

## Supplementary Material

**Article Title:** Primary Users of the VA Health Care System: Prevalence, Correlates, and Implications for Care Delivery

**Author(s):** Sarah Meshberg-Cohen, PhD; Shelby R. Goodwin, MA; Ian C. Fischer, PhD; Joan M. Cook, PhD; Jack Tsai, PhD; and Robert H. Pietrzak, PhD, MPH

**DOI Number:** <https://doi.org/10.4088/PCC.25m04176>

### **LIST OF SUPPLEMENTARY MATERIAL FOR THE ARTICLE**

1. Supplementary Table 1. Study Measures

### **DISCLAIMER**

This Supplementary Material has been provided by the author(s) as an enhancement to the published article. It has been approved by peer review; however, it has undergone neither editing nor formatting by in-house editorial staff. The material is presented in the manner supplied by the author.

**Supplementary Table 1. Study Measures**

<b>Variable</b>	<b>Assessment</b>
<b><i>Sociodemographic characteristics</i></b>	
	A general sociodemographic questionnaire was used to assess age, sex, race/ethnicity, education, marital status, and annual household income.
VA as main source of healthcare	“Is the VA your main source of health care?”
<b><i>Mental health treatment characteristics</i></b>	
Lifetime mental health utilization	“Have you ever received mental health treatment (e.g., prescription medication or psychotherapy) for a psychiatric or emotional problem?”
Current psychotherapy utilization	“Have you ever received mental health treatment (e.g., prescription medication or psychotherapy) for a psychiatric or emotional problem?”
Current psychiatric medication utilization	“Are you currently taking prescription medication for a psychiatric or emotional problem?”
<b><i>Military characteristics</i></b>	
Military branch	“In what branch(es) of the military did you serve?” Items for selection include: Army; Air Force; Marine Corps; Navy; Army National Guard; Air National Guard; Army Reserve; Navy Reserve; Marine Corps Reserve; Air Force Reserve; Coast Guard; Coast Guard Reserve
Years in military	“How many years did you spend in the military?”
Enlistment status	“Were you drafted or did you enlist or earn a commission into the military?”
Combat veteran	“Did you ever serve in a combat or war zone?”
<b><i>Health Insurance</i></b>	“Are you currently covered by any of the following types of health insurance or health coverage plans? (Select all that apply)” Items for selection include: No health insurance; Insurance through current or former employer; Insurance purchased directly from insurance company; Medicare; Medicaid; VA; TRICARE, CHAMPUS, or other military health care; Indian Health Service; Other type of health insurance or coverage, please specify (textbox).
<b><i>Trauma characteristics</i></b>	
Military sexual trauma (MST)	Affirmative responses to either of two items from the VA MST Screen (1) which asks, “When you were in the military, did you ever receive unwanted, threatening, or repeated sexual attention (for example, touching, cornering, pressure for sexual favors” and “When you were in the military, did you have sexual contact against your will or when

	you were unable to say no (for example, after being forced or threatened or to avoid other consequences)?”
Adverse childhood experiences (ACEs)	Adverse Childhood Experiences Questionnaire (2) total score.
Cumulative trauma burden	Life Events Checklist for DSM-5 total score (3). The LEC-5 assesses lifetime exposure to 16 potentially traumatic events (PTEs) and was used to establish total lifetime trauma count.
<b><i>Lifetime psychiatric disorders</i></b>	
Lifetime AUD	Positive screen on the alcohol use disorder module from the DSM-5 version of the Mini Neuropsychiatric Interview (MINI) (4).
Lifetime DUD	Positive screen on the drug use disorder module from the DSM-5 version of the Mini Neuropsychiatric Interview (MINI) (4).
Lifetime MDD	Positive screen on the major depressive disorder module from the DSM-5 version of the Mini Neuropsychiatric Interview (MINI) (4).
Lifetime PTSD	Score $\geq 33$ on lifetime version of the PTSD Checklist for DSM-5 (5).
<b><i>Current psychiatric disorders</i></b>	
Probable current drug use disorder (DUD)	Positive screen on the Screen of Drug Use (6).
Probable current alcohol use disorder (AUD)	Score $\geq 3$ on the Alcohol Use Disorders Identification Test (AUDIT) (7).
Probable current major depressive disorder (MDD)	Score $\geq 3$ on depression items from the Patient Health Questionnaire-4 (PHQ-4) (8).
Probable current generalized anxiety disorder (GAD)	Score $\geq 3$ on anxiety items from the Patient Health Questionnaire-4 (PHQ-4) (8).
Probable current posttraumatic stress disorder (PTSD)	Score $\geq 33$ on the PTSD Checklist for DSM-5, past month (5).
<b><i>Suicide risk</i></b>	
Past-year suicidal ideation	Suicidal ideation was assessed using Item 2 of the Suicide Behaviors Questionnaire-Revised (SBQ-R), which asks about the frequency of suicidal thoughts in the last twelve months: “How often have you thought about killing yourself in the past year?” Responses indicating any frequency greater than "Never" (e.g., "Rarely," "Sometimes," "Often," or "Very Often") were coded as "1" (past-year suicidal ideation), and "Never" would be "0" (no ideation in the past year) (9).
Lifetime Non-suicidal self-injury	Positive endorsement of lifetime NSSI on the Self-Injurious Thoughts and Behavior Interview-Short Form (10).

Lifetime suicide attempt	Lifetime suicide attempt was assessed via positive endorsement of either “I have had a plan at least once to kill myself but did not try to do it” or “I have attempted to kill myself, but did not want to die” or “I have attempted to kill myself, and really wanted to die” on Item 1 of the SBQ-R (9).
Future suicidal intent	Suicidal intent was defined as endorsing “Likely”, “Rather Likely”, or “Very Likely” on Question 4 of the SBQ-R,(9) which asks “How likely is it that you will attempt suicide someday?”
<b><i>Stigma and barriers to care</i></b>	The Perceived Stigma and Barriers to Care (11) examined stigma (six items: “It would be too embarrassing”) and obstacles (five items: “It is difficult to schedule an appointment”) that dissuade people from seeking treatment. Responses range from 1 (strongly disagree) to 5 (strongly agree), with higher scores representing greater perceptions of stigma and barriers to care.
<b><i>Mental and physical health and functioning</i></b>	
Any ADL disability	Any disability in activities of daily living. The following question was asked: “At the present time, do you need help from another person to do the following?” (e.g., bathe; walk around your home or apartment; get in and out of chair). Endorsement of any of these activities was indicative of having a disability with an activity of daily living (12).
Any IADL disability	Any disability in instrumental activities of daily living. The following question was asked: “At the present time, do you need help from another person to do the following?” (e.g., pay bills or manage money; prepare bills; get dressed). Endorsement of any of these activities was indicative of having a disability with an instrumental activity of daily living.
Lifetime nicotine use disorder	Positive screen on the Fagerström Test for Nicotine Dependence (FTND) (13).
Total number of medical conditions	Count of 22 medical conditions assessed using a checklist adapted from the Alcohol Use Disorder and Associated Disabilities Interview Schedule (AUDADIS) developed for the National Epidemiologic Survey on Alcohol and Related Conditions (14). Participants were asked, “ <i>Has a doctor or healthcare professional ever told you that you have any of the following medical conditions?</i> ” Conditions assessed included arthritis; asthma/chronic bronchitis/chronic obstructive pulmonary disease (COPD); cancer (with type specified); chronic pain (e.g., low back pain, neck pain, or fibromyalgia); liver disease; diabetes; heart disease; heart attack; high cholesterol; high blood pressure; kidney disease; sleep disorders (e.g., sleep apnea or insomnia); migraine; multiple sclerosis; osteoporosis/osteopenia; rheumatoid arthritis; stroke; concussion or mild

	traumatic brain injury; traumatic brain injury; mild cognitive impairment; dementia; Alzheimer's disease (or probable Alzheimer's disease); and HIV/AIDS. Each condition was coded dichotomously (yes/no), and the total number of conditions endorsed was computed to yield a medical comorbidity count variable.
Insomnia severity	Score on the Insomnia Severity Index (ISI; 15). Total scores range from 0–28, with scores of 0–7 indicative of no clinically significant insomnia, 8–14 for subthreshold insomnia, 15–21 for clinical insomnia (moderate severity), and 22–28 for clinical insomnia (severe). In the current study, we classified participants into 3 groups based on total ISI scores: no insomnia (score of 0–7), subthreshold insomnia (score of 8-14), insomnia (15-28)
Weekly physical activity	Score on Godin Leisure-Time Exercise Questionnaire (GLTEQ; 16)
Overall physical functioning	Physical functioning was assessed using the physical composite score (PCS) from the Medical Outcomes Study Short Form 8 Health Survey (SF-8; 17). A physical functioning composite score was derived by computing the weighted sum of four component subscale scores assessing aspects of physical functioning (i.e., physical functioning, physical role disability, bodily pain, and general health). These scores were then transformed into t-scores that are normalized from the U.S. general population, with higher scores representing better physical functioning.
Overall cognitive functioning	Cognitive functioning was assessed using the Medical Outcomes Study Cognitive Functioning Scale (18), which assesses past-month difficulties in six cognitive domains—reasoning, concentration and thinking, confusion, memory, attention, and reaction time. Total scores range from 0-100, with higher scores indicative of better cognitive functioning.
Overall mental functioning	Score on the Mental Component Summary, a composite of the four mental health items of the Short Form Health Survey-8 (SF-8; 17) . A mental functioning composite score was derived by computing the weighted sum of four component subscale scores assessing aspects of mental functioning (i.e., vitality, emotional role limitations, emotional functioning, and social functioning). These scores were then transformed into t-scores that are normalized from the U.S. general population, with higher scores indicative of better mental functioning.
Overall psychosocial difficulties	Psychosocial difficulties were assessed using the Brief Inventory of Psychosocial Functioning (B-IPF; 19, 20), which measures past-month difficulties in seven domains (i.e., relationships, socialization, work, training/education, daily activities).

## References

1. Kimerling R, Gima K, Smith MW, Street A, Frayne S. The Veterans Health Administration and military sexual trauma. *American journal of public health*. 2007;97(12):2160-6.
2. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *Am J Prev Med*. 1998;14(4):245-58.
3. Weathers F, Blake DD, Schnurr PP, Kaloupek DG, Marx BP, Keane TM. The Life Events Checklist for DSM-5 (LEC-5). Instrument available from the National Center for PTSD at [www.ptsd.va.gov](http://www.ptsd.va.gov) 2013
4. Sheehan D. The mini-international neuropsychiatric interview, version 7.0 for DSM-5 (MINI 7.0). 2014.
5. Weathers FW, Litz BT, Keane TM, Palmieri PA, Marx BP, Schnurr PP. The PTSD Checklist for DSM-5 (PCL-5). Scale available from the National Center for PTSD at [www.ptsd.va.gov](http://www.ptsd.va.gov). 2013.
6. Tiet QQ, Leyva YE, Moos RH, Frayne SM, Osterberg L, Smith B. Screen of Drug Use: Diagnostic Accuracy of a New Brief Tool for Primary Care. *JAMA Internal Medicine*. 2015;175(8):1371-7.
7. Saunders JB, Aasland OG, Babor TF, De La Fuente JR, Grant M. Development of the alcohol use disorders identification test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption-II. *Addiction*. 1993;88(6):791-804.
8. Kroenke K, Spitzer RL, Williams JB, Löwe B. An ultra-brief screening scale for anxiety and depression: the PHQ-4. *Psychosomatics*. 2009;50(6):613-21.
9. Osman A, Bagge CL, Gutierrez PM, Konick LC, Kopper BA, Barrios FX. The Suicidal Behaviors Questionnaire-Revised (SBQ-R): validation with clinical and nonclinical samples. *Assessment*. 2001;8(4):443-54.
10. Nock MK, Holmberg EB, Photos VI, Michel BD. Self-Injurious Thoughts and Behaviors Interview: development, reliability, and validity in an adolescent sample. 2007.
11. Britt TW, Greene-Shortridge TM, Brink S, Nguyen QB, Rath J, Cox AL, et al. Perceived stigma and barriers to care for psychological treatment: Implications for reactions to stressors in different contexts. *Journal of Social and Clinical Psychology*. 2008;27(4):317-35.
12. Hardy SE, Gill TM. Recovery from disability among community-dwelling older persons. *Jama*. 2004;291(13):1596-602.
13. Heatherton TF, Kozlowski LT, Frecker RC, FAGERSTROM KO. The Fagerström test for nicotine dependence: a revision of the Fagerstrom Tolerance Questionnaire. *British journal of addiction*. 1991;86(9):1119-27.
14. Pietrzak RH, Goldstein RB, Southwick SM, Grant BF. Prevalence and Axis I comorbidity of full and partial posttraumatic stress disorder in the United States: results from Wave 2 of the National Epidemiologic Survey on Alcohol and Related Conditions. *J Anxiety Disord*. 2011;25(3):456-65.

15. Morin CM, Belleville G, Bélanger L, Ivers H. The Insomnia Severity Index: psychometric indicators to detect insomnia cases and evaluate treatment response. *Sleep*. 2011;34(5):601-8.
16. Amireault S, Godin G. The Godin-Shephard leisure-time physical activity questionnaire: validity evidence supporting its use for classifying healthy adults into active and insufficiently active categories. *Perceptual and motor skills*. 2015;120(2):604-22.
17. Ware JE. How to score and interpret single-item health status measures: a manual for users of the SF-8™ health survey. 2001.
18. Stewart AL, Ware J, Sherbourne CD, Wells KB. Psychological distress/well-being and cognitive functioning measures. *Measuring functioning and well-being: The medical outcomes study approach*. 1992:102-42.
19. Kleiman SE, Bovin MJ, Black SK, Rodriguez P, Brown LG, Brown ME, et al. Psychometric properties of a brief measure of posttraumatic stress disorder–related impairment: The Brief Inventory of Psychosocial Functioning. *Psychological services*. 2020;17(2):187.
20. Marx B, Schnurr P, Lunney C, Weathers F, Bovin M, Keane T. The brief inventory of psychosocial functioning (B-IPF). Retrieved from: <https://wwwptsdvagov/professional/assessment/documents/B-IPFpdf>. 2019.