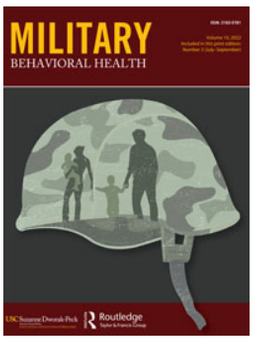

Routledge
Taylor & Francis Group

Military Behavioral Health

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/umbh20

Evaluation of a Military Informed Care Training with Private Sector Healthcare Providers

Elisa Borah, Valerie Rosen, Jessica Fink & Christopher Paine

To cite this article: Elisa Borah, Valerie Rosen, Jessica Fink & Christopher Paine (2022) Evaluation of a Military Informed Care Training with Private Sector Healthcare Providers, Military Behavioral Health, 10:3, 249-260, DOI: 10.1080/21635781.2021.2000904

To link to this article: https://doi.org/10.1080/21635781.2021.2000904

MILITARY BEHAVIORAL HEALTH
2022, VOL. 10, NO. 3, 249–260
https://doi.org/10.1080/21635781.2021.2000904

Evaluation of a Military Informed Care Training with Private Sector Healthcare Providers

Elisa Borah[a], Valerie Rosen[b], Jessica Fink[c] and Christopher Paine[a]

[a]Steve Hicks School of Social Work, The University of Texas at Austin, Austin, Texas, USA; [b]Dell Medical School, The University of Texas at Austin, and Ascension Seton, Austin, Texas, USA; [c]Ascension, Ascension Seton Behavioral Health, Austin, Texas, USA

ABSTRACT

Military cultural competence that supports military-informed care (MIC) of veterans and service members is a necessity for healthcare systems to effectively care for 22 million veterans who receive healthcare outside of the Department of Veterans Affairs (VA). This study evaluated a 2-hour military informed care training with 77 healthcare providers that was developed based on input from veteran patients. Changes in knowledge, attitudes and skills were assessed with the Assessment of Military Cultural Competence (AMCC). Trainees showed improvements in knowledge ($t(73)=17.19$, $p<.000$), attitudes and skills. Respondents' attitudes improved regarding whether the respondent's cultural background influences their delivery of care, $t(75) = -3.24$, $p=.002$, whether a patient's military or cultural background can impact their perception of care, $F(1, 147) = 5.26$, $p=.023$, whether the respondent's cultural beliefs can be at odds with other cultures or the military, $F(1, 148) = 11.66$, $p=.001$, and whether the military is a culture, $t(76) = -3.70$, $p<.000$. Trainees' skills improved in two of four areas, including looking up unfamiliar cultural phrases or military terms $F(1, 150)=4.13$, $p=.044$, and screening for diseases/disorders based on prevalence within a culture or within the military, $F(1, 150)=18.22$, $p < .001$.

KEYWORDS

Military culture; military cultural competence; military informed care; training; veterans; healthcare

Introduction

The need for military cultural competence that supports military-informed care (MIC) by healthcare providers has become increasingly clear as over half of the over 22 million veterans receive their healthcare outside of the Department of Veteran Affairs (VA) (Lee et al., 2014). Military-informed care, a term coined by Kreimeyer and Huntington (2018), is used in this study as healthcare practices that are informed by knowledge of a patient's military background and relevant details of their military service and medical history. Patients in this study are referred to as veterans, since they represent the majority of identified military patients at the organization. However, the term service member is used at times interchangeably when referencing the literature. Providers can develop skills in MIC to improve their assessment approaches, care planning and rapport building with veteran patients. Most healthcare providers do not have military service experience and do not possess high levels of military cultural competence that would consider veterans' military medical histories as they seek care. Large numbers of veterans with sequelae from military service are receiving their medical care from civilian providers who are either unaware of their patients' military service, or lack an understanding of military culture or the necessary clinical and assessment competencies to provide military informed evidence-based treatment (Brown, 2012; Murphy & Fairbank, 2013). In fact, some negative treatment outcomes have been attributed to the deficient cultural competence of providers and non-culturally informed methods toward veterans (Meyer et al., 2016). Many trainings in military culture have been created and distributed for providers, either in their formal educational training or as part of continuing education, but there are few studies reviewing the trainings' efficacy in developing increased levels of military cultural competence and related improvements in healthcare practices (Kilpatrick et al., 2011; Meyer et al., 2015).

CONTACT Elisa Borah elisa.borah@austin.utexas.edu Steve Hicks School of Social Work, The University of Texas at Austin, Austin, TX, USA
*Now continuing his service in the Active Component, United States Army.

The military represents a unique cultural group, often foreign to civilians, with its own language, behavior, and beliefs (Brown, 2012; Coll et al., 2011; Luby, 2012). However, appreciating the military as having a distinct culture from civilian culture is a rather recent development (Hobbs, 2008; Meyer et al., 2016). Military culture has been defined as: "the total of all knowledge, beliefs, morals, customs, habits, and capabilities acquired by service members and their families through membership in military organizations" (Brim, 2013, p. 31).

Atuel and Castro (2018) have elaborated on military cultural competence as "pertaining to a provider's attitudinal competence, cognitive competence, and behavioral competence in work" (p. 77). They further delineated these multiple aspects to incorporate attitudinal competence or beliefs about a population, cognitive competence or the concrete details or knowledge base about a population, and behavioral competence or the ability to take the concrete ideas and translate them into skills to treat the population. While it is paramount to providing good care to service members that a practitioner consider these patients as a cohesive cultural group, it is similarly important to remember that they are not a monolith, and also have identities related to nonmilitary factors, such as age, gender, race/ethnicity, social class, and geography (Strom et al., 2012).

Recent federal legislation expanding access to care outside the VA creates new concerns about the healthcare providers' capacity to properly care for veterans (Tanielian et al., 2014), especially given the fact that more veterans are being treated by civilian providers than those providers may realize (Brown, 2012; Kilpatrick et al., 2011; Koblinsky et al., 2014; Luby, 2012; Murphy & Fairbank, 2013; Nedegaard & Zwilling, 2017; Tanielian et al., 2014; Weiss & Coll, 2011). With the passing of The Veterans Access, Choice, and Accountability Act of 2014 and the more recent expansion of community-based care through the VA Mission Act of 2018, more veterans are accessing healthcare based on referrals from the VA to approved health care systems (VACCA, 2014; VA Mission Act of 2018 115 USC § 115-182, 2018).

The increase in veterans seeking care in civilian healthcare markets has highlighted the need for MIC among providers (Brown, 2012; Convoy & Westphal, 2013; Lee et al., 2014; Meyer et al., 2016; Murphy & Fairbank, 2013). Recent research has shown the relationships between MIC and improved trust between veteran and provider as well as better health outcomes (Atuel & Castro, 2018; Hall, 2011; Hobbs, 2008; Meyer et al., 2016). An appreciation of military culture can prove invaluable in assessing a patient as it often shapes how a provider includes their military history in the assessment and how much the patient is willing to share (Convoy & Westphal, 2013). It is crucial that private sector providers who do not have any military background receive relevant training in incorporating military service history, exposure to trauma and other environmental toxins, as well as understanding of best practices in developing rapport with veterans to improve the quality of care they offer veterans. With the demand for training clear, the efficacy of various training models (both online and in person trainings) must be determined so that widespread training can be delivered to increase healthcare systems' readiness to serve more veteran patients.

Unique healthcare needs of veterans

Providing culturally competent care to veterans requires an understanding of their unique needs. For example, veterans may not always comfortably assume the patient role and may not even agree that their reactions are symptoms needing treatment (Hoge, 2011). Military life differs from civilian life in several key ways, the most important being a hierarchical structure, isolation and alienation, a rigid class system, frequent and long-term parent absence, primacy of mission, and constant preparation for disaster. Service members and their families confront frequent separations and reunions, early retirement compared to the civilian world, work involving travel around the world, the social effects of rank, and lack of control over pay. Civilians may confront one or more of these, but rarely does a civilian face all of these stressors simultaneously (Hall, 2011).

Deployment-related stressors are much different from civilian stressors; they can include being in a foreign land, exposure to trauma, combat-related injuries or the threat of injury, and exposure to toxic agents (Coll et al., 2011). Military specific exposures should be considered as important military health history during assessment and, if possible, addressed in care plans. These exposures may include receipt of vaccinations, use of or exposure to chemical and biological weapons, radiation-related diseases, toxic embedded fragments from shrapnel injuries, amputations, traumatic brain injuries, and chronic pain. Specific war era morbidities are also important to recognize and assess for. These are often specific to combat theater regions or due to specific weapons or operational approaches used. For example, veterans deployed in support of named operations across

Southwest Asia and Afghanistan may contract Gulf War Syndrome or chronic fatigue/fibromyalgia. They may be exposed to infectious diseases such as malaria, brucellosis, shigella, West Nile Virus; and may have exposure to oil well fires, depleted uranium, and sand and dust particles leading to respiratory complications. The National Academy of Sciences (2018) summarized how significantly Agent Orange was related to many health issues in Vietnam Veterans and their offspring. Post-9/11 veterans were exposed to burn pits and depleted uranium (Waszak & Holmes, 2017.) Veterans of all war eras may present with mental illness including PTSD, depression, and substance abuse related to traumatic exposures they may have faced (Hobbs, 2008).

Current state of MIC in healthcare

Over half of the over 22 million veterans receive their healthcare outside of the Department of Veteran Affairs (VA) (Lee et al., 2014). Yet, many of these veterans being treated in the community are not identified as veterans (Lee et al., 2014). National surveys continue to demonstrate poor military cultural competence is a commonly cited barrier to care (Kilpatrick et al., 2011). Only a minority of providers regularly screen for military experience while a majority of providers lack confidence in providing evidence-based practice for common military illnesses and conditions (Kilpatrick et al., 2011; Meyer et al., 2016).

Civilian providers treating veterans frequently do not know they are treating veterans. Brown (2012) refers to inquiring if a patient has served in the military as the "unasked question" and the literature is rich with evidence that many providers do not screen for military service (Brown, 2012, Convoy & Westphal, 2013; Koblinsky et al., 2014; Vest et al., 2018). Studies indicate providers feel it is important, but don't feel comfortable asking, likely due to a lack of training about military culture and commonly associated medical or psychiatric illnesses or concerns. There is no one specific indication that the patient is a service member (Convoy & Westphal, 2013), yet early detection and treatment of deployment-related illnesses like PTSD could result in enhanced outcomes, reduction in symptoms, and cost savings (Eekhout et al., 2016). This challenge of knowing military status is compounded by the fact that healthcare systems are quicker to acknowledge service-connected injuries that are more visibly obvious (Hobbs, 2008) and inquire about those but not screen for psychological injuries that would require awareness of military affiliation.

Only a small percentage of Americans participate in military service; most Americans understand little about the military (Atuel & Castro, 2018). Meyer et al.'s (2015) pilot of the Assessment of Military Cultural Competence with recent medical school graduates yielded insights regarding relative differences among groups that had different levels of exposure to the military (direct exposure, such as having served; indirect exposure, such as having a close relationship with a service member, and no exposure: no relationships or experience serving). Those with personal military exposure were more likely to agree that the military is a culture, reported being likely to screen a patient for military culture, and had increased knowledge of military culture compared to those with no military exposure. In addition, all groups were less likely to agree that their personal culture could be at odds with military culture. In general, the medical school graduates had limited military cultural competence based on use of the AMCC. Similarly, other surveys of providers reveal low military cultural competence (Hoge, 2011; Kilpatrick et al., 2011; Koblinsky et al., 2014; Meyer et al., 2016; Tanielian et al., 2014; Vest et al., 2018). Factors associated with higher military cultural competence include personal military experience (Meyer et al., 2015), prior Department of Defense or VA employment, recent treatment of veterans, and having an immediate family member in the armed forces (Koblinsky et al., 2014).

Current state of MIC training and outcomes

Several studies in curricula development for military informed care have noted the paramount importance of military culture and issues specific to this population (Butler et al., 2015; Cooper et al., 2016; Harper et al., 2015; Linn et al., 2015). Nedegaard and Zwilling (2017) describe the development of a military cultural competence program offered at armories for civilian care providers in North Dakota. They had a low number of completers (17 of 82), most citing work constraints as the reason for withdrawing early. Participants suggested a shorter, self-paced, and online format may increase those numbers. Similarly, Kilpatrick et al. (2011) found most participants wanted a web-based training. However, providers surveyed in Koblinsky et al. (2014) mostly voiced a preference for face-to-face training. On the whole, providers have displayed a willingness to increase their own competence in treating military personnel (Koblinsky et al., 2014; Nedegaard & Zwilling, 2017; Vest et al., 2018).

Service members constitute a distinct, although not homogenous, cultural group and bring their own

specific needs into the treatment room. These individuals are increasingly bringing those needs to a civilian practitioner who is unfamiliar with military life and may not even have the sense that they are lacking in cultural awareness. Fortunately, curricula and resources to increase military cultural competence are available.

Luby (2012) (underscored by Convoy & Westphal, 2013) proposes the following four methods to increase military cultural competence among healthcare providers: 1) conduct a self-inventory; 2) adapt care to military culture that includes developing a basic understanding of military terminology, military-specific values, service connection and recovery, and the importance of confidentiality when working with active duty service members (Strom et al., 2012); 3) participate in military community outreach activities and 4) seek opportunities for networking between civilian and veteran providers and peer support for civilians treating veterans.

Method

This study's primary aim was to assess changes in knowledge, attitudes and skills related to MIC among private health care providers after attending the MIC training. This study evaluated how well a 2-hour training in MIC affected the military cultural knowledge and attitudes among healthcare providers in a private healthcare system. The need for training in military culture was indicated by the healthcare system's recognition that some of its providers were not developing strong rapport with their veteran patients, based on patients' feedback to clinic administrators. With the Veterans Access, Choice, and Accountability Act of 2014 that enabled veterans from the Veterans Health Administration to access care in private healthcare markets, the healthcare system had seen a significant increase in veterans being cared for in its network. Despite the fact that an online training in military culture had been made available to providers to prepare for new veteran patients, most providers were not aware of this training.

The investigators worked closely with hospital veteran services administrators who serve as liaisons between veterans in the system and the Veterans Choice Program (VCP) to collaborate on all aspects of the study. This organization's veteran healthcare navigation office provided investigators with the names and emails of providers in the primary care clinics who provide care to patients in the VCP so the principal investigator (PI) could email them regarding potential study participation. The President and Chief Medical Officer for outpatient staff sent an organization-wide email inviting and encouraging providers to enroll for the training. In addition, the second author was invited to the quarterly outpatient clinic chief meeting to describe the training and offer it to individual clinics. The grant project manager sent multiple email blasts to clinical leads at all 6 major hospitals in the system offering to provide the training. Prior to beginning each training session, all participants were notified of the opportunity to participate in the training. Consent was reviewed orally and individuals reviewed a one-page informed consent page describing the study. They were informed that there was no requirement to participate and that they could receive the training without participating. The majority chose to participate in the study and proceeded to complete the pre-assessment. This program evaluation study was reviewed and approved by the University of Texas Institutional Review Board.

Training development and design

The first and second authors (a local university faculty member and a physician within the healthcare organization), who both specialize in veteran mental health care delivery, developed a military-informed care training for healthcare providers for the healthcare system in response to their desire to provide military culture training for their personnel. The training also partnered with a state veterans commission trainer to incorporate relevant military culture content from an eight-hour, state-sponsored training on military culture. Additional, specific content on integration with mental health care practices was added to explain the implications of military culture in healthcare practices, including how assessments are done and how to build rapport with veterans. We strove to create a military informed care training that would address the concerns of veteran patients in the healthcare system. To do this, we conducted a focus group with veteran patients and their spouses who had received care in the healthcare system as part of the Veterans' Choice Program.

Focus group sample characteristics and process

The focus group was conducted with 10 veteran patients (8 male and 2 female). They represented the Army, Navy and Marines. Four of the participants brought their spouses to participate in the focus group. No other demographic information was requested of participants. We used a semi-structured

interview guide that was developed by the study team that was informed by past research conducted within the area of military cultural competence. Using a semi-structured approach, the group was asked to discuss a series of questions about their experiences. The focus group was conducted in English, as enlistment into any branch of the U.S. military, is limited to those who speak, read and write English fluently. To create optimal patient value, we asked what they felt was most valuable for civilian providers to know and understand about military service. In addition, we queried details about any dissatisfaction they had when receiving care from civilian providers. The focus group was audio recorded, and then summarized into notes by a research assistant. These notes were then coded for recurrent themes by the two faculty researchers.

The following questions were asked during the focus group.

1. Is it important for your healthcare provider to acknowledge you or your family member as a veteran? Why or why not?
2. What types of questions would you like health care providers to ask about your military service or status as a veteran?
3. Do you think veteran status should be considered in civilian medical settings?
4. Have you ever been offended by a question asked or not asked by a civilian provider?
5. Have you ever been asked questions about your veteran status that seemed useful and appropriate?
6. How do you think veteran status should be considered in civilian medical settings?
7. What would it look like to feel comfortable quickly at your care appointment? What could a provider do early on to help you trust them and for you to share openly about your healthcare needs?

Focus group themes

The following are themes identified from notes recorded from the focus group. Participants shared accounts of incidences where they had encountered good and bad examples of these healthcare experiences with their providers that led them to recommend specific practices by healthcare providers, based on their preferences and unique backgrounds as veterans. This content informed the inclusion of clinical best practices into training that providers can use to interact more successfully with veterans.

Ask about military service, appropriately

It is quite common that providers do not inquire about a patients' military service. Participants reported two extremes: 1) when a clinician did not ask if they served in the military at all, which often felt dismissive, or 2) when providers asked multiple questions about their service seemingly unrelated to their healthcare visit; these often felt intrusive, uncomfortable, and led them to feel treated as a 'curiosity' rather than a patient seeking care for a specific problem. To address this issue, participants in the group helped form the following question to be used by providers with their veteran patients. After acknowledging that they are a veteran, or after asking "did you serve in the military?" or "I see you served in the military," then ask: Is there anything about your military experience that you would like to share in relation to the medical issue you are here to address today? They explained that this allows the veteran to not feel their service was dismissed by focusing on it exclusively but gives them control of how much detail they choose to share about their service and its bearing on the reason for their healthcare visit.

Actively involve veterans in healthcare decisions

Focus group members raised another key issue about how they feel about accessing healthcare. For veterans in particular, obedience to orders from authority figures is often an ingrained habit. This learned habit may lead veterans to agree to aspects of care suggested by the provider in an automatic fashion without asking questions, out of respect for the providers' authority. Yet, if they do not feel heard or do not understand the rationale behind the treatment plan, once they leave the office, they may ignore the plan. In contrast, if the provider engages them directly in shared decision making about the care plan, this can create the opportunity for genuine agreement and increases the probability they will follow the treatment plan, leading to more optimal health outcomes. Veterans voiced that they want to feel some level of control in their healthcare, in contrast to the role many had felt in military service where they were not able to be involved in many decisions about their care.

Anticipate cultural differences

Spouses in the focus group were quick to point out that veterans routinely under report symptoms in general. Their partner veterans did not immediately concur, perhaps not realizing how common this behavior is. If this tendency to under report is not recognized, providers may under treat symptoms including pain or

mental illness. Asking more directly about the patient's level of day to day functioning or pain, with concrete examples such as physical tasks they can or cannot not complete, leads to more accurate answers and helps reduce veteran minimization of symptoms. Spouses added, if a spouse can be present in a visit, they can help shed light on the true extent of symptomatology. The training further highlights this issue by discussing how some behaviors in theater (e.g., minimizing pain) were adaptive, but once service commitment has ended, the minimization of pain and masking of reduced abilities are counterproductive to obtaining care.

Treat veterans as individuals

Clinicians often make assumptions about veterans' mental illness (Counts et al., 2015; Pearson, 2015). Focus group participants emphasized that healthcare providers must avoid making assumptions. Notably, they expressed offense if clinicians assume all veterans have posttraumatic stress disorder (PTSD), are depressed, and are alcoholics. Assumptions behind well-meaning gestures can often damage rapport. To illustrate this, the training included quotes from veterans describing how thanking them for their service triggers PTSD symptoms in some, can worsen survivor guilt, and can bring up feelings of resentment if a veteran feels that theirs and others' sacrifices can absolve civilians of any debt with a "thank you for your service." Many veterans voiced that they appreciate the gesture of gratitude but warned that many have problems with it.

Training content and delivery format

The training was designed to address gaps in the healthcare sector regarding providers' knowledge and familiarity with military culture including topics such as: military training and identity formation, the warrior ethos, modern military combat and signature combat techniques and related health problems from past military eras, the impact of deployment on service members and their families, the impact of military trauma, and challenges of accessing care after service. Content also included the need to assess how military experience may impact the relationship between patients and providers and tips to enhance rapport with the goal of enhancing patient satisfaction, ultimately resulting in enhanced treatment compliance and outcomes.

Learning objectives included: 1) improve knowledge of general aspects of military culture, 2) understand how veterans may present clinically or may perceive provider/patient interactions differently based on their military background and training, and 3) impart new knowledge and awareness of unique characteristics of veterans to aid in more effectively building rapport with veterans. See Table 1 below for a list of the core topics covered in the training.

The training was conducted six times over one year, by authors 1 and 2 and made available to any clinics at their location as part of a state grant awarded to the healthcare organization to improve the delivery of veteran-centric healthcare across its care market. The training took place within the clinic settings where providers worked so they would not have to travel to attend. The trainings were conducted at an outpatient clinic site, an intensive outpatient clinic site, and at three hospitals, one of which requested an additional training for more staff. Some locations chose to provide food to further encourage attendance during the lunch hour. The trainings were conducted in-person with a group of 10-20 participants at each of the six trainings. Each training included 1.5 hours

Table 1. Military informed care training topics and relevance to patient care.

Training Topic	Relevance to Patient Care
Military training and identity formation	Unit above individual
Local statistics about Veterans	Reluctance to seek individual treatment
Modern warfare	Ways in which different war era veterans may present
	Intermittent explosive devices lead to less trust and more unpredictability
	More traumatic brain injuries due to better armor and medical advances
Deployment cycle	Effects on veteran and family
	Change in roles
Warrior ethos	Under reporting and stoicism
Military trauma, which may lead to traumatic brain injury, posttraumatic stress disorder (PTSD), substance abuse, depression, and/or suicidality	How PTSD may present
	Desire to have a tour of clinic to see entry/exit points
	Methods to approach triggered veterans
	The importance of having local referral sources, sources provided
Stressors of military life	How moral injury may impact veterans
Process to access VA healthcare and outside providers	More understanding about the journey to see an outside provider for prior VA patients including barriers in being granted permission to go outside, length of time involved, delay in receiving patient records at civilian offices

of presentation with about 30 minutes of discussion integrated into the presentation time. The training was designed for two hours because this was indicated as the maximum time available for staff to spend attending the training in-person. Free continuing education credits were offered for nurses, social workers, and physicians to encourage attendance.

The assessment of military cultural competence

The AMCC is comprised of three parts: Assessment of Culturally Competent Skills, Assessment of Attitudes toward the Military and Assessment of Military Cultural Knowledge. The first two parts measure skills and attitudes with pairs of statements that allow for assessment of how respondents attitudes and skills align regarding general statements of healthcare with any cultures, and statements related to healthcare with veterans. The Assessment of Culturally Competent Skills contains four paired statements and the Assessment of Attitudes toward the Military contains three paired statements and two single statements regarding how strongly the respondent agrees that, "The military is a culture," and "My cultural background can influence my delivery of care." For example, in the Assessment of Culturally Competent Skills section, respondents are asked to rate a statement like the following with a Likert scale from 1-5 with 1 being never, 1 is rarely, 3 is occasionally, 4 is frequently and 5 is always. The AMCC (Meyer et al., 2015) was selected as the pre- and post-training assessment for this study based on its inclusion of question items that assess skills (e.g., "how likely are you to ask patients if they have ever served in the military?"), attitudes (e.g., level of agreement that, "a patient's military service can impact their perception of an illness") and military cultural knowledge (e.g., with what frequency does the average military family move?). The AMCC assesses for differences between single and paired statements to understand whether the respondent agrees that the military is a culture like other cultures and that culture plays a role in both the patient and providers attitudes and behaviors during the care interaction, as well as asking skills-oriented questions related to how the provider delivers healthcare to military-connected patients. As a relatively new scale, the AMCC has not yet been studied for its reliability and validity. It was selected for this study because it was the only available published assessment to assess military cultural competence. For the purposes of this training, most of the knowledge items were revised to cover specific content addressed in the training. The topics covered aligned with the original knowledge items from the AMCC. The AMCC used for this training at pre- and post-assessment is shown in Table 2, below.

Results

Sample characteristics of trainees

The 77 training participants included physicians, nurses, social workers and staff from other specialties. 73% were female, 23% male and 1% chose not to report gender. They reported their race/ethnicity as white or Caucasian (62%), black or African American (7.3%), American Indian or Native American (.91%), Asian/Pacific Islander (8.2%) or belonging to other groups (5.5%). 13.64% reported being Hispanic or Latino. Their average age was 46 years old. Participants were asked about their experience providing care to military veterans: 32% reported having 5 or more years of experience, 22.5% reported having 1-4 years of experience and 46.2% reported having less than 1 year of experience working with this population. Only 7% (n = 5) of participants were military veterans who had an average of 5.6 years of service, and 26% reported receiving past training in military cultural competence.

Results from continuing education evaluations

As this is a new course it is important to consider learners' feedback and satisfaction with the course. Satisfaction data was collected as part of the evaluation process to receive the learning credits. Only 35 participants opted to receive these credits and complete the required course evaluation forms. They were asked to rate aspects of the training using a Likert scale from 1-4 where 1 = Not at all; 2 = Somewhat; 3 = Almost completely; 4 = Completely. They rated their "achievement of the learning objectives/outcomes" with an average score of 3.63, the "effectiveness of the teaching methods" as an average score of 3.66 and "whether the objectives/learning outcomes relevant to the overall purpose were met" with an average response of 3.79. These scores, although only from a sample of all trained, indicate positive feedback about the training. Respondents were also asked, "As a result of this activity, do you intend to make any changes to your professional practice/performance?" Three reported "No" (8.6%) and 32 reported "Yes" (91.4%). The high level of intent to make changes to their practice indicates that the training effectively conveyed the importance of practicing in a military-informed manner.

Table 2. Assessment of Military Cultural Competence (AMCC) used at pre- and post-training assessment.

Part 1: Assessment of Culturally Competent Skills (1 = never, 2 = rarely, 3 = occasionally, 4 = frequently and 5 = always)
During a patient interview how likely are you to:
Item 1a…ask patients if they are a member of a cultural group?
Item 1 b…ask patients if they have ever served in the military?
Item 2a…ask a patient about a cultural reference you are unfamiliar with?
Item 2 b …ask a patient about a military reference you are unfamiliar with?
Item 3a …look up a cultural term/phrase if you are unfamiliar with it?
Item 3 b …look up a military term/phrase if you are unfamiliar with it?
Item 4a …screen for diseases/disorders based on prevalence within a culture?
Item 4 b…screen for diseases/disorders based on prevalence within the military?
Part 2: Assessment of Attitudes toward the Military (1 = never, 2 = rarely, 3 = occasionally, 4 = frequently, 5 = always)
Please rank your agreement/disagreement with the following statements:
Item 1. My cultural background can influence my delivery of care.
Item 2a. A patient's cultural background can impact their perception of an illness.
Item 2 b. A patient's military service can impact their perception of an illness.
Item 3a. A patient's cultural background can impact their perception of care.
Item 3 b. A patient's military service can impact their perception of care.
Item 4a. My cultural beliefs can be at odds with other cultures.
Item 4 b. My cultural beliefs can be at odds with the military.
Item 5. The military is a culture.
Part 3: Assessment of Military Cultural Knowledge (True/False and Multiple Choice)
1. How many branches of the military are there?
2. Women make up what percentage of the armed forces?
3. What percentage of service members have at least a high school diploma or GED?
4. What is a common reason people join the military?
5. Trainings to instill warrior ethos in service members…[complete the statement with response choices]
6. Modern warfare creates difficulties in patient care, including:
7. What is the order of the deployment cycle?
8. Children in military families typically move how many times between kindergarten and high school?
9. How many military spouses are unemployed or actively seeking work?
10. True/False: Redeployment and Reintegration can lead to conflict in family dynamics?
11. Texas has what percentage of the nation's homeless veterans?
12. What percent of the Texas population is made up of active and veteran military?
13. Which of the following is an "invisible wound" that veterans live with?
14. True/False: The term "counseling" has a negative connotation in the military.
15. What percent of veterans report experiencing or witnessing Military Sexual Trauma during their service?
16. True/False: More Traumatic Brain Injury injuries occur from training, vehicle crashes/rollovers than combat.
17. What percentage of US deaths from suicides are veterans?
18. True/False: All veterans qualify for free VA services.
19. Under what circumstances could a veteran take part in the Veterans Choice Program (VCP)?
20. Which of the following is an implication of patient military/veteran status on patient care?

Data analysis

The AMCC was scored according to the original scoring method used by its developers (Meyer et al., 2015) by calculating differences between paired attitudes and skills statements as well as differences between two single attitudes statements and composite knowledge scores over time. For this evaluation of training outcomes, these differences (or deltas) between paired statements were then examined for changes in differences over time. The following is an example from the Skills portion of the AMCC:

> During a patient interview how likely are you to:
>
> …ask patients if they are a member of a cultural group?
>
> …ask patients if they have ever served in the military?

If on the first item above the respondent reported that they always ask patients if they are member of a cultural group, and also report that they never ask patients about their military service, the difference is 5-1 = 4. All paired items were scored in this manner for all respondents. Then, the differences between each respondent's pre- and post- AMCC scores for the paired statements in the Attitudes and Skills domains were analyzed with One-Way Analysis of Variance (ANOVA) tests.

The knowledge section of the AMCC was scored by summing the number of items that each respondent correctly answered. Only respondents who completed both a pre- and post-test were included in the analysis. Descriptive results of trainees pre- and post-scores on the three sections of the AMCC are reported in Table 3.

Table 3. Pre- and post-training means on AMCC domains.

Item	Pre-training M (SD)	Post-training M (SD)
Skills pair 1	0.48 (1.6) (N = 75)	4.00 (0.18) (N = 72)
Skills pair 2	−0.09 (1.02) (N = 74)	0.09 (0.71) (N = 73)
Skills pair 3	−0.25 (0.66) (N = 75)	0.04 (0.56) (N = 74)
Skills pair 4	−0.31 (0.77) (N = 75)	0.01 (0.51) (N = 73)
Attitude 1	3.53 (1.24) (N = 76)	3.82 (1.3) (N = 77)
Attitude pair 2	0.03 (0.82) (N = 75)	0.10 (0.49) (N = 77)
Attitude pair 3	−0.17 (0.58) (N = 75)	0.03 (0.16) (N = 76)
Attitude pair 4	−0.41 (0.95) (N = 77)	−0.17 (0.64) (N = 76)
Attitude 5	4.36 (0.65) (N = 77)	4.62 (0.65) (N = 77)
Knowledge	9.66 (3.53) (N = 74)	16.87 (2.28) (N = 74)

Table 4. Results of T-tests and one-way ANOVA tests for AMCC domains.

Item	*t(df)*	*F*	*p*	*Eta squared*
Skills pair 1 (N = 72)		4.13	0.044	0.027
Skills pair 2 (N = 72)		1.04	0.310	0.007
Skills pair 3 (N = 73)		0.61	0.438	0.004
Skills pair 4 (N = 73)		1822.00	< .001	0.924
Attitude 1 (N = 76)	t(75) = −3.24		0.002	
Attitude 2 pair (N = 75)		0.30	0.585	0.002
Attitude 3 pair (N = 75)		5.26	0.023	0.035
Attitude 4 pair (N = 76)		11.66	0.001	0.073
Attitude 5 (N = 75)	t(76) = −3.70		< .001	
Knowledge	t(73) = 17.19		< .001	

Results of pre-and post AMCC scores analysis

Seventy-seven individuals who were trained during six training sessions completed both the pre- and post AMCC assessments. The pre- and post-paired training data was analyzed using a One-Way Analysis of Variance (ANOVA). Results for differences over time in knowledge scores and changes in variance for single and paired statements are presented below in Table 4.

Trainees showed statistically significant improvements in military cultural knowledge after the training based on the AMCC, t (73) = 17.19, p < .001. Trainees also show statistically significant improvements in statements measuring military cultural attitudes and skills as measured by the AMCC. Differences in attitudes were statistically significant for four of the five attitudes statements as shown in Table 4 above.

The following statements showed significant changes after the training:

Attitude 1: My cultural background can influence my delivery of care, t(75) = −3.24, p = .002.

Attitude 3 pair: A patient's cultural background can impact their perception of care; A patient's military service can impact their perception of care, F(1, 147) = 5.26, p=.023.

Attitude 4 pair: My cultural beliefs can be at odds with other cultures; My cultural beliefs can be at odds with the military, F(1, 148) = 11.66, p = .001.

Attitude 5: The military is a culture, t (76) = −3.70, p < .000.

The one attitude statement that did not show a difference from pre- to post- was regarding beliefs about whether "a patient's cultural background can impact their perception of an illness and whether a patient's military service can impact their perception of an illness."

For the skills portion of the AMCC, trainees showed statistically significant improvements on two of the four paired statements, including that they report looking up cultural term/phrase or military/term phrase they are unfamiliar with, F(1, 150) = 4.13, p = .044, and screening for diseases/disorders based on prevalence within a culture or within the military, F(1, 150) = 18.22, p < .001. They did not show significant changes on statements related to asking a patient whether they are a member of a cultural group or ever served in the military, or asking about cultural or military references they are unfamiliar with. Post hoc tests with the Levene Homogeneity of Variance and the Welch and Brown-Forsythe Tests of Equality of Means confirmed these findings. The effect size of each analysis of variance from was computed with eta squared. Items with the greatest difference explained by changes from pre- to post-assessments were Knowledge (60%), Attitude statement 1 (68.8%), and Skills paired statements 4 (92.4%).

Discussion

As sustained military engagement has increased the number of veterans needing healthcare, veterans are increasingly seeking care in the private healthcare sector with support from federal legislation permitting the VA to send veterans to private nonfederal

healthcare systems. As such, providers in non-VA healthcare settings have a responsibility to increase their cultural awareness and cultural knowledge about veterans as their healthcare systems join in programs that accept patients from the VA.

As shown in this study, a short, 2-hour training can result in significant improvements in healthcare providers' knowledge, skills and attitudes related to military informed care and how to integrate this knowledge within their care practices with military-connected patients. Many recognize the need for this continuing education: the academic health professions community as a whole is encouraged to incorporate military culture into curricula and licensing exams (Brown, 2012; Lee et al., 2014) and Meyer et al. (2016) recommend adding a cultural formulation to the supplemental material in DSM-5. It seems likely that by improving low military cultural competence, which is commonly cited as a barrier to care (Kilpatrick et al., 2011), care outcomes will improve due to rapport building that is possible once a client feels connected to a provider by being understood and respected in areas of their culture that are important to them. This sense of connection is paramount as it helps reduce paternalism in medicine and leads to shared decision making. Shared decision making is quickly becoming a principal aspect of effective and value-based healthcare (Murray et al., 2006). This high standard of care includes utilizing the most evidenced based care while simultaneously ensuring the patient's values are taken into account in the decision-making process (Légaré et al., 2010).

Vest et al. (2019) point out that limited knowledge of resources and support services available in the community is often a barrier to inquire about veteran issues. Fredricks and Nakazawa (2015) examined community primary care providers' perceptions and comfort with issues common to veterans and found most were uncomfortable in addressing these needs. In line with these findings, our training stressed that non-mental health providers do not need to know how to fully treat posttraumatic stress disorder, depression, substance abuse, or suicidality. However, to provide optimal care, it is paramount to screen for the aforementioned topics and be informed about local referral sources for patients who desire or need more specialty care.

Barriers to training are a concern that must be addressed to continue to offer much needed military informed care training within healthcare systems. In this study, these barriers were observed anecdotally by the grant coordinator and included clinic leaders' lack of interest, feeling it was not important as they felt they did not have veteran or military patients in their practices (but were also not screening to identify any if they did not come directly from the VA), and lack of time to do the training. Anecdotally, strong leaders were able to convince their teams to attend the training, whereas leaders with less personal conviction about the value of MIC had lower training turnout among their medical staff. Some leaders questioned the need for asking patients about their military history, a clear example of how healthcare systems may not recognize the importance of MIC in terms of patient rapport and health consequences until patients complain or adverse outcomes are reported. Advocating for preemptive MIC training and competency as a standard in healthcare will help reduce unnecessary negative health outcomes and serve to increase value-based care for veterans and military service members in civilian facilities. Finally, it is clear that motivation to be trained in how to improve one's military informed care practices is an important factor for providers. However, even with unbridled enthusiasm, without buy-in from healthcare systems' leadership, it is almost impossible to overcome the barrier of making time in healthcare workers' schedules to allow for training.

Limitations

As mentioned above, the AMCC has not yet been studied for reliability and validity. It was selected for use as a pre- and post-training assessment tool of knowledge, skills and attitudes as it was the only available published assessment to assess military cultural competence. Another limitation was the inability to obtain a control group for comparison. There was a "mandatory" online military culture training for the organization. Only one provider had completed it and initial attempts to recruit more participants to complete the training as a comparison group were not successful. This training was purposely delivered in-person believing that it could lead more providers to participate. Future research should include a control group that does not receive training, or receives an online training in comparison with an in-person training, to assess for changes related to the training and differences between training formats.

Another limitation is present in the assessment tool used to evaluate outcomes of the training. Although the approach using paired statements to measure differences in attitudes and skills between general approaches to understanding culture and integrating it into healthcare as compared to treating the military in the same manner when working with veterans is

meaningful, the scoring involved in analyzing the data is too complex for the AMCC to be used regularly to evaluate training outcomes. This paper has highlighted the importance of evaluating improvements in providers' knowledge, attitudes and skills related to delivering military-informed care, but to ensure trainings like this one that are delivered routine in healthcare settings are effective, we will need more rapid assessment tools to measure gains.

In addition, the extent that the new knowledge and attitudes received by the providers translates to their skill in delivering military informed care was not measured. In future research, patients of providers who either were or were not trained, including those who had significant improvements or not, should be included in research to determine the extent that patients perceived an improvement in the quality of care received from their providers. Participation was dependent upon leaders from each individual clinic buying into the importance of military informed care training. In future studies, top-down support will be important to help permit and/or requires clinicians to take time out of daily duties to participate in training.

Conclusion

Veterans have unique health needs and yet are commonly treated by clinicians with no military experience or military cultural competence which can impact the quality of care. This study evaluated an military informed care training aimed at addressing knowledge, clinical skill and attitude deficits among civilian clinicians to improve the care they provide veteran patients. Trainees showed improvements in areas measured by the AMCC (knowledge, attitude, and skills.) This research indicates that a short training with civilian providers can improve their knowledge, attitude, and skills related to providing military-informed care to veterans.

Acknowledgements

We would like to acknowledge all of the study participants who spent time taking part in this study to help us learn the value of the training. These include the 10 veterans and spouses that attended the focus group to help design the training. The training was greatly improved by their candid comments and thoughtful discussion. We also greatly appreciate the many healthcare providers and staff who took time out of their very busy schedules to attend the training to learn how to better serve their veteran patients. Finally, we thank grant coordinator, Ruth Dewey, for her dedication to the grant and her administrative support scheduling training and ensuring continuing education credits were available to training participants.

Disclosure statement

The authors have no financial interest or benefit to report from the conduct of this research.

Funding

This study was conducted as a part of a grant from the Center for Health and Social Policy Analysis at the LBJ School of Public Affairs, University of Texas at Austin

References

Atuel, H., & Castro, C. (2018). Military cultural competence. *Clinical Social Work Journal*, *46*(2), 74–82. https://doi.org/10.1007/s10615-018-0651-z

Brim, W. L. (2013). Impact of military culture on the clinician and clinical practice. In B. A. Moore and J. E. Barnett (Eds.), *Military psychologists' desk reference* (pp. 31–36). Oxford University Press.

Brown, J. (2012). A piece of my mind: The unasked question. *JAMA*, *308*(18), 1869–1870. https://doi.org/10.1001/jama.2012.14254

Butler, L., Linn, B., Meeker, M., McClain-Meeder, K., & Nochajski, T. (2015). We don't complain about the little things': Views of veterans and military family members on health care gaps and needs. *Military Behavioral Health*, *3*(2), 116–124. https://doi.org/10.1080/21635781.2015.1009209

Coll, J. E., Weiss, E., & Metal, M. (2011). Influence of military culture and veteran worldviews on mental health treatment. *The International Journal of Health, Wellness, and Society*, *1*(2), 75–86. https://doi.org/10.18848/2156-8960/CGP/v01i02/41168

Coll, J., Weiss, E., & Yarvis, J. (2011). No one leaves unchanged: Insights for civilian mental health care professionals into the military experience and culture. *Social Work in Health Care*, *50*(7), 487–500. https://doi.org/10.1080/00981389.2010.528727

Convoy, S., & Westphal, R. J. (2013). The importance of developing military cultural competence. *Journal of Emergency Nursing*, *39*(6), 591–594.

Cooper, L., Andrew, S., & Fossey, M. (2016). Educating nurses to care for military veterans in civilian hospitals: An integrated literature review. *Nurse Education Today*, *47*, 68–73. https://doi.org/10.1016/j.nedt.2016.05.022

Counts, L., Freundi, M., & Johnson, B. (2015). Nurses providing care to military veterans in civilian hospitals. *Medsurg Nursing : Official Journal of the Academy of Medical-Surgical Nurses*, *24*(3), 4–8.

Eekhout, I., Geuze, E., & Vermetten, E. (2016). The long-term burden of military deployment on the health care system. *Journal of Psychiatric Research*, *79*, 78–85.

Fredricks, T. R., & Nakazawa, M. (2015). Perceptions of physicians in civilian medical practice on veterans' issues related to health care. *The Journal of the American*

Osteopathic Association, *115*(6), 360–368. https://doi.org/10.7556/jaoa.2015.076

Hall, L. K. (2011). The importance of understanding military culture. *Social Work in Health Care*, *50*(1), 4–18. https://doi.org/10.1080/00981389.2010.513914

Harper, D., Selleck, C., Eagerton, G., & Froelich, K. (2015). Partnership to improve quality care for veterans: The VA nursing academy. *Journal of Professional Nursing: Official Journal of the American Association of Colleges of Nursing*, *31*(1), 57–63. https://doi.org/10.1016/j.profnurs.2014.06.004

Hobbs, K. (2008). Reflections on the culture of veterans. *Aaohn Journal*, *56*(8), 337–341. https://doi.org/10.1177/216507990805600803

Hoge, C. (2011). Interventions for war-related posttraumatic stress disorder: Meeting veterans where they are. *JAMA*, *306*(5), 549–551. https://doi.org/10.1001/jama.2011.1096

Kilpatrick, D. G., Best, C. L., Smith, D. W., Kudler, H., & Cornelison-Grant, V. (2011). *Serving those who have served: Educational needs of health care providers working with military members, veterans, and their families*. Medical University of South Carolina Department of Psychiatry, National Crime Victims Research & Treatment Center.

Koblinsky, S., Leslie, L., & Cook, E. (2014). Treating behavioral health conditions of OEF/OIF veterans and their families: A state needs assessment of civilian providers. *Military Behavioral Health*, *2*(2), 162–172. https://doi.org/10.1080/21635781.2014.890884

Kreimeyer, J., & Huntington, J. (2018). Jesuit-Infused online training to work with military couples & families. *Jesuit Higher Education: A Journal*, *7*(2), 9. https://epublications.regis.edu/jhe/vol7/iss2/9

Lee, J., Sanders, K., & Cox, M. (2014). Honoring those who have served: How can health professionals provide optimal care for members of the military, veterans, and their families? *Academic Medicine : Journal of the Association of American Medical Colleges*, *89*(9), 1198–1200. https://doi.org/10.1097/ACM.0000000000000367

Légaré, F., Ratté, S., Stacey, D., Kryworuchko, J., Gravel, K., Graham, I., & Turcotte, S. (2010). Interventions for improving the adoption of shared decision making by healthcare professionals. *Cochrane Database of Systematic Reviews*, *5*, CD006732.

Linn, B., Butler, L., Bruce, S., McClain-Meeder, K., & Meeker, M. (2015). On working with veterans: What social work and nursing students need to know. *Journal of Military and Veterans' Health*, *23*(3), 5–11.

Luby, C. (2012). Promoting military cultural awareness in an off-post community of behavioral health and social support service providers. *Advances in Social Work*, *13*(1), 67–82. https://doi.org/10.18060/1873

Meyer, E., Hall-Clark, B., Hamaoka, D., & Peterson, A. (2015). Assessment of military cultural competence: A pilot study. *Academic Psychiatry : The Journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*, *39*(4), 382–388. https://doi.org/10.1007/s40596-015-0328-7

Meyer, E., Writer, B., & Brim, W. (2016). The importance of military cultural competence. *Current Psychiatry Reports*, *18*(3), 1–8. https://doi.org/10.1007/s11920-016-0662-9

Murphy, R., & Fairbank, J. (2013). Implementation and dissemination of military informed and evidence-based interventions for community dwelling military families. *Clinical Child and Family Psychology Review*, *16*(4), 348–364. https://doi.org/10.1007/s10567-013-0149-8

Murray, E., Charles, C., & Gafni, A. (2006). Shared decision-making in primary care: Tailoring the Charles et al. model to fit the context of general practice. *Patient Education and Counseling*, *62*(2), 205–211. https://doi.org/10.1016/j.pec.2005.07.003

National Academies of Sciences. (2018). National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice. (2018, November 15).

Nedegaard, R., & Zwilling, J. (2017). Promoting military cultural competence among civilian care providers: Learning through program development. *Social Sciences*, *6*(1), 13. https://doi.org/10.3390/socsci6010013

Pearson, G. N. (2015). A sargeant's story. *MedSurg Matters!*, *24*(3), 1–3. 19.

Strom, T., Gavian, M., Possis, E., Loughlin, J., Bui, T., Linardatos, E., Leskela, J., & Siegel, W. (2012). Cultural and ethical considerations when working with military personnel and veterans: A primer for VA training programs. *Training and Education in Professional Psychology*, *6*(2), 67–75. https://doi.org/10.1037/a0028275

Tanielian, T., Farris, C., Epley, C., Farmer, C., Robinson, E., C, Robbins, M, E., & Jaycox, L. (2014). *Ready to serve: Community-Based provider capacity to deliver culturally competent, quality mental health care to veterans and their families*. RAND Corporation. https://doi.org/10.7249/j.ctt14bs1qk

US Department of Veteran Affairs. (2020). Military exposures. Retrieved May 1, 2020, from http://www.publichealth.va.gov/exposures/

VA Mission Act of 2018, 115 USC § 115-182. (2018). Washington, DC: U.S. Government Publishing Office; Available at: https://www.congress.gov/bill/115th-congress/senate-bill/2372/text

Vest, B. M., Kulak, J., Hall, V. M., & Homish, G. G. (2018). Addressing patients' veteran status: Primary care providers' knowledge, comfort, and educational Needs. *Family Medicine*, *50*(6), 455–459. https://doi.org/10.22454/FamMed.2018.795504

Vest, B., Kulak, J., & Homish, G. (2019). Caring for veterans in US civilian primary care: qualitative interviews with primary care providers. *Family Practice*, *36*(3), 343–350. https://doi.org/10.1093/fampra/cmy078

Veterans Access, Choice, and Accountability Act of 2014, 113 USC § 113-146. (2014). Washington, DC: U.S. Government Publishing Office; Available at: http://www.gpo.gov/fdsys/pkg/BILLS-113hr3230enr/pdf/BILLS-113hr3230enr.pdf.

Waszak, D., & Holmes, A. (2017). The unique health needs of post-9/11 U.S. veterans. *Workplace Health & Safety*, *65*(9), 430–444. https://doi.org/10.1177/2165079916682524