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Qualitative Research

Caring for veterans in US civilian primary care: qualitative interviews with primary care providers

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Abstract

Background. Non-VA health care providers in the USA have been called upon to screen patients for veteran status as a means to better identify military-related health sequelae. Despite this recognized need, many service members are still not being asked about veteran status.
Objective. The purpose of this research was to qualitatively assess, from non-VA primary care providers' point-of-view, barriers to providing care to veterans, the training providers perceive as most useful and the tools and translational processes they think would be most valuable in increasing military cultural competency.
Methods. Semi-structured qualitative interviews, with non-VA primary care providers (N = 10) as part of a larger quantitative study of primary care providers' attitudes around veteran care. Interviews asked about providers' approach to addressing veteran status in their practice and their thoughts on how to address the needs of this population. Qualitative data were analyzed using a thematic content analysis approach.
Results. Three major themes were identified: (i) barriers to caring for patients who are identified as veterans, (ii) thoughts on tools that might help better identify and screen veteran patients and (iii) thoughts on translating and implementing new care processes for veteran patients into everyday practice.
Conclusions. Our study identified barriers related to non-VA providers' ability to care for veterans among their patients and possible mechanisms for improving recognition of veterans in civilian health care settings. There is a need for further research to understand how assessment, screening and follow up care for veteran patients is best implemented into civilian primary care settings.

Key words: Health services research, implementation science, primary care, provider education, qualitative research, veterans.

Introduction

Worldwide, significant attention has been given to the well-being of military service members, in particular post-deployment mental health needs (1–5). Several countries, including the USA, Canada, the UK and Australia, engage in post-deployment screenings to help identify service members in need of support and treatment (4–7). However, connections to ongoing healthcare remain problematic, even in countries with national health services; recognition of patients who are veterans and provider understanding of their unique experiences as military members remain universal challenges (2,7–9).

The ability to provide effective, culturally competent care for service members is essential for health care providers. Factors such as deployment, combat exposure and military-specific environmental exposures create a set of health needs unique to this subpopulation (10). However, military cultural norms, including not admitting weakness or pain (11), and the stigma associated with mental health problems may

create barriers for seeking health-related treatment (2,12). Therefore, it is important for health care providers to understand military service members' distinctive experiences and health care needs (8,13).

Between 2011 and 2015 there were 20 million veterans living in the USA, comprising approximately 6% of the total population (14). Only 25–50% of US veterans receive care in the Veterans Health Administration (VA) system (13). Many service members are not eligible for benefits from the VA or Department of Defense (15), which necessitates these individuals be seen in civilian healthcare settings. In addition to those who are ineligible, rural veterans frequently use non-VA healthcare providers, as they may not be conveniently located to a VA (16). Significant proportions of veterans are also dual users of VA and civilian healthcare (17,18). One study of non-VA healthcare providers extrapolated that the veteran caseload in civilian settings is approximately 134 veterans per US primary care doctor, meaning that veterans account for almost 5% of a given practice's patient population (13).

Since veterans may constitute significant portions of non-VA healthcare providers' patient caseload (13), there is a need for providers to screen for veteran status as a means to better identify service members and in turn, military-related health sequelae (10,19,20). Despite this, many service members are still not being asked about veteran status (21,22). In a recent study of non-VA primary care providers, most providers asserted that knowing a patient's military status would help them provide better care, yet more than half rarely or never ascertain veteran status (23). These same providers indicated they do have time to ask, despite the brief time they are allotted with patients (23). One hypothesis for why more healthcare providers do not assess veteran status is that veterans may not present in ways that meet stereotypical expectations and portrayals (20); as such, non-VA providers may not make the connection between military service and current symptoms (24). Improvement in military cultural competency may help lessen this assumption and improve care outcomes (20). Providers have indicated a desire for more training around military culture and related health risks to help them better care for their veteran patients (13,23).

Despite the need to assess veteran status and providers' willingness to increase their military cultural competency, little is known about non-VA healthcare providers' perceived barriers to providing care to service members once a patient is identified as a current or former service member. Non-VA healthcare providers' have indicated lower confidence in their ability to manage, and limited education around treatments for, certain psychosocial sequelae, such as PTSD (15,25).

The purpose of this current research was to qualitatively assess, from non-VA primary care providers' point-of-view, the barriers to providing care to veterans, the training providers perceive as most useful, and the tools and translational processes they think would be most valuable in increasing military cultural competency. The use of qualitative interviews allowed for the in-depth exploration of factors that may otherwise not be captured by survey methodology and provides initial data on how non-VA providers may begin to achieve improved health outcomes with this unique subpopulation.

Method

Participants

Eligible participants included primary care providers (MDs, DOs, Nurse Practitioners and Physician Assistants) who were currently in civilian practice (i.e. were not employed at the VA) in Western New York. The study protocol was approved by the Institutional Review Board at the University at Buffalo.

Recruitment

Participants were recruited to participate in qualitative interviews as part of a larger, quantitative survey study (N = 102 participants) around similar questions (23). We completed ten interviews. This sample was determined based on methodological considerations, in balance with budgetary and time constraints related to the pilot nature of the project. For a study such as this, with a relatively narrow scope and a clear topic, a smaller sample size is acceptable (26). Furthermore, evidence indicates that the range of primary themes identified within a qualitative analysis are frequently uncovered within the first 10 interviews (27,28).

A link to the survey was distributed via email through provider networks, including the local chapter of the Academy of Family Physicians, university academic departments, the community health center network, the local practice-based research network and other local provider organizations. The study team also attended provider meetings at local practices (n = 8) to introduce the study and solicit participation. Participants who completed the survey had the option to provide their name and email address if they were interested in participating in an interview. Eighteen (18) of the 102 individuals who participated in the survey provided their contact information. The study team then contacted these individuals to arrange an interview; ten interviews were scheduled and conducted. The other eight providers did not respond to outreach attempts.

Research team

The research team was led by a PhD-level medical anthropologist (BMV); a faculty member in the Department of Family Medicine, with training and experience in qualitative methodology and in working with military populations. Other team members included: an MPH research associate with training in practice-based research and qualitative methods, a post-doctoral fellow with mixed methods training (JAK) and an epidemiologist co-investigator (GGH). All members of the research team had experience previously working in primary care practice-based settings and/or with military populations.

Data collection

Qualitative interviews (n = 10) were conducted from November 2016 to March 2017 over the phone or in person in a private room at the university, based on scheduling needs and participants' preference. All interviews were conducted by the PI or an MPH-level research associate trained in qualitative methods. Interviews lasted approximately 30 minutes and were audio-recorded. Hand-written notes were also taken by the interviewer. Some participants were known to the research team prior to the study; however all participants were recruited using the same method and all participants were provided with a study information sheet and gave verbal informed consent to participate in the interview. Participants received $25 as compensation for their time, though some participants declined the compensation.

The interview questions were designed to complement the topics of the survey, but allow for deeper exploration of key concepts (see Table 1).

Data analysis

Qualitative data from the interviews were transcribed verbatim and de-identified. Responses were analyzed initially by two members of the research team (the PI and the research associate) using a thematic content analysis approach to identify major themes (29–31). This

Table 1. Qualitative interview questions—'interviews with non-VA primary care providers, 2016–2017'

1) To what extent are you aware of veterans and/or military family members among your patients?
   a. Do you regularly ask patients if they, or an immediate family member, have served in the military?
   b. Why or why not?
2) What do you think are health problems faced by recently returning veterans that you might see in your practice?
3) Would knowing your patient was a veteran/military family member change the way you care for them?
   a.If no, why not? If yes, in what ways?
4) Given the multiple demands placed on primary care providers, how do you make decisions about what to prioritize in a patient visit?
   a. How do social/demographic/ cultural factors of patient history fit into these decisions?
   b. What priority would you assign veteran/military status?
5) How important do you think veteran/military family status might be in affecting various aspects of a patient's health?
6) Veterans/ military family members are at an increased risk for a range of short and long-term physical and mental health problems, such as PTSD, TBI, depression and/or anxiety, chronic pain, substance abuse, family stress, intimate partner violence and suicidality, among others. How comfortable do you feel addressing issues such as these?
   a. What would make you feel more comfortable?
7) What type(s) of continuing education do you find most useful? Why?
8) To what extent do you feel information you obtain during CME is applied to your daily practice?
9) Explain what works best to help you translate new knowledge (from CME or other sources) into daily practice.
10) How would you feel about having veteran status added as a demographic item to be checked in your EMR?
11) How would you feel about administering a brief screening tool to identified veteran patients, assessing military exposures and possible symptoms?
12) Is there anything else you would like to share related to addressing veteran or military family needs among your patients that we haven't already talked about?

approach was chosen because it is content-driven, allowing the data to stand alone, without being driven by a theoretical model (29,31), given limited previous research in this area, this approach allowed the team to fully explore the concepts as reflected in the data. Data were analyzed and organized using Microsoft Excel. Textual data were reviewed to identify concepts that emerged across participants and a coding scheme was developed to summarize and categorize identified concepts. Two members of the research team independently reviewed the transcripts and identified themes, then met to compare identified themes and agree upon a comprehensive codebook of themes and supporting data. Researchers actively searched for discrepant cases or data that did not fit the coding scheme. After the initial analysis and coding by the primary analysts, other members of the research team (JAK and GGH) reviewed the themes and categorization and illustrative examples.

Results

Participant demographics are presented in Table 2. Participants were fairly evenly split between male (60%; n = 6) and female (40%; n = 4) and the majority were white (70%; n = 7). Participants were primarily MDs (60%; n = 6), practicing family medicine (90%; n = 9), in urban (60%; n = 6), academic practices (60%; n = 6). One participant was in residency training. The mean years in practice was 13.8 (SD = 12.9).

Three major themes were identified from the interview data: (i) barriers to caring for patients who are identified as veterans, (ii) thoughts on tools that might help better identify and screen veteran patients and (iii) thoughts on translating and implementing new care processes for veteran patients into everyday practice. Supporting quotations for each theme are provided in the text and additional examples are presented in Table 3 to demonstrate the depth of each area.

Barriers to caring for veteran patients

Perceived barriers included: limited perception of the possible impact of veteran status and how it would change the provision of medical care, inconsistent knowledge of military culture/population, limited knowledge of resources and support services available in the community and lack of coordination with the VA healthcare system.

Limited perception of impact of veteran status on health and care

Providers had mixed opinions about how much knowing their patient was a veteran would change their practice. Although all participants expressed a sense that military participation was important for individuals' health, responses generally indicated limited insight into the possible health impacts of military experience, focusing primarily on mental and behavioural health concerns.

> 'One of them I know was PTSD. One of them was depression, chronic depression. Anxiety, I remember was one of them. It's more like psychiatric issues.' [P1]

> 'Well, most of the stuff would be psychosocial stuff: Depression, anxiety, PTSD, issues related to family, being away from family causes some stress, stress on kids, that sort of stuff, spouses. That's the majority of it. Occasionally, some musculoskeletal stuff, injuries, but most of it seems to be psychological or psychiatric in nature.' [P3]

A few participants evidenced knowledge of broader impacts of military service on health, noting physical health sequelae, such as hearing loss, and immunization history.

> 'I see a lot of hearing loss that I think is associated with their training and firearm usage. So I see that as number one. Mental health issues, probably number two….or exposures, if there was any kind of exposures, Agent Orange or anything like that.' [P8]

Some felt that knowing their patient was a veteran would not change much about how they practice, but that it might prompt them to ask a few additional questions:

> 'I still would approach things in pretty much the same sense, but I suppose I may ask a few additional questions, but they wouldn't really, I don't think, be too much different than asking somebody who has a history of psychiatric problems or issues.' [P3]

> 'I guess it would affect maybe my differential diagnosis. I might think more about psychosocial issues. I might be more apt to ask about relationship issues and anger management in the home, things like that, and stress management.' [P2]

One participant demonstrated more insight, expressing that the information was important for making treatment recommendations and referrals to specific services,

Table 2. Participant demographics (n = 10)—'interviews with non-VA primary care providers, 2016–2017'

Characteristic	% (*N*) or Mean (SD)
Military veteran?	10% (1)
Ever employed at VA?	30% (3)
Provider type	
Family Medicine	90% (9)
Internal Medicine	10% (1)
Practice setting*	
Private practice	50% (5)
Clinic-based	10% (1)
Hospital	0% (0)
Academic practice	60% (6)
Practice location	
Rural	30% (3)
Suburban	10% (1)
Urban	60% (6)
Provider training	
MD	60% (6)
NP	10% (1)
PA	30% (3)
Resident	10% (1)
Years in practice	13.8 (12.9)
	Range: 1–35 years
Gender	
Male	60% (6)
Female	40% (4)
Race	
Asian	10% (1)
White	70% (7)
Other	10% (1)
Unknown	10% (1)
Hispanic	20% (2)

*Some participants indicated more than one practice setting

> 'What we used to do when we had veterans that we knew about, we would specifically talk to them about how mental health counseling might help them in a specific way because of being a veteran, that the cause of some of their issues, anxiety or depression, might be handled in a different way than just routine counseling....I know a lot of those programs in the area now… that I would refer to rather than just regular counseling.' [P10]

Inconsistent knowledge of military culture/population

Overall, interviews revealed that providers had inconsistent knowledge about the military population or culture. Although a few participants mentioned having family members or friends who served, participants mentioned that they never learned about veterans or the military during their medical training, and so had limited exposure.

> 'I was thinking along the way, "When should I have learnt this?" I don't recall learning anything specific to veterans…going through my training…they talk a lot about ethics and morals and things like that, but nothing specific to a specific population and the different challenges. And talk about cultural awareness and competence and things like that, but you're talking more about races and religions, not populations such as veterans. And I think they are their own culture.' [P8]

As one interview participant (who was a veteran himself) stated,

> 'The civilian medical community in general is really in blissful ignorance of the changes that take place over the military training and especially those men and women who've actually served in combat.' [P7]

Limited knowledge of resources and support services available in the community

Providers discussed lack of information on services, lack of available services (particularly in rural areas), and uncertainty about veterans' insurance coverage as barriers to their ability to care for patients who were identified as veterans.

> '...it's because of lack of services, that once that's opened up then I have to do some research on my own to find out how best to deal with it, both for me in the office, as well as any referrals that might be appropriate, and just trying to find those resources.' [P6]

For providers with limited time, the task of seeking out resources may fall to the patient, which may result in poor follow-through:

> 'I realize I don't know a lot of the resources available to veterans, and that's where I have some knowledge gaps and really need to learn more about. It's left up to the veteran themselves to seek out what resources there are. It's difficult for some of them, especially if they're facing some of these challenges...' [P8]

Providers indicated they generally would treat veteran patients the same as others, due to their lack of knowledge of specific services or eligibility.

> 'I think I would refer them to the same [places] as I would refer all of my other patients. I don't [know if], their insurance, they get the same benefits as other patients. I am not too familiar to what extent they have those health privileges…so I think there is a lack, or deficit of knowledge on my end as far as their insurance coverages and what the local resources are. So it would be nice if I could have a go-to resource where...Like a quick reference to see if they have this health privilege under different peer settings.' [P9]

Lack of coordination with the VA healthcare system

Providers also discussed a lack of communication with the VA as a barrier to caring for patients who were veterans. In some cases, providers had patients they knew were being seen both at the VA and at their private practice, but did not know what services they were receiving at the VA or have access to patients' VA medical records. This led to potential duplication of services or confusion over who was responsible for overseeing the patient's care.

> 'One thing I noticed in primary care is you seem to ask people who've bounced between the VA system and the private world, and it seems to be difficult from a medical records standpoint to get those things coordinated…They get their VA benefits, they want to go there for certain issues, but then they have some private insurance so they bounce back and forth between the two worlds...Sometimes the patients sort of get lost themselves. They don't know where they're supposed to go or what's what.' [P3]

Tools for improving veteran care

EMR demographic item

We asked providers what they thought about having veteran status added to the EMR as a demographic item to facilitate more systematically collecting this information from all patients. Participants generally saw this to be useful and felt that it would help them remember to ask their patients about military service. Providers mentioned that it would also trigger them to ask additional questions if patients were identified as veterans. One provider said,

> 'It doesn't take much to just ask one more question…If in the social history, there's a question or a template to ask, to hit the basic points, "Have you served?" and then if it's a yes, then "have you ever experienced this, this and this? Just like a yes/no question, that could be done super quick to be honest…it might potentially

Table 3. Quotations supporting thematic results—'results from interviews with non-VA primary care providers, 2016–2017'

Theme	Sub-Theme	Quotation(s)
Barriers to caring for veteran patients	Limited perception of impact of veteran status on health and care	'Just their interaction, personal interaction with their spouse, their children, their other family members. I think that would be the other biggest thing is just how are they coping with being back home.' [P4] 'I've seen this before in other practices and I have had experience working with vets in another way. PTSD, anxiety, depression, substance abuse, a feeling, certainly after Vietnam, of not being reintegrated well, and feelings and thoughts about the system failing them when they return in terms of medical health and mental health.' [P10] 'Other health problems more related to smoking; hypertension, cardiovascular disease, sometimes obesity.' [P2] 'Yeah, I don't treat my patients any differently as far as how I interact with them or what screening tests I do with them based on that. But as far as... I think really more from a mental health standpoint, I think it would be probably more helpful from that standpoint.' [P5]
	Inconsistent knowledge of military culture/ population	'So I grew up with a lot of kids who were in the military, and were in the military, were retired. So I feel like I get the culture. I didn't live it. But I've been around it. There's a Service Academy there, so, Air Force Academy's there, so I kind of get it. For me personally, I feel like I have a pretty good handle on things. I have friends who've been deployed, and stuff like that. But overall, it would probably be a good idea, 'cause, people have varying experiences with what it's actually like to be in the military, that sort of thing. So it'd probably be good.' [P3] 'I know that I hadn't had many veterans that went out of their way to say that they're veterans, so I don't have as much experience specifically with that. I have never been to the VA yet, so maybe going to the VA would be better in terms of that, just to be immersed in that field, in that area, 'cause everyone there's a veteran.' [P1]
	Limited knowledge of resources and support services available in the community	'The other thing which I have seen is veterans not having enough help with the substance abuse problems. Because I do take care of those patients, and I think there is a lack of resources for that kind of medical problem.' [P9] '...the system is set up in this area to go through the emergency room mental health services, and then whoever is covering the mental health services through the emergency room sees a person, says it's okay for them to go home. They go home and they don't have any services... or much in the way of support to deal with those problems. So it becomes a frustration on both parts. …They're at home with no services so they end up back in the ER, and then get sent home.' [P6] 'We see many patients with TBI, it's tough. It's very very tough. And a lot of them have so many substance abuse issues to deal with their problems. The problem is there's really no programs in the community for folks on Medicaid and who don't have perfect insurance to get help...It's a tough one...and their behaviour is bad sometimes. Families get frightened.' [P10]
	Lack of coordination with the VA healthcare system	'I think that's my biggest issue, is that there's zero communication between VA providers and primary care providers. And it's like, 'Well why am I repeating this test that you had done two months ago, but I just don't have the results and I need them?' ...One of us needs to be the primary care provider and the other one needs to be more of an adjuvant care provider, and we need to figure out how that's gonna play out, because that's a mess.' [P5] 'I guess it's important to me, there is a person I went to school with who committed suicide who was a military veteran within the last few years. And I just feel like I'm probably not doing enough and I don't think anyone is doing enough for them. I would be interested to learn more about how I can refer people back to the VA so if they do come to me with problems, I can... Rather than saying, "You should see this psych doctor at the VA." How do I make sure that they get that?' [P5]

Table 3. *Continued*

Theme	Sub-Theme	Quotation(s)
Tools for improving veteran care	EMR demographic item	'That would actually prompt discussion, 'cause like you said with the competing demands, we aren't really thinking about that aspect. So if that's there as a checkbox or something that we can see, that would be very helpful.' [P4]
	Screening tool for patients identified as veterans	'If in the social history, there's a question or a template to ask, to hit the basic points, "Have you served?" and then if it's a yes, then "have you ever experienced this, this and this? Just like a yes/no question, that could be done super quick to be honest. And I feel like that could be very helpful potentially. And it also depends on the patient. If they're not willing to talk about certain things, then there's nothing I can do about it.' [P1]
		'It would have to be able to be administered, either self-administered by the person, or by a nurse or MA…if it was concerns with veterans, I think, Because it has such an immense influence on their health. This is just what we have to do, I think going forward, offices really have to have a way that the doctor doesn't have to do everything.' [P10]
		'if its something that could be a self-questionnaire that we could give to the patient prior to the visit' [P8]
Translating into Practice		'Because I'm afraid if I don't, the care will be less.' [P10]
		'...Because our records are electronic, if I can put the information into a text template that I can use as a screen tool, like the depression scales, or the ADH scales, or the drug abuse scales, any of those, if it's something like that, that makes it easier for me to recall the information and to ask the more appropriate questions.' [P6]

> expose more veterans than we originally thought that we have in our visits…And maybe that leads to exposing some psychiatric issues that they might be having that we just don't know about it, cause we're not asking them.' [P1]

Another agreed, noting that it would function similar to reminders for other demographic groups:

> 'Yeah, I think that if they have that as a status in their chart, it would be easier because it's just like, "Oh, you're over 65 so I need to ask you about X, Y and Z. Oh, you're 50, did you have your colonoscopy?" It's just one of those trigger things like, "Oh you're a military veteran, did you fill out this form?" That's easier for me than being like, "Oh, let me try and figure out what six forms need to fill out based on... Let me go back to your social history."' [P5]

Screening tool for patients identified as veterans

We asked participants about the usefulness of a standardized screening tool for those patients who were identified as veterans, which would cover primary concerns (such as PTSD, traumatic brain injury, etc.). Participants thought this would be helpful, particularly for providers who are not familiar with the veteran population and for patients who are reluctant to disclose information. Furthermore, they felt it would be doable within the context of their medical practice, with the caveat that the tool needed to be brief and completed by the patient on their own, and then reviewed by the provider.

> 'I think that that would be something that if there was a standardized form, or I know in my previous practice we used the PHQ-9 for depression screening. That was helpful. I think it picked up a lot of patients that could be depressed that normally wouldn't say anything to you, and I feel like a lot of men tend to fall into that category. I think there's a disproportionately large number of veterans that are men, not women.' [P5]

However, not all participants felt a screening tool would be useful, seeing it potentially as extra work for the provider with little added benefit,

> 'It may or may not be useful, it's probably not super helpful, it'd just be another thing lengthening the visit, 'cause I can probably get the information that I need just as quickly by asking them a few questions…I feel like…some of it, it's kinda data capture for other people, and it's not for physicians... ask them what I wanna ask instead of having them fill out a form.' [P3]

A small minority of participants indicated that they did their own version of screening with patients they knew were veterans, but felt a more formal tool would be helpful for those less familiar with the population.

> 'Those questions are just ones that I ask whenever patients... When I ask them, "Are you now or have you ever been in the military?" Then I ask them... "I mean, for me it's automatic…. What branch? What time period? What did you do? Were you overseas? Where were you stationed?" Sometimes I ask them, "What rank?"' [P6]

Translating new processes into practice

In terms of educational preferences, participants were fairly evenly split between preferring in-person interactive sessions and electronic or reading based activities that could be completed at any time. Although the interactive sessions were seen generally as more valuable, constraints on time and money made individual activities more appealing for some.

We asked providers, once they learn something new about patient care, what best helps them translate these new processes into their daily practice. Participants provided a range of strategies, including making incremental changes—finding a 'nugget' that could add to what they are already doing, using reference materials such as handouts and posters, and repetition through practice and through teaching the material to others. One participant also noted that being able to incorporate new information into EMR templates and forms was also very useful in remembering new processes.

Overall, participants emphasized that the change needs to be seen as worthwhile and applicable to their patients. As one provider

expressed, 'It has to be something I have time for, number one. Number two, it's something I have to feel is worthwhile,…so if it's something that I don't think really fits into the practice or my patient population, no it's not something I'm going to explore or do.' [P8]

Interestingly, a few providers mentioned that participating in this study in and of itself acted as an intervention, prompting them to be more thoughtful about this population. As one provider said, 'It just never came up. I never thought about it until I saw that survey that we did.' [P4] Another agreed, 'I'm trying to think back to the survey. The reason why I had agreed to do this [interview] is because I felt that I just didn't know as much as I should know… doing the survey I found out that I do have knowledge deficits in the way I practice.' [P8]

Conclusions

Our study identified several barriers related to non-VA providers' ability to provide care for veterans among their patients, including limited knowledge and understanding of military service and its impact on health, limited knowledge of resources available to veterans and a lack of coordination with VA health care.

Other studies have reported that providers have limited knowledge of the impact of military service on health and relatively low comfort with discussing exposures and risks related to military participation, such as PTSD and TBI (13). Another study of mental health providers found that while they felt comfortable treating military service members, and half of respondents had received training/education around military populations, there was still low use of evidence-based practices for treating PTSD and TBI (25). Our findings help to illuminate in greater detail the context and concerns underlying these results. It is important to provide educational interventions to address barriers faced by physicians that may be limiting their identification of patients who are veterans, and ultimately their care of these patients.

Providers indicated they never learned about veterans or military populations during their medical training and discussed a limited understanding of military culture. Other studies have similarly found that providers have had limited exposure to military culture (22) and report low-to-moderate familiarity and comfort with military terminology (13). Although more medical schools (13) and mental health graduate programs (25) may now be including this education, more research regarding education specific to veterans' health concerns in medical education programs is needed (13). Providers in the quantitative arm of this study expressed less need for education on medical conditions, such as TBI, and were more interested in training on military culture and the effects of deployment and combat (23). Education that encompasses military cultural competency and information on health-related sequelae of military participation, combat and deployment, may help providers better engage veteran patients and recognize health problems that may be under-addressed. Online training resources for providers to learn about military culture, common conditions affecting veterans, and evidence-based treatments are one strategy that has been implemented, both in the USA (e.g. https://deploymentpsych.org/online-courses/military-culture) and in Australia (e.g. https://at-ease.dva.gov.au/professionals; as cited in reference (8)) though there appears to be limited evaluation of the impact of these materials on practice. Other strategies, such as a UK pilot program providing specific linkages for veterans to providers with a military background themselves, may also help improve recognition of problems and culturally competent care (9).

Importantly, our interviews also revealed strategies that can be implemented to assist providers in better identifying veterans among their patients and screen for common conditions. Although our participants responded favourably to having veteran status added to the EMR as a demographic item, addressing veterans' needs requires more than asking a demographic question (20). Providers in our study were also favourable to having a standardized set of brief screening questions that would aid them in identifying possible concerns to be addressed. However, providers may be reluctant to ask patients about military history if they do not feel well equipped with knowledge about how to meet patient needs once they are identified. Providers in our study identified lack of coordination with VA health care as a challenge. Kilpatrick and colleagues also qualitatively identified a lack of communication and engagement with the VA as a barrier to streamlined care for veterans (22). Greater interagency collaboration between the civilian healthcare system, the VA and other veteran service organizations may help ameliorate these challenges (10). There is a need for further research to understand how screening and follow up care for veteran patients is best implemented into primary care settings. To our knowledge, there has been no research to date that examines these questions.

Study findings must be interpreted within the context of limitations. This study represents a convenience sub-sample from a larger study of primary care providers (N = 102; 34% from academic practices). Due to this, the interview sample resulted in a larger proportion of providers in academic practice. Nonetheless, qualitative findings are consistent with the results of the larger sample (23). Findings reveal aspects of care provision for veterans which may be further assessed in future quantitative studies in larger generalizable samples. Second, the relatively small sample of interviews may mean that complete thematic saturation was not reached in all areas. However, ten is not an unreasonable sample for a qualitative interview study of this scope (26–28), and the range of responses in our sample demonstrated differing levels of knowledge about the veteran population. Even with this variation, multiple participants expressed similar ideas, leading us to believe that the themes are a fair representation of key issues around this topic.

Overall, our results indicate that there may be great uncertainty among non-VA primary care providers in regards to how to best address veterans' needs. Future studies need to assess the extent to which these findings are applicable across a broader range of providers and to implement and evaluate innovative, efficient strategies for implementing assessment of military status into regular care processes.

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Declaration

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