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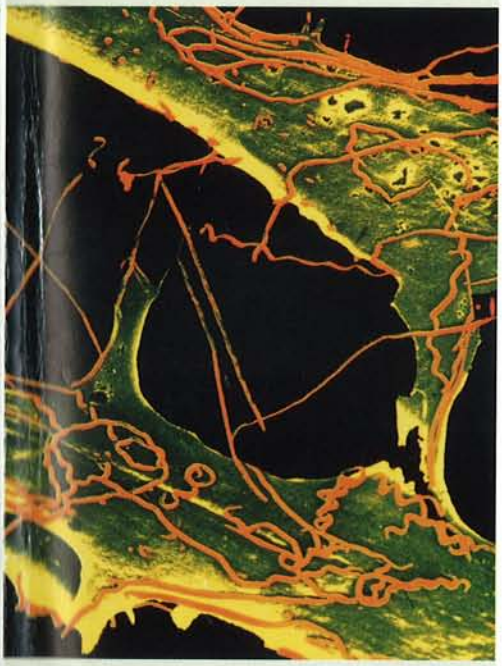

Treponema pallidum

Recognition and management of childhood anxiety disorders

Shirah Vollmer, MD

ABSTRACT Anxiety disorders are relatively common conditions in children and adolescents and can impair family, social, and academic functioning. Primary care physicians who recognize the symptoms of anxiety disorders and provide appropriate treatment can prevent significant psychological impairment later in life. Cognitive-behavioral therapy is effective for many anxiety disorders. Adjunctive pharmacotherapy, primarily with selective serotonin reuptake inhibitors, can also be beneficial.

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Children have anxiety in their lives. Anxiety is defined as apprehension, tension, or uneasiness from anticipation of danger, the source of which is largely unknown or unrecognized. Anxiety is regarded as pathologic when it interferes with quality of life, emotional comfort, or the achievement of desired goals.[1]

All adult anxiety disorders can be diagnosed in children, but some are more common in childhood. Stressful life events such as starting school, moving, or the loss of a parent can trigger the onset of an anxiety disorder, but a specific stressor need not be present. Certain disorders tend to be age-specific. Separation anxiety disorder and specific phobia are more common in younger children, 6-9 years of age, while generalized anxiety disorder and social anxiety disorder are more common in middle childhood and adolescence. As with adults, there is a high rate of comorbid depression in pediatric anxiety disorders. Unfortunately, most children do not receive treatment.[2]

It is vital to recognize and treat anxiety disorders at an early age. Childhood anxiety disorders foreshadow psychiatric illness later in life. Affected children are at two to five times greater risk for later anxiety disorders, major depression, suicide attempts, and hospitalization for psychiatric illness.[3] Treatment usually requires a multimodal approach and may include educating the child and parents about the disorder, consulting with school personnel, behavioral therapy, psychodynamic psychotherapy, family therapy, and pharmacotherapy.

The scope of pediatric anxiety disorders

Anxiety disorders are the most common psychiatric illness in children.[3] Studies using older diagnostic criteria suggest that 15%-23% of chil-

dren may meet criteria for some anxiety disorder.[4] In communities rife with violence, the prevalence of posttraumatic stress disorder (PTSD) may exceed 50%.[5]

Preliminary demographic profiles are emerging. Children with separation anxiety are more likely to be in single-parent families and of lower socioeconomic status than their peers with other anxiety disorders.[6] The gender ratio in generalized anxiety disorder is nearly equal until adolescence, after which girls predominate. This disorder and social phobia are both more common in white children from middle- and upper-middle class families. Social phobia may also be more common in girls than boys,[6] and more girls than boys are diagnosed with a specific phobia.[7]

Types of anxiety disorders

• *Separation anxiety disorder and school refusal* Separation anxiety disorder, the classic anxiety disorder of childhood, affects as many as 11% of children 6-8 years of age.[8] Like panic disorder in adults, separation anxiety disorder usually begins with a variety of somatic symptoms that activate attachment symptoms and lead to avoidance behavior. The child exhibits excessive distress when he or she is or anticipates being away from home or caretakers—recurrent nightmares about separation, worry about getting lost or kidnapped, and inability to sleep if a parent is not in the room. The child usually prefers home to school because he has experienced panic while in school.

School refusal describes the difficulty a child with emotional distress, especially anxiety or depression, has in attending school.[9] Just before time to leave for school, the child may complain of a headache, sore throat, or stomachache, only to have the symptom resolve when allowed to stay home. Short-term consequences include poor academic performance and problems with family and peer relationships. In the long term, school refusal can lead to employment problems and social difficulties and put the child at risk for later psychiatric illness.[9] Children with school refusal are a heterogeneous group. They may exhibit simple phobia for school, social phobia, or conduct disorder.

• *Generalized anxiety disorder (formerly overanxious disorder)* is characterized by excessive worry and anxiety about activities and events and is difficult to control. School performance and social situations often provoke anxiety, as may worry about everyday events—such as whether someone can drive her to the movies and she will arrive on time—or about catastrophic events such as hurricanes and earthquakes.[10] The child tends to be a perfectionist. It is the number of worries, the intensity of worry, and its uncontrollability that separate children with generalized anxiety disorder from those with other anxiety disorders or without any disorders.

• *Specific phobia* refers to an excessive, persistent fear of a situation or object, such as flying, animals, loud sounds, or costumed characters. When exposed to the phobic fear, the child has an immediate anxiety response, which may take the form of crying, tantrums, freezing, or clinging. In a study of more than 1,000 adolescents 12-17 years old, roughly 4% met *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV)*[11] criteria for specific phobia during their life.[12] To meet diagnostic criteria, the child's attempts to avoid the feared situation must cause marked distress and interfere with normal functioning.

• *Social anxiety disorder,* also called social phobia, is usually diagnosed in mid-teen years but may occur as early as preschool age. About 2% of adolescents meet *DSM-IV* criteria for social phobia at some time.[12] The child has a marked, persistent fear of social or performance situations with exposure to unfamiliar people or scrutiny—reading aloud in class, participating in musical or athletic activities, joining or starting a conversation, and talking to adults, for example. In young children, anxiety may be expressed by crying, tantrums, clinging to parents, or mutism.[13] This condition is distinguished from other anxiety disorders by impairment solely in social situations.[14] If not treated, social anxiety disorder can persist into adulthood and may predispose to later depression and alcohol abuse.

• *Obsessive-compulsive disorder (OCD)* involves recurrent, intrusive thoughts and urges that are distressing, bothersome, and interfere with daily functioning. The lifetime prevalence of OCD among children is 2%-4%, and the 6-month prevalence is 0.5%-1.0%.[15] The most common obsessions focus on germs or contamination, followed by fears of harm to oneself or others and excessive moralization or

Table 1

Symptoms of anxiety disorders in children and adolescents

Separation anxiety disorder and school refusal
Excessive distress when separated, or anticipating separation, from home or caretakers
Persistent and excessive worry about losing, or possible harm to, caretakers
Persistent reluctance or refusal to go to school or other places because of fear of separation
Persistent or excessive fear or reluctance to be alone or without major attachment figures at home or without significant adults in other settings
Persistent reluctance or refusal to go to sleep without being near a caretaker or to sleep away from home
Repeated nightmares about separation
Repeated somatic symptoms (headaches, stomachaches, nausea, vomiting) when separated, or anticipating separation, from major attachment figures

Generalized anxiety disorder
Excessive anxiety and worry that the child has difficulty controlling, associated with the following symptoms: Difficulty concentrating, easy fatigability, irritability, muscle tension, restlessness, sleep disturbances

Specific phobia
Excessive or unreasonable fear of a specific situation or object (such as heights, animals, or an injection)
Immediate anxiety response when exposed to the situation or object
Avoidance of the situation or object

Social anxiety disorder
Excessive fear of a social or performance situation
Avoidance of the feared situation

Obsessive-compulsive disorder
Obsessions such as recurrent thoughts or images that are distressing (not simply excessive worries about real-life problems)
Attempts to suppress or ignore the thoughts or images
Compulsions such as repetitive behaviors or mental acts that the child feels compelled to perform

Posttraumatic stress disorder
After experiencing a stressful event, the child reexperiences the event (with recurrent memories or dreams or physical or emotional symptoms when reminded of the event)
Avoidance of stimuli that remind the child of the event
Symptoms of increased arousal such as difficulty concentrating, exaggerated startle response, hypervigilance, irritability or anger, or sleep disturbances

Selective mutism
Consistent failure to speak in specific social situations (such as at school) while speaking in other situations

religiosity.[15] Frequent compulsions include excessive washing, repeating, checking, touching, counting, and ordering.[15] Although children and adults share many obsessions and compulsions, children are more likely to involve family members in their rituals. They may insist that their laundry be washed several times, demand that parents check their homework repeatedly, or become upset if siblings "contaminate" their bedroom.

• *PTSD and acute stress disorder* Unlike PTSD in adults, that in children has only begun to receive attention. Diagnosis requires the development of characteristic symptoms after being exposed to an extremely traumatic stressor. The child may have directly experienced an event involving death, serious injury, or other threat or witnessed such an event involving another person. Alternatively, the child may have learned about an unexpected or violent death, serious harm, or threat of death or injury to a family member or other close companion. Individual responses include intense fear, helplessness, or horror, which may be expressed by disorganized or agitated behavior. Very young children may engage in repetitive play that expresses themes or aspects of the trauma. Children may also experience intense psychological distress at reminders of the traumatic event and persistently avoid stimuli associated with the trauma. Other features may include a numbing of general responsiveness and persistent symptoms of increased

arousal that were not apparent before the trauma.

Acute stress disorder is new to *DSM-IV*. The essential feature is the development of characteristic anxiety and dissociative and other symptoms within 1 month after exposure to an extreme traumatic stressor. To meet diagnostic criteria, the child's disturbance must last at least 2 days and not persist beyond 4 weeks.

• *Selective mutism* is the failure of a child who talks elsewhere to speak in specific social situations. Some research suggests that it may be a symptom of social anxiety.[16] Eighteen in 10,000 children may be affected.[17] The inability to speak is generally most disabling at school, as the child cannot be assertive and talk when called upon by teachers. Children often designate a friend or close family member to serve as an interpreter, whispering in that person's ear to effect communication.

Evaluating the patient for anxiety disorders

Children experience symptoms of anxiety much as adults do, but they display and react to them differently. This can make diagnosis difficult. Determining whether a child's behavior is "just a phase" or constitutes a disorder can be challenging. Important areas in evaluating a child or adolescent include history of onset and development of anxiety symptoms, associated stressors, medical history, school history, social history, family psychiatric history, developmental history (including temperament), and mental status evaluation.

Academic information must be obtained from school personnel. The physician needs to inquire about academic functioning, social skills, peer involvement, and attendance patterns.

• *Medical evaluation* The child should have had a complete medical history and physical examination within the past 12 months. Special attention should be paid to conditions that may mimic anxiety disorders such as hypoglycemic episodes, hyperthyroidism, cardiac arrhythmias, caffeinism, pheochromocytoma, seizure disorders, migraines, central nervous system disorders, and reactions to medications. Drugs to consider are antihistamines, antiasthmatic agents, sympathomimetic agents, corticosteroids, haloperidol (Haldol), pimozide (Orap), selective serotonin reuptake inhibitors (SSRIs), antipsychotic agents, and nonprescription drugs including diet pills and cold medicines.

• *Psychological evaluation* A variety of diagnostic interviews are available for assessing anxiety disorders in children and adolescents, including the National Institute of Mental Health Diagnostic Interview Schedule for Children,[18] the Spence Children's Anxiety Scale,[19] and the Multidimensional Anxiety Scale for Children.[20] Instruments such as the Children's Yale-Brown Obsessive Compulsive Scale can be used to rate and record symptom severity in OCD.[21]

The physician should note the child's self-assessment of impairment as well as any objective signs of anxiety, including motor tension, vigilance and scanning, variations in speech patterns and production, and separation difficulty. When OCD is suspected, the physician should ask what would happen if the child did not perform the compulsion, and how does he or she know when it has been done enough? Play techniques can be used to help understand a child's fears and reasons for anxiety.

The child should be asked about how she soothes herself. It is important to determine whether the anxiety is stimulus specific, spontaneous, or anticipatory. Evaluation should also include a determination of the degree to which anxiety leads to avoidant behavior that constricts daily life. The environment should be explored with special attention to the organization of the home, presence of child abuse (physical, emotional, or sexual) or neglect, mental or physical illness or death in family members, and exposure to danger or violence (including domestic violence).

Alternate and associated diagnoses

Anxiety disorders must be distinguished from normal worries and fears. It is important to recognize that isolated, subclinical anxiety symptoms (such as fears of harm to attachment figures) are common in children. Developmental fears (such as fear of the dark), which are often transient, must be differentiated from phobias. Features of specific anxiety disorders help home in on the diagnosis (Table 1, page 29).

Further complicating the diagnosis is the astounding comorbidity in children with anxiety disorders.[22] More than three fourths of them have at least one comorbid diagnosis. The most common

Table 2

Selected pharmacotherapy of anxiety disorders in children and adolescents

Drug	Pediatric dose	Comments
SSRIs		SSRIs are effective for OCD, generalized anxiety disorder, and panic disorder; side effects include GI disturbances and loss of libido; doses too high can increase anxiety
Citalopram HBr (Celexa)	10-40 mg/d*	Not FDA approved for use in children; may benefit patients with OCD, PTSD, or social anxiety disorder
Fluoxetine HCl (Prozac)	10-60 mg/d*	Not FDA approved for use in children; may benefit patients with OCD or PTSD
Fluvoxamine maleate (Luvox)	10-200 mg/d	Approved for the treatment of OCD in children ≥ 8 y
Paroxetine HCl (Paxil)	10-40 mg/d	Not FDA approved for use in children, but used to treat OCD, social anxiety disorder, generalized anxiety disorder, and PTSD in adults
Sertraline HCl (Zoloft)	25-200 mg/d	Approved for the treatment of OCD in children > 6 y and for PTSD in adults; oral liquid concentrate available
TCAs		Anticholinergic side effects are common with TCAs; potential for conduction defects requires ECG monitoring before treatment begins and after dose increases
Clomipramine HCl (Anafranil)	75-200 mg/d	Approved for the treatment of OCD in children ≥ 10 y
Imipramine HCl (Tofranil)	25-100 mg/d	May benefit children with school refusal and separation anxiety disorder; approved for the treatment of enuresis in children ≥ 6 y
Other		
Buspirone HCl (BuSpar)	5-60 mg/d*	Not FDA approved for use in children < 18 y; may benefit patients with generalized anxiety disorder; favorable side-effect profile

*Based on doses used in clinical trials.
Key: ECG = electrocardiograph; FDA = Food and Drug Administration; GI = gastrointestinal; OCD = obsessive-compulsive disorder; PTSD = posttraumatic stress disorder; SSRI = selective serotonin reuptake inhibitor; TCA = tricyclic antidepressant.

are secondary anxiety disorders including generalized anxiety disorder, simple phobia, social phobia, and separation anxiety disorder. Comorbidity has been associated with greater severity of internalizing symptoms.[23] Other psychiatric disorders that may be comorbid with or misdiagnosed as anxiety disorders are mood disorders; attention-deficit hyperactivity disorder; adjustment, borderline, or other personality disorders; substance use or eating disorders; and sleep terror disorder. Up to 80% of children with OCD meet diagnostic criteria for another axis I disorder, and as many as 50% have multiple comorbid conditions.[15] About three fourths of children with social anxiety disorder have comorbid conditions.[14] In some studies, more than 60% of children with affective disorders have an anxiety disorder, while 70% of those with school refusal have affective disorders.[24]

Pharmacotherapy for specific childhood anxiety disorders

Pharmacotherapy should never be the sole intervention. It should be an adjunct to behavioral or psychotherapeutic interventions that help promote active mastery and prevent symptom return after discontinuation of medication. Table 2 lists commonly used drugs. Side-effect profiles and comorbidities often guide the choice of treatment.[6] A tricyclic antidepressant (TCA) may be best for a child with comorbid enuresis or attention-deficit hyperactivity disorder, for example, and an SSRI for a child with comorbid OCD.[6]

• *Separation anxiety disorder and school refusal* The SSRI fluvoxamine maleate (Luvox) was found superior to placebo in a recent study involving children and adolescents with separation anxiety disorder.[25] Five placebo-controlled studies that have

examined the efficacy of TCAs for separation anxiety and school refusal associated with separation anxiety have produced conflicting results. The most recent study found that imipramine plus cognitive behavioral therapy was significantly better than placebo plus behavioral therapy in improving school attendance (70% versus 28%).[26]

• *Generalized anxiety disorder* Two recent placebo-controlled trials have found that the SSRIs fluvoxamine and sertraline HCl (Zoloft) are safe and effective for children and adolescents.[25,27] Older case reports and several studies indicate that benzodiazepines may be useful for children with anxiety symptoms.[28] Behavioral disinhibition has been reported as a side effect of clonazepam (Klonopin) in children,[29] and substance abuse in a child is a relative contraindication to benzodiazepines.[30] One case report found buspirone HCl (BuSpar) efficacious in treating an adolescent with generalized anxiety disorder.[31]

• *Specific phobia* Very limited data suggest that fluoxetine HCl (Prozac) may benefit children with disabling symptoms who do not respond to psychotherapy.[32]

• *Social anxiety disorder* SSRIs are the recommended treatment.[14] A recent placebo-controlled trial found that fluvoxamine was effective for children and adolescents with this disorder.[25] β-Blockers are used to treat adults with performance anxiety but should not be considered for children unless other options have failed.

• *OCD* is probably the best-studied pediatric anxiety disorder and the one most amenable to drug therapy. The efficacy of clomipramine HCl (Anafranil) has been clearly demonstrated in double-blind placebo-controlled studies.[33] But side effects of TCAs and the need for periodic electrocardiographic and therapeutic drug monitoring make SSRIs the preferred first-line treatment.[15] Both fluvoxamine and sertraline have been approved by the Food and Drug Administration for children and adolescents with OCD.[15] In a 10-week, parallel-group, multisite treatment study of 134 children and adolescents 8-17 years of age, fluvoxamine was significantly better than placebo in reducing the severity of OCD symptoms.[34] Adverse events—including agitation, hyperkinesia, depression, flatulence, and rash—were generally mild and well tolerated. Children had a higher rate of response than adolescents. The time of response is of particular interest. There was a significant decrease in the mean severity of obsessive-compulsive symptoms in the fluvoxamine group by the end of week 1, and maximum improvement was reached at the end of 3 weeks. Treatment for up to 52 weeks with sertraline (50-200 mg/d) has also been found safe and effective for children and adolescents with OCD.[35] In a recent placebo-controlled trial, fluoxetine, 20-60 mg/d, was also found effective and well tolerated in patients 7-17 years of age.[36] The American Academy of Child and Adolescent Psychiatry recommends maintaining patients on antiobsessional medications for 12-18 months following a satisfactory response before attempting discontinuation.[37] Tapering should be gradual.

• *PTSD* Outpatient psychotherapy is generally considered the preferred initial treatment. But psychotropic medications are used as adjunctive treatment in children with prominent depressive or panic symptoms. Preliminary evidence suggests that SSRIs may be beneficial.[38]

• *Selective mutism* Drug treatment of this disorder has not been well studied. Fluoxetine was evaluated in one open trial of 21 children with selective mutism.[39] While this study was not controlled, the results were impressive. After 9 weeks of treatment, 16 of the 21 children had decreased anxiety and increased speech in social settings.

Psychological interventions

• *Cognitive behavioral therapy* focuses on maladaptive thoughts and assumptions and helps the patient learn new ways to change behavior. The emphasis is on treatment in the context of family and school, rather than on intrapsychic conflict. In one study, 70% of children and adolescents with separation anxiety, generalized anxiety disorder, and social phobia who received behavior therapy no longer met diagnostic criteria for an anxiety disorder at 12-month follow-up.[40] At 6-year follow-up, nearly 86% no longer met diagnostic criteria.[41] It has also benefited those with school refusal.[42]

Because of concerns about the long-term use of drugs in children and the proven effectiveness of cognitive behavioral therapy for childhood OCD, it

is often used as the initial treatment for this disorder.[15] Therapy focuses on exposure and response prevention. After creating a rank-ordered list of obsessive and compulsive symptoms, the child is systematically and progressively exposed to situations, beginning with the least difficult, while being instructed not to use the ritualistic behaviors.[15]

• *Psychodynamic psychotherapy and psychoanalysis* Psychodynamic psychotherapy, which focuses on underlying fears and anxieties, is often an appropriate component of treatment.[43] Treatment for children with PTSD consists of direct exploration of the trauma, specific stress management techniques, and examination and correction of inaccurate attributions regarding the trauma.[44] Anxious children generally benefit from mastering themes of separation, autonomy, self-esteem, and age-appropriate behavior. Parents should be involved in treatment so they can learn to understand their children's need for reassurance and encourage them to be more independent.

Clinical data on psychoanalytic treatment consist largely of case reports involving children with phobias, school refusal, or anxiety symptoms that are associated with other difficulties. Of 352 children retrospectively diagnosed with primarily anxiety and depressive disorders, 73% showed improvement in adaptation with psychoanalysis or psychodynamic psychotherapy.[45] Predictors of positive outcome are longer duration of treatment, greater frequency of sessions, younger age, and phobic symptoms.[45]

Parent-child interventions

The parent-child relationship and temperament are important to both the development and treatment of childhood anxiety. Prevalence of anxiety disorders is higher in children of adults with anxiety disorders.[46] Children of parents with agoraphobia or OCD are seven times more likely to be diagnosed with an anxiety disorder than the offspring of adults without such conditions.[46] In a 12-year longitudinal study of more than 800 children, early temperamental traits of passivity and shyness in girls 3-5 years of age were associated with subsequent reports of anxiety symptoms.[47] Behavioral inhibition, a temperamental characteristic of showing fear and withdrawal in novel or unfamiliar situations, is associated with increased risk of developing anxiety disorders in childhood.[48] Insecure mother-child attachment is a risk factor for developing anxiety disorders in childhood and adolescence.[49]

Parent-child interventions may include helping parents encourage their child to face new situations rather than withdrawing, avoiding excessive criticism and intrusiveness, responding to their child's needs, and encouraging the child to participate in activities despite anxiety.[6]

When to refer

The primary care physician should consider specialist referral if psychoactive drug therapy is planned, if simple behavioral and family support interventions are unsuccessful, if symptoms persist, if there is a risk of suicide, or if there is evidence of psychosis. A clinical child psychologist may also be called upon to assess the child and provide psychological treatments.[50]

Conclusion

Children with anxiety disorders manifest a spectrum of symptoms ranging from mild worry and distress to overwhelming and incapacitating anxiety that interferes with day-to-day functioning. High rates of comorbidity—with additional anxiety disorders or other psychiatric conditions—can make diagnosis arduous. Early recognition and treatment can prevent psychological impairment later in life. In some children, anxiety disorders follow a chronic course and remission rates are low. For others, the remission rate is high. Treatment requires a multimodal approach and may include patient and parent education, consultation with school personnel, pharmacotherapy, behavioral intervention, and psychodynamic psychotherapy. ■

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SELF-EXAMINATION

1. As many as _____% of children have an anxiety disorder.

   a) 3
   b) 5

c) 13
d) 23
e) 30

2. Which of the following statements about the demographics of childhood anxiety disorders is false?

   a) Separation anxiety disorder is more common in children living in single-parent homes.
   b) Specific phobia is more common in boys than in girls.
   c) More adolescent girls than boys have generalized anxiety disorder.
   d) Social anxiety disorder is more common in children of middle- and upper-class families.
   e) Generalized anxiety disorder is more common in white children.

3. Which of the following behaviors is not a symptom of the stated disorder?

   a) easy fatigability in separation anxiety disorder
   b) worry about getting kidnapped in separation anxiety disorder
   c) worry about nuclear war in generalized anxiety disorder
   d) avoiding a feared situation in specific phobia
   e) excessive moralization in obsessive-compulsive disorder (OCD)

4. More than _____% of children with an anxiety disorder have at least one comorbid condition.

   a) 25
   b) 40
   c) 50
   d) 60
   e) 75

5. Which of the following treatments is not used for the stated disorder?

   a) a selective serotonin reuptake inhibitor (SSRI) for treating generalized anxiety disorder
   b) an SSRI for treating social anxiety disorder
   c) a tricyclic antidepressant for treating OCD in a child with enuresis
   d) cognitive-behavioral therapy for treating posttraumatic stress disorder
   e) cognitive behavioral therapy for treating OCD

Answers at end of reference list.

REFERENCES

1. Hales RE, Yudofsky SC. The American Psychiatric Press Textbook of Neuropsychiatry. Washington, DC: American Psychiatric Press; 1987.
2. Meredith LS, Sherbourne CD, Jackson CA, et al. Treatment typically provided for comorbid anxiety disorders. Arch Fam Med 1997;6:231-237.
3. Pine DS. Childhood anxiety disorders. Curr Opin Pediatr 1997;9:329-338.
4. Milne JM, Garrison CZ, Addy CL, et al. Frequency of phobic disorder in a community sample of young adolescents. J Am Acad Child Adolesc Psychiatry 1995;34:1202-1211.
5. Singer W. Development and plasticity of cortical processing architectures. Science 1995;270:758-764.
6. American Academy of Child and Adolescent Psychiatry. Practice parameters for the assessment and treatment of children and adolescents with anxiety disorders. J Am Acad Child Adolesc Psychiatry 1997;36(suppl):69S-84S.
7. Essau CA, Conradt J, Petermann F. Frequency, comorbidity, and psychosocial impairment of specific phobia in adolescents. Clin Child Psychol 2000;29:221-231.
8. Kroes M, Kalff AC, Kessels AG, et al. Child psychiatric diagnoses in a population of Dutch schoolchildren aged 6 to 8 years. J Am Acad Child Adolesc Psychiatry 2001;40:1401-1409.
9. King NJ, Bernstein GA. School refusal in children and adolescents: A review of the past 10 years. J Am Acad Child Adolesc Psychiatry 2001;40:197-205.
10. Wagner KD. Generalized anxiety disorder in children and adolescents. Psychiatr Clin North Am 2001;24:139-153.
11. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition. Washington, DC: American Psychiatric Association; 1994.
12. Essau CA, Conradt J, Petermann F. Frequency and comorbidity of social phobia and social fears in adolescents. Behav Res Ther 1999;37:831-843.
13. Skodol AE, Shaffer D, Gurland B. Psychopathology across the life cycle. In: Tasman A, Kay J, Lieberman JA, eds. Psychiatry. Philadelphia, Pa: WB Saunders; 1997:449-476.
14. Ballenger JC, Davidson JRT, Lecrubier Y, et al. Consensus statement on social anxiety disorder from the International Consensus Group on Depression and Anxiety. J Clin Psychiatry 1998;59(suppl 17):54-60.
15. Piacentini J, Bergman RL. Obsessive-compulsive disorder in children. Psychiatr Clin North Am 2000;23:519-533.
16. Black B, Uhde TW. Elective mutism as a variant of social phobia. J Am Acad Child Adolesc Psychiatry 1992;31:1090-1094.
17. Kopp S, Gillberg C. Selective mutism: A population-based study: A research note. J Child Psychol Psychiatry 1997;38:257-262.

18. Shaffer D, Fisher P, Lucas CP, et al. NIMH Diagnostic Interview Schedule for Children Version IV (DISC 2.3): Description, differences from previous versions, and reliability of some common diagnoses. J Am Acad Child Adolesc Psychiatry 2000;39:28-38.
19. Spence SH. A measure of anxiety symptoms among children. Behav Res Ther 1998;36:545-566.
20. March JS, Parker JD, Sullivan K, et al. The Multidimensional Anxiety Scale for Children (MASC): Factor structure, reliability, and validity. J Am Acad Child Adolesc Psychiatry 1997;36:554-565.
21. Goodman WK, Price LH, Rasmussen SA, et al. The Yale-Brown Obsessive Compulsive Scale. I. Development, use, and reliability. Arch Gen Psychiatry 1989;46:1006-1011.
22. Leckman JF, Weissman MM, Merikangas KR, et al. Panic disorder and major depression. Increased risk of depression, alcoholism, panic, and phobic disorders in families of depressed probands with panic disorder. Arch Gen Psychiatry 1983;40:1055-1060.
23. Brown TA, Antony MM, Barlow DH. Diagnostic comorbidity in panic disorder: Effect on treatment outcome and course of comorbid diagnoses following treatment. J Consult Clin Psychol 1995;63:408-418.
24. Bernstein GA. Comorbidity and severity of anxiety and depressive disorders in a clinic sample. J Am Acad Child Adolesc Psychiatry 1991;30:43-50.
25. The Research Unit on Pediatric Psychopharmacology Anxiety Study Group. Fluvoxamine for the treatment of anxiety disorders in children and adolescents. N Engl J Med 2001;344:1279-1285.
26. Bernstein GA, Barchardt CM, Perwien AR, et al. Imipramine plus cognitive-behavioral therapy in the treatment of school refusal. J Am Acad Child Adolesc Psychiatry 2000; 39:276-283.
27. Rynn MA, Siqueland L, Rickels K. Placebo-controlled trial of sertraline in the treatment of children with generalized anxiety disorder. Am J Psychiatry 2001;158:2008-2014.
28. Biederman J. Clonazepam in the treatment of prepubertal children with panic-like symptoms. J Clin Psychiatry 1987;48(suppl):38-42.
29. Graae F, Milner J, Rizzotto L, et al. Clonazepam in childhood anxiety disorders. J Am Acad Child Adolesc Psychiatry 1994;33:372-376.
30. DuPont RL, Saylor KE. Depressant substances in adolescent medicine. Pediatr Rev 1992;13:381-386.
31. Kranzler HR. Use of buspirone in an adolescent with overanxious disorder. J Am Acad Child Adolesc Psychiatry 1988;27:787-790.
32. Fairbanks JM, Pine DS, Tancer NK, et al. Open fluoxetine treatment of mixed anxiety disorders in children and adolescents. J Child Adolesc Psychopharmacol 1997;7:17-29.
33. Leonard HL, Swedo SE, Rapoport JL, et al. Treatment of obsessive-compulsive disorder with clomipramine and desipramine in children and adolescents. A double-blind crossover comparison. Arch Gen Psychiatry 1989;46:1088-1092.
34. Riddle MA, Reeve EA, Yaryura-Tobias JA, et al. Fluvoxamine for children and adolescents with obsessive-compulsive disorder: A randomized, controlled, multicenter trial. J Am Acad Child Adolesc Psychiatry 2001;40:222-229.
35. Cook EH, Wagner KD, March JS, et al. Long-term sertraline treatment of children and adolescents with obsessive-compulsive disorder. J Am Acad Child Adolesc Psychiatry 2001;40:1175-1181.
36. Geller DA, Hoog SL, Heiligenstein JH, et al. Fluoxetine treatment for obsessive-compulsive disorder in children and adolescents: A placebo-controlled clinical trial. J Am Acad Child Adolesc Psychiatry 2001;40:773-779.
37. American Academy of Child and Adolescent Psychiatry. Practice parameters for the assessment and treatment of children and adolescents with obsessive-compulsive disorder. J Am Acad Child Adolesc Psychiatry 1998;37(suppl): 27S-45S.
38. Seedat S, Stein DJ, Ziervogel C, et al. Comparison of response to a selective serotonin reuptake inhibitor in children, adolescents, and adults with posttraumatic stress disorder. J Child Adolesc Psychopharmacol 2002;12:37-46.
39. Dummit SE III, Klein RG, Tancer NK, et al. Fluoxetine treatment of children with selective mutism: An open trial. J Am Acad Child Adolesc Psychiatry 1996;35:615-621.
40. Barrett PM, Dadds MR, Rapee RM. Family treatment of childhood anxiety: A controlled trial. J Consult Clin Psychol 1996;64:333-342.
41. Barrett PM, Duffy AL, Dadds MR, et al. Cognitive-behavioral treatment of anxiety disorders in children: Long-term (6-year) follow-up. J Consult Clin Psychol 2001;69:135-141.
42. King NJ, Tonge BJ, Heyne D, et al. Cognitive-behavioral treatment of school-refusing children: A controlled evaluation. J Am Acad Child Adolesc Psychiatry 1998;37:395-403.
43. Bernstein GA, Rapoport JL, Leonard HL. Separation anxiety and generalized anxiety disorders. In: Wiener JM, ed. Textbook of Child and Adolescent Psychiatry. 2nd ed. Washington, DC: American Psychiatric Press; 1997:467-480.
44. American Academy of Child and Adolescent Psychiatry. Practice parameters for the assessment and treatment of children and adolescents with posttraumatic stress disorder. J Am Acad Child Adolesc Psychiatry 1998;37(suppl): 4S-26S.
45. Target M, Fonagy P. Efficacy of psychoanalysis for children with emotional disorders. J Am Acad Child Adolesc Psychiatry 1994;33:361-371.
46. Turner SM, Beiderl DC, Costello A. Psychopathology in the offspring of anxiety disorders patients. J Consult Clin Psychol 1987;55:229-235.
47. Caspi A, Henry B, McGee RO, et al. Temperamental origins of child and adolescent behavior problems: From age three to age fifteen. Child Dev 1995;66:55-68.
48. Kagan J, Reznick JS, Snidman N. Biological bases of childhood shyness. Science 1988;240:167-171.
49. Warren SL, Huston L, Egeland B, et al. Child and adolescent anxiety disorders and early attachment. J Am Acad Child Adolesc Psychiatry 1997;36:637-644.
50. Tonge BJ. Common child and adolescent psychiatric problems and their management in the community. Med J Aust 1998;168:241-248.

■ *Answers: 1)d, 2)b, 3)a, 4)e, 5)d*