JOURNAL OF VETERANS STUDIES

Primary Care Veteran Preferences for Receiving Information about Mental Health Services: Cross-Sectional Survey

RESEARCH

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VIRGINIA TECH PUBLISHING

ABSTRACT

The purpose of this study was to understand contextual characteristics of how veterans in primary care prefer to receive mental healthcare information (i.e., information about mental health symptoms/services) in terms of provider, location, and format. One hundred sixteen primary care veterans with behavioral health concerns (58% depression, 37% PTSD, 50% hazardous alcohol use) participated in a cross-sectional phone and mail survey. Forty-seven percent had recently received mental health services; Fifty-three percent had not. Overall, veterans preferred receiving mental health information from behavioral health providers (n = 55, 47%) and via individual face-to-face communication (n = 65, 56%). However, veterans without recent mental health treatment were more likely to endorse home as their most preferred location (n = 18, 29%) and mailed self-help materials as their most preferred format (n = 11, 18%) compared to veterans with recent mental health treatment. Veterans with recent mental health treatment were more likely to endorse Veterans Affairs behavioral health clinics as their most preferred location (n = 23, 43%) and face-to-face communication as their most preferred format (n = 37, 69%) compared to veterans without recent mental health treatment. When tailoring mental health communication to veterans with behavioral health concerns, findings suggest that recent mental health treatment history is an important distinction. These results can inform development of public health messaging, decision aids, and psychoeducational material for veterans. Future research should evaluate the impact of age, gender, and service era on preferences to better understand how to tailor messaging and materials to more specific groups of veterans.

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KEYWORDS:

veterans; mental health; primary care; health communication; public health; population-based messaging; quantitative

TO CITE THIS ARTICLE:

Hampton, B., Johnson, E. M., Buckheit, K., Knowlton, P., & Possemato, K. (2022). Primary Care Veteran Preferences for Receiving Information about Mental Health Services: Cross-Sectional Survey. *Journal of Veterans Studies*, 8(3), pp. 70–78. DOI: https://doi.org/10.21061/jvs.v8i3.340

Veterans have high rates of mental health disorders (Fortney et al., 2016; Grossbard et al., 2013; Spelman et al., 2012) but despite availability of mental health services (DiNapoli et al., 2015; Hawkins et al., 2010), many do not receive treatment (Mott et al., 2014). In a sample of veterans with posttraumatic stress disorder (PTSD), Spoont and colleagues (2014) found that 45% did not receive treatment within 6 months of receiving a diagnosis. Similarly, Whealin and colleagues (2014) found that over 36% of veterans who felt they needed help with mental health symptoms were not currently receiving treatment. Incorporating veterans' preferences into mental health communication may increase the likelihood of veterans engaging in mental health treatment. However, little is known about how veterans prefer to receive mental health information. The current study explores veterans' preferences for receiving information about mental health services.

Mental health literacy is defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention" (Jorm et al., 1997, p. 182). It encompasses multiple domains including symptom recognition, knowledge of and beliefs about risk factors, knowledge of and beliefs about treatment, attitudes toward recognition and help-seeking, and knowledge of how to seek out mental health information (i.e., information about mental health symptoms and treatment; Jorm et al., 1997; Jorm, 2000). Mental health literacy may be one barrier to treatment. For example, greater mental health literacy is associated with increased help-seeking behaviors (Gorczynski et al., 2017; Smith & Shochet, 2011; Waldmann et al., 2020) and service utilization (Johnson & Possemato, 2021; Williston et al., 2020). Johnson and Possemato (2021) found that veterans who identified their symptoms as problematic were more likely to have current or recent mental health treatment than to have no past year treatment. However, recent research indicates less than optimal mental health literacy within military and veteran populations. Williston and Vogt (2021) found that veterans with PTSD showed relatively good levels of PTSD problem recognition; 93% of participants correctly identified PTSD symptoms. In contrast, participants demonstrated substantially lower levels of knowledge about effective mental health treatments; only 37% and 28% correctly identified prolonged exposure and cognitive processing therapy as effective treatments, respectively. Similarly, in a survey of current US soldiers, approximately 70% knew mental health treatment referral procedures, but only about 45% were knowledgeable about rules of confidentiality and approximately 30% were knowledgeable about available treatment (Thomas et al., 2016). Fortunately, mental health literacy can be improved. A variety of programs including whole-of-community campaigns, interventions based in educational settings, mental health first aid training, and web-based interventions have demonstrated efficacy (Jorm, 2012).

Health literacy (i.e., the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions) is more widely researched than mental health literacy (Berkman et al., 2010). Health literacy differs from mental health literacy in that it is primarily concerned with the healthcare environment (e.g., a person's ability to understand medical information and adhere to medication). It is likely that the same principles that apply to health information more broadly may apply to the dissemination of mental health information specifically. For instance, a review of health literacy campaigns found several important factors that contribute to success. Two of those identified were tailoring messages to the needs and preferences of subgroups and using appropriate media channels (Noar, 2006). In addition, early research shows that when veterans' preferred method for receiving information is used, this positively affects healthcare utilization, but the most common methods of disseminating health information do not match those preferences (Fleming et al., 2016). For example, 69% of veterans reported they had received information about healthcare services from other veterans, yet only 6% indicated this as their preferred method of receiving information (Fleming et al., 2016). The gap between veteran preferences and how information is most often disseminated in practice represents a modifiable factor that, if addressed, could increase mental healthcare utilization.

Based on the findings from health communication research, when tailoring mental health communication, to veterans it is likely important to consider individuals' preferences for receiving information, but research assessing preferences for receiving mental health information is limited, especially among veterans. One qualitative study among African American civilians not currently engaged in mental health treatment reported preferences for mental health information to be communicated in a nonthreatening, reassuring, confidential, accessible manner and from a credible source (Mishra et al., 2008). A similar quantitative study among civilian farmers suggested preferences for receiving mental health information from medical providers, spouses/family members, via newspapers/magazines, and one-on-one meetings in person (Rudolphi et al., 2019). To our knowledge, research has not evaluated the acceptability of different modalities of communication (e.g., provider, location, format) to veterans, veterans' preferences for receiving mental health information from different communication modalities, or whether factors such as recent treatment engagement and

specific mental health symptoms (e.g., depression, PTSD, hazardous alcohol use) influence veterans' preferences for receiving mental health information.

OBJECTIVES

The objective of this study was to understand acceptability and preferences of primary care veterans with behavioral health concerns for receiving mental health information in terms of provider, location, and format (e.g., face-to-face, mailing). Aim 1 was to identify acceptability, defined as whether veterans were interested or disinterested in different mental health information modalities (provider, location, and format). Aim 2 was to examine whether type of behavioral health concerns (i.e., screening positive for depression versus not positive, positive for PTSD versus not positive, positive for hazardous alcohol use versus not positive) was related to treatment preferences. Aim 3 was to explore the preferences of primary care veterans who had and had not recently received mental health treatment and report any differences in preferences between these two groups. Due to the preliminary nature of this research and dearth of prior research on preferences for receiving information about mental health treatment no *a priori* hypotheses were specified.

METHODS

PARTICIPANTS & PROCEDURES

Primary care veterans (N = 116) from a northeastern Veterans Affairs (VA) medical center screening positive for at least one of three common behavioral health concerns (depression n = 67/116 [58%], PTSD n = 43/116 [37%], hazardous alcohol use n = 58/116 [50%]) who had (n = 54/116 [47%]) or had not (n = 62/116 [53%]) recently received mental health treatment participated in a cross-sectional phone and mail survey between January 2016–May 2017. All participants consented, and all procedures were approved by the Institutional Review Board (IRB) of the Syracuse, New York VA Medical Center. Participants were compensated for their time. Because full intakes typically take one to two sessions prior to receiving treatment and because primary care is the expected mental health treatment pathway at the VA, recent mental health treatment was defined as three or more mental health appointments within the last year with at least one mental health appointment in primary care. Potential participants were identified via IRB-approved electronic medical record review, and recruitment was stratified based on recent mental health treatment history and behavioral health diagnosis/screening to create two equal groups of veterans (treatment seeking and non-treatment seeking) with adequate coverage of the three types of behavioral health concerns in each group. Eligibility was confirmed via telephone screening, and additional self-report measures were administered by mail survey (62% eligibility rate on initial phone screen, 80% response rate to subsequent mail survey). Eligibility criteria included: veteran status; age 18 or older; enrollment in VA primary care; and positive screen(s) for PTSD, depression, and/or hazardous alcohol use. Participants were predominantly non-Hispanic (n = 114, 98%), White (n = 104, 90%), male (n = 97, 83%), Army veterans (n = 73, 63%), who served in the Vietnam era (n = 56, 50%). These demographics are representative of the primary care clinics from which the participants were recruited. Additional details about the sample and procedures have been previously published (Johnson et al., 2021; Johnson & Possemato, 2021).

MEASURES

BEHAVIORAL HEALTH SYMPTOMS

Behavioral health symptoms were measured using the Patient Health Questionnaire (PHQ-9; ≥10 positive screen; Kroenke et al., 2001), PTSD Checklist for DSM-5 (PCL-5; ≥33 positive screen; Bovin et al., 2016), and Alcohol Use Disorders Identification Test (AUDIT; ≥8 positive screen for men and ≥7 for women; Babor et al., 2001). All are commonly used within VA primary care mental health settings and have established reliability, validity, and cut-off criteria (Babor et al., 2001; Bovin et al., 2016; Kroenke et al., 2001).

MENTAL HEALTHCARE UTILIZATION

Past 12-month mental health treatment utilization was measured using electronic medical record (EMR) review for VA appointments and self-report for non-VA appointments.

PREFERENCES FOR RECEIVING MENTAL HEALTH INFORMATION

Veterans were asked to rate three aspects of preferences for receiving mental health information: (a) provider type (nurse, primary care provider, behavioral health provider, and veteran peer specialist); (b) location (home, VA primary care, VA behavioral health clinic, non-VA site); and (c) format (face-to-face individual, face-to-face group, telephone, internet, mobile app, mailed self-help materials, self-help materials from a doctor's office). For each aspect (provider, location, and format) veterans were asked to rate their interest in each of the options on a Likert-type scale (1 = very disinterested to 5 = very interested). For each aspect, veterans were also asked to identify the one option they would most prefer.

ANALYSES

For Aim 1, to evaluate acceptability, veteran interest in different ways of receiving mental health information, a two-tailed Wilcoxon signed-rank test was used to determine whether overall veteran ratings of interest were significantly higher or lower than a rating of "no interest" (3 on the 1–5 scale).

Aim 2 was analyzed using chi-square tests of independence to compare veterans who screened positive for depression, PTSD, and/or hazardous alcohol use with veterans who did not screen positive based on the "most preferred" choice for provider, location, and format.

For Aim 3, chi-square goodness of fit tests were used to determine the frequency of response options selected as "most preferred" both overall and within each group (veterans with recent mental health treatment versus veterans without), and to evaluate whether veterans within each group endorsed some options as most preferred more or less frequently than others. A chi-square test of independence was conducted to test for statistically significant differences between veterans with recent mental health treatment and veterans without recent mental health treatment on their "most preferred" choice for provider, location, and format. Adjusted standardized residuals were used to interpret significant results with residuals greater than +/–2 indicating significance (Agresti, 2007; Sharpe, 2015).

RESULTS

First, we evaluated acceptability of the different communication approaches, whether veterans were significantly more interested or disinterested in specific options compared to "no interest." There were significant differences in veterans' interest in different options for receiving mental health information (Table 1).

Veterans expressed significantly more than "no interest" in receiving mental health information from nurses, primary care providers, and behavioral health providers. In terms of location, veterans expressed significantly more than "no interest" in receiving mental health information at home, in VA primary care, and in VA behavioral health clinics. As for format, veterans expressed significantly more than "no interest" in receiving mental health information

CATEGORY/ITEM	*N*	MEAN	MEDIAN	*SD*	*Z*	*R†*
Provider						
BH provider	115	3.71	4.00	1.19	5.15***	.48 (moderate)
Primary care provider	115	3.86	4.00	1.16	5.95***	.55 (moderate)
Peer	115	3.27	3.50	1.33	1.77	.17 (very low)
Nurse	115	3.33	4.00	1.21	2.47*	.54 (moderate)
Location						
VA BH clinic	112	3.73	4.00	1.12	5.42 ***	.51 (moderate)
Home	112	3.34	4.00	1.13	2.74**	.26 (low)
VA primary care	112	3.72	4.00	1.04	5.68***	.54 (moderate)
Non-VA site	112	3.16	3.00	1.17	1.11	.10 (very low)
Format						
Face-to-face individual	112	3.96	4.00	1.07	6.79***	.64 (strong)
Mailed self-help	111	3.14	4.00	1.22	.892	.08 (very low)
Internet	110	2.75	3.00	1.23	–2.41*	.23 (low)
Mobile application	112	2.53	3.00	1.20	–4.31***	.40 (moderate)
Telephone	112	3.21	3.00	1.18	1.52	.14 (very low)
Face-to-face group	112	2.70	3.00	1.19	–3.03**	.29 (low)
Paper self-help from doctor's office	112	3.13	4.00	1.17	.877	.08 (very low)

Table 1 Veteran Interest in Different Mental Health Information Modalities.

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$. † Although no effect size measure specifically designed for a Wilcoxon signed-rank test currently exists, Rosenthal Correlation is the recommended measure (Mangiafico, 2016). Effect size interpretations were taken from Bartz (1999).

face-to-face (individually) and significantly less than "no interest" in receiving mental health information face-to-face (in a group), through the internet, and through mobile applications. Veterans' responses did not significantly differ from "no interest" for receiving mental health information for the following: peers, non-VA sites, telephone, mailed self-help, and paper self-help from a doctor's office.

Next, chi square tests of independence were conducted to evaluate whether veterans who screened positive for certain behavioral health symptoms differed in preferences from those who did not screen positive for certain behavioral health symptoms. Preferences for receiving mental health information in terms of provider type, location, and format did not significantly differ between the following three main categories: (a) veterans who screened positive for PTSD and those who did not screen positive for PTSD [provider $\chi2(4) = 3.62$, location $\chi2(4) = 4.30$, format $\chi2(8) = 5.14$]; (b) veterans who screened positive for depression and those who did not screen positive for depression [provider $\chi2(4) = 2.78$, location $\chi2(4) = 7.64$, format $\chi2(8) = 4.06$)]; and (c) veterans who screened positive for hazardous alcohol use and those who did not screen positive for hazardous alcohol use [provider $\chi2(4) = .64$, location $\chi2(4) = 3.78$, format $\chi2(8) = 7.71$].

Finally, the researchers used chi square goodness of fit and independence tests to explore the preferences of primary care veterans who had and had not recently received mental health treatment. Overall, veterans with and without recent mental health treatment most frequently preferred provider and format options were behavioral health providers and individual face-to-face communication, respectively (Table 2).

CATEGORY/ITEM	RECENT MENTAL HEALTHCARE		MH WITHIN GROUP COMPARISON		NO RECENT MENTAL HEALTHCARE		NO MH WITHIN GROUP COMPARISON		TOTAL SAMPLE		BETWEEN GROUP (MH VS. NO MH) COMPARISON	
	N	%	RES	χ^2/INTERP	N	%	RES	χ^2/INTERP	N	%	RES	χ^2/INTERP
Provider (n = 112)				50.47***				29.41***				13.72**
BH provider	30	55.56	6.20†	More freq	25	40.32	3.66†	More freq	55	47.41	1.88	
No preference	6	11.11	−1.32		16	25.81	1.09		22	18.97	1.92	
Primary care provider	7	12.96	−1.00		14	22.58	0.52		21	18.10	1.25	
Peer	7	12.96	−1.00		1	1.61	−3.21†	Less freq	8	6.90	2.47†	MH > no MH
Nurse	1	1.85	−2.88†	Less freq	5	8.06	−2.06†	Less freq	6	5.17	1.46	
Location (n = 110)				23.38***				12.86*				17.24**
VA BH clinic	23	42.59	3.91†	More freq	13	20.97	0.41		36	31.03	2.43†	MH > no MH
Home	5	9.26	−1.67		18	29.03	1.88		23	19.83	2.76†	MH < no MH
VA primary care	13	24.07	0.81		10	16.13	−0.47		23	19.83	1.00	
No preference	5	9.26	−1.67		15	24.19	1.00		20	17.24	2.21†	MH < no MH
Non-VA site	6	11.11	−1.36		2	3.23	−2.82†	Less freq	8	6.90	1.63	
Format (n = 109)				138.06***				60.00***				24.42**
Face-to-face ind.	37	68.52	10.85†	More freq	28	45.16	6.74†	More freq	65	56.03	2.53†	MH > no MH
Mailed self-help	2	3.70	−1.99		11	17.74	0.89		13	11.21	2.42†	MH < no MH
Internet	3	5.56	−1.63		4	6.45	−1.53		7	6.03	0.22	
No preference	0	0.00	0.00		7	11.29	−0.49		7	6.03	2.57†	MH < no MH
Mobile application	3	5.56	−1.63		4	6.45	−1.53		7	6.03	0.22	
Telephone	0	0.00	0		4	6.45	−1.53		4	3.45	1.91	
Face-to-face group	4	7.41	−1.26		0	0.00	−1.53		4	3.45	2.17†	MH > no MH
Paper self-help from doctor's office	1	1.85	−2.36†	Less freq	1	1.61	−2.56†	Less freq	2	1.72	0.07	

Table 2 Frequencies and Chi Square Results for Options Selected as "Most Preferred" Communication Options.

Notes: MH = Mental Healthcare, Res = Residual, Interp = Interpretation, Freq = Frequently, Ind = Individual, BH = Behavioral Health.

* $p < .05$, ** $p < .01$, *** $p < .001$, † Indicates a residual ±2.

However, within-group comparisons revealed that veterans with recent mental health treatment most frequently preferred to receive information in VA behavioral health clinics, while veterans without recent mental health treatment did not more frequently prefer one location more than other options. Between-group comparisons revealed that although veterans with recent mental health treatment and veterans without recent mental health treatment did not differ in overall response pattern in terms of provider and format preferences (i.e., both groups were more likely to endorse behavioral health providers as preferred providers and individual face-to-face communication as preferred format), the groups did differ in how frequently certain providers, locations, and formats were endorsed as more preferred. For instance, veterans with recent mental health treatment were more likely to endorse peers as preferred providers compared to veterans without recent mental health treatment. In terms of location, veterans without recent mental health treatment were less likely to endorse a VA behavioral health clinic as a preferred location for communication and more likely to endorse home as a preferred location for communication compared to veterans with recent mental health treatment. Format wise, veterans with recent mental health treatment were more likely to endorse individual face-to-face communication as a preferred format than veterans without recent mental health treatment, and veterans without recent mental health treatment were more likely to endorse mailed self-help materials as their most preferred format. See Table 2 for full list of within-group and between-group preferences.

DISCUSSION

This study used a mailed survey to evaluate acceptability, or interest in receiving, various modalities of mental health communication to primary care veterans with behavioral health concerns and veterans' preferences for communication modality. These results have implications for informational campaigns to improve mental health literacy.

Veterans endorsed interest in receiving mental health information from a variety of providers, formats, and locations, suggesting that many different modalities may be acceptable to veterans. Ultimately, disseminating messaging through multiple channels and modalities can help reinforce messaging and reach the most veterans, even if information campaigns prioritize the most preferred modalities. Regarding providers, veterans expressed interest in getting information from behavioral health providers and key primary care team members including nurses and primary care providers. This may ease primary care team member apprehension about approaching this topic (Loeb et al., 2012); providing communication materials tailored for these professionals may help them engage in these discussions. This could include informational materials or communication strategies to support warm handoffs to integrated behavioral health providers within primary care. Given veterans' interest in receiving mental health information in a variety of locations (i.e., at home, VA primary care, and VA behavioral health), information campaigns may be well received in a range of locations. Individual communication may be the best received, since veterans expressed disinterest in communication through groups, internet, and mobile applications. However, individual communication may support veteran engagement with beneficial information communicated through groups, internet, and mobile applications (Possemato et al., 2017).

In addition, the results of this study have implications for how to tailor communication strategies for veterans as a population and to tailor messages within veteran populations for those who have and have not recently engaged in mental health treatment. Informational campaigns for mental health literacy (e.g., Beyond Blue, n.d.) are designed to increase public knowledge and recognition by providing accessible information and resources. Because both groups of veterans in this study (those with and without recent treatment experience) preferred communication from behavioral health providers, informational campaigns targeting veterans may have the broadest impact coming from behavioral health providers rather than other sources. In contrast, veterans who had recently engaged in mental health treatment were more open to receiving information from peers; thus, information targeting veterans recently or currently in mental health treatment may come from peers. This is consistent with peers' role to provide engagement and navigation support in behavioral health clinics. Veterans who had not recently engaged in mental health treatment were more open to receiving mailed self-help materials, so outreach to unengaged veterans through mailings may be a good first step. Type of behavioral health symptoms (e.g., positive screen for depression, PTSD, or alcohol use) was not significantly related to preferences in this sample, so general informational materials may be appropriate across all groups, which would simplify dissemination.

There were some limitations to this study. First, the sample consisted of predominantly non-Hispanic, White, males, of whom 50% were Vietnam-era veterans. Although these demographics are representative of the VA primary care population from which they were sampled, preferences in more diverse sample may differ. Future research should sample data across multiple sites and evaluate the impact

of age, gender, and service era on preferences. In addition, data collection took place from January 2016–May 2017 prior to the drastic decrease in face-to-face services in 2020. More recent data on veterans' preferences for receiving mental health information is needed and may indicate more willingness for virtual modalities. The data was also descriptive and collected during a single time point. Future studies should track participants' preferences and mental health treatment utilization over time to examine whether veterans' interaction or lack of interaction with mental health services influences their preferences for receiving mental health information (e.g., once veterans receive mental health treatment, their preferences may shift). Researchers should also consider including questions on access to certain modalities (e.g., internet) to evaluate how this may affect preferences. Finally, our analysis of differences by behavioral health symptom screening type allowed us to explore potential differences for each type of separately, but it did not allow an understanding of how these symptoms may interact including the presence of comorbidity and increased symptom complexity or severity. Future studies with larger samples would allow for more sophisticated analyses to further explore potential relationships between symptom types and preferences.

CONCLUSIONS

Given low help-seeking and treatment utilization rates amongst veterans, it is essential to better communicate mental health information to this population to improve mental health literacy. The results of this study offer meaningful insight into how to best inform veterans of mental health symptoms and treatment options. For example, when trying to reach veterans generally, mental health information should be communicated from a behavioral health provider, in a VA behavioral health clinic, via face-to-face individual meetings. However, when targeting more specific groups of veterans, such as veterans who have not recently engaged with mental health treatment, mailing self-help materials and communicating with veterans at home may be beneficial outreach strategies.

ETHICS AND CONSENT

All participants in the research study consented, and all procedures were approved by the IRB of the Syracuse VA Medical Center. The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government.

FUNDING INFORMATION

This material is based upon work supported by the Department of Veterans Affairs, Center for Integrated Healthcare Pilot Research Grant awarded to Dr. Johnson.

COMPETING INTERESTS

Dr. Buckheit is supported by the Department of Veterans Affairs, Office of Academic Affiliations, Advanced Fellowship Program in Mental Illness Research and Treatment, and the Center for Integrated Healthcare, Syracuse VA Medical Center. Author affiliations reflect affiliations at the time the work was done. Brittany Hampton has since taken a position at the University of Mississippi. Dr. Paul Knowlton has since taken a position at the Rochester Vet Center in Rochester, NY.

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TO CITE THIS ARTICLE:
Hampton, B., Johnson, E. M., Buckheit, K., Knowlton, P., & Possemato, K. (2022). Primary Care Veteran Preferences for Receiving Information about Mental Health Services: Cross-Sectional Survey. *Journal of Veterans Studies*, 8(3), pp. 70–78. DOI: https://doi.org/10.21061/jvs.v8i3.340

Submitted: 25 February 2022 **Accepted:** 26 May 2022 **Published:** 14 September 2022