to characterize the VCP sample and compare characteristics of participants in the VCP and VA samples (see Table II). *T*-tests were used to compare continuous variables and chi-square tests were used to compare categorical variables. We also examined which barriers were most frequently endorsed by each group of participants in responding to their respective version of the PAI. Lists of the 10 PAI items most frequently endorsed by VCP and VA participants appear in Table III. Items appear in order of the proportion of respondents who reported that a given PAI item interfered "a great deal" or "completely" with getting the mental healthcare they needed.

RESULTS

Twenty-five veterans were interviewed: 7 from the northeast, 8 from the south-central states, and 10 from the west coast. As shown in Table II, the VCP sample was middle-aged, mostly male, and majority Caucasian. Forty percent of the sample (10/25) lived in a rural zip code. The only statistically significant difference between participants in the VCP and VA samples was a larger percentage of Caucasian veterans in the VCP sample (84% versus 74%, $p = 0.03$).

The qualitative team identified 628 segments associated with VCP experiences across the 25 interview transcripts. These segments included 96 in the Logistics domain, 112 in Culture, 31 in Digital, 208 in Systems of Care, and 181 in Experiences of Care (see Table I for domain definitions). In reviewing this content, we identified four topics that were not addressed in the PAI-VA, and we created four new VCP-specific items (one Logistic, one Experience of Care, and two Systems of Care) to close this gap.

The new Logistic item arose from veterans' reports of being billed directly by a VCP mental health provider. Direct billing is not supposed to happen under VCP but may have occurred as a result of delays in payment from the VA to VCP providers or as the result of VCP providers routinely sending patients a summary of charges or bill for charges while waiting for insurance payment. Veterans also reported that they received these bills during their yearly VCP reauthorization process, which suggests that delays in VCP

TABLE II. Demographic and Symptom Severity Characteristics of VCP and VA Study Participants

	VCP Participants (*N* = 25)	VA Participants (*N* = 99)
Sociodemographic characteristics		
Age, mean (SD)	50.2 (13.1)	50.7 (12.5)
Gender male, *n* (%)	18 (72)	77 (77)
Race Caucasian, *n* (%)*	21 (84)	74 (74)
Married or cohabitating, *n* (%)	9 (36)	43 (43)
At least some college or technical school, *n* (%)	20 (80)	77 (77)
Service-connected disability, *n* (%)	9 (36)	21 (21)
Rural residence, *n* (%)	10 (40)	49 (49)
Symptom severity		
PTSD screener 4-item, mean (SD)	3.2 (1.2)	3.0 (1.3)
PHQ-9, mean (SD)	15.0 (7.0)	13.8 (6.2)
Generalized anxiety disorder 7-item screen, mean (SD)	14.0 (5.8)	11.7 (6.2)
AUDIT-C, mean (SD)	3.0 (3.8)	3.7 (3.5)
Satisfaction with mental health services received		
Mental health satisfaction (mostly or very), *n* (%)	19 (79)	65 (65)

*$p < 0.05$.

reauthorization may have led to delays in VA payment for services (see new gap in care item in the Systems of Care domain below). Examples of Logistic barriers faced by VCP users that were already included in the PAI-VA are: inconvenient clinic hours, cost of care, travel cost, travel distance, and travel time.[2]

The new Experience of Care item reflected veterans' reports of a lack of care coordination and communication between VCP and VA mental health providers. Lack of medical-record sharing between Department of Defense and VA is already included in the PAI-VA in the Systems of Care domain. However, problems related to care coordination and communication for VCP users seemed to encompass more than the sharing of records. For example, VCP care was sometimes used by veterans to bridge a gap in service between a VA provider leaving the VA and the next available appointment with a new VA provider. Veterans reported that care coordination and communication between VA and VCP providers largely fell to the veteran and therefore had a more direct impact on the veterans' experience of care. Examples of VCP Experience of Care barriers that were already included in the PAI-VA are: long waits for a first appointment, lack of care continuity, having to repeat their history to every new provider, providers and staff not genuinely caring about patients, providers not asking patients' opinion about treatment options, providers not taking veterans' mental health problems seriously, and feeling stuck in "red tape" or paperwork.[2]

Two new Systems of Care items arose from veterans' difficulties with prescriptions and gaps in care. First, veterans reported needing to travel to a VA facility to get VCP provider prescriptions filled. Second, veterans reported gaps in care due to delays in VCP re-authorization. This mid-treatment gap in care was sometimes resolved by the VCP provider seeing the veteran free-of-charge during the gap but at other times resulted in appointments being canceled by the VCP clinic until reauthorization was completed. Examples of VCP Systems of Care barriers that were already included in the PAI-VA are: lack of availability of providers when needed, wait times, lack of trust, lack of respect, and problems in sharing medical records. Veterans did not raise any themes in the Culture or Digital domains that were not already covered in the PAI-VA. The PAI-CC is shown in the Appendix; new items added to the PAI-VA based on this study are identified as "New."

Because the version of the PAI completed by the VCP sample was administered at the same time as their qualitative interviews, it only included the 43 items from the PAI-VA modified to ask about VCP mental health services. It did not include the 4 new items subsequently added to the PAI-CC. Table III shows the 10 PAI items most frequently endorsed by VCP and VA participants as interfering "4 = a great deal" or "5 = completely" with getting needed mental health

TABLE III. 10 PAI Items Most Frequently Reported by VCP and VA Participants as Interfering With Getting Needed Mental Healthcare

VCP Participants (N = 25)		VA Participants (N = 99)	
Interfered a Great Deal or Completely N (%)	"Over the Past 12 months …"	Interfered a Great Deal or Completely N (%)	"Over the Past 12 months …"
9 (36)	Did you ever feel that you should just "tough it out" and not seek mental healthcare?	30 (30)	Did you ever lack trust in the healthcare system?
7 (28)	Did you ever feel stuck in "red tape" or paperwork?	28 (28)	Did you ever feel that you should just "tough it out" and not seek mental healthcare?
6 (24)	Did you have to wait a long time to get that first mental health appointment?	25 (25)	Did you ever feel stuck in "red tape" or paperwork?
6 (24)	Did you ever feel that you were weak because you might need the help of a mental healthcare provider?	23 (23)	Did you ever feel that you were weak because you might need the help of a mental healthcare provider?
6 (24)	Have you felt comfortable that you were aware of all the mental health services that were available to you?	20 (20)	Did you ever lack trust in any of your VA mental healthcare providers?
6 (24)	Did you ever lack trust in the healthcare system?	19 (19)	Do you see other Veterans whom you feel you can share your experiences with? (facilitator)
6 (24)	Have you ever felt that your mental healthcare providers were not available to you as soon as you needed them?	18 (18)	Did you ever feel that your VA mental healthcare providers did not genuinely care about you?
5 (20)	Have you felt that your mental health appointments were short?	18 (18)	Have you ever felt that your VA mental healthcare providers were not available to you as soon as you needed them?
5 (20)	Did any of your mental healthcare providers lack knowledge of military culture?	17 (17)	Were you able to see the same VA mental healthcare providers consistently over time?
5 (20)	Did you have to repeat your story to new mental healthcare providers over and over?	17 (17)	Did you have to repeat your story to new mental healthcare providers over and over?

services. The items are arranged in descending order of strong interference (rating of 4 or 5). Six PAI items appeared on both lists (two stigma-related items [toughing it out and feeling weak], red tape, lack of trust, mental health provider not available, and having to repeat your story). The four unique frequently reported VCP items were: long waits for the first mental health appointment, not being aware of available mental health services, short appointments, providers' lack of knowledge of military culture. The four unique frequently reported VA items were: lack of trust in mental healthcare providers, seeing other veterans (facilitator), feel that mental healthcare providers did not genuinely care about you, and not being able to see the same mental health provider over time.

DISCUSSION

The VA 2019 budget request includes $14.2 billion for community care (18.6% of the total VA medical care budget, 14.2/76.5).[8] Evaluating the effectiveness of this expenditure will require well-validated measures of veterans' experiences accessing care outside of VA. In that context, we conducted this study to develop a patient-centered measure of access to mental health services for veterans seeking care in the community. Most of the access barriers identified in the VCP qualitative interviews had also been identified by veterans using VA mental health services. However, VCP users identified four additional barriers that were not adequately captured by the PAI-VA. These included one item each in the Logistic and Experiences of Care domains and two items in the Systems of Care domain. In general, these new VCP-specific PAI items (patient billing, lack of coordination between VCP and VA providers, problems getting VCP prescriptions filled, and care gaps due to delays in VCP reauthorization) reflected administrative barriers that are unique to the VCP rather than issues related to the clinical encounter with community mental health providers. These findings are also consistent with three of the four major themes reported by women veterans seeking care through the VCP (i.e., scheduling problems, sharing information between VCP and VA providers, billing problems).[22]

The results in Table III suggest that there is substantial overlap in the major barriers faced by veterans seeking VCP and VA mental health services. The most commonly reported barrier that was unique to the 10 most frequently reported VCP items (number three on the VCP list) was waiting a long time to get the first mental health appointment. That is consistent with the June 2018 Government Accountability Office report on improvements needed to address the access-related challenges to the VCP.[23] In this report, the average time for veterans to receive routine care through VCP was 51 days; however, as noted in this report, 51 days may not be accurate because of missing data and the unreliability of available wait-time data. It is noteworthy that wait times were not among the most frequent barriers

reported by veterans using VA mental healthcare. The other unique frequently reported VCP barriers (not being aware of mental health services available, short appointments, and providers' lack of knowledge of military culture) are consistent with veterans using a non-VA clinic that they are not familiar with.

Two stigma items were also among the 10 most frequently endorsed barriers for both VCP and VA samples (numbers 1 and 4 on VCP list; numbers 2 and 4 on the VA list). Stigma is commonly reported as a barrier to mental healthcare[24] and its importance to veterans appears to be independent of the location of mental health treatment. Feeling stuck in "red tape" was number 2 on the VCP list and number 3 on the VA list. This barrier is consistent with a report from the American Action Forum that documents a VA paperwork burden that is increasing over time.[25] Lacking trust in the healthcare system was number 6 on the VCP list and number 1 on the VA list. This barrier is recognized by the VA and is one of the metrics that will be assessed as a specific customer service experience metric for both the Veterans Health Administration and the Veterans Benefits Administration.[26] Provider continuity was also a barrier noted on both lists (numbers 7 and 10 on the VCP list and numbers 8 and 10 on the VA list) and is consistent with workforce problems cited in the recent evaluation of VA mental health services.[27]

As the VA MISSION Act and Joint Action Plan are implemented, several changes are expected that will affect access to community-based mental health services. These include: combining seven community care programs into one, streamlining the process for veterans to access community providers, creating new standards for faster reimbursements to community providers, greater transparency and accountability of contractors administering the community care program, and new metrics for tracking effectiveness. The PAI-CC will allow for monitoring veterans' perspective on mental healthcare access during the roll-out of the VA MISSION Act and allow for comparison with PAI-VA results because the PAI-CC includes all 43 items that make up the PAI-VA.

There are strengths and limitations to this developmental study. Strengths include capturing access barriers from the veteran perspective across three geographic regions. Weaknesses include the small number of participants and data collection during the early stages of VCP implementation only. Given the challenges in identifying veterans with experience using community mental health services through VCP and the recent implementation of the VCP, the study may not have captured all of the early barriers to accessing community mental healthcare and will have missed barriers that arise once the program is more mature. The four new PAI-CC items were not included in the 10 most frequently reported PAI items listed in Table III and therefore we do not know how inclusion of these items would change the VCP participant list. The participant responses were limited to accessing mental healthcare and while there is likely overlap between perceived access to

physical healthcare and mental health care, the extent of that overlap from the veteran perspective is unknown.

CONCLUSIONS

Despite these limitations, the veteran's voice is represented in the PAI measures and this is an important perspective for the VA to consider as VA healthcare continues to evolve. Four new barriers specific to veteran access to community mental healthcare were identified. These barriers, which were largely administrative rather than arising from the clinical encounter itself, were included in the PAI-CC. The VA Office of Community Care is in the process of establishing community care network contracts that will address many of the community care barriers identified in this study.

RECOMMENDATIONS

The 47-item PAI-CC offers a useful patient-centered tool to identify barriers experienced by veterans in accessing mental healthcare in the community. The PAI-CC will allow VA administrators, policy makers, and researchers to identify access barriers, design interventions to address them, and measure the impact of the interventions over time. Future work includes further validation and item reduction for both the PAI-CC and PAI-VA measures. The PAI-CC items could also be a starting place for developing a civilian version of the PAI.

SUPPLEMENTARY MATERIAL

Supplementary material is available at *Military Medicine* online.

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