A Veterans Health Administration Imperative: Recommendations for Detecting Anxiety in Older Adults

Christine E. Gould, PhD; Sherry A. Beaudreau, PhD; and J.W. Terri Huh, PhD

Based on a comprehensive review of the literature on late-life anxiety screens, these authors identified several self-report assessments for anxiety valid for use in older adult populations, which could be useful when working with older veterans.

espite routine screening in the VHA for depression, posttraumatic stress disorder (PTSD), and substance abuse, anxiety (not due to PTSD) has received little attention, particularly for older veterans (defined as aged \geq 65 years). In this review, the authors focus on the detection of late-life anxiety disorders, primarily generalized anxiety disorder (GAD), anxiety symptoms that don't meet GAD criteria, and anxiety symptoms co-occurring in GAD. Fortyfive percent of veterans receiving care in VHA are \geq aged 65 years; identification of mental health problems in this population is crucial.¹ Depression affects 15% to 40% of older veteran primary care patients.² Anxiety disorders are also prevalent among older veterans. Among VHA primary care patients aged 18 to 79 years, the prevalence of anxiety disorders was 10.6% for those without PTSD and 73.3% for patients with PTSD.³ Anxiety disorders are one of the most common classes of mental disorders in late life, occurring twice as often as depressive disorders in the general population and affecting about 7% of individuals aged > 65 years in a 12-month period.⁴

In comparison with young adults, older adults are more likely to experience impairment from clinically significant anxiety symptoms that do not meet the criteria for any anxiety disorder using current categorical diagnostic systems.⁵ Anxiety symptoms are highly prevalent in patients with chronic health problems such as congestive heart failure, chronic obstructive pulmonary disease, and diabetes.⁶⁻⁸ Both anxiety disorders and clinically significant levels of anxiety symptoms are associated with a poor quality of life (QOL), greater disability, and increased health care use among older adults.^{9,10} In addition, even mild anxiety is associated with reduced cognitive performance.¹¹ The presence of one of the most common anxiety disorders, GAD, is associated with an increased risk of suicide among depressed older adults seen in primary care and psychiatric clinics.¹² Detection of anxiety is a critical first step in connecting patients with treatments.

Efficacious treatments for reducing late-life anxiety symptoms may minimize the negative effects of anxiety on patients' QOL and help health care providers to address patients' health problems. According to a recent meta-analysis, compared with placebo treatment, cognitive behavioral therapy (CBT) and relaxation therapy are efficacious treatments for late-life anxiety.¹³ In one study of older nonveteran primary care patients with GAD, CBT led to greater improvements in worry severity, depressive symptoms, and general mental health compared with enhanced usual care.14 Currently, a CBT treatment manual

Dr. Gould is a postdoctoral fellow in advanced geriatrics at the VA Palo Alto Health Care System Geriatric Research Education and Clinical Center (GRECC) in Palo Alto, California, and a postdoctoral scholar (affiliated) in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine in Stanford, California. **Dr. Beaudreau** is the National Associate Director of a VA Advanced Fellowship Program and an investigator at the VA Palo Alto Health Care System and the Sierra Pacific Mental Illness, Research Education and Clinical Center, both in Palo Alto, California. Dr. Beaudreau is also a clinical associate professor (affiliated) in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine in Stanford, California. **Dr. Huh** is the associate director of education and evaluation at the VA Palo Alto Health Care System GRECC in Palo Alto, California, and a clinical assistant professor (affiliated) in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine in Stanford, California. **Dr. Huh** is the associate director of education and evaluation at the VA Palo Alto Health Care System GRECC in Palo Alto, California, and a clinical assistant professor (affiliated) in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine in Stanford, California. **Dr. Huh** is the associate director of education and evaluation at the VA Palo Alto Health Care System GRECC in Palo Alto, California, and a clinical assistant professor (affiliated) in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine in Stanford, California.

Table 1. Summary of anxiety assessment measures examined in order adult samples.					
Measure	Items	Administration time	Assesses		
Beck Anxiety Inventory (BAI)	21	< 3 min ^a	Intensity of anxiety. Use to assess panic, fear, somatic anxiety.		
Brief Symptoms Inventory (BSI-18) ^b	18	4 min ^c	Anxiety (6 items), depression, and somatic symptoms. One question for panic.		
Generalized Anxiety Disorder Screening Questions (GAD-2) ^d	2	1 min ^a	Screen for GAD only		
Generalized Anxiety Disorder Questionnaire-IV (GAD-Q-IV)	9	< 5 minª	Screen for GAD only		
Geriatric Anxiety Scale (GAS)	30	< 10 min	Anxiety symptoms. Three subscales: so- matic, cognitive, affective.		
Geriatric Anxiety Inventory (GAI) ^d	20	< 3 minª	Worry and general anxiety symptoms. Simple, dichotomous response scale of- fers potential for use with older adults with mild cognitive impairment.		
Hospital Anxiety and Depression Scale (HADS)°	14	5 min	Anxiety and depression with separate subscales (7 items each). Does not con- tain somatic items.		
Penn State Worry Questionnaire -Abbreviated (PSWQ-A)°	8	< 5 min ^e	Worry. Not recommended for older adults with mild cognitive impairment.		

Table 1. Summary of anxiety assessment measures examined in older adult samples.

^a The administration time was based on oral administration, which was sometimes accompanied by presentation of a visual aid for the response categories (eg, Likert-type scale) to older, homebound participants.²⁷

^b Recommended measures based on our review findings.

^c The administration time was for the completion of the measure with paper and pencil per manual.¹⁹ Administration time is not specific to older adults.

^d Recommended as best overall measure.

^e The administration time for the PSWQ-A is estimated at < 5 minutes. The oral administration of the 16-item PSWQ was 5 minutes in duration for older, homebound participants.²⁷

Availability is based on provider's access to measures through the nationally available Mental Health Assistant in CPRS. Other proprietary measures available in the VHA that may be purchased and used by local sites are not noted here.

CPRS = Computerized Patient Record System; GAD = generalized anxiety disorder.

was developed for providers treating older veterans with anxiety and for the veterans themselves. This manual can be used to guide CBT treatment and is being disseminated in VHA.¹⁵ Pharmacotherapy, specifically, selective serotonin reuptake inhibitors (SSRIs), is another effective treatment for late-life anxiety disorders.^{16,17} In order for older veterans to access treatment for anxiety, better assessment is needed to improve detection within primary care.

IDENTIFICATION OF ANXIETY

It is important to obtain information to facilitate detection of anxiety in older adults. For example, symptoms differ in older adults compared with younger adults. There are important factors to consider, such as how medical and social contexts might impact how older adults with anxiety present. Therefore, information should be gathered from several sources, including a clinical interview and a thorough review of the patient's medical records and medication lists. Recommendations for how to obtain that information are discussed below.

Anxiety can be grouped into 3 types of symptoms: cognitive, behavioral, and physiological or somatic. With cognitive symptoms, older adults may present with worry but characterize their worry as "concerns."⁵ Adopting the patient's language used during an interview helps establish rapport and

Clinical cutoff for any anxiety disorder	Clinical cutoff for GAD	Availability
> 7 suggests need for further evaluation ²⁷	No recommended cutoffs	CPRS Mental Health Assistant
T-score > 49 ³⁴	No recommended cutoffs	CPRS Mental Health Assistant
Yes to both questions suggests any anxiety disorder or GAD in older adults ²⁷	≥ 3 ²⁴	Free http://www.phqscreeners.com (select PHQ-4)
≥ 5 ²⁷	≥ 5 ³⁶	Published as an appendix in original paper ²⁰
None	None	Contact the authors
 > 8^{21,27} > 6 in patients with Parkinson disease⁴² 	> 8 ³⁷ > 10 ²¹	Free for academic purposes (eg, research and teaching) Fee for other users http://www.gai.net.au/
Only reported for GAD	≥ 8 ³⁵	Licensed, must purchase
> 23 ²⁷	> 22 ³⁶	Free http://web.utk.edu/~dhopko/PSWQA.pdf

enables the provider to gather accurate information while helping older patients discuss their experience of anxiety symptoms.⁵ Cognitive symptoms, such as worry, are found in patients with GAD and are often present in older patients with major depressive disorder (MDD).¹² Differentiating between GAD and MDD is an important first step prior to treatment planning, because psychological treatments differ for latelife depression and anxiety.

Assessment of behavioral symptoms is essential, because older adults may engage in maladaptive avoidance behaviors, defined as any behaviors an individual does or does not do in order to avoid anxiety. Avoidance behaviors include frequent checking of blood pressure and avoiding social situations due to sensory impairments.⁵ Older adults may become overly engaged in activities to distract from worry or to avoid experiencing anxiety. Older adults' avoidance behaviors may not be captured by current diagnostic criteria, but these behaviors can be detected during a clinical interview.

The somatic component of anxiety, such as muscle tension or feeling faint, can be difficult to interpret in older veterans due to the overlap with symptoms of frequently observed comorbid medical problems.⁷ It is imperative that providers follow up on somatic anxiety symptoms to determine whether the symptom is due to coexisting medical problems, anxiety, or both. During an interview with a patient, providers should determine whether anxiety symptoms are preexisting or whether they are a consequence of medical conditions by inquiring about when symptoms began and whether they preceded, coincided with, or followed the onset or worsening of medical conditions.5 Medical evaluation is essential, because somatic anxiety symptoms overlap with symptoms from potentially life-threatening conditions. Somatic symptoms associated with medical issues and anxiety may be improved with psychological interventions in addition to needed medical treatment. Additionally, in one study, a SSRI improved somatic anxiety symptoms.17

In a busy clinic, a thorough interview may not be possible, and using

ANXIETY IN OLDER ADULTS

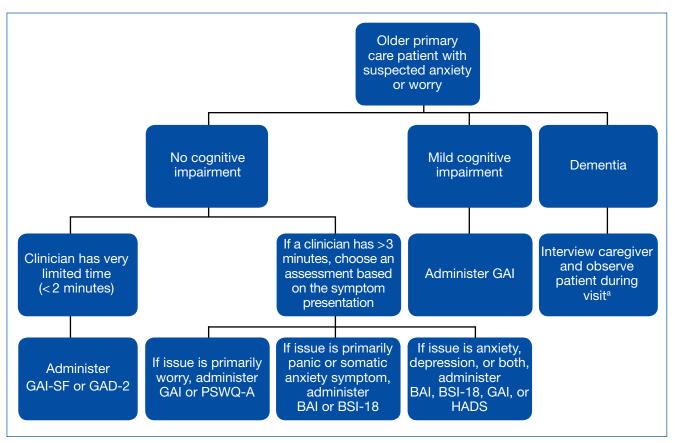


Figure 1. Sample decision tree for assessing anxiety and worry in the older patient.

^a Assessments that rely on caregiver observations are available, such as the Neuropsychiatric Inventory. However, these assessments are lengthy, which is a barrier to their use in primary care settings.

BAI = Beck Anxiety Inventory; BSI-18 = Brief Symptoms Inventory 18; GAD-2 = Generalized Anxiety Disorder Screening Questions; GAI = Geriatric Anxiety Inventory; GAI-SF = 5-item GAI; HADS = Hospital Anxiety and Depression Scale; PSWQ-A = Penn State Worry Questionnaire-Abbreviated.

brief screens can be a good alternative for detecting anxiety in older adults. Screens can identify even minimal anxiety symptoms, which may not be freely reported by older veterans. Using a brief questionnaire is a time-efficient way to detect the presence of minimal symptoms that may affect older patients' adherence to medical treatments, functioning, or QOL. For example, an older adult who is fearful of falling may limit activities, miss medical appointments, and avoid social activities such as not leaving one's home. Symptoms not meeting diagnostic criteria for an anxiety disorder, which herein is referred to as clinically significant anxiety, may also warrant treatment. Once a clinically significant anxiety is detected, a referral for pharmacologic treatment, evidence-based psychotherapy through mental or behavioral health, or both, may be recommended.

METHODS

In order to evaluate the psychometric validity of anxiety and worry self-report measures used in clinical settings, the authors conducted a comprehensive literature review. Empirical studies examining reliability and validity of measures and critical reviews that focused on anxiety and worry measures used with older adults were reviewed. In contrast to previous reviews of late-life anxiety measures, the authors only included measures used to screen for anxiety disorders and clinically significant anxiety or worry. Lengthy diagnostic measures (ie, Anxiety Disorders Interview Schedule) and measures used in the context of research studies (ie, Hamilton Anxiety Rating Scale) were excluded, because the assessments were interviewer-administered and required intensive training for administration.

All potential measures that met the inclusion criteria for the review

were described. Following the presentation of reliability and validity data for each measure, several measures that were psychometrically sound and easy to administer to older patients in the context of VHA were highlighted. Measures were evaluated on several criteria: time of administration, clarity of instructions and ease of administration, generality and specificity of measures, and acceptance to older adults. Information on administration time, cutoff scores. and accessibility of the measures are summarized in Table 1. The following anxiety screens were reviewed: Beck Anxiety Inventory (BAI), Brief Symptoms Inventory 18 (BSI-18), Generalized Anxiety Disorder Questionnaire-IV (GAD-Q-IV), Geriatric Anxiety Inventory (GAI), Geriatric Anxiety Scale (GAS), Hospital Anxiety and Depression Scale (HADS), Patient Health Questionnaire (PHQ) GAD Screening Questions, and Penn State Worry Questionnaire-Abbreviated (PSWQ-A).18-25

MEASURES Beck Anxiety Inventory

The Beck Anxiety Inventory (BAI) is a psychometrically valid and reliable measure of anxiety in older adult patients.^{18,26-28} Nevertheless, there are limitations to using the BAI due to its heavy focus on somatic items. Many older adults have chronic health conditions with symptoms overlapping with somatic anxiety symptoms, such as difficulty breathing, feelings of wobbliness in one's legs, and feeling dizzy. Thus, providers should follow up a positive BAI screen with a clinical interview to determine whether the somatic items on the BAI are better accounted for by a medical condition. Using the recommended cutoff for the BAI, the measure had a sensitivity of .77 to .85 and specificity of .25 to .49.27,29 However, the BAI has limited ability to discriminate MDD from GAD in older adults.³⁰ Another study found that the BAI was less correlated with depression measures compared with another anxiety measure, the General Anxiety Inventory (GAI), described later.³¹ The BAI is easy for older adults to complete and was useful in identifying panic and somatic anxiety symptoms, but the BAI had low sensitivity and poor specificity for the detection of any anxiety disorder in older adults.^{7,27}

A brief, 7-item version of the BAI was developed for use in primary care (BAI-PC).³² The presence of anxiety in a study of veterans was detected using a cutoff of > 5 on the BAI-PC; however, the screen was equally sensitive in detecting anxiety and depression.³³ More research on the utility of the BAI-PC in differentiating anxiety and depression is needed.

Brief Symptoms Inventory 18

The Brief Symptoms Inventory 18 (BSI-18) may be a preferred alternative to the BAI.¹⁹ The BSI-18 produces T-scores for 3 subscales—somatic, anxiety, and depression—which can be used to differentiate anxiety from symptoms of a medical condition by comparing somatic symptoms with the anxiety subscale.¹⁹ The BSI-18 was valid for the detection of any anxiety disorder in older adults receiving care in their homes.³⁴ The sensitivity and specificity for identifying any anxiety disorder among home care patients were .88 and .61, respectively.³⁴ However, findings from an earlier study by the same research group demonstrated that the BSI-18 anxiety subscale was less effective than the Hospital Anxiety and Depression Scale (HADS) in identifying older medically ill patients with GAD.³⁵ The BSI-18 only correctly classified 57% of patients with GAD, which represents low precision.35 Thus, the BSI-18 is a psychometrically sound choice for the identification of anxiety, but not for the identification of GAD.

Generalized Anxiety Disorder Questionnaire-IV

The Generalized Anxiety Disorder Questionnaire-IV (GAD-Q-IV) was designed to be used as a diagnostic screen for GAD.²⁰ However, providers do not administer each of the items unless the patient acknowledges experiencing specific symptoms. This administration format limits the GAD-Q-IV's use in measuring anxiety severity and change over time. The GAD-Q-IV had a sensitivity of .82 and specificity of .88 for the detection of any anxiety disorder and a sensitivity of .68 and specificity of .72 for the detection of GAD.^{27,36} The GAD-Q-IV was found to have poor test-retest reliability and was more accurate when used with highly educated participants with high incomes.27,36 The questionnaire was moderately confusing and difficult to complete for older home care patients based on patient ratings of the ease of use of the assessment measure.27 Furthermore, the frequent use of "excessive" as a descriptor of worry on the GAD-Q-IV is problematic for older adults. Older adults are less likely to endorse having excessive worry possibly due to confusion over this clinical term.⁵ Modifications to the GAD-Q-IV are needed to improve the acceptability of the screen to older adults.

Geriatric Anxiety Inventory

The Geriatric Anxiety Inventory (GAI) was specifically developed for use in older adults and was modeled after the frequently used Geriatric Depression Scale (GDS).²¹ The GAI assesses somatic and cognitive anxiety symptoms and can be used for detecting any anxiety disorder or GAD specifically. It is reliable and valid, but it is highly correlated with self-report assessments of depression and health conditions, which limits its ability to discriminate among these problems.^{21,27,37} In 2 studies, sensitivity for the detection of any anxiety disorder was found to be .73 and .88, and specificity was .80 and .96, respectively.^{21,27} For the detection of GAD, sensitivity was .75 and specificity was .84.²¹

A shorter version of the GAI is available—the 5-item GAI-SF.³⁸ The reliability and validity of this measure was comparable with the longer form; thus use of the GAI-SF is recommended if a provider has limited time.³⁸ Scores of > 3 on the GAI-SF indicate a positive screen for GAD.

Geriatric Anxiety Scale

The Geriatric Anxiety Scale (GAS) is a recently developed 30-item measure of anxiety with 3 subscales: affective, cognitive, and somatic.22 This measure has high reliability, strong convergent validity with other anxiety measures, and discriminant validity with age, sex, processing speed, reading ability, and education.^{22,31} However, the clinical utility of the GAS has not been established, and no clinical cutoffs have been determined to date. It is more highly correlated with a measure of depression, such as the GDS, than a measure of anxiety, such as the BAI.³¹ Before the use of the GAS can be recommended to screen for clinically significant anxiety, research on its utility in identifying the presence of late-life anxiety is needed.

Hospital Anxiety and Depression Scale

The Hospital Anxiety and Depression Scale (HADS) is a 14-item measure with 2 subscales: anxiety and depression.²³ The HADS excludes somatic items and has been validated for use with older adults and medically ill patients with GAD.^{26,35} A limitation to using the HADS is the large correlation between the 2 subscales, which may make it difficult to differentiate anxiety and depression.²⁶ The sensitivity and specificity for the detection of any anxiety disorder were .80 and .70, respectively.²⁹ For the detection of GAD, the sensitivity and specificity were .97 and .67.³⁵ Thus, the HADS seems to be a valid measure for the detection of GAD in older adults.

Patient Health Questionnaire Generalized Anxiety Disorder Screening Questions

Two screening questions for GAD on the Patient Health Questionnaire (PHQ) Generalized Anxiety Disorder Screening Questions (GAD-2) can be administered as a stand-alone screen.²⁴ A limitation to this screen is that it was created to detect the presence of GAD. Interestingly, Diefenbach and colleagues used the GAD-2 to detect any anxiety disorder and found good sensitivity of .94 and specificity of .86.27 A longer screen for GAD, the GAD-7, is now available and has preliminary support in younger samples but needs to be evaluated in older adults.³⁹ Scores on the 7-item screen are measured in terms of severity: A score of 5 to 9 is mild, 10 to 14 is moderate, and a score of ≥ 15 is considered severe.

Penn State Worry Questionnaire-Abbreviated

The Penn State Worry Questionnaire-Abbreviated (PSWQ-A) is a measure of frequent worry that is difficult to control.⁴⁰ Although the full version of the PSWQ has support for use with older adults, the reverse-scored items can be confusing and contribute to a problematic factor structure in which 1 factor represents all the reversescored items.²⁵⁻²⁷ The PSWQ was modified into a briefer and easier-to -complete measure of worry for older adults (PSWQ-A) via the removal of the poor performing reverse-scored items.²⁵ The PSWQ-A is an 8-item measure of worry that is valid and reliable for use with older adults.^{27,36} When used to detect any anxiety disorder, the sensitivity and specificity were .76 and .86, respectively.²⁷ For the detection of GAD, the sensitivity was .79 and specificity was .69.³⁶

RECOMMENDED SCREENS FOR ANXIETY AND WORRY

Based on the available data, the GAI is the best overall screen to detect any anxiety disorder or GAD in particular. The GAI has a dichotomous response format, simple instructions, and is brief, which minimizes the burden on patients and providers. In the case of mild cognitive impairment, the GAI and GAI-SF are the only questionnaires recommended for use due to the simple response scale, which is less confusing than other measures' response scales with 4 or 5 response choices. Among older individuals with cognitive impairment, a greater emphasis should be placed on using behavioral observation, because impaired patients are less likely to have accurate self-report assessments.

If a provider, such as a mental health professional, has more time to tailor their assessment approach to each patient, different screens should be used based on the patient's presenting symptoms. In Figure 1, a decision-tree is presented to help guide providers in selecting measures to use. The figure includes the GAI and GAI-SF, 4 additional anxiety measures, and 1 brief screen. In addition to the GAI, 3 other measures are also highly recommended: the BSI-18, GAD-2, and PSWQ-A. Two are recommended with some reservations: the BAI and HADS. The highly recommended measures are either free or available through the Computerized Patient Record System (CPRS) Mental Health Assistant. These measures are recommended for older adults with mild or no cognitive impairments based on data gathered with patients in mostly non-VHA settings. The HADS and BAI are useful in some situations but are not highly recommended measures for the following reasons. The HADS is valid for use with older adults, but it is not as accessible or free to VHA providers. The HADS is also more frequently used in research than in clinical settings. The BAI has poor specificity for the detection of any anxiety disorders in older adults.

Other measures show promise but require further development (GAS), validation (GAD-7), or both development and validation (BAI-PC). The GAD-Q-IV is not recommended for use due to its poor reliability and acceptability to older adults.

SELECTING A SCREEN

If providers are able to tailor their assessments, there are several factors to consider when selecting one screen over another. The sample decision tree (Figure 1) will guide providers in selecting a screen. The GAI and PSWQ-A work best with older patients presenting with many concerns or worries, because these questionnaires are focused primarily on the assessment of worry. Moreover, because the PSWQ-A focuses exclusively on the assessment of worry, it should only be implemented when assessing the severity of an older patient's worry. If both depression and anxiety are suspected, using a measure that includes separate depression and anxiety items may be best, such as the BSI-18 or HADS. Alternatively, if a provider were only interested in assessing anxiety in depressed individuals, the BAI is a good choice, because the BAI has a low association with depression measures; however, this recommendation is tempered by the poor specificity of the BAI.^{27,29,31}

Among medically ill patients, the BAI has been shown to be helpful in identifying patients with panic and somatic anxiety symptoms. Mixed evidence exists supporting the use of the BSI-18 as a screen for GAD in homebound or medically ill older adults.34,35 Although the HADS performed better than the BSI-18 in 1 study for the detection of GAD, the BSI-18 seems to be a useful measure for the screening of any anxiety disorder due to its assessment of somatic, anxiety, and depressive symptoms compared with the HADS's 2 subscales: anxiety and depression.35 Furthermore, the BSI-18 is available for use through the CPRS, whereas the HADS is frequently used in research and is available for a fee. The GAS may prove useful when assessing medically ill older adults, but clinical cutoffs for the GAS need to be established.³¹ Providers with time constraints should consider using the GAI-SF or GAD-2.

Future empirical studies are needed to compare the recommended measures, including those that show promise in a veteran sample. The interpretations that can be drawn from this literature are limited by the focus on identifying different disorders, such as GAD or any anxiety disorder. Further, no single gold-standard measure is consistently used in studies comparing validity of these self-report anxiety measures. With increased standardization of the study methods, a meta-analysis of the sensitivity and specificity for each measure could be conducted as well. Receiver operating characteristic analysis could be used to identify cutoffs on screens that optimally identify which older patients benefit most from one treatment over another.

CONCLUSION

Anxiety disorders and clinically significant anxiety symptoms among older veterans are significant problems that are beginning to receive attention and recognition as an important issue within VHA. Not only is anxiety common in late life, but these symptoms are also associated with multiple negative health outcomes, which may in turn lead to significant burden and cost to VHA primary care clinics. Interviewing patients is the optimal method for identifying anxiety in older adults. However, incorporating anxiety screens into clinic procedures is a more time efficient and viable method to improve the detection of anxiety symptoms in primary care clinics. Accurate detection of these symptoms would allow for initiation of pharmacotherapy or a behavioral health/mental health referral to manage them.^{13,14,16} The aforementioned self-report measures can also be used to track treatment progress.

The VHA excels in providing needed screening, diagnosis, treatment, and follow-up care compared with private facilities.⁴¹ With improved screening and detection of anxiety symptoms and disorders, the VHA can continue to be a leader in treating veterans. Better screening of anxiety will help providers connect older veterans with a VHA provider who can provide empirically supported interventions. Screening and detection is a necessary and critical step toward providing the best possible care to older veteran patients in primary care.

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REFERENCES

- Karlin BE, Zeiss AM, Burris JF. Providing care to older adults in the Department of Veterans Affairs: Lessons for us all. *Generations*. 2010;34(2):6-12.
- Shay K, Yoshikawa TT. Overview of VA healthcare for older veterans: Lessons learned and policy implications. *Generations*. 2010;34(2):20-28.
- Magruder KM, Frueh BC, Knapp RG, et al. Prevalence of posttraumatic stress disorder in Veterans Affairs primary care clinics. *Gen Hosp Psychiatry*. 2005;27(3):169-179.
- Gum AM, King-Kallimanis B, Kohn R. Prevalence of mood, anxiety, and substance-abuse disorders for older Americans in the national comorbidity survey-replication. Am J Geriat Psychiatry. 2009;17(9):769-781.
- Mohlman J, Bryant C, Lenze EJ, et al. Improving recognition of late life anxiety disorders in Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition: Observations and recommendations of the Advisory Committee to the Lifespan Disorders Work Group. Int J Geriatr Psychiatry. 2012;27(6):549-556.
- Cully JA, Jimenez DE, Ledoux TA, Deswal A. Recognition and treatment of depression and anxiety symptoms in heart failure. *Prim Care Companion J Clin Psychiatry*. 2009;11(3):103-109.
- Cully JA, Graham DP, Stanley MA, et al. Quality of life in patients with chronic obstructive pulmonary disease and comorbid anxiety or depression. Psy-

chosomatics. 2006;47(4):312-319.

- Grigsby AB, Anderson RJ, Freedland KE, Clouse RE, Lustman PJ. Prevalence of anxiety in adults with diabetes: A systematic review. J Psychosom Res. 2002;53(6):1053-1060.
- Wetherell JL, Thorp SR, Patterson TL, Golshan S, Jeste DV, Gatz M. Quality of life in geriatric generalized anxiety disorder: A preliminary investigation. J Psychiatr Res. 2004;38(3):305-312.
- De Beurs E, Beekman AT, van Balkom AJ, Deeg DJ, van Dyck R, van Tilburg W. Consequences of anxiety in older persons: Its effect on disability, well-being and use of health services. *Psychol Med.* 1999;29(3):583-593.
- Beaudreau SA, O'Hara R. Late-life anxiety and cognitive impairment: A review. Am J Geriatr Psychiatry. 2008;16(10):790-803.
- Lenze EJ, Mulsant BH, Shear MK, et al. Comorbid anxiety disorders in depressed elderly patients. Am J Psychiatry. 2000;157(5):722-728.
- Thorp SR, Ayers CR, Nuevo R, Stoddard JA, Sorrell JT, Wetherell JL. Meta-analysis comparing different behavioral treatments for late-life anxiety. *Am J Geriatr Psychiatry*. 2009;17(2):105-115.
- Stanley MA, Wilson NL, Novy DM, et al. Cognitive behavior therapy for generalized anxiety disorder among older adults in primary care: A randomized clinical trial. JAMA. 2009;301(14):1460-1467.
- Shrestha S, Stanley M. Self-Help STOP Worry: A Tool for Older Veterans. Clinician Workbook: Calming Tools to Manage Anxiety. North Little Rock, AR: South Central (VISN 16) Mental Illness Research, Education, and Clinical Center (MIRECC); 2011.
- Gonçalves DC, Byrne GJ. Interventions for generalized anxiety disorder in older adults: Systematic review and meta-analysis. J Anxiety Disord. 2012;26(1):1-11.
- Lenze EJ, Karp JF, Mulsant BH, et al. Somatic symptoms in late-life anxiety: Treatment issues. J Geriatr Psychiatry Neurol. 2005;18(2):89-96.
- Beck AT, Steer R. BAI: Beck Anxiety Inventory Manual. 2nd ed. San Antonio, TX: Psychological Corporation; 1993.
- Derogatis L. Brief Symptom Inventory (BSI) 18: Administration, Scoring, and Procedures Manual. Minneapolis, MN: National Computer Systems; 2000.
- Newman MG, Zuellig AR, Kachin KE, et al. Preliminary reliability and validity of the generalized anxiety disorder questionnaire-IV: A revised self-report diagnostic measure of generalized anxiety disorder. *Behavior Therapy*. 2002;33(2):215-233.
- Pachana NA, Byrne GJ, Siddle H, Koloski N, Harley E, Arnold E. Development and validation of the Geriatric Anxiety Inventory. *Int Psychogeriatr.* 2007;19(1):103-114.
- Segal DL, June A, Payne M, Coolidge FL, Yochim B. Development and initial validation of a self-report assessment tool for anxiety among older adults: The Geriatric Anxiety Scale. J Anxiety Disord. 2010;24(7):709-714.
- 23. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand*. 1983;67(6):361-370.
- 24. Instructional manual: Instructions for patient health questionnaire (PHQ) and GAD-7 Measures. The Patient Health Questionnaire (PHQ) Screeners Website. http://www.phqscreeners.com/instructions /instructions.pdf. Accessed May 4, 2012.
- Hopko DR, Stanley MA, Reas DL, et al. Assessing worry in older adults: Confirmatory factor analysis of the Penn State Worry Questionnaire and psycho-

metric properties of an abbreviated model. *Psychol* Assess. 2003;15(2):173-183.

- Therrien Z, Hunsley J. Assessment of anxiety in older adults: A systematic review of commonly used measures. *Aging Ment Health*. 2012;16(1):1-16.
- Diefenbach GJ, Tolin DF, Meunier SA, Gilliam CM. Assessment of anxiety in older home care recipients. *Gerontologist.* 2009;49(2):141-153.
- Wetherell JL, Areán PA. Psychometric evaluation of the Beck Anxiety Inventory with older medical patients. Psychol Assessment. 1997;9(2):136-144.
- Dennis RE, Boddington SJ, Funnell NJ. Self-report measures of anxiety: Are they suitable for older adults? Aging Ment Health. 2007;11(6):668-677.
- Wetherell JL, Gatz M. The Beck Anxiety Inventory in older adults with generalized anxiety disorder. *J Psychopathol Behav Assess*. 2005;27(1):17-24.
- Yochim BP, Mueller AE, June A, Segal DL. Psychometric properties of the Geriatric Anxiety Scale: Comparison to the Beck Anxiety Inventory and Geriatric Anxiety Inventory. *Clinical Gerontologist*. 2011;34(1):21-33.
- Beck AT, Steer RA, Ball R. Ciervo CA, Kabat M. Use of the Beck Anxiety and Depression Inventories for primary care with medical outpatients. Assessment. 1997:4(3):211-219.
- Mori DL, Lambert JF, Niles BL, Orlander JD, Grace M, LoCastro JS. The BAI-PC as a screen for anxiety, depression, and PTSD in primary care. J Clin Psychol Med Settings. 2003;10(3):187-192.
- Petkus AJ, Gum AM, Small B, Malcarne VL, Stein MB, Wetherell JL. Evaluation of the factor structure and psychometric properties of the Brief Symptoms Inventory–18 with homebound older adults. Int J Geriatr Psychiatry. 2010;25(6):578-587.
- Wetherell JL, Birchler GD, Ramsdell J, Unützer J. Screening for generalized anxiety disorder in geriatric primary care patients. *Int J Geriatr Psychiatry*. 2007;22(2):115-123.
- Webb SA, Diefenbach G, Wagener P, et al. Comparison of self-report measures for identifying late-life generalized anxiety in primary care. J Geriatr Psychiatry Neurol. 2008;21(4):223-231.
- Byrne GJ, Pachana NA, Goncalves DC, Arnold E, King R, Khoo SK. Psychometric properties and health correlates of the Geriatric Anxiety Inventory in Australian community-residing older women. Aging Ment Health. 2010;14(3):247-254.
- Byrne GJ, Pachana NA. Development and validation of a short form of the Geriatric Anxiety Inventory– The GAI-SF. Int Psychogeriatr. 2011;23(1):125-131.
- Benjamin S, Herr NH, McDuffie J, Nagi A, Williams JW. Performance Characteristics of Self-Report Instruments for Diagnosing Generalized Anxiety and Panic Disorders in Primary Care: A Systematic Review. Washington (DC): Department of Veterans Affairs (US); 2011.
- Meyer TJ, Miller ML, Metzger RL, Borkovec TD. Development and validation of the Penn State Worry Questionnaire. *Behav Res Ther.* 1990;28(6):487-495.
- Asch SM, McGlynn EA, Hogan MM, et al. Comparison of quality of care for patients in the Veterans Health Administration and patients in a national sample. *Ann Intern Med.* 2004;141(12):938-945.
- Matheson SF, Byrne GJ, Dissanayaka NNW, et al. Validity and reliability of the Geriatric Anxiety Inventory in Parkinson's disease. *Australas J Ageing*. 2012;31(1):13-16.