

Separation Anxiety Disorder and School Refusal in Children and Adolescents

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Author Disclosure
Drs Hanna and Fluent
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not disclose any
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relevant to this
article.

Objectives After completing this article, readers should be able to:

1. Describe the relationship of separation anxiety to school phobia or school refusal.
2. Explain the developmental appropriateness of separation anxiety in the preschool child and during the first months of school.
3. Discuss the family dynamics of separation anxiety disorder.
4. Distinguish between separation anxiety disorder and truancy as a cause of school absence.
5. Describe the etiologic role of the parent (often the mother) in separation anxiety disorder.
6. Develop a therapeutic plan for abnormal separation anxiety.

Case Study

JC is a 9-year-old boy who lives with his mother and attends the third grade, where he is an A student. During the last 2 weeks, he has refused to go to school and has missed 6 school days. He is awake almost all night worrying about going to school. As the start of the school day approaches, he cries and screams that he cannot go, chews holes in his shirt, pulls his hair, digs at his face, punches the wall, throws himself on the floor, and experiences headaches, stomach-aches, and vomiting. If he attends school, he is less anxious until bedtime. As his separation anxiety has increased, he has become gloomy, has stopped reading for fun, and frequently worries about his mother's tachycardia.

JC was seen once by a psychiatrist at age 3 years for problems with separation anxiety. He did well in preschool and kindergarten. He was seen at a community mental health center during the first grade for school refusal, but did well again during the second grade. In addition to having recurrent symptoms of separation anxiety disorder, he is phobic of dogs, avoids speaking and writing in public, and has symptoms of generalized anxiety disorder and obsessive-compulsive disorder. His mother has a history of panic disorder.

Introduction

Pediatricians are familiar with separation anxiety as a normal developmental phenomenon from approximately 10 months of age to the early preschool years. Separation anxiety disorder (SAD), however, is a common childhood anxiety disorder that often involves persistent problems with attending school or other activities away from home because of fear of separation. The fear associated with leaving the safety of parents and home may escalate into tantrums or panic attacks and cause significant interference with academic, social, or emotional development. The efficacy of psychosocial and psychopharmacologic treatments for SAD has been demonstrated in randomized, controlled trials.

Definitions

The essential feature of SAD is excessive anxiety about separation from parents and other attachment figures. The reactions to separation are extreme and beyond that expected for the person's developmental level. The current diagnostic criteria in the *Diagnostic and*

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Table 1. Diagnostic Criteria for Separation Anxiety Disorder

Developmentally inappropriate and excessive anxiety concerning separation from home or from those to whom the individual is attached, as evidenced by three or more of the following:

- Recurrent excessive distress when separation from home or major attachment figures occurs or is anticipated
- Persistent and excessive worry about losing, or about possible harm befalling, major attachment figures
- Persistent and excessive worry that an untoward event will lead to separation from a major attachment figure (eg, getting lost or being kidnapped)
- Persistent reluctance or refusal to go to school or elsewhere because of fearing separation
- Persistent and 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 major attachment figure or to sleep away from home
- Repeated nightmares involving the theme of separation
- Repeat complaints of physical symptoms (such as headaches, stomachaches, nausea, or vomiting) when separation from major attachment figures occurs or is anticipated

The duration of the disturbance is at least 4 weeks. The onset is before age 18 years. The disturbance causes clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning. The disturbance does not occur exclusively during the course of a pervasive developmental disorder, schizophrenia, or other psychotic disorder and, in adolescents and adults, is not better accounted for by panic disorder with agoraphobia. An early onset is specified if the disturbance occurs before age 6 years.

Statistical Manual for the Mental Disorders (DSM-IV; American Psychiatric Association, 1994) define the disorder with specific requirements about the number, duration, onset, and severity of symptoms and with exclusions of other conditions (Table 1).

The definition of SAD is complicated by several issues. Because separation anxiety is a normal developmental phenomenon from late in the first postnatal year to the early preschool years, it can be difficult during those ages to discriminate pathologic from normal forms of separation anxiety. The clinical manifestations of separation anxiety have considerable developmental variation that also raises practical challenges for parents and clinicians. Finally, because there is extensive comorbidity among

most childhood anxiety disorders, some have suggested that current diagnostic categories lack discriminant validity and reflect artificial boundaries.

Epidemiology

SAD is one of the more common childhood anxiety disorders, with prevalence estimates ranging from 3.2% to 4.1%. Because it is more frequent before puberty, the prevalence of the disorder appears to decrease with age. The prevalence of separation anxiety symptoms without significant interference is much higher, with up to 50% of 8-year-olds reporting such symptoms. The disorder in epidemiologic samples is more frequent in females, but there have been no sex differences in some clinical samples.

Peak age at onset is in middle childhood, around 7 to 9 years of age. Onset may be as early as preschool age and, by definition, may occur at any time before age 18 years. In one large clinical sample, children who had SAD had the earliest age at onset (mean=7.5 y) and the youngest age at intake (mean=10.3 y) compared with children who had other anxiety disorders. SAD traditionally has been characterized as a disorder unique to childhood. However, the core symptoms of SAD, involving excessive and often disabling distress when faced with actual or perceived separation from major attachment figures, may persist or even arise during adulthood.

Course and Prognosis

SAD may have either an acute or insidious onset. When the onset is acute, the disturbance may be preceded by a significant life stress. Common examples include the death of a relative or pet; an illness in the child or relative; and a move to a new neighborhood, school, state, or country. The disorder is characterized by periods of exacerbation and remission. School resistance or refusal associated with SAD often begins following a period at home with a parent, such as a summer vacation, holiday break, or physical illness.

Clinical observation suggests that the course is variable. Many children recover completely without any apparent sequelae. Other children have long periods without significant symptoms interspersed with periodic exacerbations or sudden recurrences. These episodes may occur during times of increased stress or increased demands for autonomy, as may occur during the transition to middle school or high school. Children who have SAD and have missed school for a year or more may be particularly refractory to treatment. Both the anxiety about separation and the avoidance of situations involving separation, such as going away to college, may persist

into adulthood, even in those who have been able to complete school without long absences. Individuals who have SAD may be predisposed to having panic attacks at all ages when faced with separation from major attachment figures.

The manifestations of SAD vary with age. Younger children may not express fears of specific threats to parents or themselves; older children are more likely to have fears of particular dangers (eg, kidnapping, mugging). Anticipatory worries about separation become more evident in mid-childhood. Adolescents who have SAD may deny separation anxiety, but it may be reflected in their limited independent activity and reluctance to leave home. Physical complaints, such as stomachaches, headaches, nausea, and vomiting, are common before or during separation. Cardiovascular symptoms such as palpitations, dizziness, and feeling faint are rare in younger children, but more common in older individuals.

Whether there is a specific relationship between SAD and the subsequent development of panic disorder or whether SAD is associated with an increased vulnerability to a broad range of anxiety disorders is controversial. A large controlled study found that patients who had panic disorder had a significantly higher rate of childhood SAD and that a history of childhood SAD influenced the age at onset of panic disorder. Furthermore, two longitudinal studies provided evidence that SAD was associated with adult panic attacks or panic disorder but not with other anxiety disorders. These data support the hypothesis that the two disorders share a common, potentially heritable biologic substrate.

A large retrospective study of adult outpatients found that the prevalence of childhood SAD was greater among patients who had two or more lifetime adult anxiety disorder diagnoses than it was among patients who had only one anxiety disorder, suggesting that childhood SAD may be a risk factor for multiple anxiety syndromes in adulthood. Furthermore, a recent longitudinal study found that individuals who had a childhood diagnosis of SAD did not have a greater risk for developing panic disorder, agoraphobia, generalized anxiety disorder, social phobia, or major depressive disorder in young adulthood than those who had other childhood anxiety diagnoses. Instead, those who had childhood SAD were more likely to meet criteria for other anxiety disorders, including specific phobia, obsessive-compulsive disorder, posttraumatic stress disorder, and acute stress disorder. Such results argue against the hypothesis that childhood SAD is a specific risk factor for adult panic disorder and agoraphobia and indicate that SAD may increase the risk for several anxiety disorders.

Associated Features and Disorders

Compared with children who have other anxiety disorders, children who have SAD tend to come from single-parent homes. Some children who have SAD are described as demanding, intrusive, and in need of constant attention. When extremely upset at the prospect of separation, they may become angry or, occasionally, hit someone who is forcing separation. These behaviors often provoke parental frustration, leading to further resentment and conflict in the family. Other children who have SAD are described as unusually conscientious and compliant.

Studies assessing childhood anxiety disorders have repeatedly demonstrated that children who have SAD often have other psychiatric disorders. In clinical samples of children who have SAD, approximately 50% are diagnosed with at least one other anxiety disorder and 34% with a depressive disorder. Studies of depressed prepubertal children have found concurrent separation anxiety disorder in 40% to 60% of subjects. When SAD and a depressive disorder coexist, SAD precedes the depression in approximately 67% of cases.

Clinical studies have suggested three types of anxious school refusers: those who have separation anxiety, those who have social or specific phobia, and those who have anxious or depressive symptoms. School phobia and school refusal have been used at times as synonyms for SAD, although neither term has been included in a diagnostic nomenclature. Especially since the introduction of the diagnostic category of SAD in the *DSM-III*, school refusal has been considered a behavioral aspect of an emotional or behavioral disorder, but not a discrete clinical entity. In particular, a “persistent reluctance or refusal to go to school . . . because of fear of separation” is a symptom of SAD, whereas “often truant from school” is a symptom of conduct disorder if it began before the age of 13 years.

A recent study examined the relationship of anxious school refusal and truancy with psychiatric disorders in a large community sample of children and adolescents by using a descriptive rather than etiologic definition of school refusal. Pure anxious school refusal was associated with SAD and depression. Pure truancy was associated with oppositional defiant disorder, conduct disorder, and depression. Increased rates of both emotional and behavioral disorders were found in children who had both anxious school refusal and truancy, indicating that the two aspects of behavior are distinct but not mutually exclusive.

Several studies have suggested a relationship between asthma and anxiety symptoms. Of the studies that exam-

ined specific anxiety disorders in children who have asthma, results vary as to whether SAD or generalized anxiety disorder occurs most often. In a recent high-risk study, increased rates of atopic disorders (asthma, urticaria, allergic rhinitis, and atopic dermatitis) were found in children who had SAD. In contrast to some reports on adult panic disorder, there appears to be no association between SAD and mitral valve prolapse.

Etiology and Pathogenesis

Twin and family studies have provided evidence for a genetic contribution to the etiology of SAD. Behavioral inhibition, a temperamental characteristic that has been shown to be predictive of anxiety disorders in later childhood, has been found to be moderately heritable. In a recent study of separation anxiety in twins, using a parent-report symptom checklist completed by mothers, both genetic and shared environmental influences were found to contribute appreciably to variation in separation anxiety symptoms and were significantly moderated by both sex and age. Genetic influences were greater for girls; shared environmental influences were greater for boys. Furthermore, genetic influences increased with age, whereas shared environmental influences decreased with age.

SAD is more common in the siblings of children who have SAD and in the offspring of women who have anxiety or depressive disorders. Offspring of parents who have panic disorder have been shown to have a threefold increased risk of SAD, while offspring of parents who have panic disorder plus major depressive disorder have more than a tenfold increased risk. Agoraphobic women who have an early history of SAD are more likely to have children who have SAD than are agoraphobic women who have no such history.

Childhood anxiety disorders, particularly SAD, exhibit many of the respiratory abnormalities characteristic of adult panic disorder. These and other findings suggest that certain childhood anxiety disorders may share pathophysiologic features with adult panic disorder and that parents who have panic disorder may transmit a diathesis for some forms of anxiety that is observable in the respiratory system. Such a diathesis, perhaps involving the brainstem and hypothalamus, could be transmitted through either genetic or environmental factors, with variable expression over time.

Early fears often are mastered through habituation in the context of repeated, nontraumatic exposure to the feared object or situation. However, this process may fail for at least three reasons in children who have SAD. First, some children may fail to habituate despite exposure with

adequate frequency to the feared situations involving separation from major attachment figures. These “poor habituaters” are perhaps temperamentally prone to separation anxiety. Second, some children may not have sufficient opportunities for safe exposure to separation events. This may occur because parents fail to provide such experiences due to one or both parents struggling with SAD or other anxiety disorders. Third, parents may reinforce separation anxiety in their children by reinforcing their selection of avoidance as a means of coping with anxiety-provoking situations. Although it is unclear whether such parental behaviors are a cause of, or a response to, separation anxiety, they may contribute in either case to the maintenance and intensification of the problem over time.

Management

Recognition/Assessment

Defining and describing anxiety for children can be difficult. Children and adolescents may describe separation anxiety in terms of worry, fear, nervousness, tension, or anger or in terms of its physiologic components. A comprehensive assessment includes a careful history from the child and parents, ratings of targeted symptoms, and corollary information from schools and other sources. Because anxiety and mood disorders are common in the parents of children who have SAD, a family psychiatric history and assessment of current family functioning are necessary for evaluating and treating SAD. The practice parameters for the assessment of anxiety disorders in children from the American Academy of Child and Adolescent Psychiatry provide a useful guide for the assessment of SAD and related conditions.

Structured and semi-structured diagnostic interviews are available that provide specific questions for a detailed assessment of worries, fears, panic attacks, obsessions, compulsions, and depressive symptoms (Table 2). In routine clinical practice, these interviews often are too long to be administered in their entirety. However, clinicians may find it useful to have one or more standardized interviews readily available when interviewing anxious children and their parents to clarify portions of the history, to provide a thorough review of pertinent symptoms, and to refine the differential diagnosis. Several well-validated rating scales provide either an overall assessment of internalizing and externalizing symptoms or a more focused assessment of specific anxiety syndromes. Rating scale information from multiple informants can be crucial in establishing the diagnosis and monitoring the disorder.

The differential diagnosis of SAD and school refusal is

Table 2. Assessment Instruments for Separation Anxiety Disorder and Other Anxiety Disorders in Children and Adolescents

Structured and Semi-Structured Diagnostic Interviews

- Diagnostic Interview Schedule for Children (DISC)
- Child and Adolescent Psychiatric Assessment (CAPA)
- Diagnostic Interview for Children and Adolescents (DICA)
- Anxiety Disorders Interview Schedule for Children (ADIS-C)
- Child Assessment Schedule (CAS)
- Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS)

Rating Scales

- Pediatric Anxiety Rating Scale (PARS)
- Multidimensional Anxiety Scale for Children (MASC)
- Screen for Child Anxiety-Related Emotional Disorders (SCARED)
- Child Behavior Checklist (CBCL)
- Teacher Report Form (TRF)
- Youth Self-Report (YSR)

provided in Table 3. The differential diagnosis consists of other specific anxiety disorders, disruptive behavior disorders, and depressive disorders. Although the *DSM-IV* provides no exclusion criteria for the direct effects of a

Table 3. Differential Diagnosis of Separation Anxiety Disorder and School Refusal

- Selective mutism
- Specific phobia
- Social phobia
- Agoraphobia
- Panic disorder
- Generalized anxiety disorder
- Obsessive-compulsive disorder
- Acute stress disorder
- Posttraumatic stress disorder
- Substance-induced anxiety disorder
- Adjustment disorder with anxiety
- Oppositional defiant disorder
- Conduct disorder
- Major depressive disorder
- Dysthymic disorder

Table 4. Cognitive-Behavioral Treatment Components

- Psychoeducation/affective education
- Self-monitoring
- Graded exposure methods
- Cognitive coping statements and cognitive restructuring
- Relaxation training
- Positive reinforcement/contingency management

substance, there is compelling evidence that typical and atypical antipsychotic medications (eg, haloperidol, pimozide, and risperidone) can provoke severe separation anxiety in children and adolescents.

Psychoeducation and Psychotherapy

The general consensus is that several forms of exposure-based cognitive-behavioral therapy (CBT) are the methods of choice for intervening with SAD and other childhood anxiety disorders. Controlled studies have documented the effectiveness of child-focused CBT, CBT with an emphasis on increased parental involvement, and group CBT that uses peer participation in the treatment. All three forms of CBT are time-limited interventions that target coping and use psychoeducation, cognitive techniques, exposure-based interventions, relaxation training, and positive reinforcement (Table 4).

Psychoeducation (affective education) teaches an anxious child to identify and better understand the physiologic, behavioral, and cognitive signs of feeling frightened. This tripartite model of emotion is explored in detail so the child can distinguish excessive, unrealistic anxious feelings from other feelings and identify the physical sensations, behavioral actions, and catastrophic thinking involved in severe anxiety. Educational techniques based on the clinician's ability to use stories, illustrations, and metaphors provide a therapeutic framework. Other coping techniques include self-monitoring and strategies for managing troubling physical sensations, alternative and productive behavioral responses, and cognitive coping statements. Cognitive interventions are aimed at helping the child who has SAD identify and challenge patterns of anxious thinking, assess uncertainty more accurately, and develop realistic responses and coping self-statements that are useful in reducing anxiety. The primary goal of cognitive coping strategies is not to persuade the child to think more positively, but rather to challenge and test distorted thoughts and to use the power of non-negative thinking to reduce anxiety.

Another component of CBT for children who have SAD is graded exposure. The strategy requires anxious youth to confront feared situations in a way that allows anxiety to decrease over time. The process involves “habituation,” a learning principle that posits the natural declining of anxiety connected with certain situations if an individual confronts the feared situation frequently for long periods of time. Attempts at exposure fail most often for one of the following reasons: the confrontations are not performed frequently enough or for adequate periods of time, the exposure is performed with distraction, or the child terminates exposure before the anxiety diminishes.

The essential component in arranging confrontations with fearful situations so a child gains a sense of mastery over the feared situation is the gradual progression through a hierarchy of less fearful to more fearful situations. An important challenge of using exposure-based methods in school avoidance for children who have SAD is the nature of the hierarchy associated with attending school. A graded exposure program theoretically could involve taking the child to school and gradually withdrawing the parent from the school building, although this can be problematic and disruptive. Instead, the child’s anxiety typically begins to decrease soon after the parent leaves. Therefore, to resume regular school attendance, it is recommended that a plan be developed to return the child to school immediately without gradual withdrawal of the parent. During the process, the child is encouraged to use the acquired cognitive techniques to manage the anxiety associated with separation.

Relaxation training generally involves using a relaxation tape that guides the child in systematically tensing and relaxing a sequence of large muscle groups. The tension and relaxation exercises can be described by using the analogy of a stiff robot and a limp rag doll. Throughout the exercises, the child is encouraged to attend to the feelings experienced during the tension phase and to compare them with the sensations during the relaxation phase of the muscle tension sequence. The goal is to help the child learn to differentiate muscle tension from relaxation. As this distinction is noted repeatedly during the relaxation exercises, the child develops the ability to identify signs of muscle tension and to replace them with a state of relaxation in daily life. Positive reinforcement is used to reward effort and compliance with the other CBT techniques. Reinforcement approaches typically involve parent-delivered rewards as well as self-monitoring and contingent reinforcement.

Pharmacotherapy

Recent placebo-controlled trials of fluvoxamine and fluoxetine have provided strong support for selective serotonin reuptake inhibitors (SSRIs) as the treatment for SAD in youth requiring pharmacotherapy. The studies included patients who had social phobia and generalized anxiety disorder, as well as SAD, because most patients presenting with these disorders have at least one (~50%) and often two (~24%) of the other conditions as well. Consistent with the more extensive adult literature on SSRIs and anxiety disorders, the medications were effective in approximately 50% to 70% of patients, about twice the placebo response rate. A trend toward improvement was typically evident by week 4, consistent with the clinical practice of an adequate SSRI trial lasting at least 8 weeks.

Although the controlled studies on SAD were completed with fluvoxamine and fluoxetine, no compelling data suggest that one SSRI is superior to another in clinical efficacy. Clinical experience suggests that some patients demonstrate marked differences in responsiveness and tolerability to individual SSRIs. Sequential trials with several different SSRIs are necessary before concluding that a patient is a nonresponder because failure with one SSRI does not necessarily predict lack of response to another.

The SSRIs usually are well tolerated and generally have favorable safety profiles. However, the United States Food and Drug Administration (FDA), on October 15, 2004, directed manufacturers of these agents to include a boxed warning with statements that alert health care practitioners to the potential for “increased suicidality (suicidal thinking and behavior) in children and adolescents being treated with these agents.” Twenty-four trials involving 4,400 patients were included in an analysis that revealed an average suicidality risk of 2% with placebo versus 4% with medication. The increased risk for suicidality was evident in the first few months of treatment, but there were no completed suicides in those trials. Among the FDA advisory recommendations was a statement that “patients who are started on therapy be observed closely for clinical worsening, suicidality, or unusual changes in behavior.” Other adverse effects manifesting in excess of those of the placebo groups include abdominal discomfort and increased motor activity. Reports also suggest the potential for sleep disruption, irritability, impulsiveness, and aggression. Transient anxiety or emotional reactivity may be seen early in treatment, but typically resolve over time. Clinical experience suggests that these symptoms are less likely to emerge when the medications are started at low doses

and advanced slowly. Caution should be used when initiating SSRIs for patients who have a clinical or family history suspicious for bipolar disorder because these medications can induce mania in susceptible individuals. Abrupt discontinuation, particularly with the shorter-acting SSRIs, may be accompanied by increased distress, worsening anxiety, or transient somatic symptoms such as nausea or headache.

The tricyclic antidepressants (TCAs) have a long history of use in adult and pediatric anxiety disorders. Four controlled trials of TCAs in pediatric anxiety disorders have revealed equivocal results; despite an initial study showing benefit, three subsequent larger studies failed to demonstrate superiority to placebo. The TCAs are less well tolerated than the SSRIs and have a much narrower safety profile. Adverse effects result from cholinergic (dry mouth, constipation, blurred vision, urinary retention), histaminergic (sedation, weight gain), and adrenergic (orthostasis) blockade. In addition to lack of clear efficacy and a problematic adverse effect profile, a “quinidinelike” effect on cardiac conduction and case reports suggesting a potential relationship between TCAs and sudden death make these medications less attractive in pediatric anxiety disorders.

Open trials of benzodiazepines in pediatric anxiety disorders generated early enthusiasm for their use. Unfortunately, subsequent placebo-controlled trials failed to demonstrate efficacy and revealed problematic adverse effects of increased sedation or behavioral disinhibition. In addition, concerns persist regarding potential abuse, tolerance, dependence, and problems with discontinuation. These include the potential for confusing benzodiazepine withdrawal symptoms with recurrent anxiety symptoms as well as the potential for lowering the seizure threshold with abrupt discontinuation. Despite these concerns, the benzodiazepines occasionally are used in clinical practice as either the primary drug intervention or for SSRI augmentation. The shorter-acting agents (eg, lorazepam) may be used in a targeted fashion in the

morning to help a highly motivated patient return to school, with the longer-acting medications (eg, clonazepam) tried when more complete anxiolytic coverage is needed. Open trials with buspirone suggested that it may be an effective treatment for some children who have SAD, but controlled trials have not supported its efficacy in the treatment of childhood anxiety disorders.

Suggested Reading

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PIR Quiz

Quiz also available online at www.pedsinreview.org.

6. A healthy 3-year-old girl who has clung to her parents, kicking and screaming in protest, each day for the last month as she is about to be left at her preschool but who has no other emotional problems *most* likely has:
 - A. A conduct disorder.
 - B. Normal developmental behavior.
 - C. Oppositional defiant disorder.
 - D. School phobia.
 - E. Separation anxiety disorder.
7. Separation anxiety disorder is characterized by:
 - A. An association with childhood depression.
 - B. Continuous symptoms after onset.
 - C. Invariable persistence throughout adult life.
 - D. Peak of onset during puberty.
 - E. Predominance among males.
8. For children younger than 13 years of age, school absence resulting from truancy is differentiated *best* from school absence reflecting separation anxiety by the close association of the former with:
 - A. Agoraphobia.
 - B. Conduct disorder.
 - C. Depression.
 - D. Obsessive-compulsive disorder.
 - E. Panic attacks.
9. Successfully resuming school attendance by a child whose school refusal is related to separation anxiety is accomplished *best* by:
 - A. Daily visits of the parent to school.
 - B. Gradual increase in the number of days attended by the child.
 - C. Gradual withdrawal of the parent from the classroom.
 - D. Immediate unaccompanied return to the classroom.
 - E. Temporary home tutoring.
10. The generally preferred intervention for dealing with anxiety disorders of childhood, including separation anxiety disorder, is:
 - A. Benzodiazepines.
 - B. Exposure-based cognitive-behavioral therapy.
 - C. Individual psychotherapy.
 - D. Selective serotonin reuptake inhibitors.
 - E. Tricyclic antidepressants.

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