

# Screening for Anxiety Disorders in Adults

## US Preventive Services Task Force Recommendation Statement

US Preventive Services Task Force

**IMPORTANCE** Anxiety disorders are commonly occurring mental health conditions. They are often unrecognized in primary care settings and substantial delays in treatment initiation occur.

**OBJECTIVE** The US Preventive Services Task Force (USPSTF) commissioned a systematic review to evaluate the benefits and harms of screening for anxiety disorders in asymptomatic adults.

**POPULATION** Asymptomatic adults 19 years or older, including pregnant and postpartum persons. Older adults are defined as those 65 years or older.

**EVIDENCE ASSESSMENT** The USPSTF concludes with moderate certainty that screening for anxiety disorders in adults, including pregnant and postpartum persons, has a moderate net benefit. The USPSTF concludes that the evidence is insufficient on screening for anxiety disorders in older adults.

**RECOMMENDATION** The USPSTF recommends screening for anxiety disorders in adults, including pregnant and postpartum persons. (B recommendation) The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for anxiety disorders in older adults. (I statement)

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**Author/Group Information:** The US Preventive Services Task Force (USPSTF) members are listed at the end of this article.

**Corresponding Author:** Michael J. Barry, MD, Informed Medical Decisions Program, Massachusetts General Hospital, 50 Staniford St, Boston, MA 02114 ([chair@uspstf.net](mailto:chair@uspstf.net)).

## Summary of Recommendations

Population	Recommendation	Grade
Adults 64 years or younger, including pregnant and postpartum persons	The USPSTF recommends screening for anxiety disorders in adults, including pregnant and postpartum persons.	B
Older adults (65 years or older)	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for anxiety disorders in older adults.	I

USPSTF indicates US Preventive Services Task Force.

See the Summary of Recommendations figure.

## Preamble

The US Preventive Services Task Force (USPSTF) makes recommendations about the effectiveness of specific preventive care services for patients without obvious related signs or symptoms to improve the health of people nationwide.

It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the

evidence but individualize decision-making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

The USPSTF is committed to mitigating the health inequities that prevent many people from fully benefiting from preventive services. Systemic or structural racism results in policies and practices, including health care delivery, that can lead to inequities in health. The USPSTF recognizes that race, ethnicity, and gender are all social rather than biological constructs. However, they are also often important predictors of health risk. The USPSTF is committed to helping reverse the negative impacts of systemic and structural racism,

gender-based discrimination, bias, and other sources of health inequities, and their effects on health, throughout its work.

## Importance

Anxiety disorders are commonly occurring mental health conditions. They include generalized anxiety disorder, social anxiety disorder, panic disorder, separation anxiety disorder, phobias, selective mutism, and anxiety not otherwise specified.<sup>1</sup> Anxiety disorders are often unrecognized in primary care settings and substantial delays in treatment initiation occur.<sup>1-4</sup> Anxiety disorders can be chronic conditions characterized by periods of remission and recurrence. However, full recovery may occur.<sup>1,5</sup>

According to US data collected from 2001 to 2002, the lifetime prevalence of anxiety disorders in adults was 26.4% for men and 40.4% for women.<sup>6</sup> Generalized anxiety disorder has an estimated prevalence of 8.5% to 10.5% during pregnancy and 4.4% to 10.8% during the postpartum period.<sup>7</sup> Anxiety disorders typically begin in childhood and early adulthood, and symptoms appear to decline with age. Some community-based epidemiology studies indicate that rates of anxiety disorders are lowest in adults aged 65 to 79 years, but these data are outdated.<sup>1,5</sup>

## USPSTF Assessment of Magnitude of Net Benefit

The USPSTF concludes with moderate certainty that screening for anxiety disorders in adults, including pregnant and postpartum persons, has a **moderate net benefit**.

The USPSTF concludes that the **evidence is insufficient** on screening for anxiety disorders in older adults, defined as 65 years or older. Evidence on the accuracy of screening tools, as well as the relative benefits and harms of screening and treatment of screen-detected older adults with anxiety disorders, is lacking. Therefore, the balance of benefits and harms cannot be determined and more research is necessary.

See the **Table** for more information on the USPSTF recommendation rationale and assessment and the **eFigure** in the Supplement for information on the recommendation grade. See the **Figure** for a summary of the recommendation for clinicians. For more details on the methods the USPSTF uses to determine the net benefit, see the USPSTF Procedure Manual.<sup>8</sup>

## Practice Considerations

### Patient Population Under Consideration

This recommendation applies to adults (19 years or older), including pregnant and postpartum persons, who do not have a diagnosed mental health disorder and are not showing recognized signs or symptoms of anxiety disorders. Older adults are defined as those 65 years or older.

### Condition Definitions

Anxiety disorders are characterized by disproportionate and constant fear over everyday events accompanied by behavioral and somatic complaints (eg, restlessness, fatigue, problems concentrat-

### Pathway to Benefit

To achieve the benefit of screening for anxiety disorders and reduce disparities in anxiety disorder-associated morbidity, it is important that persons who screen positive are evaluated further for diagnosis and, if appropriate, are provided or referred for evidence-based care.

ing, irritability, or sleep problems).<sup>9</sup> The *Diagnostic and Statistical Manual of Mental Disorders* (Fifth Edition) recognizes the following types of anxiety disorders: generalized anxiety disorder, social anxiety disorder, panic disorder, agoraphobia, specific phobias, separation anxiety disorder, selective mutism, substance/medication-induced anxiety disorder, anxiety disorder due to another medical condition, and anxiety not otherwise specified.<sup>9</sup>

### Assessment of Risk

Risk factors for anxiety disorders include sociodemographic factors, psychosocial factors, and physical and mental health factors such as marital status (widowed or divorced), stressful life events, smoking and alcohol use, other mental health conditions, or a parental history of mental disorders.<sup>1,10</sup> Demographic factors such as low socioeconomic status and female sex are associated with higher rates of anxiety disorders.<sup>1</sup> Black persons and individuals of non-Hispanic ethnicity are at increased risk of anxiety disorders due to social, rather than biological, factors.<sup>1</sup> Anxiety and depressive disorders often overlap. One cohort study found that 67% of individuals with a depressive disorder also had a current anxiety disorder, and 75% had a lifetime comorbid anxiety disorder.<sup>1,11</sup>

### Screening Tests

Brief tools have been developed that screen for anxiety disorders and are available for use in primary care. Selected screening tools widely used in the US include versions of the Generalized Anxiety Disorder (GAD) scale, Edinburgh Postnatal Depression Scale (EPDS) anxiety subscale, Geriatric Anxiety Scale (GAS), and the Geriatric Anxiety Inventory (GAI).<sup>1</sup> Some instruments that are used for screening for anxiety disorders were initially developed for purposes other than screening, such as supporting diagnosis, assessing severity, or evaluating response to treatment. Anxiety screening tools alone are insufficient to diagnose anxiety disorders. If a screening test result is positive for an anxiety disorder, a confirmatory diagnostic assessment is needed.

### Screening Intervals

There is little evidence regarding optimal timing for screening, or screening interval, for both the perinatal and general adult populations; more evidence on both timing and screening interval is needed for all adult populations. A pragmatic approach in the absence of evidence might include screening all adults who have not been screened previously and using clinical judgment in considering risk factors, comorbid conditions, and life events to determine if additional screening of high-risk patients is warranted. Ongoing assessment of risks that may develop during pregnancy and the postpartum period is also a reasonable approach.

Table. Summary of USPSTF Rationale

Rationale	Adults, including pregnant and postpartum persons	Older adults
Detection	Adequate evidence that screening tools can accurately identify anxiety disorders in adults and pregnant and postpartum persons.	Inadequate evidence on accuracy of screening instruments for anxiety disorders in older adults. Few studies reported accuracy of screening tools in older adults. The USPSTF found the evidence on screening tools in general adults to not be applicable to older adults.
Benefits of early detection and intervention	<ul style="list-style-type: none"> <li>No direct evidence on benefits of screening for anxiety disorders in primary care or comparable settings on health outcomes such as quality of life, functioning, or remission in screened vs unscreened adults and pregnant and postpartum persons.</li> <li>Adequate evidence that psychological interventions to treat anxiety disorders are associated with a moderate magnitude of benefit for reduced anxiety symptoms in adults, including pregnant and postpartum persons.</li> <li>For pregnant persons, there is inadequate evidence on pharmacotherapy.</li> <li>For adults, there is adequate evidence that pharmacotherapy provides a small to moderate benefit in reducing anxiety symptoms.</li> </ul>	<ul style="list-style-type: none"> <li>No direct evidence on benefits of screening for anxiety disorders in older adults in primary care or comparable settings on health outcomes such as quality of life, functioning, or remission in screened vs unscreened persons.</li> <li>Although there is adequate evidence that psychological interventions may reduce anxiety symptoms in older adults referred for treatment, there is overall inadequate evidence that treatment can improve outcomes in screen-detected older adults.</li> </ul>
Harms of early detection and intervention	<ul style="list-style-type: none"> <li>No direct evidence on the harms of screening for anxiety disorders in adults, including pregnant and postpartum persons.</li> <li>Adequate evidence to bound the magnitude of harms of psychotherapy as no greater than small, based on the likely minimal harms of using screening tools, limited evidence of treatment harms, and the nature of the intervention. (When direct evidence is limited, absent, or restricted to select populations or clinical scenarios, the USPSTF may place conceptual upper or lower bounds on the magnitude of benefit or harms.)</li> <li>The USPSTF found that the harms of pharmacotherapy in general adults are no greater than moderate.</li> </ul>	Inadequate evidence on the harms of screening for or treatment of anxiety disorders in older adults. The few studies of harms of pharmacotherapy reported in older adults were from observational data and did not reflect treatment in screen-detected persons.
USPSTF assessment	The USPSTF concluded with moderate certainty that screening for anxiety disorders in adults, including pregnant and postpartum persons, has a moderate net benefit in improving outcomes such as treatment response and disease remission.	Given the inadequate evidence on the accuracy of screening tools in older adults, the benefits and harms of screening and treatment of screen-detected anxiety disorders in older adults is uncertain, and the balance of benefits and harms cannot be determined.

Abbreviation: USPSTF, US Preventive Services Task Force.

### Treatment or Interventions

Treatment for anxiety disorders in adults can include psychotherapy (eg, cognitive behavioral, interpersonal, family, and acceptance and commitment therapy) and pharmacotherapy (eg, antidepressants, antihistamines,  $\beta$ -blockers, anticonvulsant medications, and benzodiazepines). Anxiety treatment may also include relaxation and desensitization therapies. Transdiagnostic treatment approaches have also been developed for use with patients who have anxiety disorders, depression, or both conditions because of the overlap between depressive and anxiety disorders.<sup>1</sup> Clinicians are encouraged to consider the unique balance of benefits and harms in the perinatal period when deciding the best treatment for an anxiety disorder for a pregnant or breastfeeding person.

### Implementation

Adequate systems and clinical staff are needed to ensure that patients are screened with valid and reliable screening tools. For patients to benefit from screening, positive screening results should be confirmed by diagnostic assessment and patients should be provided, or referred to, evidence-based care, which should be accessible to all populations.

Potential barriers to screening include clinician knowledge and comfort level with screening, inadequate systems to support screening or to manage positive screening results, and impact on care flow, given the time constraints faced by primary care clinicians. Clinicians should be cognizant to stigma issues associated with mental health diagnoses and should aim to develop trusting relationships with patients, free of implicit bias, by being sensitive to cultural issues.<sup>1</sup>

Clinicians should also be cognizant of the barriers that could keep individuals with anxiety disorders, particularly those identified through screening, from receiving adequate treatment. Less than half of individuals who experience a mental illness will receive mental health care.<sup>12</sup> Systemic barriers, such as lack of connection between mental health and primary care, patient hesitation to initiate treatment, and nonadherence to medication and therapy, also exist.<sup>13,14</sup> Racism and structural policies have contributed to wealth inequities in the US,<sup>15</sup> which also affects mental health in underserved communities. For example, wealth inequities may result in barriers to receiving mental health services, such as treatment costs and lack of insurance, which tend to have a greater impact on Black persons and other racial and ethnic groups than on White persons.<sup>16</sup>

**Figure. Clinician Summary: Screening for Anxiety Disorders in Adults**

What does the USPSTF recommend?	<p><b>Adults 64 years or younger, including pregnant and postpartum persons:</b> Screen for anxiety. <b>Grade: B</b></p> <p><b>Older adults (65 years or older):</b> The evidence is insufficient to assess the balance of benefits and harms of screening for anxiety disorders. <b>Grade: I statement</b></p>
To whom does this recommendation apply?	This recommendation applies to adults (19 years or older), including pregnant and postpartum persons, and older adults (65 years or older) who do not have a diagnosed mental health disorder and are not showing recognized signs or symptoms of anxiety disorders.
What's new?	This is a new USPSTF recommendation.
How to implement this recommendation?	<ul style="list-style-type: none"> <li>• Treatment for anxiety disorders in adults can include psychotherapy or pharmacotherapy. Clinicians should be aware of the risk factors, signs, and symptoms of anxiety; listen to any patient concerns; and make sure that persons who need help get it.</li> <li>• To achieve the benefit of screening for anxiety disorders and reduce disparities in anxiety disorder–associated morbidity, it is important that persons who screen positive are evaluated further for diagnosis and, if appropriate, are provided or referred for evidence-based care.</li> <li>• Clinicians are encouraged to consider the unique balance of benefits and harms in the perinatal period when deciding the best treatment for anxiety disorders for a pregnant or breastfeeding person.</li> <li>• The USPSTF found no evidence on the optimal frequency of screening for anxiety disorders. In the absence of evidence, a pragmatic approach might include screening adults who have not been screened previously and using clinical judgment while considering risk factors, comorbid conditions, and life events to determine if additional screening of patients at increased risk is warranted. Ongoing assessment of risks that may develop during pregnancy and the postpartum period is also a reasonable approach.</li> </ul>
What additional information should clinicians know about this recommendation?	<ul style="list-style-type: none"> <li>• The USPSTF recommends screening for anxiety in adults 64 years or younger, including pregnant and postpartum persons, regardless of risk factors. However, there are some factors that increase risk. These include family history of mental health conditions, presence of other mental health conditions, a history of stressful life events, smoking or alcohol use, and marital status (widowed or divorced).</li> <li>• Women and black individuals are also at risk.</li> <li>• Anxiety and depressive disorders often overlap.</li> <li>• In the absence of evidence, health care professionals should use their judgment based on individual patient circumstances when determining whether to screen for anxiety disorders in older adults (65 years or older).</li> </ul>
Why is this recommendation and topic important?	Anxiety disorders are commonly occurring mental health conditions in the US. According to 2001-2002 US data, the lifetime prevalence of anxiety disorders in adults was 26.4% for men and 40.4% for women. Anxiety disorders are often unrecognized in primary care settings and substantial delays in treatment initiation occur.
What are other relevant USPSTF recommendations?	<ul style="list-style-type: none"> <li>• Screening for depression and suicide risk in adults</li> <li>• Preventive counseling interventions for perinatal depression</li> <li>• Information on additional mental health recommendations for adults from the USPSTF are available at <a href="https://www.uspreventiveservicestaskforce.org/">https://www.uspreventiveservicestaskforce.org/</a></li> </ul>
What are additional tools and resources?	<ul style="list-style-type: none"> <li>• The Community Preventive Services Task Force recommends mental health benefits legislation to increase appropriate utilization of mental health services for persons with mental health conditions (<a href="https://www.thecommunityguide.org/findings/mental-health-and-mental-illness-mental-health-benefits-legislation.html">https://www.thecommunityguide.org/findings/mental-health-and-mental-illness-mental-health-benefits-legislation.html</a>)</li> <li>• The National Institute of Mental Health has information on anxiety disorders (<a href="https://www.nimh.nih.gov/health/topics/anxiety-disorders?rf=32471">https://www.nimh.nih.gov/health/topics/anxiety-disorders?rf=32471</a>)</li> <li>• Perinatal Psychiatry Access Programs aim to increase access to perinatal mental health care (<a href="https://www.umassmed.edu/lifeline4moms/Access-Programs/">https://www.umassmed.edu/lifeline4moms/Access-Programs/</a>)</li> </ul>
Where to read the full recommendation statement?	Visit the USPSTF website ( <a href="https://www.uspreventiveservicestaskforce.org/">https://www.uspreventiveservicestaskforce.org/</a> ) or the JAMA website ( <a href="https://jamanetwork.com/collections/44068/united-states-preventive-services-task-force">https://jamanetwork.com/collections/44068/united-states-preventive-services-task-force</a> ) to read the full recommendation statement. This includes more details on the rationale of the recommendation, including benefits and harms; supporting evidence; and recommendations of others.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision-making to the specific patient or situation.

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The misdiagnosis of mental health conditions occurs more in Black and Hispanic/Latino patients compared with White patients.<sup>17-19</sup> Black and Hispanic/Latino patients are also less likely to receive mental health services than Asian American or White patients.<sup>20,21</sup>

### Suggestions for Practice Regarding the I Statement

#### Potential Preventable Burden

Anxiety disorders often have onset during childhood and adolescence (median age, 11 years). The prevalence of anxiety disorders

decreases in the middle and older adult years and is lowest among adults aged 65 to 79 years.<sup>1</sup> Anxiety disorders have long-term effects that include impaired quality of life and functioning and sizeable economic costs.

### Potential Harms

Potential harms of screening include false-positive screening results that lead to unnecessary referrals, the potential for overdiagnosis and unnecessary treatment, labeling, and stigma. Furthermore, these harms are likely to occur to varying degrees across different populations and in different practice settings. For example, some screening instruments not specifically designed for older adults may more often misidentify older adults as having anxiety disorders than they do in younger adult populations, and diagnosing an anxiety disorder may be more stigmatizing for some groups (based on culture or occupation) than for other groups. Additionally, whereas psychological interventions are likely to have minimal harms,<sup>1</sup> pharmacologic interventions may result in adverse events, even if they have proven benefits. Evidence on harms of screening and treatment in older adults is limited, and additional research is needed to identify effective screening tools and treatments for older adults.

### Current Practice

There is a lack of evidence on screening rates for anxiety disorders.<sup>1</sup> Underdetection appears to be common. This may be because patients with anxiety disorders present with other concerns, such as sleep disturbances or somatic issues.<sup>1</sup> One study found that only 13.3% of primary care patients with generalized anxiety disorder presented with anxiety as the chief concern; more common concerns in these patients were somatic issues (47.8%), pain (34.7%), and sleep disturbance (32.5%).<sup>22</sup> Delays in treatment initiation also commonly occur. Only 11% of US adults with an anxiety disorder started treatment within the first year of onset; the median time to treatment initiation was 23 years.<sup>3,4</sup> A US study of 965 primary care patients found that only 41% of patients with an anxiety disorder were receiving treatment for their disorder.<sup>1,23</sup>

### Additional Tools and Resources

The Community Preventive Services Task Force recommends mental health benefits legislation to increase appropriate utilization of mental health services for persons with mental health conditions (<https://www.thecommunityguide.org/findings/mental-health-and-mental-illness-mental-health-benefits-legislation.html>).

The National Institute of Mental Health has information on anxiety disorders (<https://www.nimh.nih.gov/health/topics/anxiety-disorders>).

Perinatal Psychiatry Access Programs are population-based programs that aim to increase access to perinatal mental health care (<https://www.umassmed.edu/lifeline4moms/Access-Programs/>). These programs build the capacity of medical professionals to address perinatal mental health and substance use disorders.

### Other Related USPSTF Recommendations

The USPSTF has recommendations on mental health topics pertaining to adults, including screening for depression and suicide risk,<sup>24</sup> preventive counseling interventions for perinatal depression,<sup>25</sup> screening for unhealthy drug use,<sup>26</sup> and screening and behavioral counseling interventions for alcohol use.<sup>27</sup>

## Supporting Evidence

### Scope of Review

The USPSTF commissioned a systematic review<sup>1,28</sup> to evaluate the benefits and harms of screening for anxiety disorders in asymptomatic adults. The USPSTF has not previously made a recommendation on this topic. Conditions reviewed included generalized anxiety disorder, social anxiety disorder, panic disorder, and anxiety not otherwise specified.

### Accuracy of Screening Tests

Ten studies (n = 6463) evaluated the accuracy of screening for anxiety disorders with the GAD, GAS, EPDS anxiety subscale, or Patient Health Questionnaire–Panic Disorder instruments.<sup>1,28</sup> Two studies were conducted in older adults (65 years or older), 3 studies in pregnant patients, and the remaining studies in adults from primary care. In the 10 studies, the mean age ranged from 29 to 75 years and women were represented in higher proportions (57%-100%) than men.<sup>1,28</sup> Race and/or ethnicity was reported in 6 studies; 3 studies were conducted in primarily White participants (79% to 91%), 1 study in South Korean participants (100%), and 1 study in Hispanic/Latino participants (76%).<sup>1</sup>

The most commonly studied instruments were the GAD-2 and GAD-7. There was limited evidence for other instruments and other anxiety disorders. Only the GAD-2 and GAD-7 were reported by more than 1 study.

The GAD-2 and GAD-7 demonstrated adequate sensitivity and specificity to detect generalized anxiety disorder.<sup>1,28</sup> Three studies among general adult populations reported the test accuracy of the GAD-2 to detect generalized anxiety disorder.<sup>1,28</sup> At a cutoff of 2 or greater, the pooled sensitivity of the GAD-2 to detect generalized anxiety disorder was 0.94 (95% CI, 0.90-0.98;  $I^2 = 0\%$ ) and the pooled specificity was 0.68 (95% CI, 0.64-0.72;  $I^2 = 94.5\%$ ). At a cutoff of 3 or greater, the pooled sensitivity was 0.81 (95% CI, 0.73-0.89;  $I^2 = 28.8\%$ ) and the pooled specificity was 0.86 (95% CI, 0.83-0.90;  $I^2 = 84.5\%$ ).<sup>12,28</sup>

Three studies reported test accuracy for the GAD-7 at a cutoff of 8 or greater, 9 or greater, and 10 or greater.<sup>1,28</sup> At a cutoff of 10 or greater, the pooled sensitivity to detect generalized anxiety disorder was 0.79 (95% CI, 0.65-0.94;  $I^2 = 77.3\%$ ) and the pooled specificity was 0.89 (95% CI, 0.83-0.94;  $I^2 = 94.8\%$ ). Sensitivity among the 3 studies ranged from 0.67 to 0.89 and specificity ranged from 0.82 to 0.95. At lower cutoffs ( $\geq 8$ ;  $\geq 9$ ), sensitivity increased and specificity decreased. In general, the GAD-7 performed as well or better than the GAD-2.<sup>1,28</sup>

In a study among pregnant persons (n = 9750), the sensitivity of the GAD-2 to identify generalized anxiety disorder, using a cutoff of 1 or greater, was 1.0 (95% CI, 0.99-1.0) and the specificity was 0.60 (95% CI, 0.60-0.61). At a cutoff of 3 or greater, the sensitivity to detect generalized anxiety disorder was 0.69 (95% CI, 0.64-0.73) and the specificity was 0.91 (95% CI, 0.90-0.91).<sup>1,28</sup> The screening instrument used in this large study of pregnant persons had performance characteristics similar to those of the screening instrument used in the general population of adults, predominantly younger than 65 years. As a result, the USPSTF extrapolated the evidence on accuracy of the GAD-2 in younger adults to pregnant and postpartum persons.

In contrast, the evidence on older adults is lacking. Few of the studies provided accuracy data for screening tools in older adults. A small study of older adults ( $n = 110$ ) evaluated the GAS to detect any anxiety disorder using cutoffs ranging from greater than 9 to greater than 16. A cutoff of greater than 9 demonstrated the optimal balance of sensitivity (0.60 [95% CI, 0.31-0.83]) and specificity (0.75 [(95% CI, 0.66-0.82)].<sup>1,28</sup>

### Benefits of Early Detection and Treatment

The USPSTF found 2 randomized clinical trials (RCTs) ( $n = 918$ ) that directly evaluated the benefits of screening for anxiety disorders in adult populations in primary care settings. Neither trial found differences between the randomized groups in anxiety or depressive symptoms or general psychological symptom severity at 13 to 22 weeks of follow-up.<sup>1,28</sup>

Twenty-four RCTs ( $n = 5307$ ) and 8 existing systematic reviews ( $\approx 144$  RCTs;  $n \approx 11\,030$ ) assessed the benefits of treatment for anxiety disorders with psychological interventions. Fourteen of the trials were conducted in mixed populations of persons with anxiety disorders or depression, and 10 trials were conducted in persons with anxiety disorders or symptoms.<sup>1,28</sup>

These psychological treatment trials included adults of all ages and perinatal populations; 16 studies included general adult populations, 4 studies were limited to older adults, and 1 study was limited to perinatal patients.<sup>1,28</sup> The mean age was 46.1 years, and 74% of participants were women. Seven trials were conducted in the US and 14 trials were conducted outside of the US.<sup>1,28</sup> Among the 7 trials conducted in the US, 1.5% of participants were Asian American or Native Hawaiian/Pacific Islander, 15.3% were Black, 16.3% were Hispanic/Latino, less than 1% were Native American/Alaska Native, and 68.5% were White. In the remaining studies that reported race and ethnicity, White adults comprised from 56.6% to 81.8% of participants.<sup>1,28</sup>

Studies of psychological interventions showed a small but statistically significant reduction in anxiety symptom severity in primary care patients with anxiety disorders (standardized mean difference [SMD],  $-0.41$  [95% CI,  $-0.58$  to  $-0.23$ ]; 10 RCTs [ $n = 2075$ ];  $I^2 = 40.2\%$ ) but not among mixed populations of patients with anxiety disorders or depression (SMD,  $-0.18$  [95% CI,  $-0.39$  to  $0.03$ ]; 12 RCTs [ $n = 18\,688$ ];  $I^2 = 66.7\%$ ). In the existing systematic reviews (which were not limited to primary care patients), psychological treatment was associated with reduced anxiety symptoms. Standardized mean differences at posttreatment among broad adult populations were  $-0.80$  and larger, (eg, SMD among persons with generalized anxiety disorder,  $-0.80$  [95% CI,  $-0.93$  to  $-0.67$ ]; 31 RCTs;  $N$  and  $I^2$  not reported). Psychological treatment (cognitive behavioral therapy) in general adult populations was also associated with improved depressive symptom severity and quality of life. Findings for perinatal persons were similar (eg, SMD,  $-0.63$  [95% CI,  $-0.83$  to  $-0.43$ ]; 33 RCTs [ $n = 30\,633$ ]).<sup>1,28</sup>

There was limited evidence to suggest a benefit of psychological treatment in older adults. In older adults (among whom evidence on the accuracy of screening tests is lacking), only 7 RCTs were found ( $n = 215$ ), with a pooled SMD of  $-0.66$  (95% CI,  $-0.94$  to  $-0.38$ ).

There were only 2 RCTs of pharmacotherapy in primary care patients, addressing venlafaxine and escitalopram, and both showed a benefit. Broad existing systematic reviews (ie, not limited

to primary care patients) reported improved anxiety and other outcomes for persons taking antidepressants compared with persons taking placebo. For example, among patients with generalized anxiety disorder, the SMD for change in anxiety symptom severity with selective serotonin reuptake inhibitors was  $-0.66$  (95% CI,  $-0.90$  to  $-0.43$ ; 23 studies [ $n = 21\,421$ ];  $I^2$  not reported). For antidepressants, benefits were seen for a variety of anxiety outcomes; for example, generalized anxiety disorder, social anxiety disorder, and panic disorder. Limited evidence suggested that antidepressants may improve anxiety symptoms in older adults, but evidence in perinatal patients was lacking. Improvements with pharmacotherapy were also seen for depressive symptoms and social functioning outcomes.<sup>1,28</sup>

Overall, there was limited direct evidence on the benefits of anxiety disorder screening programs. However, there was adequate indirect evidence of the benefit of screening for anxiety disorders in adults younger than 65 years and perinatal persons, as screening tools demonstrated accuracy in detecting generalized anxiety disorder and evidence supported treatment for adults with generalized anxiety disorder.

### Harms of Screening and Treatment

The 2 trials ( $n = 918$ ) that directly evaluated screening for anxiety disorders did not report harms, and there was no pattern of effects indicating harms.<sup>1,28</sup> None of the RCTs or existing systematic reviews of psychological treatment reported on adverse events. Three RCTs ( $n = 669$ ), 8 existing systematic reviews ( $\approx 112$  RCTs [ $n \approx 29\,674$ ]), and 2 case-control studies ( $n = 262\,3780$ ) addressed the harms of pharmacologic treatment. Most evidence occurred in general adult populations. Evidence demonstrated an increase in nonserious harms (defined as any adverse events and withdrawals due to adverse events). Serious adverse events were rare and data were insufficient to determine whether pharmacotherapy increased the risk of serious harm.<sup>1,28</sup> Case-control studies found an association between benzodiazepine use and suicide death; however, the inability to fully match cases and controls on severity of mental health symptoms and other health behaviors is a limitation of these studies.<sup>1,28</sup> There were very limited observational data on specific serious harms in older adults and pregnant persons.<sup>1,28</sup> Although no eligible evidence on the risk of addiction or misuse of benzodiazepines was identified, the US Food and Drug Administration has issued a warning for these potential harms, even when taken at recommended dosages.<sup>1,28</sup>

### Response to Public Comment

A draft version of this recommendation statement was posted for public comment on the USPSTF website from September 20, 2022, to October 17, 2022. In response to comments, the USPSTF added text throughout the recommendation statement about the lack of evidence in older adults and highlighted it as an evidence gap in the Research Needs and Gaps section. The USPSTF added text in the Practice Considerations section to address barriers to screening, such as lack of clinician training, time constraints, and lack of systems to ensure adequate follow-up. The USPSTF revised the text to reflect that the recommendation statement addresses "anxiety disorders." The USPSTF added language about screening harms to the Suggestions for Practice Regarding the I Statement section. The USPSTF incorporated language regarding screening

intervals into the Practice Considerations section and highlighted it as an evidence gap. The USPSTF addressed the use of pharmacotherapy in pregnant and postpartum persons in the Practice Considerations section. The USPSTF arrived at its recommendation based on an indirect pathway; it incorporated clarifying language throughout the recommendation statement to reflect this pathway. Comments asked about the inclusion of persons with comorbid medical and mental health conditions. Assessing patients with comorbid health conditions would be considered disease management and out of scope for the USPSTF. Therefore, the evidence review for the USPSTF excluded studies that only included individuals with comorbid conditions.

## Research Needs and Gaps

There are several critical evidence gaps. Studies are needed on the

- Accuracy of screening tools in older adults.
- Effectiveness of anxiety disorder screening and treatment in older adults.
- Screening and treatment in populations defined by sex, race and ethnicity, sexual orientation, and gender identity.
- Direct benefits and harms of screening for anxiety disorders in primary care settings (or similar settings) compared with no screening or usual care. RCTs are needed for this topic.
- Diagnostic accuracy of screening tools that are feasible for use in primary care settings, tested among primary care patients or similar

populations, using valid reference standards, and determining (and replicating) optimal cutoffs for various anxiety disorders; research is needed to identify optimal screening interval in all populations.

- Accuracy of screening tools in pregnant and postpartum persons.
- Effectiveness of anxiety disorder treatment in pregnant and postpartum persons.
- Barriers to establishing adequate systems of care related to anxiety disorders and how these barriers can be addressed.
- Prevalence of anxiety disorders. For this topic, large epidemiologic studies are needed.

## Recommendations of Others

The American College of Obstetricians and Gynecologists recommends screening patients at least once during the perinatal period for depression and anxiety symptoms using a standardized, validated tool.<sup>29</sup> It also recommends that clinicians complete a full assessment of mood and emotional well-being (including screening for postpartum depression and anxiety with a validated instrument) during the comprehensive postpartum visit for each patient.<sup>29</sup> The Center of Perinatal Excellence recommends screening for anxiety disorders in perinatal or postpartum persons.<sup>30</sup> The Women's Preventive Services Initiative recommends that screening for anxiety disorders should include all female patients 13 years or older not currently diagnosed with an anxiety disorder, including pregnant and postpartum women.<sup>31</sup>

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#### The US Preventive Services Task Force (USPSTF)

**Members:** Michael J. Barry, MD; Wanda K. Nicholson, MD, MPH, MBA; Michael Silverstein, MD, MPH; Tumaini Rucker Coker, MD, MBA; Karina W. Davidson, PhD, MASC; Esa M. Davis, MD, MPH; Katrina E. Donahue, MD, MPH; Carlos Roberto Jaén, MD, PhD, MS; Li Li, MD, PhD, MPH; Gbenga Ogedegbe, MD, MPH; Lori Pbert, PhD; Goutham Rao, MD; John M. Ruiz, PhD; James Stevermer, MD, MSPH; Joel Tsevat, MD, MPH; Sandra Millon Underwood, PhD, RN; John B. Wong, MD.

**Affiliations of The US Preventive Services Task Force (USPSTF) Members:** Harvard Medical School, Boston, Massachusetts (Barry); George Washington University, Washington, DC (Nicholson); Brown University, Providence, Rhode Island (Silverstein); University of Washington, Seattle (Coker); Feinstein Institutes for Medical Research at Northwell Health, Manhasset, New York (Davidson); University of Pittsburgh, Pittsburgh, Pennsylvania (Davis); University of North Carolina at Chapel Hill (Donahue); The University of Texas Health Science Center, San Antonio (Jaén, Tsevat); University of Virginia, Charlottesville (Li); New York University, New York, New York (Ogedegbe); University of Massachusetts Medical School, Worcester (Pbert); Case Western Reserve University, Cleveland, Ohio (Rao); University of Arizona, Tucson (Ruiz); University of Missouri, Columbia (Stevermer); University of Wisconsin, Milwaukee (Underwood); Tufts

University School of Medicine, Boston, Massachusetts (Wong).

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### REFERENCES

1. O'Connor E, Henninger M, Perdue L, Coppola EL, Thomas R, Gaynes BN. *Screening for Depression, Anxiety, and Suicide Risk in Adults: A Systematic Evidence Review for the US Preventive Services Task Force. Evidence Synthesis No. 223.* Agency for Healthcare Research and Quality; 2023. AHRQ publication 22-05295-EF-1.
2. Mitchell AJ, Vaze A, Rao S. Clinical diagnosis of depression in primary care: a meta-analysis. *Lancet.* 2009;374(9690):609-619. doi:10.1016/S0140-6736(09)60879-5
3. Roberge P, Normand-Lauzière F, Raymond I, et al. Generalized anxiety disorder in primary care: mental health services use and treatment adequacy. *BMC Fam Pract.* 2015;16:146. doi:10.1186/s12875-015-0358-y
4. Wang PS, Angermeyer M, Borges G, et al. Delay and failure in treatment seeking after first onset of mental disorders in the World Health Organization's

- World Mental Health Survey Initiative. *World Psychiatry*. 2007;6(3):177-185.
5. Bandelow B, Michaelis S. Epidemiology of anxiety disorders in the 21st century. *Dialogues Clin Neurosci*. 2015;17(3):327-335. doi:10.31887/DCNS.2015.17.3/bbandelow
  6. Kessler RC, Petukhova M, Sampson NA, Zaslavsky AM, Wittchen HU. Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *Int J Methods Psychiatr Res*. 2012;21(3):169-184. doi:10.1002/mpr.1359
  7. Misri S, Abizadeh J, Sanders S, Swift E. Perinatal generalized anxiety disorder: assessment and treatment. *J Womens Health (Larchmt)*. 2015;24(9):762-770. doi:10.1089/jwh.2014.5150
  8. US Preventive Services Task Force Procedure Manual. US Preventive Services Task Force. Published May 2021. Accessed May 8, 2023. <https://uspreventiveservicestaskforce.org/uspstf/about-uspstf/methods-and-processes/procedure-manual>
  9. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed. American Psychiatric Association; 2013.
  10. Moreno-Peral P, Conejo-Cerón S, Motrico E, et al. Risk factors for the onset of panic and generalised anxiety disorders in the general adult population: a systematic review of cohort studies. *J Affect Disord*. 2014;168:337-348. doi:10.1016/j.jad.2014.06.021
  11. Lamers F, van Oppen P, Comijs HC, et al. Comorbidity patterns of anxiety and depressive disorders in a large cohort study: the Netherlands Study of Depression and Anxiety (NESDA). *J Clin Psychiatry*. 2011;72(3):341-348. doi:10.4088/JCP.10m06176blu
  12. Substance Abuse and Mental Health Services Administration. *Key Substance Use and Mental Health Indicators in the United States: Results From the 2018 National Survey on Drug Use and Health*. Center for Behavioral Health Statistics and Quality, US Dept of Health and Human Services; 2019. HHS publication PEP19-5068, NSDUH series H-54.
  13. Colorafi K, Vanselow J, Nelson T. Treating anxiety and depression in primary care: reducing barriers to access. *Fam Pract Manag*. 2017;24(4):11-16.
  14. Grenard JL, Munjas BA, Adams JL, et al. Depression and medication adherence in the treatment of chronic diseases in the United States: a meta-analysis. *J Gen Intern Med*. 2011;26(10):1175-1182. doi:10.1007/s11606-011-1704-y
  15. McIntosh K, Moss E, Nunn R, Shambaugh J. Examining the black-white wealth gap. Accessed May 8, 2023. <https://www.brookings.edu/blog/up-front/2020/02/27/examining-the-black-white-wealth-gap/>
  16. Substance Abuse and Mental Health Services Administration. *Racial/Ethnic Differences in Mental Health Service Use Among Adults*. US Dept of Health and Human Services; 2015. HHS publication SMA-15-4906.
  17. Stockdale SE, Lagomasino IT, Siddique J, McGuire T, Miranda J. Racial and ethnic disparities in detection and treatment of depression and anxiety among psychiatric and primary health care visits, 1995-2005. *Med Care*. 2008;46(7):668-677. doi:10.1097/MLR.0b013e3181789496
  18. Olbert CM, Nagendra A, Buck B. Meta-analysis of Black vs White racial disparity in schizophrenia diagnosis in the United States: do structured assessments attenuate racial disparities? *J Abnorm Psychol*. 2018;127(1):104-115. doi:10.1037/abn0000309
  19. Strakowski SM, Keck PE Jr, Arnold LM, et al. Ethnicity and diagnosis in patients with affective disorders. *J Clin Psychiatry*. 2003;64(7):747-754. doi:10.4088/JCPv64n0702
  20. Hines AL, Cooper LA, Shi L. Racial and ethnic differences in mental healthcare utilization consistent with potentially effective care: the role of patient preferences. *Gen Hosp Psychiatry*. 2017;46:14-19. doi:10.1016/j.genhosppsych.2017.02.002
  21. Coleman KJ, Stewart C, Waitzfelder BE, et al. Racial-ethnic differences in psychiatric diagnoses and treatment across 11 health care systems in the Mental Health Research Network. *Psychiatr Serv*. 2016;67(7):749-757. doi:10.1176/appi.ps.201500217
  22. Wittchen HU, Kessler RC, Beesdo K, Krause P, Höfler M, Hoyer J. Generalized anxiety and depression in primary care: prevalence, recognition, and management. *J Clin Psychiatry*. 2002;63(suppl 8):24-34.
  23. Kroenke K, Spitzer RL, Williams JB, Monahan PO, Löwe B. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Ann Intern Med*. 2007;146(5):317-325. doi:10.7326/0003-4819-146-5-200703060-00004
  24. US Preventive Services Task Force. Screening for depression and suicide risk in adults: US Preventive Services Task Force recommendation statement. *JAMA*. Published June 20, 2023. doi:10.1001/jama.2023.9297
  25. US Preventive Services Task Force. Interventions to prevent perinatal depression: US Preventive Services Task Force recommendation statement. *JAMA*. 2019;321(6):580-587. doi:10.1001/jama.2019.0007
  26. US Preventive Services Task Force. Primary care-based interventions to prevent illicit drug use in children, adolescents, and young adults: US Preventive Services Task Force recommendation statement. *JAMA*. 2020;323(20):2060-2066. doi:10.1001/jama.2020.6774
  27. US Preventive Services Task Force. Screening and behavioral counseling interventions to reduce unhealthy alcohol use in adolescents and adults: US Preventive Services Task Force recommendation statement. *JAMA*. 2018;320(18):1899-1909. doi:10.1001/jama.2018.16789
  28. O'Connor E, Henninger M, Perdue LA, Coppola EL, Thomas R, Gaynes BN. Anxiety screening: evidence report and systematic review for the US Preventive Services Task Force. *JAMA*. Published online June 20, 2023.
  29. ACOG committee opinion No. 757: screening for perinatal depression. *Obstet Gynecol*. 2018;132(5):e208-e212. doi:10.1097/AOG.0000000000002927
  30. Austin M, Hight N; Expert Writing Group. *Mental Health Care in the Perinatal Period: Australian Clinical Practice Guideline*. Centre of Perinatal Excellence; 2017.
  31. Gregory KD, Chelmsow D, Nelson HD, et al. Screening for anxiety in adolescent and adult women: a recommendation from the Women's Preventive Services Initiative. *Ann Intern Med*. 2020;173(1):48-56. doi:10.7326/M20-0580