Anxiety Disorders in Children and Adolescents

Alicia Kowalchuk, DO; Sandra J. Gonzalez, PhD; and Roger J. Zoorob, MD, MPH, Baylor College of Medicine, Houston, Texas

Anxiety disorders are the most common psychiatric conditions in children and adolescents, affecting nearly 1 in 12 children and 1 in 4 adolescents. Anxiety disorders include specific phobias, social anxiety disorder, separation anxiety disorder, agoraphobia, panic disorder, and generalized anxiety disorder. Risk factors include parental history of anxiety disorders, socioeconomic stressors, exposure to violence, and trauma. The U.S. Preventive Services Task Force recommends screening for anxiety disorders in children eight years and older; there is insufficient evidence to support screening in children younger than eight years. Symptoms of anxiety disorders in children and adolescents are similar to those in adults and can include physical and behavioral symptoms such as diaphoresis, palpitations, and tantrums. Care should be taken to distinguish symptoms of a disorder from normal developmental fears and behaviors, such as separation anxiety in infants and toddlers. Several validated screening measures are useful for initial assessment and ongoing monitoring. Cognitive behavior therapy and selective serotonin reuptake inhibitors are the mainstay of treatment and may be used as monotherapies or in combination. Prognosis is improved with early intervention, caretaker support, and professional collaboration. (*Am Fam Physician*. 2022;106(6):657-664. Copyright © 2022 American Academy of Family Physicians.)

Published online November 4, 2022

Childhood anxiety is a common psychiatric disorder. It is estimated that more than 7% of adolescents 13 to 17 years of age have been diagnosed with anxiety, and more than 36% of children with behavioral problems have been diagnosed with anxiety disorders.[1] A systematic review of studies conducted in 27 countries estimates that the worldwide prevalence of anxiety disorders in children is 6.5%.[2] In the United States, nearly 1 in 12 children three to 17 years of age have anxiety.[1] The National Institute of Mental Health estimates that the prevalence of anxiety disorders in adolescents 13 to 18 years of age is 1 in 4, and the prevalence of severe anxiety is about 1 in 17.[3] Prevalence rates are approximately 20% for specific phobias, 9% for social anxiety disorder, 8% for separation anxiety disorder, and 2% each for agoraphobia, panic disorder, and generalized anxiety disorder.[3]

CME This clinical content conforms to AAFP criteria for CME. See CME Quiz on page 618.

Author disclosure: No relevant financial relationships.

Etiology and Risk Factors

Risk factors for anxiety disorders in children and adolescents include low socioeconomic status, exposure to violence, trauma, and biologic factors such as heritability and temperament. Parental anxiety predisposes children to a higher risk of functional impairment and anxiety disorders.[4] In the past decade, there has been increasing concern over the impact of social media use and engagement with online content on anxiety symptoms and the development of anxiety disorders in children and adolescents. The impact can have positive and negative associations and varies by gender, age, social media platform, and time spent using. Fear of missing out and validation seeking drive engagement with and time spent on social media and can lead to increases in general anxiety symptoms (more common in boys) and anxiety around body image (more common in girls).[5] Cyberbullying can lead to increased anxiety and risk of anxiety disorders, especially in marginalized youths, although positive effects of

increased connection to online communities have been noted.[5] The impact of the COVID-19 pandemic on child and adolescent mental health has become a growing concern. A 2021 meta-analysis that included more than 80,000 youths in 29 studies showed a pooled prevalence of clinically elevated anxiety symptoms of 21%, with higher prevalence rates in data collected later in the pandemic and in girls.[6]

Screening

The U.S. Preventive Services Task Force recommends screening for anxiety disorders in children and adolescents eight to 18 years of age (grade B recommendation). There is insufficient evidence to support screening in children younger than eight years.[7]

Clinical Presentation

Symptoms include excessive anxiety, fear, or worry that is out of proportion to the situation, event, person, object, or threat. Symptom context and triggers can help distinguish between specific anxiety disorders. Physical symptoms of anxiety disorders in children and adolescents manifest as autonomic nervous system activation, including diaphoresis, palpitations, chest tightness, nausea, faintness, chills, and muscle tightness. Peak autonomic nervous system activation is seen in panic attacks, which can occur with any anxiety disorder. Additional behavioral responses indicative of an anxiety disorder include avoidance of or reluctance to engage in certain activities or with certain objects or individuals. Children can display behaviors such as crying, tantrums, or clinging when confronting or anticipating engagement with a situation, event, person, object, or threat. Anxiety disorder symptoms persist over time and negatively impact functioning in one or more domains, such as education and social and interpersonal performance.[8,9]

Diagnostic Criteria and Differential Diagnosis

Table 1 summarizes the *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed., diagnostic criteria for anxiety disorders commonly diagnosed in children and adolescents and highlights exclusionary symptoms of the differential diagnosis specific to each disorder.[9,10] *Table 2* lists the differential diagnosis for anxiety disorders in children

TABLE 1

DSM-5 Diagnostic Criteria for Anxiety Disorders in Children and Adolescents

Disorder	Symptoms
Generalized anxiety disorder	Excessive anxiety and worry about events or activities Difficulty controlling worry Associated with one or more of the following symptoms: restlessness, easily fatigued, difficulty concentrating, irritability, muscle tension, or sleep disturbance
Panic disorder	Recurrent, unexpected panic attacks Abrupt surge of intense fear or discomfort peaking within minutes, during which four or more of the following symptoms occur: palpitations, sweating, trembling, shortness of breath, choking, chest pain, nausea, feeling faint or dizzy, chills or hot flashes, paresthesia, derealization or depersonalization, fear of losing control or dying
Separation anxiety disorder	Developmentally inappropriate anxiety or fear of separation from attachment figure, with at least three of the following: recurrent excessive distress when anticipating or experiencing separation; persistent and excessive worry about loss and harm; persistent and excessive worry about an event causing separation; persistent reluctance or refusal to go out because of separation fear; persistent and excessive fear or reluctance to be alone or without attachment figure; persistent reluctance or refusal to sleep away from home or be away from attachment figure; repeated separation nightmares; repeated complaints of physical symptoms when separation occurs or is anticipated
Social anxiety disorder	Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by peers Fear and anxiety out of proportion to actual threat Social situations almost always provoke fear and anxiety, which children may express by crying, throwing tantrums, freezing/not moving, clinging, shrinking, or failing to speak Social situations are avoided or endured with intense fear or anxiety
Specific phobia	Marked fear or anxiety about a specific object or situation Object or situation almost always provokes immediate fear or anxiety or is avoided or endured with intense fear and anxiety Fear or anxiety is out of proportion to the actual danger posed by the specific object or situation, and to the sociocultural context

DSM-5 = *Diagnostic and Statistical Manual of Mental Disorders*, 5th ed.

Information from references 9 and 10.

			Differential diagnosis	
Duration	**Impairment**	**Specifiers**	**Substances or other medical conditions that can cause anxiety symptoms**	**Other mental disorders that can cause anxiety symptoms**
Occurring more days than not in past six months	Clinically significant distress or impaired functioning	—	Stimulant intoxication (e.g., cocaine, amphetamines) Depressant withdrawal (e.g., alcohol, benzodiazepines, opioids) Excessive caffeine Hyperthyroidism	Panic disorder Social anxiety disorder Obsessive-compulsive disorder Separation anxiety disorder Posttraumatic stress disorder Anorexia nervosa Somatic symptom disorder Body dysmorphic disorder Schizophrenia or delusional disorder
One or more attacks followed by at least one month of persistent worry about additional attacks *and/or* significant maladaptive change in behavior related to the attack	Clinically significant distress or impaired functioning	—	Stimulant intoxication (e.g., cocaine, amphetamines) Depressant withdrawal (e.g., alcohol, benzodiazepines, opioids) Hyperthyroidism Cardiopulmonary disease Excessive caffeine	Social anxiety disorder Specific phobia Obsessive-compulsive disorder Posttraumatic stress disorder Separation anxiety disorder
Lasts at least four weeks	Clinically significant distress or impaired functioning	—	—	Autism spectrum disorder Psychotic disorders Agoraphobia Generalized anxiety disorder
Persistent, typically lasting at least six months	Clinically significant distress or impaired functioning	Performance only (i.e., fear restricted to speaking or performing publicly)	Stimulant intoxication (e.g., cocaine, amphetamines) Depressant withdrawal (e.g., alcohol, benzodiazepines, opioids) If another medical condition is present (e.g., obesity; disfigurement from burns, injury, or congenital disorder) the fear, anxiety, or avoidance is clearly unrelated or is excessive	Panic disorder Body dysmorphic disorder Autism spectrum disorder
Persistent, typically lasting at least six months	Clinically significant distress or impaired functioning	Animal Blood, injection, or injury Environmental Situational Other	—	Social anxiety disorder Separation anxiety disorder Obsessive-compulsive disorder Posttraumatic stress disorder Agoraphobia

and adolescents, distinguishing symptoms, physical examination findings, and recommended diagnostic studies.[3,9]

Diagnosis

Diagnosis is based on a clinical interview with the child or adolescent and their primary caretakers. It is important to gather medical and psychiatric histories; family history of anxiety and other mental disorders; current and past treatments, including prescribed, over-the-counter, and herbal or alternative products; and current substance use by adolescents, primary caretakers, or others within the household. Clinicians should also inquire about trauma history, current psychosocial stressors, current and past social functioning with adults (e.g., parents or guardians, teachers) and peers, and educational performance. Assessing for suicide risk, including self-harming behaviors and suicidal ideation, is critical.[3,8]

Table 3 summarizes some of the validated self-reported and caretaker-reported screening measures that are useful for baseline symptom and severity assessment and ongoing monitoring.[8,9,11] The Screen for Child Anxiety Related Emotional Disorders (SCARED; for use in patients eight years and older) and the Spence Children's Anxiety Scale (SCAS; for use in patients six to seven years of age) are available for free online. For younger patients (i.e., 30 months to 6.5 years of age), clinicians can use the parent-reported Preschool Anxiety Scale (PAS), which was adapted from the SCAS.[8,9] The 5-item version of the SCARED tool has a sensitivity of 74% and specificity of 73% using a cutoff score of 3.[12] The 8-item parent version of the SCAS has a sensitivity of 85% and specificity of 75% using a cutoff score of 7.5.[11]

A detailed psychosocial history and comprehensive picture of current stressors allow for the differentiation of developmentally appropriate worries, fears, and stress responses from an anxiety disorder.[8,9] Identifying individual and family strengths, resources, and support is important for developing a therapeutic alliance.[3]

Physical examination should focus on ruling out medical conditions presenting with anxiety-like symptoms. This includes the cardiopulmonary, abdominal, and nervous systems, and may include targeted examination of the head and neck and musculoskeletal and integumentary systems. Laboratory tests, such as thyroid function testing for hyperthyroidism, imaging, and other diagnostic testing are rarely needed, but they may be indicated to rule out a specific differential diagnosis suggested by the history and physical examination.[3,9]

Behavioral and Pharmacologic Treatments

The American Academy of Child and Adolescent Psychiatry (AACAP) recommends that primary care clinicians work with caregivers to understand the child's symptoms of anxiety and degree of functional impairment. Following assessment and diagnosis, psychological and pharmacologic treatments may be considered based on symptom severity, patient and parent preferences, and availability and quality of psychosocial treatment.

PSYCHOLOGICAL THERAPIES

For mild to moderate symptoms, strong evidence from randomized trials supports the use of cognitive behavior therapy (CBT), delivered individually or in group settings, as a first-line treatment,[13] with a number needed to treat (NNT) of 6 for the primary outcome of remission of any anxiety disorder diagnosis vs. wait-list controls.[14] CBT focuses on how thoughts affect mood and behavior. It is a directive and time-limited approach addressing factors that maintain anxiety symptoms. Sessions may be conducted with the child or the child and their parents and include homework assignments that provide an opportunity for the child to practice skills outside of therapy. For most childhood anxiety disorders, treatment with CBT lasts between 12 and 20 weeks with booster sessions occasionally occurring over several months to reinforce skills.

CBT has two components: modifying thinking patterns (i.e., cognitive) and changing behavioral patterns (i.e., behavior). Cognitive restructuring is an essential aspect of CBT that assists children or adolescents in becoming more aware of their self-talk, providing an opportunity to examine the accuracy of thoughts and replace them with more adaptive ones. The behavioral component uses strategies such as social skills training, relaxation strategies, and exposure techniques to change behavior. Exposure techniques are used to address avoidance behavior, which is known to maintain or worsen anxiety over time. One exposure technique that is commonly used is systematic desensitization, which is a gradual, progressive exposure to feared stimuli.[15]

PHARMACOLOGIC THERAPY

Although CBT is the preferred treatment for mild to moderate symptoms of anxiety disorders, pharmacologic treatment may be considered when the child or adolescent presents with moderate to severe symptoms (e.g., presence of panic attacks, inability or refusal to go to school), is unwilling or unable to participate in psychotherapy, or has shown a poor response to CBT. Selective serotonin reuptake inhibitors (SSRIs) are considered first-line medications for anxiety disorders and are generally well tolerated.[8] Fluoxetine (Prozac), sertraline (Zoloft), and escitalopram (Lexapro) are antidepressant medications that effectively treat childhood anxiety disorders.[13] Serotonin-norepinephrine reuptake inhibitors (SNRIs) have also shown effectiveness.

TABLE 2

Differential Diagnosis for Anxiety Disorders in Children and Adolescents

Diagnosis	Symptoms	Physical examination findings	Diagnostic studies
Asthma	Respiratory symptoms such as dyspnea improve with administration of inhalation therapies	Elevated respiratory rate or heart rate, low oxygen saturation, nasal flaring, prolonged expiratory phase, retractions, wheezing	Pulmonary function testing
Cardiac arrhythmias and valvular heart disease	Dyspnea on exertion, palpitations, shortness of breath, sweating	Cardiac murmur, cyanosis, diaphoresis, elevated or low heart rate or blood pressure, irregular rhythm, low oxygen saturation	Echocardiography, electrocardiography, Holter monitor
Diabetes mellitus and hypoglycemia	Headache, lethargy, lightheadedness, nausea, palpitations, polydipsia, polyuria, sweating	Altered level of consciousness, ataxia, diaphoresis, elevated respiratory rate or heart rate, slurred speech, tremor	A1C level, fingerstick glucose, serum glucose
Hyperthyroidism	Dry eyes, fatigue, heat intolerance, irregular menses, palpitations, thinning hair, unintentional weight loss, weakness	Arrhythmia, diaphoresis, elevated heart rate, enlarged or nodular thyroid gland, fine or brittle hair, proptosis, tremor	Radioiodine uptake test, thyroid function tests, thyroid scan, thyroid ultrasonography
Lead poisoning	Abdominal pain, constipation, fatigue, headache, hearing loss, learning and behavioral difficulties, nausea, pica, vomiting, weight loss	Burton line, developmental delay, foot or wrist drop, lethargy, peripheral neuropathy, tremor	Serum lead level
Medication adverse effects	Medication ingestion, started a new medication or had a recent change in dose; medication-specific adverse effects occur in addition to anxiety symptoms	Medication-specific toxicity syndromes	Complete metabolic panel, creatine kinase, specific drug levels, urine drug screen
Migraine	Abdominal pain, headache, headache with aura, light or sound sensitivity, loss of appetite, nausea or vomiting	Normal neurologic and ophthalmologic examination	Rarely performed because diagnosis is made by history and physical examination findings
Pheochromocytoma	Abdominal or back pain, blurred vision, constipation, headache, palpitations, sweating, weight loss	Diaphoresis, elevated blood pressure and heart rate, papilledema	24-hour urine catecholamines, plasma-fractionated metanephrines
Substance use effect (e.g., alcohol, caffeine, nicotine, opioid withdrawal, sedatives, stimulant intoxication)	Body aches, diarrhea, nausea, vomiting; anxiety symptoms present only in the context of substance use or withdrawal	Diaphoresis, elevated blood pressure and heart rate, elevated temperature, piloerection, pupillary dilation, restlessness, tremor	Complete metabolic panel, creatine kinase, urine drug screen
Systemic lupus erythematosus	Abdominal pain, chest pain, concentration and memory impairment, fatigue, fever, hair loss, headaches, joint pain, light sensitivity, rash, weight loss	Alopecia, cardiac friction rub, discoid rash, joint swelling, malar rash, painless oral lesions, proximal muscle weakness	Antinuclear antibodies, anti-dsDNA antibodies, anti-SS-A antibodies, blood urea nitrogen–creatinine ratio, complete blood count, electrolytes, erythrocyte sedimentation rate, liver enzymes, urinalysis

Information from references 3 and 9.

Duloxetine (Cymbalta) is the only medication approved by the U.S. Food and Drug Administration (FDA) for generalized anxiety disorder in children seven years and older. In a 10-week randomized, placebo-controlled study of youths seven to 17 years of age, patients treated with duloxetine showed a significantly greater likelihood of symptom improvement on the Pediatric Anxiety Rating Scale, remission (NNT = 6), and functional improvement compared with placebo.[16] In a large, multisite, double-blind, randomized controlled trial, patients six to 17 years of age who received extended-release venlafaxine for generalized anxiety disorder and social phobia showed significant improvement in symptoms over the eight-week trial period compared with placebo.[8] A Cochrane systematic review of 22 randomized trials concluded that the likelihood of treatment response was significantly greater with pharmacotherapy compared with placebo (58.1% vs. 31.5%; NNT = 4).[17] Medication was not as well tolerated compared with placebo, although only 5% of participants withdrew from studies because of adverse effects.

Antidepressants such as SSRIs and SNRIs have an FDA boxed warning regarding the increased risk of suicidal thoughts and behaviors in children and adolescents. Family physicians should discuss this risk with patients and their caregivers when obtaining informed consent and use medications selectively. Initiation of pharmacologic therapy should be at the lowest dose available for the medication selected, with upward titration after the first week, if tolerated. Symptoms should be regularly monitored after initiating pharmacologic therapy. Typical therapeutic dose ranges are similar to those in adults because children tend to metabolize medications quickly.[18-20] The long-term effects of antidepressant use in children and adolescents are unknown; therefore, the FDA recommends limiting duration of use. The AACAP recommends that children and adolescents remain on medication for six to 12 months after anxiety symptoms have resolved and, if possible, taper and discontinue during a stress-free time (e.g., end of school, beginning of summer).

COMBINED TREATMENT

CBT and CBT combined with medication have been shown to be most effective in treating childhood anxiety disorders. A randomized controlled trial of 488 children with social anxiety disorder, generalized anxiety disorder, or separation anxiety disorder found that the combination of CBT and sertraline was more effective than either CBT or sertraline alone (81% vs. 60% and 55%, respectively; NNT = 2, 3, and 3, respectively).[21]

In October 2020, the AACAP published clinical practice guidelines using the systematic review conducted by

TABLE 3

Validated Screening Measures for Anxiety in Children and Adolescents

Screening measure	Age range	Administration	Length	Scoring and interpretation
Screen for Child Anxiety Related Emotional Disorders (SCARED; https://www.ementalhealth.ca/index.php?m=survey&ID=54)	8 to 18 years	Child and parent	41 items; 10 minutes 5-item short form; 2 minutes	A score of ≥ 25 on the 41-item screen may indicate the presence of an anxiety disorder, with subscale scores for specific anxiety disorders A score of ≥ 3 on the 5-item short form may indicate the presence of an anxiety disorder
Spence Children's Anxiety Scale (SCAS; https://www.scaswebsite.com/wp-content/uploads/2021/07/scas.pdf)	8 to 15 years	Child and parent	45 items; 10 minutes 8 items; 5 minutes	A score of ≥ 60 may indicate the presence of an anxiety disorder, with subscale scores for specific anxiety disorders; scoring gender and age dependent A score of ≥ 7.5 may indicate the presence of an anxiety disorder
Preschool Anxiety Scale (PAS; https://www.scaswebsite.com/wp-content/uploads/2021/07/scas-preschool-scale.pdf)	30 months to 6.5 years	Parent	29 to 34 items; 10 minutes	A score of ≥ 60 may indicate the presence of an anxiety disorder, with subscale scores for specific anxiety disorders

Information from references 8, 9, and 11.

SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendation	Evidence rating	Comments
CBT should be offered to patients six to 18 years of age with social anxiety disorder, generalized anxiety disorder, separation anxiety disorder, specific phobia, or panic disorder.[8,10,11,13]	A	Consistent evidence from randomized controlled trials showing improvement in symptoms, remission, and function
SSRIs should be offered to patients six to 18 years of age with social anxiety disorder, generalized anxiety disorder, separation anxiety disorder, specific phobia, or panic disorder.[8,10,13]	A	Consistent evidence from randomized controlled trials showing improvement in symptoms, remission, and function, with mostly minor adverse events
Combination treatment (i.e., CBT and an SSRI) could be offered preferentially over CBT or an SSRI alone to patients six to 18 years of age diagnosed with social anxiety disorder, generalized anxiety disorder, separation anxiety disorder, specific phobia, or panic disorder.[8,11,13]	B	Few clinical trials showing significant improvement in symptoms and function over either treatment alone

CBT = cognitive behavior therapy; SSRI = selective serotonin reuptake inhibitor.

A = consistent, good-quality patient-oriented evidence; **B** = inconsistent or limited-quality patient-oriented evidence; **C** = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to https://www.aafp.org/afpsort.

the Mayo Clinic Evidence-Based Practice Center and the Agency for Healthcare Research and Quality.[21] The AACAP recommends that children and adolescents six to 18 years of age diagnosed with social anxiety disorder, generalized anxiety disorder, separation anxiety disorder, specific phobia, or panic disorder receive treatment with CBT or an SSRI.[8,10,11,13] The findings of the review were not sufficient to recommend a particular order of treatments; however, depending on symptom severity and patient response, a judicious approach starting with CBT may be chosen ahead of an SSRI.[22] Combination treatment could be offered preferentially over CBT or an SSRI alone.[8,11,13]

Prognosis

There is a sufficient body of empirical evidence that shows significant improvement in childhood anxiety disorders with psychotherapy or pharmacotherapy, with a combination of therapies providing the most benefits. Despite effective treatments, some childhood anxiety disorders persist into adulthood. In a longitudinal study examining the remission rates of anxiety among 319 youths, researchers found that after four years only 22% of study participants were in stable symptom remission, 48% had relapsed, and 30% were chronically ill.[23] Evidence-based treatments, early intervention, caregiver support and modeling, professional collaboration, and care coordination are all important elements leading to a better prognosis.[24]

Data Sources: We searched PubMed using the key terms anxiety and children and adolescents, and included meta-analyses, randomized controlled trials, clinical trials, and reviews. Essential Evidence Plus, the Agency for Healthcare Research and Quality effective health care reviews, the Cochrane Database of Systematic Reviews, and the U.S. Preventive Services Task Force were also searched. Search dates: November 19, 2021; April 15, 2022; and September 2, 2022.

The Authors

ALICIA KOWALCHUK, DO, is an associate professor in the Department of Family and Community Medicine at Baylor College of Medicine, Houston, Tex.

SANDRA J. GONZALEZ, PhD, LCSW, is an assistant professor in the Department of Family and Community Medicine at Baylor College of Medicine.

ROGER J. ZOOROB, MD, MPH, FAAFP, is the Richard M. Kleberg Sr. Professor and Chair of the Department of Family and Community Medicine at Baylor College of Medicine.

Address correspondence to Alicia Kowalchuk, DO, Baylor College of Medicine, 3701 Kirby Dr., Ste. 600, Houston, TX 77098 (email: aliciak@bcm.edu). Reprints are not available from the authors.

References

1. Ghandour RM, Sherman LJ, Vladutiu CJ, et al. Prevalence and treatment of depression, anxiety, and conduct problems in US children. *J Pediatr.* 2019;206:256-267.e3.

2. Polanczyk GV, Salum GA, Sugaya LS, et al. Annual research review: a meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *J Child Psychol Psychiatry*. 2015;56(3):345-365.
3. Walter HJ, Bukstein OG, Abright AR, et al. Clinical practice guideline for the assessment and treatment of children and adolescents with anxiety disorders. *J Am Acad Child Adolesc Psychiatry*. 2020;59(10):1107-1124.
4. Zhu Y, Chen X, Zhao H, et al. Socioeconomic status disparities affect children's anxiety and stress-sensitive cortisol awakening response through parental anxiety. *Psychoneuroendocrinology*. 2019;103:96-103.
5. Cataldo I, Lepri B, Neoh MJY, et al. Social media usage and development of psychiatric disorders in childhood and adolescence: a review. *Front Psychiatry*. 2021;11:508595.
6. Racine N, McArthur BA, Cooke JE, et al. Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: a meta-analysis. *JAMA Pediatr*. 2021;175(11):1142-1150.
7. U.S. Preventive Services Task Force. Anxiety in children and adolescents: screening. Accessed October 12, 2022. https://www.uspreventive servicestaskforce.org/uspstf/recommendation/screening-anxiety-children-adolescents
8. Wehry AM, Beesdo-Baum K, Hennelly MM, et al. Assessment and treatment of anxiety disorders in children and adolescents. *Curr Psychiatry Rep*. 2015;17(7):52.
9. Freidl EK, Stroeh OM, Elkins RM, et al. Assessment and treatment of anxiety among children and adolescents. *Focus (Am Psychiatr Publ)*. 2017; 15(2):144-156.
10. Ringeisen H, Casanueva C, Stambaugh L, et al.; Center for Behavioral Health Statistics and Quality; Research Triangle Institute. *DSM-5 Changes: Implications for Child Serious Emotional Disturbance*. Substance Abuse and Mental Health Services Administration (US); 2016. Accessed April 20, 2022. https://www.ncbi.nlm.nih.gov/books/NBK519712/
11. Reardon T, Spence SH, Hesse J, et al. Identifying children with anxiety disorders using brief versions of the Spence Children's Anxiety Scale for children, parents, and teachers. *Psychol Assess*. 2018;30(10):1342-1355.
12. Birmaher B, Brent DA, Chiappetta L, et al. Psychometric properties of the Screen for Child Anxiety Related Emotional Disorders (SCARED): a replication study. *J Am Acad Child Adolesc Psychiatry*. 1999;38(10): 1230-1236.
13. Wang Z, Whiteside SPH, Sim L, et al. Comparative effectiveness and safety of cognitive behavioral therapy and pharmacotherapy for childhood anxiety disorders: a systematic review and meta-analysis [published correction appears in *JAMA Pediatr*. 2018;172(10):992]. *JAMA Pediatr*. 2017;171(11):1049-1056.
14. James AC, Reardon T, Soler A, et al. Cognitive behavioural therapy for anxiety disorders in children and adolescents. *Cochrane Database Syst Rev*. 2020;(11):CD013162.
15. Kaczkurkin AN, Foa EB. Cognitive-behavioral therapy for anxiety disorders: an update on the empirical evidence. *Dialogues Clin Neurosci*. 2015;17(3):337-346.
16. Strawn JR, Prakash A, Zhang Q, et al. A randomized, placebo-controlled study of duloxetine for the treatment of children and adolescents with generalized anxiety disorder. *J Am Acad Child Adolesc Psychiatry*. 2015; 54(4):283-293.
17. Ipser JC, Stein DJ, Hawkridge S, et al. Pharmacotherapy for anxiety disorders in children and adolescents. *Cochrane Database Syst Rev*. 2009; (3):CD005170.
18. Hammad TA, Laughren T, Racoosin J. Suicidality in pediatric patients treated with antidepressant drugs. *Arch Gen Psychiatry*. 2006;63(3): 332-339.
19. Bridge JA, Iyengar S, Salary CB, et al. Clinical response and risk for reported suicidal ideation and suicide attempts in pediatric antidepressant treatment: a meta-analysis of randomized controlled trials. *JAMA*. 2007;297(15):1683-1696.
20. Rynn M, Puliafico A, Heleniak C, et al. Advances in pharmacotherapy for pediatric anxiety disorders. *Depress Anxiety*. 2011;28(1):76-87.
21. Walkup JT, Albano AM, Piacentini J, et al. Cognitive behavioral therapy, sertraline, or a combination in childhood anxiety [published correction appears in *N Engl J Med*. 2013;368(5):490]. *N Engl J Med*. 2008;359(26): 2753-2766.
22. Wang Z, Whiteside S, Sim L, et al. Anxiety in children. Comparative effectiveness review no. 192. AHRQ publication no. 17-EHC023-EF. Agency for Healthcare Research and Quality; August 2017. Accessed, January 18, 2022. https://www.ncbi.nlm.nih.gov/books/NBK476277/pdf/Bookshelf_NBK476277.pdf
23. Ginsburg GS, Becker-Haimes EM, Keeton C, et al. Results from the child/adolescent anxiety multimodal extended long-term study (CAMELS): primary anxiety outcomes. *J Am Acad Child Adolesc Psychiatry*. 2018;57(7):471-480.
24. Martini R, Hilt R, Marx L, et al. Best principles for integration of child psychiatry into the pediatric health home. American Academy of Child and Adolescent Psychiatry; 2012. Accessed January 9, 2022. https://www.aacap.org/App_Themes/AACAP/docs/clinical_practice_center/systems_of_care/best_principles_for_integration_of_child_psychiatry_into_the_pediatric_health_home_2012.pdf