

Treatment of Separation, Generalized, and Social Anxiety Disorders in Youths

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Separation, generalized, and social anxiety disorders are common and impairing for children and adolescents. Childhood-onset anxiety disorders frequently persist into adulthood and place youths at risk for future psychiatric disorders, including mood and substance use disorders. Comorbidity is common in childhood anxiety disorders, and studies increasingly take this into account when assessing potential treatments. Existing studies support a number of pharmacological and psychotherapeutic treatments for childhood anxiety disorders. The strongest evidence supports use of selective serotonin reuptake

inhibitors (SSRIs) and cognitive-behavioral therapy (CBT). Combination treatment with SSRIs and CBT has been found to be more effective than either treatment alone. Early detection and treatment of childhood anxiety disorders can prevent substantial impairment over the course of a child's development and accumulation of functional disability. Early treatment also may prevent later development of adult psychiatric illness. The authors review the treatment literature and present the case of an adolescent who is brought in for evaluation after years of untreated anxiety.

(*Am J Psychiatry* 2014; 171:741–748)

Separation anxiety disorder, generalized anxiety disorder, and social anxiety disorder (or social phobia) are among the most common psychiatric illnesses in children and adolescents (1, 2). They have an earlier age at onset than other internalizing psychiatric disorders (2), are associated with significant functional impairment, and tend to persist into adulthood (3–6). In general, much of adult psychopathology can present first in childhood and adolescence, with childhood-onset disorders predicting adolescent disorders (7–10) and both child and adolescent problems and diagnoses predicting adult disorders (3, 11–13). The anxiety disorders that present in childhood (3) place children and adolescents at risk of later anxiety disorders, mood disorders, substance use disorders, and disruptive behavior (3, 4, 7).

Separation, generalized, and social anxiety disorders are a heterogeneous group of disorders with overlapping symptoms (e.g., somatic symptoms, problems sleeping, and avoidance behavior). They are commonly comorbid (14–16), and they have a positive treatment response to cognitive-behavioral therapy (CBT) and antidepressant medications (16). As a result, many studies of childhood-onset anxiety disorders, including treatment studies, group together children and adolescents with these three disorders and evaluate treatment effects on overall anxiety severity.

There is a substantial and growing literature supporting the use of psychosocial and psychopharmacological treatments of childhood anxiety disorders. Early detection of

youth anxiety and application of the evidence base is critical to adequately and effectively address anxiety before anxious children develop secondary problems and dysfunction into adulthood. In the following, we discuss, first, the current evidence regarding pharmacotherapies, and then psychosocial interventions, focusing on CBT.

Pharmacotherapy

There is substantial evidence of the efficacy of antidepressant medications for separation, generalized, and social anxiety disorders in children and adolescents as young as age 6, yet no medication currently has U.S. Food and Drug Administration (FDA) approval for this use. Despite the implications of the FDA's approval for safety and efficacy, the FDA labeling process does not reflect the existing and evolving evidence base for childhood anxiety disorders. It is important to note that a medication will not receive labeling for an indication if neither the manufacturer nor the FDA completes the FDA's labeling process. As a result, clinicians who wish to practice evidence-based medicine for children with anxiety disorders will have to prescribe off-label.

There have been numerous short-term, double-blind, placebo-controlled trials assessing pharmacologic treatment of childhood-onset separation, generalized, and social anxiety disorders alone or in combination. The inclusion of patients with one of a combination of these disorders

This article is featured in this month's AJP **Audio** and is an article that provides **Clinical Guidance** (p. 748)

is consistent with findings that co-occurring anxiety disorders are the rule rather than the exception. Studies of patients with a combination of these disorders are usually investigator initiated. Because the FDA does not generally sanction trials of co-occurring conditions, industry-sponsored studies typically focus on a specific primary anxiety disorder but allow for symptoms of other anxiety disorders to co-occur. Given the rates of comorbidity among the childhood anxiety disorders, it makes sense to first discuss studies that include patients with co-occurring anxiety disorders.

Pharmacotherapy for Co-Occurring Anxiety Disorders

The largest and most rigorous study of comorbid anxiety disorders to date is the Child/Adolescent Anxiety Multimodal Study (CAMS) (16), which compared sertraline (up to 200 mg/day), pill placebo, CBT, and their combination over 12 weeks in 488 children ages 7–17 years presenting with separation, generalized, and/or social anxiety disorder. Participants were allowed to enroll with comorbid attention deficit hyperactivity disorder (ADHD) (if it was well managed with stimulant medications), oppositional defiant disorder, conduct disorder, and dysthymia. CBT plus sertraline was superior to CBT alone and sertraline alone ($p < 0.001$, effect size=0.86). CBT alone (effect size=0.31) and sertraline alone (effect size=0.45) were equally effective, and all active treatments were superior to placebo ($p < 0.001$). Sertraline was generally well tolerated, and there was no statistical difference in rates of adverse events between the sertraline and placebo groups. There was no evidence of harm-related adverse events in any participants.

In advance of CAMS, the Research Unit on Pediatric Psychopharmacology Anxiety Study Group completed one of the earliest investigator-initiated, multisite, double-blind placebo-controlled trials (17), comparing fluvoxamine (up to 300 mg/day) to placebo in 128 children ages 6–17 years with separation, generalized, and/or social anxiety disorder. Participants could enroll with comorbid oppositional defiant disorder and dysthymia. Over 8 weeks of study treatment, participants in the fluvoxamine group showed statistically greater rates of response (defined as an improvement score < 4 on the Clinical Global Impressions Scale) than those in the placebo group (76% and 29%, respectively; $p < 0.01$). Adverse events were generally mild, with abdominal discomfort and increased activity level being more common in the fluvoxamine group than in the placebo group. In a subsequent 6-month open-label follow-up study (18), treatment gains were maintained by 94% of participants.

The first investigator-initiated, single-site randomized controlled trial (19) compared fluoxetine (20 mg/day) to placebo over 12 weeks in 74 children ages 7–17 years with separation, generalized, and/or social anxiety disorder. Participants were allowed to enroll with comorbid ADHD, posttraumatic stress disorder, oppositional defiant disorder, conduct disorder, and dysthymia. The fluoxetine

group had a significantly greater response rate (61%) than the placebo group (35%) by week 9 of the study. Reported side effects were minimal, with abdominal pain being more common in the fluoxetine group (44%) than in the placebo group (22%). Behavioral disinhibition was more common in the fluoxetine group ($N=7$) than in placebo group ($N=4$), but the difference was not statistically significant. Treatment gains were maintained in a 1-year open-label follow-up.

Pharmacotherapy for Individual Disorders

Most studies of childhood anxiety disorders have not enrolled participants with co-occurring anxiety disorders. All trials of medications other than selective serotonin reuptake inhibitors (SSRIs) for childhood anxiety disorders have evaluated only their efficacy for treatment of individual disorders. Many studies evaluating treatment of individual disorders are large industry-sponsored trials, and others are smaller investigator-initiated studies.

Social Anxiety Disorder (Social Phobia)

A number of studies have evaluated medications for childhood social phobia. In one randomized controlled trial (20), 80 children ages 7–17 years with social phobia were randomly assigned to receive 12 weeks of fluoxetine (up to 40 mg/day), placebo, or Social Effectiveness Therapy for Children. Children receiving social effectiveness therapy showed the greatest response rate (72.7%), and those receiving fluoxetine showed a greater response rate than those in the placebo group (30.1% compared with 6.3%).

A large, industry-sponsored, 16-week, double-blind, multisite study of paroxetine (up to 50 mg/day) in 322 children and adolescents ages 8–17 years with social phobia (21) demonstrated greater response rates in the paroxetine group (77.6%) than in the placebo group (38.3%). The medication was generally well tolerated, with insomnia, vomiting, and reduced appetite occurring more commonly in the paroxetine group than in the placebo group.

Beyond the SSRIs, a small number of trials have been conducted with serotonin-norepinephrine reuptake inhibitors and other antidepressants to treat childhood-onset anxiety disorders. One trial compared extended-release venlafaxine (up to 225 mg/day) to placebo in social phobia in 293 children and adolescents ages 8–17 over 16 weeks (22). The response rate was greater in the venlafaxine group (56%) than in the placebo group (37%). While most adverse events were mild to moderate, including nausea, anorexia, weight loss, pharyngitis, and mydriasis, three participants in the venlafaxine group developed new suicidal ideation, compared with none in the placebo group. A small ($N=18$) 8-week open-label trial of mirtazapine in children with social phobia (23) found improvement in 56% (10/18) of participants. Four of the participants discontinued because of adverse effects, including fatigue and irritability.

There was also significant weight gain on the medication. No other studies have been reported to date on the use of mirtazapine in children with anxiety. However, mirtazapine is a unique antidepressant; it comes in a fast-dissolve formulation, and at low dosages it has pronounced sedative effects and enhances appetite, effects that tend to decrease with higher dosages. Mirtazapine's potential benefits and combination of attributes may make it an ideal choice for the anxious child who becomes activated on SSRIs, has trouble swallowing pills (common in anxious children), and has appetite inhibition due to anxiety.

Selective mutism, most commonly observed in young children, is considered to be closely linked with, and a more severe form of, social phobia (24). Thus, the efficacy of antidepressants for older children with social phobia informs the pharmacological approach to young children with selective mutism, and its treatment can be considered together with that of social phobia. A small 9-week open-label trial of fluoxetine (up to 60 mg/day) (25) demonstrated improvement in symptoms among 76% of the 12 participants with selective mutism, with an inverse correlation between response and age. A small (N=5) 16-week double-blind single-case research trial of sertraline (26) showed a nonsignificant improvement in the sertraline group. However, two of the five participants no longer met criteria for selective mutism after 10 weeks on sertraline (at 100 mg/day), and a third participant was asymptomatic at 20 weeks poststudy. A small (N=15) 2-week controlled trial of fluoxetine in children with selective mutism (27) found improvement with fluoxetine treatment after non-response with placebo, but the difference, based on overall clinician-rated improvement, was not statistically significant (effect size=0.21). The study was limited by its small sample size and short duration.

Generalized Anxiety Disorder

Only four studies to date have evaluated pharmacologic treatment of childhood generalized anxiety disorder. Two industry-sponsored, 8-week, double-blind, placebo-controlled trials (28) evaluated extended-release venlafaxine (up to 225 mg/day) in children ages 6–17 years with generalized anxiety disorder. Pooled data from the 320 participants identified greater response rates in the venlafaxine group (68%) than in the placebo group (47%). Venlafaxine was generally well tolerated. The most common adverse events were asthenia, pain, anorexia, and somnolence. A small investigator-initiated double-blind trial (N=22) (29) demonstrated the efficacy of a fixed dose of sertraline (50 mg/day) in patients ages 5–17 years over 9 weeks. An industry-sponsored trial of buspirone for children and adolescents with generalized anxiety disorder (not published but described briefly in the buspirone product information) did not demonstrate a greater response in the buspirone group compared with the placebo group; response rates to both active drug and placebo were elevated.

School Refusal and Separation Anxiety Disorder

Although school refusal is not a DSM-recognized disorder, it is a frequent concern of parents presenting with their children for evaluation, is often seen in the context of childhood-onset anxiety disorders, and has been studied in children with separation anxiety disorder. One of the earliest psychopharmacological treatment trials and earliest trials comparing medication and psychotherapy (30) randomly assigned a small sample (N=35) of children with school refusal to a 6-week trial of imipramine (up to 200 mg/day) or placebo with or without behavioral treatment. School attendance improved in a greater number of children in the imipramine group (81%) than in the placebo group (47%). All of the children in the imipramine group reported feeling much better after 6 weeks, compared with 21% of those in the placebo group ($p<0.005$). A subsequent attempt to replicate this study in children with separation anxiety disorder (31) did not find a benefit for imipramine. In a study comparing CBT plus imipramine to CBT plus placebo in 24 depressed adolescents with school refusal (32), the combination of CBT and imipramine was superior to CBT plus placebo ($p<0.001$) over 8 weeks. A double-blind placebo-controlled trial comparing clomipramine (up to 75 mg/day) to placebo in 51 youths with school refusal over 12 weeks (33) found no difference between groups. In an 8-week double-blind placebo-controlled trial of 24 children and adolescents with school refusal (34) comparing imipramine (up to 275 mg/day), alprazolam (up to 4 mg/day), and placebo, no differences were found between groups.

Psychosocial Interventions

Many patients do not respond to medication alone, and the evidence suggests that combining antidepressants and CBT can be more powerful than either intervention alone (16). In addition, milder symptoms of anxiety may not warrant medication and the attendant risk of side effects. Some parents and children are reluctant to consider medication regardless of symptom severity. Given these considerations, it is important to understand the level of evidence supporting psychosocial interventions, as well as the underlying theories and components of commonly used treatments. It is valuable to understand these concepts as a clinician treating children with anxiety disorders, even if another clinician is performing the therapy. This improves effective communication between providers in split-treatment scenarios and provides a common language when speaking with children and parents.

CBT has been found to be at least as effective for pediatric anxiety disorders as standard pharmacotherapy (16). Psychodynamic approaches to childhood-onset anxiety have been proposed and are being studied (35), but to date few empirical studies have demonstrated a benefit for psychodynamic psychotherapy in anxious youths (36, 37). CBT is the psychosocial treatment with the broadest evidence base for pediatric anxiety disorders and thus is the focus here.

CBT

Dozens of studies have demonstrated the efficacy of CBT for pediatric anxiety disorders (38, 39). Citing this empirical support, the American Academy of Child and Adolescent Psychiatry anxiety practice parameter highlights the importance of CBT as a first-line treatment for mild to moderate anxiety in youths (40). CBT for pediatric anxiety utilizes a number of intervention strategies, including psychoeducation, relaxation training, cognitive restructuring, problem solving, gradual exposure, and relapse prevention (41, 42). Treatment course is typically brief (10–16 weekly 50-minute sessions) and emphasizes the importance of homework or out-of-office practice activities.

The goal of psychoeducation is for the patient to gain a better understanding of the phenomenology of anxiety and the rationale for CBT. The relationship between cognitions, somatic experiences, and behavior in anxiety-provoking situations is emphasized as a model for understanding CBT. Cognitive restructuring strategies help the patient identify anxious cognitive biases that result in unrealistic, unhelpful, or inaccurate appraisal of anxiety-provoking situations, with the goal of using objective evidence to come up with a more helpful or realistic appraisal or “coping thought.” Relaxation strategies, such as deep breathing and progressive muscle relaxation, are used to manage somatic symptoms, such as gastrointestinal distress, muscle tension, tachycardia, and difficulty sleeping. Patients are instructed to practice these skills in between sessions to improve their capacity to tolerate and regulate uncomfortable affect.

Exposure therapy is the most “active” ingredient and the most effective intervention in CBT. Exposure involves a gradual and systematic reacquaintance with anxiety-provoking stimuli and situations. Typically an exposure hierarchy is constructed, allowing the patient to rate potential exposure challenges on a scale from 1 to 10, creating a rank order from the easiest or least anxiety provoking to the most challenging and maximally anxiety provoking. The patient participates in the exposure task, often with the support of the therapist, a parent, or another trusted support person. The goal of each exposure task is to experience anxiety, or other uncomfortable affect, and remain in the situation long enough to master distress tolerance, habituate to the anxiety, and learn that the feared outcome is not going to come true. Exposure tasks are often repeated in order to experience decreased anxiety and increased mastery. Exposure tasks can include imaginal exposure (imagining the feared experience in one’s mind), narrative (writing about an anxiety-provoking situation), or in vivo exposure (actually confronting the feared stimulus or situation). Exposure can include looking at pictures or videos of the stimulus before completing the in vivo task. It can also include more general emotional material, such as a song or movie clip that brings up

uncomfortable affect but is not necessarily specific to the patient’s symptoms. Often the patient is later asked to reflect on the exposure experience, citing what was learned and rating the change in anxiety over the course of the practice. Home practice tasks are assigned, and over time the benefits of exposure typically generalize across other potentially anxiety-provoking contexts. Treatment ends with a review of skills learned, exposure tasks mastered, and identification of potential future triggers to maintain treatment gains and prevent relapse.

Several published manuals are available that provide a structured overview of CBT delivery. The *Coping Cat* (43), a well-established CBT approach for treating pediatric separation, generalized, and social anxiety disorders that was used in the CAMS study, includes the following treatment components: identifying feelings and somatic symptoms, restructuring negative thoughts into “coping self-talk,” relaxation, problem solving, self-monitoring and reinforcement, graded exposure therapy, and skills practice. More recent clinical research efforts have taken a transdiagnostic approach, using CBT to improve emotion regulation across all anxiety and depressive disorders (44). Group CBT, such as the form used in *Social Effectiveness Therapy for Children* (20), has also demonstrated efficacy, although further study may help elucidate which children would benefit most from group or individual interventions.

Despite the strong evidence for CBT as an effective treatment for childhood anxiety, not all children improve, and some are only partial responders. In addition, research on CBT in children under age 7 is still lacking. Children may have poorer CBT outcomes when their parents are experiencing their own psychopathology that impairs their ability to support their child’s treatment (45–47). For example, parental anxiety may interfere with parents facilitating and following through with exposure tasks for their child. Thus, including parent education and training in the child’s treatment, and/or referring parents for their own mental health treatment, may improve children’s clinical outcomes (46).

Family education and training in CBT should include understanding the positive and negative reinforcement patterns that often maintain a child’s anxiety symptoms and impairing behaviors. Family accommodation of child anxiety symptoms, in the form of attention to anxious behavior (external positive reinforcement) or support of avoidance behavior (external negative reinforcement), is associated with greater symptom severity, poorer treatment outcomes, and greater functional impairment (48). For instance, when a child stays home from school because of anxiety, the anxiety relief experienced is an example of an external (parent-driven) negative reinforcement pattern that may worsen anxiety and avoidance in the long term. When a parent provides attention, support, and comfort in response to a child’s anxiety symptoms, this external positive reinforcement may inadvertently maintain the anxious behavior pattern. Functional assessment and

A high school student's long-standing anxiety interferes with his academic performance.

Case History

"Jon" is a 17-year-old high school junior brought to the clinic by his parents because of concerns about changes in his mood, academic decline, and increasing social isolation. This is his first contact with mental health professionals, although problems with anxiety and inattention have been noted in the past.

On presentation, Jon reports that he is overwhelmed and not functioning well. This year, worsening anxiety about being able to keep up with the demands of 11th grade and about selecting and gaining admission to the right college are getting him down, and he does not know how he will cope. Despite very good academic skills historically, his worry about his academic performance is making it difficult for him to get started on his homework in the evenings, which creates a spiral of anxiety as he realizes that the longer he waits, the harder it will be to complete.

Jon did not have problems with attention when he was younger, and he notes that he can still focus and concentrate on activities he enjoys, like reading novels, but when he has assignments that are complicated or has to work under pressure, his mind often goes blank. As a result, it takes him longer to learn things and he does not feel confident about what he knows.

Although he was always shy, as a younger child he was able to make some friends. He finds social life in high school more challenging to navigate, and he dreads going to school. He experiences his past friends as having "moved on," and he avoids most social situations unless he is very familiar with the people involved. On weekends, he spends most of his time at home; he rarely has plans, and he prefers to be alone in his room using social media and playing computer games.

Jon reports feeling down about his circumstances, but not really depressed. He is able to enjoy himself when the pressure is off, but with his schoolwork and the constant pressure of college decisions, he does not experience much relief. He has trouble believing that his situation will improve when he gets to college, and he worries that without his parents' support, he might not be able to make it.

According to Jon's parents, he met all developmental milestones on time. As an infant, he was happy and calm most of the time but had a difficult time being away from his parents. As a toddler, he was clingy, but because his mother stayed at home, he never had to separate from her to attend day care.

Starting in the second grade, Jon was resistant to leaving home for school; each morning was a struggle, with him crying and pleading not to go, and sometimes his parents had to carry him to school. On school nights, especially Sunday and Monday nights, he often complained of headaches or stomachaches. The next day, he often ended up in the nurse's office with physical complaints, calling his parents and asking to come home. At night he was afraid to be alone in his room and had difficulty falling asleep. His parents would take turns lying next to him in bed until he fell asleep. This behavior lessened over the course of second grade, assuaging his

parents' concern, although it returned briefly at the beginning of school in third, fourth, and fifth grades. Outside of school, Jon did not like to spend time at other children's homes, preferring that they come to his house. His parents were happy to have the other kids come to their house, since it made Jon more comfortable and allowed them to know his friends better.

Jon's parents recall that around age 11, he became overly concerned about numerous things other than being away from them, frequently asking questions and seeking reassurance. As early as fifth grade, he worried about doing well enough on his schoolwork to get into college and feared that if he did not do well on every assignment, he would not be able to get a job when he grew up. He often appeared tense and was highly irritable. He was often off task, had a hard time finishing in-class work on time, and struggled with timed tests. He frequently had difficulty falling asleep and would repeatedly come out of his room, ostensibly to get something to drink or use the bathroom. His parents responded by trying to take the load off of him, often doing a majority of his assignments for him when he melted down or talking to the teacher to get him extended time for assignments or reductions in his workload. Both in and out of school, Jon was tense much of the time and did not seem to enjoy things fully because he was nervous about so many other things. Before school, trips, or new experiences, it was not unusual for him to report feeling ill. He missed many days of school because of stomachaches or "not feeling well." His parents took him to his pediatrician regularly, usually to be told that there was nothing medically wrong with him. They continued to adjust their home life in an effort to make it less stressful for Jon. They would reduce expectations for him around stressful situations. This approach helped in the short run, but his anxiety would re-emerge and generalize to more situations over time.

A neuropsychological assessment at age 12 identified above-average verbal IQ with poorer performance scores. The psychologist noted that Jon was anxious, especially with timed tests and mathematics, and found that with the time limits on the performance testing removed, Jon relaxed considerably and was better able to perform. The psychologist also noted that with the increasing difficulty of test items, Jon would "give up" prematurely, not challenging himself. The psychologist recommended cutting back on expectations related to school performance and extended time on tests, but also a bit of "tough love" to pressure Jon to succeed.

With the onset of puberty and entry into middle school, social anxieties gained prominence. Jon recalls wanting to be with his peers but feeling fearful and inadequate in social situations. He was very self-conscious and feared being judged or making a mistake. He was terrified of talking to girls and never dated despite being attracted to girls. He felt as though he had no idea what to say and worried that he would make some sort of devastating

Continued

mistake that others would laugh at. If he saw classmates outside of school, he would actively avoid them, and he never attended parties. This fear led to increasing social isolation over the course of middle school and into high school.

Jon's pediatrician was aware of his anxiety for much of his childhood, and his approach was to provide reassurance and to suggest that Jon would likely grow out of it. He encouraged the parents to provide good support at home and to try and relax around him. When his parents raised their concerns about his anxiety and functioning in high school, the pediatrician suggested that Jon was depressed and referred him to one of the few child and adolescent psychiatrists in town.

Treatment

The child psychiatrist, Dr. Y, began with a comprehensive evaluation and then talked with Jon and his parents about Jon's long history of anxiety symptoms. Dr. Y noted that Jon's difficulty with attention and concentration did not become problematic until his anxiety escalated in high school, despite anxiety symptoms being present throughout much of Jon's development. Dr. Y diagnosed Jon with social anxiety disorder and generalized anxiety disorder. He also noted Jon's history of separation anxiety symptoms. He recommended medication to treat anxiety, which he explained could over time increase Jon's comfort with his peers and help him cope with his school demands even when he was feeling pressure. Jon was started on sertraline at an initial dosage of 25 mg/day, to be increased to 150 mg/day over the first month, with an appointment at 1 week to monitor Jon's initial response and any side effects. Dr. Y also recommended that the family make an appointment with a psychologist at a clinic nearby for cognitive-behavioral therapy (CBT) to augment the medication treatment. He explained that CBT would help Jon decrease his avoidance of uncomfortable or anxiety-provoking situations with peers and at school.

Jon and his parents met with Dr. Z for an initial CBT consultation. Dr. Z provided detailed education about anxiety, including the role of the physical symptoms of anxiety that Jon had. He explained the connection between these physical feelings and Jon's avoidance of situations that provoked them, such as social interactions. He asked Jon to describe the thoughts he had in school and social interactions, such as "if I mess up on this test, I'll never get into college," "I'll make a fool of myself," and "no one really wants to hang out with me." Dr. Z described the role of these thoughts in the cycle of anxiety and avoidance. He explained that the therapy would entail practicing strategies for managing the thoughts and feelings related to anxiety, but that the most important goal would be to decrease the avoidance and withdrawal behaviors that have maintained these symptoms. He asked Jon and his parents to make a list of the common situations that Jon is struggling with or avoiding, and he explained that

Jon would engage in exposures with the therapist or in tasks outside of the office, such as asking a stranger for directions or making small talk with someone at the bus stop. The goal of each exposure was to build Jon's confidence in uncomfortable situations and gain evidence that his feared outcomes (e.g., "they will laugh at me") would not come true. He explained that over time Jon might become comfortable with these practices, as well as in his day-to-day life, but that the overall goal was for him to be able to function and participate in his daily activities even if he was feeling anxious.

During early sessions with Dr. Z, Jon learned to identify common unhelpful thinking patterns associated with anxiety, such as predicting that the worst outcome would happen and discounting when things went well, and to reappraise anxiety-provoking situations more helpfully and realistically. At 4 weeks, a review of the list of situations that Jon was avoiding or enduring with great distress indicated that many of them were high on the anxiety scale, so they discussed how to break some of the situations down into easier steps. Because Jon tended to avoid doing his exposure tasks at home, Dr. Z worked with his parents to help them support the work in therapy, even if it was challenging. Gradually Jon was able to carry out exposures more independently and selected increasingly challenging tasks both in and out of sessions.

As Jon's sertraline dosage increased over the first month, he experienced some initial headache and upset stomach, but these side effects resolved within a few days of each dosage increase. He reported that he felt the edge come off his anxiety within the first couple of weeks on the medication, although he still experienced many anxious thoughts and avoidant behaviors. Feeling less tense helped him face the tasks in his CBT, although not without discomfort. Over the course of the first 8 weeks of sertraline and CBT, he noticed a gradual reduction in his anxiety, although not eradication of anxious thoughts and feelings.

After 12 weeks of combined CBT and sertraline, Jon and his parents reported that he was doing much better. While he continued to have anxious thought patterns, he was much better at recognizing them for what they were, challenging them, and moving past them. He was able to attend school comfortably. He had started to make some new friends, although he still found this challenging, as groups had become well established and he still tended to doubt himself in social situations. He reported feeling more hopeful about the future and generally more at ease.

At this point, Jon's parents asked Dr. Y how long Jon would need to remain on the medication. Dr. Y explained that the goal over the next several months was to maintain, solidify, and build on the gains Jon had made so far. As part of this process, he should stay on the medication for at least 12 months, and then they could consider trying to taper it.

Jon continued in CBT, over time reducing the frequency of appointments, and he ultimately concluded the therapy, with the option of returning as needed for booster sessions. He continued to work with Dr. Y to manage his medications.

intervention identifies these unhelpful reinforcement patterns and trains parents to pay more attention to mastery of brave behavior and decrease accommodation of the anxiety symptoms.

Conclusions

In the case of Jon, the patient described in the vignette, earlier identification and treatment of his anxiety symptoms might have prevented the accumulated disability seen in his history—social isolation, school failure, and demoralization. His parents would have been educated and provided with parenting strategies to avoid the accommodation of his anxiety, which led to external positive reinforcement (i.e., increased parental attention and soothing in the face of anxiety) and negative reinforcement (i.e., facilitated avoidance of anxiety-provoking situations, such as not going to other children's homes for play dates) of his symptoms. Jon would have learned strategies to relax in the face of anxiety and ways of recognizing and challenging his anxious thoughts. Through targeted exposures, he would have learned distress tolerance skills and seen that the feared outcomes did not come true. Treatment with medication might have reduced his anxiety symptoms, "turning down the volume" on his anxiety, thus making it easier to engage in the CBT, persist in the face of difficult exposure tasks, and maintain treatment gains.

Jon developed limited coping and adaptation skills throughout development because of his anxiety symptoms, placing him at risk of failure in the transition to young adulthood. Even with effective pharmacotherapy and targeted CBT for his anxiety disorders, this lack of coping and adaptation skills will remain a barrier requiring a specific, targeted therapeutic intervention. Earlier intervention might have prevented development of these accumulated deficits, making treatment much more straightforward.

Early identification and treatment of the childhood-onset anxiety disorders is critical to preventing future disability and avoiding the scenario illustrated by Jon's case. There is overwhelming evidence supporting the efficacy of pharmacotherapy, particularly antidepressants, and CBT for the childhood-onset anxiety disorders. Furthermore, the evidence strongly supports the use of an SSRI and CBT in combination when both are available. Delaying treatment places the patient at increased risk of significant life impairment, symptom persistence, and development of additional psychiatric illnesses.

Received Oct. 10, 2013; revision received Feb. 26, 2014; accepted March 11, 2014 (doi: 10.1176/appi.ajp.2014.13101337). From Weill Cornell Medical College/New York Presbyterian Hospital, New York. Address correspondence to Dr. Mohatt (jum9071@med.cornell.edu).

Dr. Walkup has received grant support and speaking honoraria from the Tourette Syndrome Association, has served as a consultant on study design for Shire, and receives royalties from Oxford University Press and Guilford Press. The other authors report no financial relationships with commercial interests.

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Clinical Guidance: Treating Anxiety Disorders in Youths

Both cognitive-behavioral therapy (CBT) and serotonin reuptake inhibitor antidepressants (SSRIs) are effective treatments for separation, generalized, and social anxiety disorders in children and adolescents. The combination of CBT and an SSRI is superior to either alone. Comorbidity of childhood anxiety disorders is the rule rather than the exception. Mohatt et al. emphasize early intervention for childhood anxiety disorders to prevent impaired development and accumulated functional disability. Family education and training can reduce reinforcement of anxiety and avoidance, but parents with their own anxiety disorders or other psychopathology may need separate treatment.