Published in final edited form as:
Psychol Serv. 2022 February ; 19(1): 134–145. doi:10.1037/ser0000494.

Veterans' Experiences With and Perspectives on Insomnia Treatment: A Qualitative Study

Adam D. Bramoweth,
Mental Illness Research, Education and Clinical Center and Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, Pittsburgh, Pennsylvania

Keri L. Rodriguez,
Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, and Division of General Internal Medicine, University of Pittsburgh School of Medicine

Gloria J. Klima,
Mental Illness Research, Education and Clinical Center, VA Pittsburgh Healthcare System

Cathleen J. Appelt,
Department of Sociology, Duquesne University

Matthew J. Chinman
Mental Illness Research, Education and Clinical Center, VA Pittsburgh Healthcare System, and RAND Corporation, Pittsburgh, Pennsylvania

Abstract

Qualitative interviews were conducted with veterans to understand their experiences and perceptions about insomnia and its treatment, with a focus on cognitive–behavioral therapy for insomnia (CBT-I) and brief behavioral treatment for insomnia (BBTI). There is a lack of knowledge about veterans' understanding of this prevalent disorder, yet their experiences and perceptions can influence treatment delivery and treatment outcomes. The Department of Veterans Affairs (VA) can improve insomnia care by considering and responding to this valuable information from veteran stakeholders. Twenty veterans with an insomnia diagnosis or complaint were interviewed about their experiences with insomnia, its treatment, and their preferences for care. Transcripts from the audio-recorded interviews were independently analyzed by 2 coders using content analysis, and discrepancies were resolved through negotiated consensus. The 20 veterans were mostly male (85%), older (60.4 years ± 9.0), and white (60%). Experiences with insomnia and perspectives regarding treatment focused on (a) insomnia symptoms, (b) comorbid symptoms, (c) seeking treatment, (d) intervention experiences, (e) intervention preferences and expectations, and (f) patient attributes. Barriers to care included a lack of knowledge about treatment and a lack of options that fit veterans' preference for delivery. These results provide insight into veterans' experiences with and perspectives on insomnia treatment that is crucial to the support, development, and implementation of interventions. A focus on increasing knowledge

---

Correspondence concerning this article should be addressed to Adam D. Bramoweth, VA Pittsburgh Healthcare System, Research Office Building (151R-U), University Drive C, Pittsburgh, PA 15240. adam.bramoweth@va.gov.

of, and expectations for, insomnia treatments as well as offering multiple delivery options has the potential to improve utilization and access to quality insomnia care.

Keywords

cognitive behavior therapy; insomnia; primary care; qualitative research; veterans

Insomnia is a highly prevalent and chronic disorder among veterans that has been shown to impact their quality of life (Ishak et al., 2012; Martin, 2016; Mustafa, Erokwu, Ebose, & Strohl, 2005; Roth, 2007; Ulmer et al., 2017). Moreover, it is commonly comorbid with medical and psychiatric disorders, increases risk for development of these disorders, and is associated with increased health care utilization and costs (Alexander et al., 2016; Anderson et al., 2014; Martin et al., 2017; Riemann, 2007; Taylor et al., 2007). Treatment of insomnia typically consists of prescription sedative-hypnotics and behaviorally based interventions (Cheung, Bartlett, Armour, Ellis, & Saini, 2016). Sedative-hypnotics, the most common treatment, are effective and reduce symptoms relative to placebos, but the evidence is not strong, especially long-term (Charles, Harrison, & Britt, 2009; Mitchell, Gehrman, Perlis, & Umscheid, 2012). In contrast, nonpharmacological, behaviorally based treatments are the first-line recommended intervention for insomnia per the American Academy of Sleep Medicine (Sateia, Buysse, Krystal, Neubauer, & Heald, 2017), American College of Physicians (Qaseem, Kansagara, Forciea, Cooke, & Denberg, 2016), and the National Institutes of Health (National Institutes of Health, 2005). Behavioral treatments such as cognitive–behavioral therapy for insomnia (CBT-I) are recommended because of short- and long-term effectiveness and patient and provider preference (Irwin, Cole, & Nicassio, 2006; Morin, Gaulier, Barry, & Kowatch, 1992; Smith, Huang, & Manber, 2005; Troxel, Germain, & Buysse, 2012; Ulmer et al., 2017).

The United States Department of Veterans Affairs (VA), recognizing the prevalence and impact of insomnia and the strong evidence for behavioral treatments, began a nationwide rollout of CBT-I in 2011 with a goal to train 1,000 providers (Bootzin, 2012; Manber et al., 2012). As of 2020, more than 950 providers have been trained. Even with hundreds of trained providers, veterans still experience barriers to accessing care. Barriers include trained providers mostly located in specialty mental health and concentrated in urban medical centers, potentially burdensome frequency and duration of treatment (e.g., six in-person weekly or every-other-week visits), and common barriers like distance, travel time, access to transportation, work, and caregiving responsibilities. Although more providers are being trained, many of these providers may only be seeing a small number of insomnia patients each year and it is rare for a trained CBT-I providers to see mostly patients with insomnia (Martin, 2016). In addition to ongoing CBT-I training, the VA has developed a self-management workbook (Improve Your Sleep; Ulmer et al., 2016), a mobile app (CBT-I Coach) to increase telehealth services (Kuhn et al., 2016), and released an online treatment program (Path to Better Sleep) to increase access to care (Department of Veterans Affairs, 2019).

These are important and valuable efforts by the VA. However, integrating the patient perspective and recognizing patient attributes may help the VA's efforts have a greater impact (Cheung, Bartlett, Armour, & Saini, 2016). The patient perspective of insomnia focuses on disruptive nighttime sleep and impaired daytime function (Araújo, Jarrin, Leanza, Vallières, & Morin, 2017). Insomnia impedes occupation success (Henry, McClellen, Rosenthal, Dedrick, & Gosdin, 2008) and is a stigmatizing, silent, and hidden problem (Carey, Moul, Pilkonis, Germain, & Buysse, 2005; Kyle, Espie, & Morgan, 2010). These experiences result in delayed help-seeking, self-medicating, or even “normalizing” insomnia (Araújo et al., 2017; Cheung, Bartlett, Armour, Glozier, & Saini, 2014; D. Henry, Rosenthal, Dedrick, & Taylor, 2013; Moloney, Konrad, & Zimmer, 2011). There are also reports that patients do not believe their providers are adequately trained to recognize and treat sleep disorders (Cheung et al., 2014; Dyas et al., 2010). Yet, when a provider attends to sleep issues, the focus is more on diagnostic criteria than the subjective, lived experience (Dyas et al., 2010; Green, Hicks, & Wilson, 2008).

Furthermore, there are mixed findings about patient perceptions about treatment. Some studies found patients preferred sleep medications and viewed them as beneficial with few risks (Mah & Upshur, 2002). Other research indicates a negative perception with stigma and fear of being prescribed sleep medications as a barrier to seeking help (Hogan, Clark, & Scott, 2003; Stinson, Tang, & Harvey, 2006). Although behavioral approaches are generally viewed positively compared with medications, they are not typically offered nor available in the patient's health care environment (Cheung, Bartlett, Armour, Ellis, et al., 2016). In contrast to individuals in the general community, CBT-I is available in-person or by telehealth at most VA Medical Centers (VAMC) and Community Based Outpatient Clinics. Yet access may still depend on the knowledge of the referring provider, which can be limited. A study of VA primary care providers (PCPs) found only 53% referred veterans to a sleep specialist within their facility and only 29% referred to CBT-I (Ulmer et al., 2017). The most common approaches are education about healthy sleep habits (i.e., sleep hygiene; 77%), a prescription sleep medication (71%), and adjustments or changes to current medications that may impact sleep (67%; Ulmer et al., 2017).

The VA has made significant efforts to increase access to insomnia care through their ongoing CBT-I training and patient-centered self-management resources. Still, a better understanding of veterans' perspectives and experiences with the treatment for insomnia is needed to close the prevalence-to-treatment gap and more effectively disseminate and implement evidence-based care for insomnia (Araújo et al., 2017; Ulmer et al., 2017). The goal of this study is to conduct a needs assessment of veterans with insomnia using qualitative interviews, a common initial step to understand the patient-perspective related to a disorder. Further, a qualitative approach was selected to aid in the identification of potential barriers to insomnia care that can be used to develop targeted implementation strategies to improve the uptake and sustainable delivery of evidence-based insomnia care, like CBT-I and BBTI.

Method

Participants and Procedures

Study inclusion criteria were: (a) active patient status at the study site; (b) age 18 years or older; (c) ability to speak, read, and write English fluently; (d) insomnia diagnosis; (e) self-report of a chronic insomnia complaint (i.e., difficulty falling asleep, staying asleep, or waking up feeling unrested for 3 or more months); and/or (f) self-report of insomnia treatment within the past 12 months (i.e., sleep medication or seen a provider for insomnia). Exclusion criteria were: (a) medical or psychiatric hospitalization within past 3 months; (b) current diagnosis of bipolar, schizoaffective, schizophrenia, or psychotic disorder; (c) current diagnosis of a seizure disorder; (d) current diagnosis of a cognitive impairment disorder (e.g., Alzheimer's); (e) documented traumatic brain injury symptoms in past 3 months; (f) current alcohol and/or substance use disorder; and (g) current pregnancy or breast feeding/lactating (females only). The study was approved by the Institutional Review Board (IRB) at the VA Pittsburgh Healthcare System (VAPHS), a large, urban VAMC in the mid-Atlantic.

Veterans were recruited through advertisements throughout the VAMC and direct clinic referral (i.e., Insomnia, Sleep Medicine, Pain, and Behavioral Health Clinics). Interested and eligible veterans could complete study procedures in-person or by telephone and mail. For in-person visits, veterans provided written informed consent and completed several brief quantitative self-report measures including the Insomnia Severity Index (ISI; Bastien, Vallieres, & Morin, 2001) and the Dysfunctional Beliefs and Attitudes about Sleep scale (DBAS; C. M. Morin, Vallieres, & Ivers, 2007). Then, participants completed a 30-min semistructured interview. Finally, participants completed two more quantitative self-report measures, the Quick Inventory of Depressive Symptomatology (QIDS-SR; Rush et al., 2003) and the Posttraumatic Stress Disorder Check List for *DSM–5* (PCL-5; Blevins, Weathers, Davis, Witte, & Domino, 2015).

For those who completed phone-based interview, verbal informed consent was obtained, and all quantitative self-report measures were mailed to participants. Once the study coordinator received the completed measures, participants completed the interview by phone. Forty-seven veterans contacted the study coordinator via telephone and 40 completed the telephone screen, of which 26 were eligible for participation. Twenty-two veterans provided informed consent, of which two withdrew from the study, and 20 veterans completed all study procedures.

Measures

The semistructured interview (see the Appendix) was developed by the Principal Investigator and the study team. The interview was informed by the existing qualitative literature on insomnia (Araújo et al., 2017; Cheung, Bartlett, Armour, Ellis, et al., 2016; Cheung, Bartlett, Armour, Laba, & Saini, 2019; Cheung, Bartlett, Armour, & Saini, 2016) as well as the Consolidated Framework for Implementation Research (CFIR), a collection of factors known to influence implementation success or failure organized across five domains: intervention characteristics, outer setting, inner setting, characteristics of individuals, and process (Damschroder et al., 2009). CFIR factors used in the development of the interview were knowledge and beliefs about the interventions (i.e., CBT-I and BBTI), relative advantage of treatments, and patient needs and resources. The interview further focused on veteran experiences with insomnia symptoms, interactions with health care providers, various treatment options, and access to care issues.

The self-report measures are similar to those commonly used in the assessment and treatment of insomnia. The Insomnia Severity Index (ISI) is a seven-item measure of perceived and subjective insomnia difficulties over the past two weeks, both nighttime symptom severity (items 1–3) and daytime impairment (items 4–7). Individual items (0–4) are totaled into categories: no clinically significant insomnia (0–7); subthreshold insomnia (8–14); clinical insomnia-moderate severity (15–21); and clinical insomnia-severe (22–28). Initial validation studies in clinical samples estimated internal consistency (Cronbach's alpha) at 0.74–0.78 for cross sectional and longitudinal treatment studies (Bastien et al., 2001). More recent validation studies found internal consistency of 0.90 in a community sample and 0.91 in a clinical sample (Morin, Belleville, Belanger, & Ivers, 2011). The ISI also has good convergent validity—it was significantly positively correlated with subjective sleep diary and objective polysomnography variables (e.g., sleep onset latency and wake after sleep onset) as well as the Pittsburgh Sleep Quality Index (Bastien et al., 2001; Morin et al., 2011).

The Dysfunctional Beliefs and Attitudes about Sleep Scale (DBAS) is a 16-item measure to evaluate sleep related cognitions. A series of statements about sleep asks individuals to agree or disagree and are scored on a 10-point Likert-type scale (1 = *strongly disagree*, 10 = *strongly agree*). There is no correct way to respond, but strong agreement could indicate patient worry and subsequent sleep disruption. An average total score is obtained by summing all items and dividing by the number of completed items. Validation studies show an internal consistency of 0.77 in clinical samples and 0.79 in research samples with good test–retest reliability at 0.83. The DBAS has good convergent validity as it was significantly positively correlated with sleep measures like the ISI. Significant positive correlations were found between the DBAS and psychiatric symptom measures including the Beck Depression Inventory and Beck Anxiety Inventory, highlighting the link between dysfunctional beliefs about sleep and more general worry, anxiety, and depressed mood (Morin et al., 2007).

The Quick Inventory of Depressive Symptomatology, self-report (QIDS-SR), is a 16-item measure of depressive symptom severity in the past week. The items represent the nine *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (*DSM–IV*) symptom criteria for depression. The QIDS-SR is scored by taking the highest sleep item (items 1–4), the highest weight item (6–9), the highest psychomotor item (items 15–16), and each of the remaining 6 items for a total score of 0–27. There are four severity categories: mild (1–5), moderate (6–10), severe (11–15), and very severe (16–27). The QIDS-SR has good internal consistency at 0.86 and good convergent validity with other measure of depression like the Inventory of Depressive Symptomatology and the Hamilton Rating Scale for Depression (Rush et al., 2003).

The Posttraumatic Stress Disorder (PTSD) Checklist for *DSM–5* (PCL-5) is a 20-item measure of PTSD symptoms in the past month. Items reflect the *DSM–5* diagnostic criteria with individual items scored 0–4 and summed for a total score of 0–80. The PCL-5 score can be interpreted as a provisional diagnosis of PTSD by treating each item scored ≥2 (moderate severity) as a symptom endorsed and then following *DSM–5* diagnostic rules: ≥1 B symptoms (distress; items 1–5); ≥1 C symptoms (avoidance; items 6–7); ≥2 D symptoms (alteration in cognition/mood; items 8–14); and ≥2 E symptoms (arousal; items 15–20). Per the VA, a cutpoint of 33 is reasonable to use for a provisional diagnosis of PTSD (Weathers et al., 2013). The PCL-5 showed high internal consistency of 0.94 with good test–retest reliability of 0.82. It also had good convergent validity with other PTSD measures including the original PCL, the Posttraumatic Diagnostic Scale, and the Detailed Assessment of Posttraumatic Stress (Blevins et al., 2015).

Data Analysis

For this analysis, Microsoft Access was used to manage demographics and other survey data and statistical analyses were generated using SPSS, v25. Audio-recorded interviews were transcribed verbatim using Microsoft Word (with redactions of identifying information), which was also used to develop the codebook and by coders to identify emergent themes across patient interviews.

We used qualitative content analysis to code the interview transcripts to generate a descriptive summary of the data and reach thematic saturation (Glaser & Strauss, 1967; Graneheim & Lundman, 2004; Morse, 2000; Sandelowski, 2000). The unit of analysis was the interview, and meaning units were sentences or paragraphs with similar meaning. To develop the coding scheme, the study team met regularly to read through transcripts and compare newly gathered data with previously collected data, as well as compare the content within each transcript. This process allowed for the development and refinement of codes and the identification of subcodes (Glaser & Strauss, 1967). When the codebook was finalized, five interviews were coded by three study team members (Adam D. Bramoweth, Gloria J. Klima, and Keri L. Rodriguez). Then, four interviews were coded individually by the study team, with meetings to establish consensus. Finally, 11 interviews were individually coded by two team members (Gloria J. Klima and Adam D. Bramoweth), with the second coder establishing consensus (Adam D. Bramoweth). The coders consisted of the PI (Adam D. Bramoweth) who has expertise in behavioral sleep medicine and implementation science methods (e.g., CFIR) and a member of the VAPHS Center for Health Equity Research and Promotion Qualitative Core (CHERP QualCore) staff member (Gloria J. Klima) who has several years of coding experience working under the direct supervision of the PI and the director of the CHERP QualCore (Keri L. Rodriguez). Using a negotiated consensus approach (Bradley, Curry, & Devers, 2007), ongoing meetings throughout the codebook development and the coding process allowed for the comparison of codes and resolution of any coding discrepancies.

Results

Twenty interviews took place between August, 2015 and June 2016; 16 interviews were in-person and four by telephone. The participants were predominantly male (85%), white (60%), and older (60.4 years). Insomnia severity of the sample was moderately severe, and the DBAS scores indicated potential unrealistic expectations about sleep. Depression symptoms were in the moderate range and average PTSD symptoms were below the clinical threshold of 33. See Table 1 for demographics and clinical characteristics of the sample.

Qualitative analyses of interview data yielded descriptions of veterans' knowledge, experiences, perspectives, and opinions related to insomnia and its treatment, as well as several subthemes within these areas. Each of these themes and subthemes is discussed in greater detail below. See Table 2 for exemplar quotes within each theme.

Insomnia Symptoms

All 20 veterans described their insomnia symptoms, including how they experience them, what causes them, how they have progressed, their impact, and how they compensate. Descriptions focused on *common symptom* domains such as difficulty falling asleep, staying asleep, and fragmented sleep. *Severity of symptoms* were also highlighted as "difficult" and "extreme," and one participant describing himself as "lost" because of his symptoms. All struggled with *chronic insomnia* symptoms, ranging in duration from 9 months to 40+ years, with some veterans indicating symptoms in childhood, some beginning in the military, and others with symptoms beginning in older age. Twelve participants had a sense of what *caused or contributed* to their symptoms, with racing thoughts a common internal factor reported. External factors included events during their military service and when transitioning from active duty to civilian. Other external factors noted were medical and psychiatric issues (e.g., chronic pain, prostate problems, PTSD), home stress, and job schedule (e.g., shiftwork). Although all participants described their symptoms, some ($n = 4$) lacked awareness of insomnia as a disorder and a problem that needed to be discussed with a provider. For example, one noted, "I didn't know it was a problem. I just thought because of my lifestyle," and another, "I thought it was simply a function of chronic pain. And I realize it's probably not really what it is."

The *progression and impact of symptoms* was consistently described as worsening and negative ($n = 13$); only one veteran noted an improvement resulting from medication and a more regular work schedule. As one participant noted, the symptoms persisted despite his chronic medical issue being resolved. Participants reported that their lack of sleep contributed to poor health, negatively affected schoolwork and grades, and even limited the type of job they worked. One stated, "It changed my life where I was totally trying to fit where, when I could sleep." Lastly, numerous *compensatory methods* (i.e., strategies to achieve desired result of improved sleep that may not be consistent with evidence-based approaches; $n = 8$) were utilized to reduce symptoms and/or improve function: watching TV, taking caffeine pills, napping during the day, and going to bed early.

Comorbid Symptoms

The majority ($n = 16$) of participants reported a medical, psychiatric, and/or sleep comorbidity. *Medical problems* ($n = 10$) included fibromyalgia, history of heart attack, diabetes, prostate issues, carpel tunnel syndrome, chronic pain, and diet/weight-related problems. *Psychiatric problems* ($n = 10$) included PTSD, depression, and substance use disorders. The most common comorbid *sleep disorder* was obstructive sleep apnea ($n = 5$)

with use of continuous positive airway pressure therapy and restless legs syndrome was reported by one participant. *Nonspecific symptoms* related to personality or lifestyle factors were also reported by six participants, including inconsistent sleep schedules and poor sleep hygiene that participants linked to specific life circumstances (e.g., work, retirement, caregiving duties).

Seeking Treatment

All 20 participants discussed *seeking help* for their insomnia or *reporting their symptoms* to a health care provider. Even though most veterans waited a long time ($n = 13$), often years or decades (i.e., 7–30 years), a few ($n = 3$) reported their symptoms “immediately” or within months to a health care provider. One veteran went to his providers upon discharged from active duty, “I immediately talked to [providers] and said I was having problems sleeping.”

Most had *initial discussions* with their PCP ($n = 16$) as opposed to other providers (e.g., behavioral health). Even though discussions with their PCPs typically involved medication as treatment, some led to a behavioral health referral and one participant specifically asked his provider about the Insomnia Clinic as a treatment option. Some veterans did not remember why they initially sought help. Others noted reasons like leaving the military, the negative impact of poor sleep on work (e.g., trouble waking up), and insomnia not resolving when their physical condition improved (e.g., pain). Others indicated they delayed seeking care (or never sought care) for reasons such as “I … solve things myself” and “just never got around to doing anything about it.”

Several veterans ($n = 8$) noted a *desire to understand* their insomnia problem. Most ($n = 5$) acted on their own self-care, trying to eat properly, stay physically fit, get proper sleep, and track their sleep patterns. Two veterans sought out additional information from their health care providers to gain a better understanding, and one discussed searching the Internet to identify self-care solutions.

All but one veteran ($n = 19$) discussed *access to care*, indicating treatment was easily accessible. Factors that facilitated access were open communication between provider and veteran, communication between providers in different clinics, and treatment options that were discussed and offered “more than once.” Barriers to care, broadly, included the location, distance to travel (home to VAMC), travel costs, and weather and bus transfers impacting travel. Veterans also reported struggles with locating available services, scheduling appointments, and having to wait a long time for an appointment (e.g., “I had to wait 6 months to finally see a doctor for this issue”). Two participants acknowledged challenges unique to the organizational culture of VA/Department of Defense systems, noting that “you’re told to deal with it” and are often discouraged from asking for help.

Also, in the context of seeking treatment, veterans ($n = 16$) discussed their *desired and/or expected results* of insomnia treatment. Most expressed a desire to obtain effective treatment, such as “one that works” or “anything would be a great improvement.” Others described successful treatment as getting enough sleep each night (e.g., “2–3 consecutive hours,” “the full 8 or 9 hours”). A few wanted treatment to “correct my patterns,” restore their circadian rhythm, or even “experience the cure for insomnia.” The *source of treatment* *information* played a role for eight veterans in seeking out care. Seven noted that it was friends and family, with only one mentioning he got initial information on insomnia treatment from a health care provider. Other sources of information about insomnia and treatment were books, the Internet, and TV news. One stated, “I read somewhere maybe the [lack of sleep] wasn’t too healthy for you.”

Intervention Experiences

Treatments for insomnia varied with most (*n* = 19) mentioning their initial, or a previous, *insomnia treatment* involved a prescription “sleeping pill” (e.g., zolpidem, trazodone) and some noting they were “given a lot of different medications.” Others (*n* = 4) tried over-the-counter medications such as melatonin and diphenhydramine. One took an herbal supplement, Kanna (*sceletium tortuosum*), purported to elevate mood and decrease stress and anxiety. Other veterans tried variations of nonpharmacological treatments, such as “staying up for days,” “overworking/wear yourself out,” reading about insomnia, and participating in provider delivered, evidence-based treatments like BBTI and CBT-I. Ten participants endorsed *treatment satisfaction* with previous interventions (i.e., medications and behavioral treatments), and two had success with acupuncture and deep breathing.

However, most participants (*n* = 16) reported *treatment dissatisfaction* with at least one prior insomnia treatments. Many (*n* = 16) experienced *side effects/adverse events* from sleep medications, with one feeling “jittery and up for three days” and one with negatively impacted their dreams. Some were “afraid of pills” and fearful of becoming dependent or “hooked” with others frustrated when by prescription sedative-hypnotics as the only treatment option. Two veterans were only willing to use sleep medications as “the last resort.” Also, a few veterans (*n* = 4) noted the stigma associated with seeking care for insomnia in behavioral health, where most sleep medications are prescribed at VAPHS. A key source of dissatisfaction stemmed from treatments not being effective or only helping temporarily.

Veterans (*n* = 20) differed in their perceptions of providers’ understanding of their insomnia *needs and resources*. Most (*n* = 14) felt their providers (i.e., PCPs and/or behavioral health) had a good understanding of their sleep needs and took appropriate action (e.g., referral to Sleep Disorders Clinic or Insomnia Clinic), but others (*n* = 6) said their providers did not view sleep as a priority and instead focused on potential underlying medical issues (e.g., pain). One even noted, with their PCP, “insomnia is pushed to the wayside.” Good communication often resulted in veterans being asking about their sleep more often by their provider and being informed about available treatment options. However, a few veterans mentioned that providers may have recognized insomnia as a problem but did not know how to handle it, and one noted that their provider “gave up” after two failed medication trials.

Intervention Preferences and Expectations

Veterans’ *treatment preferences* varied (*n* = 13), from broad statements to specific treatments they wanted to avoid. Two participants were open to try “pretty much anything.” However, as noted above, most did not want medications because of “side effects,” being “afraid of sleeping pills,” or already taking too many medications. One noted that sleep medications may be contraindicated for certain populations, in particular for those recovering from substance use disorders. Instead, most veterans were open to nonpharmacological approaches like BBTI or CBT-I.

Veterans were specifically asked about their preferences of behavioral insomnia treatment regarding *provider type, clinic location*, and *duration* (n = 19). Sixteen preferred psychologists or other behavioral health providers manage their insomnia as they are "more qualified" versus their PCP. Some participants (n = 7) recognized that qualifications and training were more important than provider type and were willing to see nurses or social workers if they were skilled and competent, could build rapport, had a background in mental health, and were "well-versed in the solutions."

Of lesser concern was location of care. Most (n = 11) liked the idea of insomnia care available in the primary care setting, largely because of convenience; "you could have everything right there," thus "more people would participate" because it "was easily obtainable." It was also noted that primary care is "a place where veterans are used to going." Others (n = 6) noted that behavioral health provided in primary care might work for some patients or indicated that an appropriately trained provider was more important than location. Some (n = 5) did not see the advantage and insomnia care should not be provided in primary care, preferring a distinction between behavioral health and primary care.

To explore initial impressions and preferences about treatment duration and delivery options, veterans were given brief descriptions of two common behavioral treatments, BBTI (2 in-person + 2 phone calls) and CBT-I (4–6 in-person sessions). Ten veterans preferred CBT-I as they were already familiar with CBT from previous behavioral health experiences (e.g., CBT for depression) and noting it sounded more "thorough" than BBTI; one veteran commented that BBTI "won't change your lifestyle as much." However, several veterans (n = 4) preferred the shorter treatment duration of BBTI, with one noting they would like to try BBTI first and then transition into CBT-I if necessary. No veteran considered BBTI or CBT-I too complex or challenging for their participation.

Veterans were also asked about *alternative treatment* delivery formats other than in-person. Half (n = 10) were not interested in online-based interventions citing reasons such as lack of a computer, computer illiteracy, "not a fan of the Internet," and that online treatment is "too impersonal." However, several (n = 7) saw value in online interventions (e.g., reduced travel to the VAMC), and others (n = 3) were interested in combining online treatment with either in-person sessions or a medication. Phone-based interventions had stronger approval (n = 14) with veterans stating, "it would be fine," "it might work," and "you're not face-to-face, but almost." One stated, "I still feel more comfortable talking to somebody on the phone than I do to somebody on the Internet and automated stuff." However, one unsure veteran said, "there's a lack of personal contact … [insomnia is] a very personal problem." Six veterans were not interested in telephone-delivered care with one stating, "You don't know who you are talking to." There was also concern that phone-based treatment may not be as effective as in-person. One veteran admitted "sometimes [we] might just be willing to say anything just to get it over and done with." Others (n = 4) indicated that treatment by phone or online does not provide an accurate assessment and they "would be less likely to lie in front of a person.” Most veterans ($n = 17$) had a positive response to clinical video telehealth (CVT; e.g., “that’s a good idea,” “that would be excellent”) and the few who were not interested in CVT or similar communication methods, again, voiced concerns related to computer ownership and technology literacy.

Patient Attributes

Veterans ($n = 19$) displayed variable *knowledge* about sleep disorders and treatment options. Several ($n = 7$) were familiar with the importance of healthy sleep behaviors like a regular sleep schedule and avoiding too much caffeine. Only five veterans had knowledge of sleep medications prior to speaking with a provider and none indicated any knowledge of behavioral interventions before talking with their providers about insomnia. Only half ($n = 10$) of the veterans recognized BBTI or CBT-I by name, and those familiar had previously participated in one of the treatments. To improve knowledge of available insomnia treatments, two veterans recommended increased advertising around the VAMC as well as highlighting the value of word-of-mouth information by providers and other veterans.

Another attribute noted by all 20 veterans was their *involvement in treatment decision making*, highlighting the value of shared decision making and a team approach with their providers. One veteran commented, “I should have the final decision … but it should be a joint venture” and another, “sometimes it don’t work out that way,” referring to a lack of patient involvement in treatment decisions. One veteran felt his relationship with his PCP did not always allow for him to be an active participant in his own care. *Trust* was another important factor raised by seven veterans. Four commented they trusted their primary care and behavioral health providers, but three noted inconsistent trust as well as not always agreeing with their provider’s recommendations. The veterans often trusted other veterans’ experiences and considered their recommendations to be highly valuable.

Last, 12 veterans discussed attributes such as their *willingness*, *ability*, and *openness* to make lifestyle changes to improve their sleep. One talked about the importance of being active and the role of getting proper sleep. Ten veterans talked about their ability and desire to obtain knowledge, to “learn as much about [sleep] and talk to the experts … get help.” Along with the desire the change, it was generally acknowledged that change is a difficult and challenging process.

Discussion

Using semistructured interviews as part of a qualitatively driven needs assessment, this analysis aimed to identify and describe veterans’ knowledge, experiences, perspectives, and opinions of insomnia and its treatment. Our analysis of 20 interviews with veterans with an insomnia diagnosis or insomnia complaint, regardless of treatment experience, focused on: (a) insomnia symptoms; (b) comorbid symptoms; (c) seeking treatment; (d) intervention experiences; (e) intervention preferences and expectations; and (f) patient attributes.

Although knowledge, experiences, perspectives, and opinions differed somewhat across the sample, there were overarching themes that, if addressed, may help improve dissemination and implementation efforts of evidence-based insomnia care. It is important to distinguish insomnia as a disorder versus a symptom, to both patients and providers. This lack of education about insomnia may delay assessment and treatment considerations. Also, sleep medications are typically the first, and sometimes the only, treatment offered. Importantly, most veterans preferred not to use sedative-hypnotics. When considering behavioral interventions like BBTI and CBT-I, preference for location may vary (primary care vs. behavioral health) but ensuring the provider is qualified is most important. Although in-person treatment was preferred, phone-based care and CVT may be appropriate for some veterans and should be considered against potential barriers of time, travel, and cost. Despite many veterans initial skepticism of technology, when educated and given examples (e.g., CVT is like Skype or FaceTime), their willingness to use increased. Also, access to care was not reported as a barrier by this sample but it may be at many VAMCs, VA Community Based Outpatient Clinics, and in the general community. The fact that limited access was not an issue may be an artifact of the study design; the inclusion criteria of prior insomnia diagnosis and/or treatment may have biased the sample toward veterans who can readily access care. However, it is also possible that characteristics of the study site were responsible. For example, VAPHS may have an adequate number of providers who can deliver insomnia care. Lastly, veterans want to be involved in their care and consider trust and open communication with their providers as highly valued aspects of the care experience.

Our findings were consistent with previous research that found patient perceptions and attributes can impact their seeking out, initiating, and adhering to treatment (Cheung, Bartlett, Armour, & Saini, 2016). Prior qualitative research has shown there are diverse factors that determine whether patients engage in behavioral treatment for insomnia, such as delivery method, perceived efficacy of treatment, and beliefs about sleep and insomnia (Cheung et al., 2019; Charles M. Morin, 2004; Vincent & Lionberg, 2001). Similar to our study, a survey of outpatients in a military treatment facility found that most patients were interested in learning behavioral skills to improve their sleep, and preferred behavioral treatment first followed by medications (Ee et al., 2016). Even though we did not interview providers, based on the responses of the veterans, there was often a discrepancy between their perception of insomnia and their providers' perception. Multiple studies have shown that providers perceive insomnia as less of a priority than patients do and less urgent than other symptoms and disorders they are treating (Dyas et al., 2010; Green et al., 2008). Although the qualitative literature regarding insomnia and its treatment is relatively nascent, our study identified several themes that support and extend the existing literature, including the high prevalence and negative impact of insomnia, medication as the primary treatment option, and openness to engaging in behavioral interventions (Araújo et al., 2017).

Study Limitations

Our study has certain limitations. Generalizability is limited because of our use of a nonprobability sampling technique and taking place at a single, large, urban mid-Atlantic VAMC. Veterans in other parts of the country, especially those who live in rural settings, may have different experiences. Also, owing to the relatively small and homogeneous sample (e.g., predominantly older, White males), generalizability is likely limited beyond demographically and clinically similar populations of veterans. The age of the data further limits the generalizability as efforts in VA have continued to train provides to deliver CBT-I and generally improve access to BBTI, CBT-I, and other formats of insomnia care. Conducting the study now may result in differing themes. As with other qualitative studies, rather than generalizability, we looked to improve our understanding of veterans' experiences and perspectives (Morse, 1999). Our goal was also to achieve thematic saturation, when no new themes are identified, which typically does not require a large sample ($n < 15$). However, this approach may prevent acquiring more nuanced and varied responses within each theme that a larger sample could provide. We also relied on self-reported data from interviews with veterans with a diagnosis or insomnia complaint, regardless of treatment experience, which may not mirror observational data or connect to objective measures of patient care and medical outcomes. These limitations should be considered when interpreting our results and any potential translation or application to other health care settings and patient samples (e.g., nonveterans).

Conclusion

Moving forward, the VA should make efforts to ensure that veterans are aware that effective treatments for insomnia are available, specifically the first-line, evidence-based behavioral treatments like BBTI and CBT-I. Furthermore, it is important that veterans know what to expect when participating in treatments for insomnia and the potential methods by which treatment is delivered (e.g., in-person, CVT, online). For veterans to achieve optimal insomnia care, it is important for their knowledge, experiences, perspectives, and opinions to be included as part of the dissemination and implementation of evidence-based insomnia practices.

Acknowledgments

This work was supported by a pilot research grant awarded to Adam D. Bramoweth by the VISN 4 Mental Illness Research, Education and Clinical Center at VA Pittsburgh Healthcare System (Core Project XVA 72-903). Adam D. Bramoweth is also supported by a Career Development Award (CDA 13-260) from the Department of Veterans Affairs, Health Services Research and Development Service. The views expressed in this article are those of the authors and do not necessarily reflect the position or policy of the Department of Veterans Affairs or the United States government. Adam D. Bramoweth receives consulting fees from Noctem, LLC; however, this work is unrelated to his work with Noctem.

Appendix

Veteran Interview Guide

Introduction:

Hi, my name is [name]. I am a member of the *Implementation Factors for Delivery of Behavioral Treatments for Insomnia* study. We are conducting interviews today, which will be recorded. The purpose of this study is to help us understand patient perspectives about the behavioral treatments of insomnia using Cognitive Behavioral Treatment for Insomnia, called “CBTI,” and Brief Behavioral Treatment of Insomnia, called “BBTI.” We are especially interested in identifying any barriers or facilitators to accessing and participating in insomnia care, and if delivering behavioral insomnia care in the primary care setting will be beneficial to both Veterans and the VA.

For this reason, we are conducting interviews with Veterans with a current insomnia complaint, or a past insomnia complaint. Our discussion will focus on you, and your own experiences with healthcare provided in primary care, especially related to insomnia. You will be asked several questions about this topic. All of your responses will be recorded and kept confidential, and study results will be kept under lock and key. Your participation is voluntary, and you may withdraw from this project at any time. The interview will last approximately 30 minutes.

As we discussed during the informed consent process, we record the interview so that we can transcribe what you say verbatim. If it is fine with you, I will turn the audio recorder on now. [turn on audio recorder]

Let’s begin with some general information, and work toward some more specific material.

- Tell me about your insomnia (current or past)?
    - When did you first notice symptoms or realize you were struggling with insomnia?
    - How long before you talked before you talked to your doctor/healthcare provider?
    - If you have not yet discussed your insomnia with your provider, why not?
    - What caused you to finally talk about it/ask for help?
    - How did your provider help?
    - What did you know about treatment options available at VAPHS?

Now I’d like to briefly tell you about non-medication, behavioral treatments called Brief Behavioral Treatment for Insomnia, or BBTI, and Cognitive Behavioral Treatment for Insomnia, or CBTI.

BBTI …

- 4 sessions–1 and 3 in-person, 2 and 4 by phone
- Sessions are brief—Session 1 approximately 45 min; 2–4 20-30 min, or less
- Session 1 – Address factors and behaviors that impact sleep; establish treatment plan and new sleep schedule; you may also complete brief questionnaires
- BBTI focuses on changing behaviors that impact sleep
- Session 2–4—Follow up with clinician to address concerns, answer questions, and change sleep schedule based on progress; complete brief questionnaires
- 1–2 weeks after session 4, complete brief follow-up questionnaires to assess treatment

CBTI …

- Similar to BBTI but generally 5–6 sessions all in-person, usually 1 session per week
- Sessions last 30–45 minutes
- Session 1 – Address factors, behaviors, and cognitions (thinking patterns/ worries) that impact sleep; establish treatment plan and new sleep schedule; complete brief questionnaires
- Sessions 2– 6 – Follow up with clinician to address concerns, answer questions, and change sleep schedule based on progress; you may also complete brief questionnaires
- Treatment moves a bit more slowly than BBTI—the information you receive is spread out over the 5–6 sessions.
- CBTI, like BBTI, focuses on behaviors that impact sleep but also changing the way you think about sleep and addressing worries and anxiety.
- 1–2 weeks after final session, complete brief follow-up questionnaires to assess treatment

Now some questions related to BBTI and CBTI.

- How familiar were you with the two treatments I just explained?
- Does one treatment sound like a better fit for you than the other?
  - How come?
  - What are the advantages of the treatment that might be a better fit for you?
- Does either BBTI or CBTI sound too complex or too complicated?
- In your opinion, should the behavioral treatment of insomnia remain in Behavioral Health/Mental Health? Treated by Psychologists and/or Psychiatrists?
  - If yes, explain why?
  - If no, where should it go?
  - Who should provide behavioral treatments for insomnia?
- [Providers who can deliver CBTI/BBTI: Psychologist, Psychiatrist, Social Worker, Advanced Practice Nurse, Licensed Professional Mental Health Counselor, Marriage and Family Therapist]
- As a Veteran who receives treatment in a Primary Care PACT, is insomnia treatment something you would like to see offered? This means you would not be referred to another clinic.
  - How come?

- From your perspective, is it advantageous to offer BBTI, the briefer treatment, in the primary care setting?
  - How come?
- Are there other treatments you would try to treat your insomnia?
  - What would make a treatment ideal?
- Would you like to see other options for treating insomnia offered at VAPHS?
  - Internet (e.g., desktop, phone)?
  - Telephone?
  - Clinical Video-Telehealth?

Now I’d like to ask you about accessing insomnia treatment care at the VA.

- Have you experienced any barriers to accessing insomnia care at VAPHS?
- Is access to insomnia care a problem?
- What barriers have you experienced, or have heard that others have experienced, in accessing and participating in insomnia care at VAPHS?
- Have you experienced any facilitators to care? What has helped or made access to care easier?
- Do you think your healthcare providers have a good understanding of your needs and preferences for treatment?
- Have you ever talked to them about needs and preferences for treatment of insomnia?
- Do you feel any pressure, or push, from family, friends, or providers to engage in insomnia treatment?
  - For example, to try a specific medication or see a Behavioral Health provider (psychologist or psychiatrist)?
  - Where do you feel this pressure from?
  - How is it exerted?
- Do you prefer to be an active participant in deciding your medical/mental health care? Or do you prefer/trust the decisions and recommendations of your provider(s)?
  - How come?
- What are some factors that you think would influence/impact where you (and other Veterans) would receive treatment for insomnia?
- If you are supportive of implementation of BBTI in Primary Care PACTs, would you consider being a “champion” for implementation/uptake of BBTI?

- Do you have any other thoughts on the treatment of insomnia or any of your experiences that we have not touched upon in this interview?

Before we finish, I'd like to ask you a few questions about any mental health treatment you have received or are currently receiving. Would you like to continue?

[If yes, read questions below. If no, skip to end]

- Have you ever been diagnosed with a mental health or psychiatric disorder?
    - What was it?
    - When was that?
- How was it treated? With medication, therapy, or both?
- Are you still in treatment?
- Are you satisfied with treatment?
    - Why or why not?
    - If not—What would you like differently?
- Is your treatment coordinated with your Primary Care Provider?
    - If yes—Do you find this beneficial?
    - If no—Do you think it would be beneficial?

Those are all of the questions that we have. Thank you so much for your time. We appreciate all of your answers. Have a good day.

References

Alexander M, Ray MA, Hebert JR, Youngstedt SD, Zhang H, Steck SE, … Burch JB (2016). The National Veteran Sleep Disorder Study: Descriptive epidemiology and secular trends, 2000–2010. Sleep, 39, 1399–1410. 10.5665/sleep.5972 [PubMed: 27091538]

Anderson LH, Whitebird RR, Schultz J, McEvoy CE, Kreitzer MJ, & Gross CR (2014). Healthcare utilization and costs in persons with insomnia in a managed care population. The American Journal of Managed Care, 20, e157–e165. [PubMed: 25326930]

Araújo T, Jarrin DC, Leanza Y, Vallières A, & Morin CM (2017). Qualitative studies of insomnia: Current state of knowledge in the field. Sleep Medicine Reviews, 31, 58–69. 10.1016/j.smrv.2016.01.003 [PubMed: 27090821]

Bastien CH, Vallieres A, & Morin CM (2001). Validation of the Insomnia Severity Index as an outcome measure for insomnia research. Sleep Medicine, 2, 297–307. 10.1016/S1389-9457(00)00065-4 [PubMed: 11438246]

Blevins CA, Weathers FW, Davis MT, Witte TK, & Domino JL (2015). The Posttraumatic Stress Disorder Checklist for *DSM–5* (PCL-5): Development and initial psychometric evaluation. Journal of Traumatic Stress, 28, 489–498. 10.1002/jts.22059 [PubMed: 26606250]

Bootzin RR (2012). Implementing CBTI at the Veterans Health Administration. Journal of Clinical Sleep Medicine, 8, 219–220. 10.5664/jcsm.1788 [PubMed: 22505870]

Bradley EH, Curry LA, & Devers KJ (2007). Qualitative data analysis for health services research: Developing taxonomy, themes, and theory. Health Services Research, 42, 1758–1772. 10.1111/j.1475-6773.2006.00684.x [PubMed: 17286625]

Carey TJ, Moul DE, Pilkonis P, Germain A, & Buysse DJ (2005). Focusing on the Experience of Insomnia. Behavioral Sleep Medicine, 3, 73–86. 10.1207/s15402010bsm0302_2 [PubMed: 15802258]

Charles J, Harrison C, & Britt H (2009). Insomnia. Australian Family Physician, 38, 283. [PubMed: 19458795]

Cheung JMY, Bartlett DJ, Armour CL, Ellis JG, & Saini B (2016). People with insomnia: Experiences with sedative hypnotics and risk perception. Health Expectations, 19, 935–947. 10.1111/hex.12388 [PubMed: 26237994]

Cheung JMY, Bartlett DJ, Armour CL, Glozier N, & Saini B (2014). Insomnia patients' help-seeking experiences. Behavioral Sleep Medicine, 12, 106–122. 10.1080/15402002.2013.764529 [PubMed: 23514322]

Cheung JMY, Bartlett DJ, Armour CL, Laba TL, & Saini B (2019). Patient perceptions of treatment delivery platforms for cognitive behavioral therapy for insomnia. Behavioral Sleep Medicine, 17, 81–97. 10.1080/15402002.2017.1293539 [PubMed: 28323439]

Cheung JMY, Bartlett DJ, Armour CL, & Saini B (2016). Treating insomnia: A review of patient perceptions toward treatment. Behavioral Sleep Medicine, 14, 235–266. 10.1080/15402002.2014.981818 [PubMed: 26240937]

Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, & Lowery JC (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. Implementation Science, 4, 50. 10.1186/1748-5908-4-50 [PubMed: 19664226]

Department of Veterans Affairs. (2019, March 5). Path to better sleep. Retrieved from https://www.veterantraining.va.gov/insomnia/index.asp

Dyas JV, Apekey TA, Tilling M, Ørner R, Middleton H, & Siriwardena AN (2010). Patients' and clinicians' experiences of consultations in primary care for sleep problems and insomnia: A focus group study. The British Journal of General Practice, 60(574), e180–e200. 10.3399/bjgp10X484183 [PubMed: 20423574]

Ee JS, Berry-Cabán CS, Nguyen DR, Boyd M, Bennet N, Beltran T, & Williams M (2016). Soldiers' perspectives of insomnia behavioral treatment in a primary care setting. Journal of Sleep Disorders and Management, 2, 012. 10.23937/2572-4053.1510012

Glaser BG, & Strauss AL (1967). The discovery of grounded theory: Strategies for qualitative research. Retrieved from http://www.sxf.uevora.pt/wp-content/uploads/2013/03/Glaser_1967.pdf

Graneheim UH, & Lundman B (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. Nurse Education Today, 24, 105–112. 10.1016/j.nedt.2003.10.001 [PubMed: 14769454]

Green A, Hicks J, & Wilson S (2008). The experience of poor sleep and its consequences: A qualitative study involving people referred for cognitive-behavioural management of chronic insomnia. The British Journal of Occupational Therapy, 71, 196–204. 10.1177/030802260807100506

Henry D, McClellen D, Rosenthal L, Dedrick D, & Gosdin M (2008). Is sleep really for sissies? Understanding the role of work in insomnia in the U.S. Social Science & Medicine, 66, 715–726. 10.1016/j.socscimed.2007.10.007 [PubMed: 18006129]

Henry D, Rosenthal L, Dedrick D, & Taylor D (2013). Understanding patient responses to insomnia. Behavioral Sleep Medicine, 11, 40–55. 10.1080/15402002.2011.620671 [PubMed: 23347116]

Hogan A, Clark G, & Scott N (2003). Patient perspectives on the experience of sleeplessness. Australasian Journal of Clinical Pharmacy, 1, 4–8.

Irwin MR, Cole JC, & Nicassio PM (2006). Comparative meta-analysis of behavioral interventions for insomnia and their efficacy in middle-aged adults and in older adults 55+ years of age. Health Psychology, 25, 3–14. 10.1037/0278-6133.25.1.3 [PubMed: 16448292]

Ishak WW, Bagot K, Thomas S, Magakian N, Bedwani D, Larson D, … Zaky C (2012). Quality of life in patients suffering from insomnia. Innovations in Clinical Neuroscience, 9, 13–26.

Kuhn E, Weiss B, Taylor K, Hoffman J, Ramsey K, Manber R, … Trockel M (2016). CBT-I Coach: A description and clinician perceptions of a mobile app for cognitive behavioral therapy for insomnia. Journal of Clinical Sleep Medicine, 12, 597–606. 10.5664/jcsm.5700 [PubMed: 26888586]

Kyle SD, Espie CA, & Morgan K (2010). "… Not just a minor thing, it is something major, which stops you from functioning daily": Quality of life and daytime functioning in insomnia. Behavioral Sleep Medicine, 8, 123–140. 10.1080/15402002.2010.487450 [PubMed: 20582756]

Mah L, & Upshur REG (2002). Long term benzodiazepine use for insomnia in patients over the age of 60: Discordance of patient and physician perceptions. BMC Family Practice, 3, 9. 10.1186/1471-2296-3-9 [PubMed: 12019038]

Manber R, Carney C, Edinger J, Epstein D, Friedman L, Haynes PL, … Trockel M (2012). Dissemination of CBTI to the non-sleep specialist: Protocol development and training issues. Journal of Clinical Sleep Medicine, 8, 209–218. 10.5664/jcsm.1786 [PubMed: 22505869]

Martin JL (2016). What to do about the growing number of veterans with diagnosed sleep disorders. Sleep, 39, 1331–1332. 10.5665/sleep.5956 [PubMed: 27306268]

Martin JL, Schweizer CA, Hughes JM, Fung CH, Dzierzewski JM, WA DL, … Alessi CA (2017). Estimated prevalence of insomnia among women veterans: Results of a postal survey. Women's Health Issues, 27, 366–373. 10.1016/j.whi.2016.12.003 [PubMed: 28110799]

Mitchell MD, Gehrman P, Perlis M, & Umscheid CA (2012). Comparative effectiveness of cognitive behavioral therapy for insomnia: A systematic review. BMC Family Practice, 13, 40. 10.1186/1471-2296-13-40 [PubMed: 22631616]

Moloney ME, Konrad TR, & Zimmer CR (2011). The medicalization of sleeplessness: A public health concern. American Journal of Public Health, 101, 1429–1433. 10.2105/AJPH.2010.300014 [PubMed: 21680913]

Morin CM (2004). Cognitive-behavioral approaches to the treatment of insomnia. The Journal of Clinical Psychiatry, 65, 33–40. [PubMed: 15575803]

Morin CM, Belleville G, Belanger L, & Ivers H (2011). The Insomnia Severity Index: Psychometric indicators to detect insomnia cases and evaluate treatment response. Sleep, 34, 601–608. 10.1093/sleep/34.5.601 [PubMed: 21532953]

Morin CM, Gaulier B, Barry T, & Kowatch RA (1992). Patients' acceptance of psychological and pharmacological therapies for insomnia. Sleep, 15, 302–305. 10.1093/sleep/15.4302 [PubMed: 1519003]

Morin CM, Vallieres A, & Ivers H (2007). Dysfunctional beliefs and attitudes about sleep (DBAS): Validation of a brief version (DBAS-16). Sleep, 30, 1547–1554. 10.1093/sleep/30.11.1547 [PubMed: 18041487]

Morse JM (1999). Qualitative generalizability. Qualitative Health Research, 9, 5–6. 10.1177/104973299129121622

Morse JM (2000). Determining sample size. Qualitative Health Research, 10, 3–5. 10.1177/104973200129118183

Mustafa M, Erokwu N, Ebose I, & Strohl K (2005). Sleep problems and the risk for sleep disorders in an outpatient veteran population. Sleep and Breathing, 9, 57–63. 10.1007/s11325-005-0016-z [PubMed: 15875229]

National Institutes of Health. (2005). National Institutes of Health State of the Science Conference statement on Manifestations and Management of Chronic Insomnia in Adults, June 13–15, 2005. Sleep, 28, 1049–1057. 10.1093/sleep/28.9.1049 [PubMed: 16268373]

Qaseem A, Kansagara D, Forciea MA, Cooke M, & Denberg TD (2016). Management of chronic insomnia disorder in adults: A clinical practice guideline from the American College of Physicians. Annals of Internal Medicine, 165, 125–133. 10.7326/M15-2175 [PubMed: 27136449]

Riemann D. (2007). Insomnia and comorbid psychiatric disorders. Sleep Medicine, 8, S15–S20. 10.1016/S1389-9457(08)70004-2 [PubMed: 18346672]

Roth T. (2007). Insomnia: Definition, prevalence, etiology, and consequences. Journal of Clinical Sleep Medicine, 3, S7–S10. [PubMed: 17824495]

Rush AJ, Trivedi MH, Ibrahim HM, Carmody TJ, Arnow B, Klein DN, … Keller MB (2003). The 16-Item quick inventory of depressive symptomatology (QIDS), clinician rating (QIDS-C), and self-report (QIDS-SR): A psychometric evaluation in patients with chronic major depression. Biological Psychiatry, 54, 573–583. 10.1016/S0006-3223(02)01866-8 [PubMed: 12946886]

Sandelowski M. (2000). Whatever happened to qualitative description? Research in Nursing & Health, 23, 334–340. 10.1002/1098-240X(200008)23:4<334::AID-NUR9>3.0.C0;2-G [PubMed: 10940958]

Sateia MJ, Buysse DJ, Krystal AD, Neubauer DN, & Heald JL (2017). Clinical practice guideline for the pharmacologic treatment of chronic insomnia in adults: An American Academy of Sleep Medicine clinical practice guideline. Journal of Clinical Sleep Medicine, 13, 307–349. 10.5664/jcsm.6470 [PubMed: 27998379]

Smith MT, Huang MI, & Manber R (2005). Cognitive behavior therapy for chronic insomnia occurring within the context of medical and psychiatric disorders. Clinical Psychology Review, 25, 559–592. 10.1016/j.cpr.2005.04.004 [PubMed: 15970367]

Stinson K, Tang NKY, & Harvey AG (2006). Barriers to treatment seeking in primary insomnia in the United Kingdom: A cross-sectional perspective. Sleep, 29, 1643–1646. 10.1093/sleep/29.12.1643 [PubMed: 17252896]

Taylor DJ, Mallory LJ, Lichstein KL, Durrence HH, Riedel BW, & Bush AJ (2007). Comorbidity of chronic insomnia with medical problems. Sleep, 30, 213–218. 10.1093/sleep/30.2.213 [PubMed: 17326547]

Troxel WM, Germain A, & Buysse DJ (2012). Clinical management of insomnia with brief behavioral treatment (BBTI). Behavioral Sleep Medicine, 10, 266–279. 10.1080/15402002.2011.607200 [PubMed: 22946736]

Ulmer CS, Bosworth HB, Beckham JC, Germain A, Jeffreys AS, Edelman D, … Voils CI (2017). Veterans Affairs primary care provider perceptions of insomnia treatment. Journal of Clinical Sleep Medicine, 13, 991–999. 10.5664/jcsm.6702 [PubMed: 28728623]

Ulmer CS, Farrell-Carnahan L, Hughes JM, Manber R, Leggett MK, & Tatum J (2016). Improve your sleep: A self-guided approach for veterans with insomnia. Washington, DC: Department of Veterans Affairs.

Vincent N, & Lionberg C (2001). Treatment preference and patient satisfaction in chronic insomnia. Sleep, 24, 411–417. 10.1093/sleep/24.4.411 [PubMed: 11403525]

Weathers FW, Litz BT, Keane TM, Palmieri PA, Marx BP, & Schnurr PP (2013). The PTSD Checklist for DSM–5 (PCL-5). Retrieved December 4, 2019, from https://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp

Impact Statement

Insomnia is a prevalent disorder among veterans, yet their knowledge of insomnia and available treatments are limited. To improve the delivery of care it is important to educate veterans about insomnia and deliver evidence-based treatment utilizing methods that meet veterans' needs and preferences, taking into consideration clinic location (e.g., primary care, behavioral health) and modality (e.g., face to face, telephone, video telehealth).

Table 1

Demographics and Clinical Characteristics

Characteristic	*M*/%	*SD*	Range
Age	60.40	9.20	44–77
Sex (male)	85%		
Race			
Caucasian	60%		
African American	30%		
Other	10%		
Treatment type			
Medication	70%		
CBTI	25%		
Sleep apnea	20%		
ISI	19.35	4.42	11–27
Subthreshold	20%		
Moderately severe	45%		
Severe	35%		
DBAS	5.78	1.30	3.56–9.31
QIDS-SR	10.35	4.30	4–17
None	15%		
Mild	40%		
Moderate	25%		
Severe	20%		
PCL-5	29.75	16.24	3–65
PTSD	15%		

Note. CBTI = Cognitive Behavioral Treatment for Insomnia; ISI = Insomnia Severity Index; DBAS = Dysfunctional Beliefs and Attitudes about Sleep; QIDS-SR = Quick Inventory of Depressive Symptomatology; PCL-5 = Posttraumatic Stress Disorder Check List for *DSM-5*; PTSD = posttraumatic stress disorder.

Table 2

Exemplar Quotes From Identified Themes

Codes and Themes	Quotation examples
Insomnia symptoms	
Commonly reported symptoms	I have trouble falling asleep and, ah, when I do fall asleep, I have nightmares from the military experiences … then I won’t get back to sleep for hours.
Severity of symptoms	It got to a point where it was so bad at one point that I had to sleep on a couch instead of keeping my wife up every night.
Duration of symptoms	It’s been too many years, and this is getting really bad.
Progression/impact of insomnia	I mean it really affects your home life and affects your marriage … It affects the way you relate to your kids … the longer it goes the worse it gets.
Compensating to improve functioning	And, I was taking caffeine pills in the morning … so that I can stay awake during the day but, at the same time, if I take too much that keeps me awake at night.
Comorbid symptoms	
Medical	In the past they thought my insomnia was due to pain … So, they tried to treat it with medicines and stuff … thinking it was just a side effect from the pain.
Psychiatric	I think there would be a lot less depression among Veterans. Um, you know, lack of sleep can really affect your mood and your thinking and just your life.
Seeking treatment	
Reporting symptoms/problem/ seeking help	Immediately after I got out the military and said I was having problems sleeping … And, when they said that no sleep apnea, “Well, we tried the medicine.” And, so a couple years go by, I get another test for sleep apnea. They said, “No, that’s not it.” So, when I came into my last doctor’s, she said that they have the Insomnia Clinic where I could go and talk to somebody. I actually asked about it because I found out from another Veteran.
Access to care	[Is getting insomnia care a problem?] Um, not now, before … it was a big problem … I think they’re kind of addressing it more now because I was kind of shocked when I brought it up … It was like “We have a sleep clinic for insomnia.” I was like “What? Huh? Yes, put me down.” And, I got a call right away from the doctor, it was like instantly … And I was jumping for joy. I was like “I’m gonna sleep, I’m gonna sleep.”
Desired/expected results/ outcomes	There was no easy solution to this problem … it just took biting the bullet to get onto a regular schedule.
Intervention experiences	
Side effects/adverse events/ avoidance	[offering BBTI in primary care] It might make it easier for some Veterans to ask for it without feeling stigmatized by walking in the door that says ‘Behavioral Health’ … Because some Veterans, that’s a bridge they would have trouble crossing.
Treatment dissatisfaction: Insomnia related	But, the medicines didn’t really help me sleep. Even when I did go to sleep I wasn’t rested … So, I really didn’t consider that true sleep, I … it wasn’t restful sleep.
Patient needs and resources	I mean, if I didn’t tell my doctor that I was having trouble sleeping I would never have known nothing.
Intervention preferences/expectations	
Treatment preference	Umm … I don’t want to do any medications … I have enough of that.
Treatment location	[offering BBTI in primary care] Yeah, I think it would be easier to be able to access for most people. Yeah, more convenient and that they don’t have to go anywhere else outside the primary care unit.
Treatment duration	I would definitely want to try the shorter program.
Alternative treatments: Internet	Ah, personally for me it would be no good because I don’t have a computer. There are some people that do not have, you know … And, I want to say we feel discriminated against … (laughs).
Alternative treatments: Telephone	You’re not face to face, but almost. I’ve done that before and I really enjoy that. And, it saves a lot of time and effort.

Codes and Themes	Quotation examples
Alternative treatments: Clinical video telehealth	I go to the VA and they set me up in a room where I can talk to him … just as good as him being there.
Patient attributes	
Knowledge of sleep treatments (General)	Well, I think the first thing that would need to be done to help is to let it be known there is some care … There's always the little posters on the walls, you know … I've never seen any insomnia, and it's such a big problem for everybody.

Note. BBTI = brief behavioral treatment for insomnia.