Chapter 7

Social Phobia

DEBORAH C. BEIDEL
TRACY L. MORRIS
MARQUETTE W. TURNER

Sociability, a preference for affiliation and the companionship of others rather than solitude, appears to be a basic and consistently identified dimension of personality (Buss & Plomin, 1984; Thomas & Chess, 1977). Shyness, another commonly identified behavior, is a form of social withdrawal that is characterized by social evaluative concerns, particularly in novel settings (Rubin & Asendorpf, 1993). Thus sociability refers to the desire for social affiliation, whereas shyness refers to distress and inhibited behaviors in social interactions. Empirically, sociability and social withdrawal represent distinct traits (Cheek & Buss, 1981), are detected at a very early age, and are stable across periods of developmental change (Broberg, Lamb, & Hwang, 1990; Kagan, Reznick, Clarke, Snidman, & Garcia-Coll, 1984). Any individual's social behavior may be characterized according to these two dimensions. For example, those who are low on sociability may have little desire for and receive very little satisfaction from social interactions with others. When in social encounters, they may not interact but nonetheless show (or feel) very little emotional distress. Others may have a strong desire for social encounters but become so distressed when in the company of others that they are unable to engage in rewarding interpersonal interactions. These children, who profess a desire for social encounters but who become significantly distressed when doing so, may meet diagnostic criteria for social phobia.

The recognition of individual differences in sociability and the labeling of individuals as shy is not a new concept. Case descriptions of those who would meet criteria for social phobia have been documented since the time of Hippocrates (Marks, 1985). In 1970, Marks described the phenomenology of socially phobic adults, and in 1980 this diagnostic condition was codified in the American psychiatric nomenclature with the publication of the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III; American Psychiatric Association, 1980). However, despite this recognition, social phobia initially received very little attention from child researchers, possibly because fears in children are considered to be common (Barrios & O'Dell, 1989) and because of the belief that shy children subsequently "outgrow" this condition (e.g., Bruch, Giordano, & Pearl, 1986). Another possibility is that, although children who were fearful of social encounters could have been given the diagnosis of social phobia, other diagnostic conditions (listed in the section on children and adolescents in DSM-III-R; American Psychiatric Association, 1987) also contained criteria that tapped social-evaluative fears. Thus, until the past decade (Beidel, 1991; Beidel & Turner, 1988, Francis, Last & Strauss, 1992; Strauss & Last, 1993), social phobia in children as a distinct diagnostic entity was virtually ignored in the scientific literature.

SYMPTOM PICTURE

Social phobia is a marked and persistent fear of social situations characterized by pervasive social inhibition and timidity. Based on adult retrospective reports, the average age of onset is early to middle adolescence (Liebowitz, Gorman, Fyer, & Klein,1985; Turner, Beidel, Dancu, & Keys, 1986), but cases of social phobia have been documented in children as young as age 8 (Beidel & Turner, 1988; Schneier, Johnson, Hornig, Liebowitz, & Weissman, 1992). Last and her colleagues (Last, Perrin, Hersen, & Kazdin, 1992; Strauss & Last, 1993) reported an average age of onset ranging from 11.3 to 12.3 years, based on child and adolescent clinic-referred samples. Similarly, among a Canadian epidemiological sample, 12.7 years was reported as the median age of onset (DeWit, Ogborne, Offord, & MacDonald, 1999). Prior to DSM-IV (American Psychiatric Association, 1994), it was estimated that about 1% of the general child population suffered from social phobia (Anderson, Williams, McGee, & Silva, 1987; Kashani & Orvaschel, 1990). However, these early figures likely underestimate the prevalence of this disorder. As noted, the diagnostic schema of DSM-III-R allowed for children with social fears to be assigned this diagnosis. However, other disorders, such as avoidant disorder of childhood or overanxious disorder, also contained criteria addressing

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social fears. In light of the changes in DSM-IV (elimination of avoidant disorder of childhood and of social fears from the criteria for overanxious disorder, now included under generalized anxiety disorder), the prevalence rate of social phobia is no doubt higher. As one example, Kendall and Warman (1996) reported that, using DSM-III-R criteria, 18% of a clinic sample were diagnosed with social phobia, whereas using DSM-IV criteria, 40% of the sample were diagnosed with social phobia. Using a sample of German adolescents, the prevalence of social phobia was reported to be 1.6% of adolescents (ages 12–17; Essau, Conradt, & Petermann, 1999). It also is important to note that the prevalence of social phobia increases as children age (Essau et al., 1999; Kashani & Orvaschel, 1990); therefore, more adolescents than preadolescent children suffer from this disorder. The gender distribution for social phobia is approximately equal, and both European American and African American children show a similar clinical presentation (Beidel, Turner, & Morris, 1999).

Children with social phobia report distress in a broad range of interpersonal encounters. In a recent study of the psychopathology of childhood social phobia, Beidel and colleagues (1999) examined the range of situations reported as distressful for preadolescent children with this disorder. As depicted in Table 7.1, children endorse moderate to severe distress across a variety of social and performance settings. Strauss and Last (1993) reported a similar range of distressing situations plus a category called "school," referring to social distress in the school setting. In both studies, many of the situations describe specific behaviors performed in front of others (writing, eating, speaking) and more general conversational interactions. Currently, in DSM-IV, the generalized subtype is used for individuals who experience distress across a range of social settings. Among adults, about 70% of those with social phobia are of the generalized subtype (Turner, Beidel, & Jacob, 1994). Among preadolescent children, 89% of one sample had the generalized subtype (Beidel et al., 1999). Among an adolescent sample (Hofmann et al., 1999), 45.5% were judged as the generalized subtype, although this study used a numerical count of situations, which is not the usual practice for making this type of determination.

Children with social phobia have reported that distressful events occur approximately every other day, significantly more often than for normal controls (Beidel, 1991). Consistent with Strauss and Last's (1993) observation that school is a fearful setting, 60% of the distressing events occurred at school. Within this setting, the most common distressing event was an unstructured peer encounter (e.g., having to talk to another child), followed by taking tests, performing in front of others, and reading aloud. Hofmann and colleagues (1999) reported that adolescents most often endorsed the informal speaking/interaction tasks as their most fear-provoking situations. When these events occurred, the children with social phobia were signifi-

TABLE 7.1. Types of Social Situations Feared by Children with Social Phobia

Situation	% Endorsing at least moderate distress
Reading aloud in front of the class	71
Musical or athletic performances	61
Joining in on a conversation	59
Speaking to adults	59
Starting a conversation	58
Writing on the blackboard	51
Ordering food in a restaurant	50
Attending dances or activity nights	50
Taking tests	48
Parties	47
Answering a question in class	46
Working or playing with other children	45
Asking the teacher for help	44
Physical education class	37
Group or team meetings	36
Having a picture taken	32
Using school or public bathrooms	24
Inviting a friend to get together	24
Eating in the school cafeteria	23
Walking in the hallway/hanging out at lockers	16
Answering or talking on the telephone	13
Eating in front of others	10

cantly more likely to respond negatively and to report higher levels of subjective distress. Furthermore, a number of these negative coping responses (8%) involved behavioral avoidance (Beidel, 1991). Interestingly, avoidance behaviors also may increase with increasing age, as Essau and her colleagues noted that 65.4% of their adolescent sample with significant social fears reported at least occasional social avoidance. As noted, although formal speaking situations are the most universally feared, the most frequent distressful encounter is interpersonal conversation. Thus, in addition to performance situations, clinicians need to be attuned to the potentially anxiety-producing consequences of interpersonal encounters.

Although social phobia can be diagnosed in children, adolescents, and adults, the disorder does not manifest itself identically across different developmental stages. In a comparison of the epidemiological and clinical presentations of social phobia in adults and children, Beidel and Turner (1993) reported similar prevalence rates. In addition, similar coexisting diagnoses (generalized anxiety disorder in adults, overanxious disorder in children, and specific phobia in both adults and children) also were common among individuals with social phobia (Beidel & Turner, 1993; Last,

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additional comorbid conditions. Amor
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(6%), obsessive–compulsive disorder (
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Strauss, & Francis, 1987; Turner, Beidel, Borden, Stanley, & Jacob, 1991). Both adults and children endorsed distress across a broad range of potentially fearful situations. Formal speaking was the most commonly endorsed event, and the physical complaints characteristic of socially phobic adults also were common for children with this disorder. However, when in anxiety-producing situations, children did not report the occurrence of negative cognitions with the same frequency as adults.

When in socially distressful situations, children with social phobia endorse a range of physical symptoms that include heart palpitations (70.8%), shakiness (66.7%), flushes and chills (62.5%), sweating (54.2%), and nausea (54.2%; Beidel, Christ, & Long, 1991). With respect to other clinical correlates, children with social phobia endorse high trait anxiety, dysphoria or depression, a restricted range of social situations, and loneliness (Beidel et al., 1999). Additionally, several studies have documented the existence of poor social skills among this population (Beidel et al., 1999; Spence, Donovan, & Brechman-Toussaint, 1999). Furthermore, a substantial percentage of children and adolescents with social phobia present with additional comorbid conditions. Among preadolescent children, 60% of one sample had a comorbid disorder, including generalized anxiety disorder (10% of the sample), attention-deficit/hyperactivity disorder (10%), specific phobia (10%), selective mutism (8%), separation anxiety disorder (6%), obsessive–compulsive disorder (6%), depression (6%), panic disorder (2%), and adjustment disorder with anxious and depressed mood (2%; Beidel et al., 1999) . Among adolescents with this disorder, 41.2% were reported to have a somatoform disorder, 29.4% had a depressive disorder, and 23.5% had a substance abuse disorder (Essau et al., 1999).

Although functional interference is not necessary in order to assign a diagnosis of social phobia, the disorder often results in significant immediate and long-term sequelae. Functional impairment includes depression (Last & Perrin, 1993), social isolation and loneliness (Beidel et al., 1999), and school refusal (Last, Hersen, Kazdin, & Orvaschel, 1991). Additionally, Last and Perrin (1993) noted that among anxious children, social phobia was much more likely to precede the onset of depression than vice versa. Among adolescents with this disorder, Essau and colleagues (1999) reported that 60% reported impairment at school, 26.7% endorsed impairment in leisure activity, and 53.3% reported impairment in social contacts. Conduct problems and oppositional behaviors have been reported among adolescents with social phobia (Clark, 1993), as has substance abuse and dependence (Clark, 1993; DeWit, MacDonald, & Offord, 1999; Essau et al., 1999).

Those with social phobia exhibit deficient social skills. Among preadolescent children, those with social phobia were judged by independent observers to have significantly poorer social skills both in social inter-

actions and when reading in front of a small audience than do age-matched, nonanxious peers (Beidel et al., 1999). These children also were judged to be significantly more anxious when engaged in those situations. Similar findings were reported by Spence and colleagues (1999). In that study, children with social phobia showed significant social skill deficits (when compared with children without a disorder). Results were consistent across self-report and parental report of social skills and assertiveness, as well as by direct observation in a role-play situation. Furthermore, some preliminary data from our clinic reveal that socially anxious children are less likely than nonanxious peers to engage in social activities such as conversing with others, attending social events, and participating in class (Ferrell, Beidel, & Turner, 2001) and that these differences become more pronounced between the ages of 10 and 11–12. As noted in the upcoming section on Etiology, social reticence and anxiety may prevent engagement in social interactions (Rubin, LeMare, & Lollis, 1990), which in turn prevents the acquisition of social skills. This, in turn, can lead to further avoidance and distress. Such a developmental pathway would suggest that interventions would have to include attention to the acquisition of social skills, as well as the elimination of social distress.

NATURAL HISTORY

No studies of the long-term outcome of social phobia currently exist, perhaps because until recently shyness in children was considered a temporary condition. Retrospective studies of college students note that the majority of those who reported being shy as children had outgrown their shyness by the time they reached adulthood. Similarly, and more recently, a retrospective study found that half of those with a history of social phobia recovered from the disorder (DeWit, Ogborne, et al., 1999). In this study, the strongest predictor was a later age of onset of social fears. In fact, those who reported an onset of social phobia after the age of 13 were 8.59 times more likely to recover from the disorder than those who reported the onset prior to the age of 7. These results are consistent with earlier retrospective findings of Davidson (1993), who reported that age of onset prior to age 11 predicted nonrecovery in adulthood.

As noted, these studies are based on retrospective reports of adults with this disorder. To date, there are no longitudinal studies beginning with children who are diagnosed with social phobia. However, 25–30-year longitudinal studies of shy children (Caspi, Edler, & Bem, 1988; Kerr, Lambert, & Bem, 1996) suggest that shy boys marry later and become parents later than nonshy boys, whereas shy girls had a lower likelihood of attending college than nonshy girls. Furthermore, 42% of children consistently

rated as shy had anxiety problems in ac
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ETIOLO

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Direct conditioning experiences ar
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rated as shy had anxiety problems in adolescence, as rated by behavior-problem checklists, in comparison with only 11% of children never rated as shy (Prior, Smart, Sanson, & Oberklaid, 2000). Similarly, long-term follow-up studies of behaviorally inhibited infants and toddlers found that (1) social phobia was more frequent among inhibited children than among uninhibited children (Kagan, 1997) and (2) inhibited children were more likely to have a less positive and active social life as adults, a later move away from the family of origin, and, for males, higher negative emotionality (Gest, 1997). In summary, retrospective studies suggest that some individuals with social phobia may overcome their condition, but this is not likely to occur if there is an early age of onset. Although no prospective studies of children with social phobia exist, prospective studies of children characterized as shy or behaviorally inhibited suggest that a proportion of them will develop anxiety during adolescence. However, to date it is unclear how to determine which children are likely to develop more severe disorders.

ETIOLOGY

Etiological factors are usually divided into one of two groups: psychological factors and biological factors. Within the psychological dimension, three pathways are considered: direct conditioning, social learning (modeling), and information transfer. In one of the first studies to look at the onset of social phobia, Ost (1985) reported that 58% of those with the diagnosis attributed its onset to a direct traumatic conditioning event. More recently, among a sample of adults with social phobia, 44% reported a conditioning experience that marked the onset or exacerbation of social phobia (Stemberger, Turner, Beidel, & Calhoun, 1995). Interestingly, 20% of adults without a history of social phobia also reported a history of traumatic conditioning events, yet they did not develop social phobia. When examined by social-phobia subtype, 40% of those with the generalized subtype and 56% of those with the nongeneralized (specific) subtype reported traumatic conditioning events, but only the rate for the specific subtype was significantly higher than the rate for the normal control group. These data illustrate an important point. First, a sizeable number of individuals with social phobia cannot recall a specific event that precipitated the onset of their disorder. Second, 1 out of 5 normal controls reported experiencing a traumatic social event, yet never developed social phobia. Thus, although conditioning experiences may play a role, they do not appear necessary or sufficient for the onset of the disorder.

Direct conditioning experiences are only one of the hypothesized psychological pathways to the onset of the disorder. Several retrospective

reports of adults with social phobia suggest that they had at least one parent who was shy, reticent, or avoidant of social interactions (Brown & Lloyd, 1975). It is important to note that, usually, data from family studies are used to argue for a biological etiology. However, Mineka and her colleagues (e.g., Mineka & Cook, 1988) have clearly demonstrated that emotion, as well as avoidant behavior, can be acquired through behavioral observation. Thus it is equally as likely that children might acquire these shy and reticent behaviors through modeling (social learning) as it is that they are simply a result of direct genetic transmission (see Masia & Morris, 1998).

The least studied form of learning with respect to social fears (and fears in general) is information transfer (Beidel & Turner, 1998). Ost (1985) reported that 3% of adults with social phobia reported that their fears were acquired through information transfer. Based on retrospective data supplied by adults with social phobia, childhood histories suggest a pattern of familial communication characterized by concern about the opinions of others, isolation of the child, and emphasis on shame (Bruch & Heimberg, 1994; Bruch, Heimberg, Berger, & Collins, 1989). However, because of their retrospective nature and the fact that these individuals were suffering from a disorder, the veracity of these data may be affected by time or the perception of an individual with a disorder. More recently, observational studies of parent–child interaction suggest that parents may play a role in fostering fear and avoidance behavior in children (Greco & Morris, 2002; Turner, Beidel, Roberson-Nay, & Tervo, 2003). Continued observational investigation is needed to further elucidate patterns of interaction involved in the development of specific forms of anxiety.

In addition to hypothesized psychological etiologies, biological factors also may play a role in the onset of social phobia. Torgersen (1983) reported that the proband-wise concordance rate for any anxiety disorders category (except GAD) was higher for monozygotic (MZ) than dizygotic (DZ) twins (34% vs. 17%, respectively) but that no co-twin had the same anxiety disorder as the proband. Andrews, Stewart, Allen, and Henderson (1990) reached similar conclusions. Kendler and his colleagues (Kendler et al., 1992) reported that the familial aggregation of agoraphobia, social phobia, situational phobia, and specific phobia was consistent with "phobia proneness," with heritability estimates indicating that "genetic factors play a significant but by no means overwhelming role in the etiology of phobias" (Kendler et al.,1992, p. 279). Thus the data did not support a one-to-one genetic transmission.

In a study of the family history of children with anxiety disorders (Last et al., 1991), social phobia and avoidant disorder were significantly more prevalent among the first-degree relatives of anxious children than among the relatives of the normal controls, but there was no difference in prev-

alence rates for these disorders between g
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TREATME

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Cognitive-Behavioral Treatment

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alence rates for these disorders between groups with anxiety and with attention-deficit/hyperactivity disorder (ADHD). A recently published study (Fyer, Mannuzza, Chapman, Liebowitz, & Klein, 1993) indicated a significantly increased risk for social phobia in the adult relatives of adult patients with social phobia compared with adult relatives of normal controls (16% vs. 5%). More recently, rates of psychopathology in the offspring of parents with social phobia have been examined (Mancini, Van Ameringen, Szatmari, Fugere, & Boyle, 1996). Results indicated that 49% of the offspring had at least one DSM-III-R anxiety disorder, most commonly overanxious disorder (30%), social phobia (23%), and separation anxiety disorder (19%). However, this was an uncontrolled family study, and those who conducted assessments on the children were not blind to parental diagnosis. Thus these data must be interpreted cautiously.

TREATMENT

The extant treatment literature for youth with social anxiety disorder is quite sparse. That is, few studies have focused specifically on the psychosocial or pharmacological treatment of social phobia in childhood. Several studies have included children with social phobia as part of a larger sample of children with various anxiety disorders. Additionally, several investigations have included children meeting DSM-III-R diagnostic criteria for avoidant disorder, since subsumed under social phobia in DSM-IV. Because so few studies have included samples of children with only social phobia, all of the studies noted previously are included as part of this review.

Cognitive-Behavioral Treatment

Initially, most studies focused on samples of children who had one of several different anxiety disorders. These treatments were broadly based and, as noted, were used to address generalized anxiety disorder (overanxious disorder), avoidant disorder (social phobia), or separation anxiety disorder. In a series of studies, Kendall and his colleagues (Flannery-Schroeder & Kendall, 2000; Kendall, 1994; Kendall et al., 1997) reported that children treated with cognitive-behavioral treatment (CBT), either individually or in groups, had significantly lower general anxiety and enhanced coping abilities and improved on parents' ratings of anxiety, depression, and social competence compared with controls. Treatment gains were maintained at 3.35-year follow-up (Kendall & Southam-Gerow, 1996). However, the percentage of children in the sample with social phobia was quite small, and, in some cases, children's social functioning did not improve (e.g., social anxiety, friendships, and social activities; Flannery-Schroeder & Kendall,

2000), suggesting that this intervention, although effective for anxiety, may not address unique aspects of social phobia.

Similar to the research of Kendall and his colleagues, Silverman and her colleagues examined the effectiveness of group and individual CBT for children with various anxiety disorders (Silverman, Kurtines, Ginsburg, Weems, Lumpkin, & Carmichael, 1999); 27% of the sample had a primary diagnosis of social phobia. Results indicated that 64% of children in group cognitive-behavioral treatment (GCBT) no longer met criteria for their primary diagnosis at posttreatment compared with 13% of wait-list controls. Silverman's individual exposure-based CBT (Silverman, Kurtines, Ginsberg, Weems, Rabian, & Serafini, 1999) also was compared with an active control condition. Ten percent of the sample had a primary diagnosis of social phobia. Based on the small proportion of children with social phobia in this sample, outcome analyses were conducted for the total sample and for children with simple phobia only. Findings revealed that although the active treatment was effective, even the active control group produced meaningful changes in phobic symptoms at posttreatment and at follow-up. Although the studies of Kendall and colleagues and Silverman and colleagues have some implications for the treatment of childhood social phobia, the results must be interpreted cautiously. The samples included only a few children with social phobia or DSM-III-R avoidant disorder, thus it is difficult to determine the utility of these treatments for children and adolescents with social phobia.

The first treatment program designed specifically for socially phobic youths (in this case, adolescents) is termed Group Cognitive-Behavioral Treatment for Adolescents (GCBT-A). The initial publication was a series of 5 case studies (Albano, Marten, Holt, Heimberg, & Barlow, 1995). GCBT-A consists of psychoeducation, skill building (such as social skills, problem solving, and assertiveness training), cognitive restructuring, and behavioral exposure to socially distressing or fearful situations. At posttreatment, 4 of the 5 adolescents were judged to have only subclinical levels of social phobia, and 1 year later, 4 did not meet DSM-III-R diagnostic criteria for social phobia. More recently, Hayward and colleagues (2000) compared GCBT-A to a no-treatment control group. At posttreatment, 45% of those treated with GCBT-A did not meet criteria for social phobia, compared with 4% in the no-treatment control group. However, considerable residual social-phobia symptoms remained at posttreatment, and 1 year later, there were no significant group differences in the frequency of social phobia diagnosis or in mean scores on a self-report social phobia inventory.

Spence, Donovan, and Brechman-Toussaint (2000) examined the effectiveness of including a social-skills-training component in their CBT for children with social phobia. This study also examined the role of parental

involvement and, thus, is discussed in a
controlled trial of behavioral treatment
social phobia, Beidel, Turner, and Mc
component behavioral treatment for cl
active, nonspecific intervention. Sixty-se
signed to either the active treatment S
Children (SET-C), or to an active nonsp
SET-C is a multifaceted behavioral trea
skills training, peer-generalization experie
sure. At posttreatment, 67% of those tr
criteria for social phobia, compared wit
Furthermore, in terms of clinical significa
were less anxious, less avoidant of socia
social interactions, and engaged in more
children, parents, and independent eval
dren treated with SET-C maintained the
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Finally, Masia, Klein, Storch, and
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social skills training and *in vivo* expos
significant improvement on clinician seve
der but no significant change in the adol
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preliminary. However, if replicated, acce
maximized by conducting it in a group

Pharmacological Treatment

Although several classes of medication h
ness in children with social phobia or r
mutism, selective serotonin reuptake inh
ered the first-line pharmacological ag
include their high tolerance levels, minim
blood-level monitoring (Kratochvil, Kut
& Grun, 1998; Velosa & Riddle, 2000)
fluvoxamine (Luvox), fluoxetine (Proza
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Dummit, Klein, Tancer, Asche, & Marti
search Units of Pediatric Psychophar
Group, 2001). In general, only minimal,

involvement and, thus, is discussed in a later section. In the only other controlled trial of behavioral treatment for preadolescent children with social phobia, Beidel, Turner, and Morris (2000) compared a multicomponent behavioral treatment for childhood social phobia with an active, nonspecific intervention. Sixty-seven children were randomly assigned to either the active treatment Social Effectiveness Therapy for Children (SET-C), or to an active nonspecific control, called Testbusters. SET-C is a multifaceted behavioral treatment that includes group social skills training, peer-generalization experiences, and individual *in vivo* exposure. At posttreatment, 67% of those treated with SET-C no longer met criteria for social phobia, compared with 5% for the Testbusters group. Furthermore, in terms of clinical significance, children in the SET-C group were less anxious, less avoidant of social situations, more skillful in their social interactions, and engaged in more social discourse, as reported by children, parents, and independent evaluators. At 3-year follow-up, children treated with SET-C maintained their improved status. The results of this investigation are notably encouraging because, unlike in previous investigations, SET-C was compared with an active, nonspecific control.

Finally, Masia, Klein, Storch, and Corda (2001) investigated a 14-session group treatment program for 6 adolescents with social anxiety disorder. Conducted in the school setting, the treatment program included social skills training and *in vivo* exposure sessions. The results showed significant improvement on clinician severity ratings of social anxiety disorder but no significant change in the adolescents' self-reports of social fears. The pilot nature of this study means that the results must be considered preliminary. However, if replicated, accessibility of the intervention may be maximized by conducting it in a group setting.

Pharmacological Treatment

Although several classes of medication have been studied for their effectiveness in children with social phobia or related conditions such as selective mutism, selective serotonin reuptake inhibitors (SSRIs) are usually considered the first-line pharmacological agent. Three advantages of SSRIs include their high tolerance levels, minimal side effects, and lack of need for blood-level monitoring (Kratochvil, Kutcher, Reiter, & March, 1999; Pine & Grun, 1998; Velosa & Riddle, 2000). The most common SSRIs include fluvoxamine (Luvox), fluoxetine (Prozac), sertraline (Zoloft), and paroxetine (Paxil). Among the eight published trials, six have evaluated SSRIs (Birmaher et al., 1994; Black & Uhde, 1994; Compton et al., 2001; Dummit, Klein, Tancer, Asche, & Martin, 1996; Fairbanks et al., 1997; Research Units of Pediatric Psychopharmacology [RUPP] Anxiety Study Group, 2001). In general, only minimal, if any, side effects (headaches, nau-

sea, drowsiness, insomnia, jitteriness, and stomachaches) have been reported (Velosa & Riddle, 2000). A more severe side effect, disinhibition, which required the discontinuation of fluoxetine in 2 children, was reported in one study (Dummit et al., 1996).

Similar to the research on psychosocial treatments, many of the published pharmacological studies used samples of children who had a variety of different anxiety disorders. One of the earliest publications was not a controlled trial but a retrospective chart review of 21 children and adolescents treated with fluoxetine for overanxious disorder, avoidant disorder, and social phobia. Outcome data were based on prospective reports from attending nurses and patients' mothers. The results indicated that 81% of the children exhibited marked improvement in anxiety symptomatology, benefits that were achieved after 6–8 weeks of treatment. Furthermore, the results were consistent even after controlling for the presence and severity of depression. Of course, these results should be interpreted cautiously, given the biases associated with retrospective chart review.

Another open trial of fluoxetine examined its effects on 16 child outpatients with various anxiety disorders (Fairbanks et al., 1997). The children who participated in this trial had not responded to psychotherapy. Mean fluoxetine dose for children was 24 mg per day, and the mean dose for adolescents was 40 mg per day. Similar to findings from the Birmaher et al. (1994) study, treatment gains were evident after 6–9 weeks of treatment with fluoxetine, as measured by change scores on the Clinical Global Impression Scale. However, the outcome of this study is limited by the absence of blind evaluation and the lack of randomized procedures. Overall, children with only one anxiety disorder responded to lower doses of fluoxetine than did children with comorbid disorders. Only 10 children with social phobia were included in the trial; 80% were rated as clinically improved. Improvement rates were similarly high for children with other types of anxiety disorders. However, 62.5% of all children (not merely those with social phobia) still met diagnostic criteria for an anxiety disorder at posttreatment. Thus, although clinically improved, many children were still quite impaired at the end of treatment. Because of the high number of comorbid diagnoses among the children in this sample and the nonblind nature of the trial, only limited conclusions for the efficacy of fluoxetine for childhood social phobia can be drawn from this study.

Two other fluoxetine trials (one open and one double blind) have been conducted with selectively mute children, who shared similarities with children with social phobia. In a 9-week open trial, 21 children were treated with an average daily dose of 28.1 mg of fluoxetine (Dummit et al., 1996). All children referred for this trial met criteria for either avoidant disorder (N = 18) or social phobia (N = 3), in addition to selective mutism. The results indicated that 76% of the sample showed decreased anxiety and increased speech, as evaluated by psychi
encouraging, these data are limited, as a
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only double-blind study of fluoxetine to
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without selective mutism.

Fourteen children and adolescents
an 8-week open trial of sertraline (Com
the children was 13.57 years, and the
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responders. Overall, the group showed
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In the largest controlled trial of S
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Two clinical trials examined alpr
ety. In an initial 6-week open trial, 2
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creased speech, as evaluated by psychiatrists at posttreatment. Although encouraging, these data are limited, as assessment of clinical improvement was made by the treating psychiatrist, not an independent evaluator. In the only double-blind study of fluoxetine to date (Black & Uhde, 1994), selectively mute children ages 6–12 years participated in a 12-week trial (average dose 21.4 mg per day). All children also had comorbid diagnoses of either social phobia or avoidant disorder. At posttreatment, parents rated the children treated with fluoxetine as significantly improved, compared with the children in the placebo group. However, clinician and teacher reports did not reveal any significant group differences. Overall, the authors reported that treatment effects were modest. Most of the children treated with fluoxetine were still symptomatic at the end of the trial. Thus the only placebo-controlled trial resulted in only minimal support for fluoxetine efficacy in selective mutism, and, by extension, social phobia and avoidant disorder. Furthermore, the results of these studies with selective mutism do not address the treatment of children with social phobia but without selective mutism.

Fourteen children and adolescents with social phobia participated in an 8-week open trial of sertraline (Compton et al., 2001). The mean age of the children was 13.57 years, and the mean dosage of sertraline was 123 mg. At posttreatment, 36% were judged as responders and 29% as partial responders. Overall, the group showed significant decreases on self-report measures of social anxiety. It is notable that for this study, a behavioral assessment test was used as part of the outcome for the pharmacological treatment trial. In both tasks (talking about themselves in front of a small audience and having a one-on-one conversation with a confederate), the children's distress was significantly lower at posttreatment. Of course, a randomized controlled trial is necessary in order to fully determine the efficacy of sertraline for this population.

In the largest controlled trial of SSRI treatment for childhood anxiety disorders to date, 128 children (ages 6–17) were randomly assigned to either 8 weeks of fluvoxamine or placebo (RUPP Anxiety Study Group, 2001). The average maximum dose of fluvoxamine was 300 mg per day. As with other studies cited, children in the sample had primary diagnoses of social phobia, separation anxiety disorder, or generalized anxiety disorder. Fluvoxamine demonstrated superior anxiety symptom reduction, as measured by the Pediatric Anxiety Rating Scale. According to the preestablished treatment-responder criteria, 76% (48 of 63) of those treated with fluvoxamine showed marked clinical improvement, in comparison with 29% (19 of 65) of children in the placebo group.

Two clinical trials examined alprazolam in children with social anxiety. In an initial 6-week open trial, 20 children (ages 8.8–16.5) with overanxious and avoidant disorder were treated with 0.5 mg to 1.5 mg of

alprazolam daily. Only 6 children were rated as moderately improved in terms of overall clinical status, even though specific ratings of anxiety by both clinicians and parents suggested significant improvement (Simeon & Ferguson, 1987). Based on these findings, a 4-week double-blind controlled trial with 30 children (ages 8.4–16.9) diagnosed with either overanxious disorder or avoidant disorder was conducted. Average daily dose of alprazolam was 1.57 mg. There were no group differences at posttreatment. Thus both studies suggest that alprazolam response is low, at least over 4–6 weeks of treatment.

Benzodiazepines should be considered for the treatment of childhood anxiety disorders only after all other medications have failed to show improvement in symptomatology (Kratochvil et al., 1999; Pine & Grun, 1998; Velosa & Riddle, 2000), primarily because the side effects tend to be more serious and more common. Side effects include drowsiness, irritability, oppositional behavior, disinhibition, fatigue, nausea, headaches, ataxia, slurred speech, diplopia, and tremors (Kratochvil et al., 1999; Velosa & Riddle, 2000). The incidence and prevalence of benzodiazepine dependency in children is unknown, but because of the known risk of dependence in adults, these drugs are best used for the short term (Velosa & Riddle, 2000).

Family Treatment

Using the intervention developed by Kendall and his colleagues (Kendall, 1994), Barrett and colleagues (Barrett, Dadds, & Rapee, 1996) evaluated the addition of a family component. Seventy-nine children (27% with social phobia), ages 7–14, were randomly assigned to either 12-week CBT, CBT plus family management, or a wait-list control group. The family intervention included both parents and focused on training in reinforcement and contingency management strategies, coping techniques to deal with parental emotionality, and communication and problem-solving skills. Based on the presence or absence of a diagnosis at posttreatment, CBT and CBT plus parental involvement were effective (in comparison with the wait-list control condition). However, the CBT-plus-family-involvement condition was significantly superior to CBT alone (84% vs. 57% did not have a diagnosis at posttreatment, respectively) and to the wait-list control condition (26%). Among the children with social phobia, 61.5% of those in the active treatment groups no longer had a diagnosis at posttreatment. Interestingly, younger children (ages 7–10) responded better to the combined condition than to CBT alone (100% vs. 55.6% without a diagnosis, respectively). The percentage of younger children with social phobia was not reported.

Following this study, Barrett (1998) examined the effectiveness of CBT

plus family intervention when presented in
were randomly assigned to GCBT, GCBT
wait-list control condition. Results indicate
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Another controlled trial using only
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plus family intervention when presented in a group format. Sixty children were randomly assigned to GCBT, GCBT plus family involvement, or a wait-list control condition. Results indicated that 55.9% of children in the GCBT group did not meet diagnostic criteria at posttreatment, compared with 70.7% in the GCBT-plus-family-management condition, a nonsignificant difference. In fact, there were few significant differences between active treatment conditions at posttreatment. However, over follow-up, children in the GCBT-plus-family-management condition continued to improve when compared with children in the GCBT condition. However, because only 4 of the 60 children had primary diagnoses of social phobia (4% of children also had comorbid diagnoses of avoidant disorder), the effectiveness of this intervention specifically for children with social phobia is unclear. Finally, a 6-year follow-up of children treated with CBT found that treatment gains made at 12-month follow-up were maintained (Barrett, Duffy, Dadds, & Rapee, 2001). Among the sample of 52 patients who were able to be contacted 6 years later, 10 had social phobia at pretreatment. Among those 10 children, 9 (90%) did not meet criteria for a diagnosis 6 years later.

Tracy and colleagues (1998) compared cognitive-behavioral group treatment of social phobia for adolescents (CBGT-A) with CBGT-A plus parental involvement (CBGT-A/P) in 27 clinically referred adolescents. Parental involvement included taking part in four treatment sessions, receiving exposure to the theoretical rationale, skill-building sessions, and instructions in assisting the adolescent in exposure sessions. Both interventions resulted in significant improvement in social anxiety symptoms, but no change on measures of general anxiety and depression was apparent. Furthermore, there was no additive effect of parental involvement. These findings appear consistent with those of Barrett and colleagues (1996), who found that parental involvement was more effective with preadolescent children. Given that adolescents are more physically, mentally, and emotionally mature, parental involvement in the intervention may be less necessary than it is for preadolescent children.

Another controlled trial using only children with social phobia examined group CBT with parental involvement (CBT-PI), group CBT with no parental involvement (CBT-PNI), and a wait-list control condition (Spence et al., 2000). CBT included social skills training, relaxation techniques, social-problem solving, positive self-instruction, cognitive challenging, and exposure to social situations. The CBT-PI condition also included a component that taught parents to properly model and reinforce children's use of newly acquired social skills and to encourage children's participation in social activities outside of sessions. It is important to note that this parental intervention is different from that of Barrett and colleagues (1996) but similar to that of Tracy and colleagues (1998). Whereas Barrett and colleagues

focused primarily on parental emotional concerns and issues, the intervention of Spence and colleagues (2000), like that of Tracy and colleagues (1998), focuses specifically on helping parents deal with their children's difficulties. At posttreatment, parental report indicated that 87.5% of the CBT-PI group and 58% of the CBT-PNI group no longer met diagnostic criteria for social phobia, compared with 7% of the wait-list control group. Similar results were reported for child self-report measures of social anxiety symptoms. Although there was a trend toward greater improvement in children in the CBT-PI group, differences were not statistically significant. Effects were maintained at 6- and 12-month follow-up. Additionally, both treatment conditions showed improvement in social skills from pretreatment to 12-month follow-up, based on parent reports, but no significant differences were found between the three groups on children's total number of peer interactions, on parental reports of competence with peers, or on independent observer ratings of assertiveness during behavioral observation from pre- to posttreatment. This finding suggests that the intervention was quite effective for social anxiety symptoms but did not substantially affect social behavior.

FUTURE DIRECTIONS

Although our understanding of social phobia has advanced significantly across the past two decades, much work remains to be done. Prospective studies of children with social phobia are needed in order to advance our knowledge of long-term consequences and phenomenological changes in symptom presentation that may occur across developmental transitions. Little is known about the day-to-day social experience of children with social phobia. We must conduct more complex daily diary studies, analogue social-skills assessment, peer ratings, and observations of interaction in multiple settings in natural environments to obtain a more comprehensive understanding of the antecedents, consequences, and corollaries of social anxiety.

Several models have been proposed to guide research on etiological processes in child anxiety. Research on the developmental psychopathology of social anxiety is expanding at an accelerated pace, particularly in terms of family variables. However, as yet few studies have investigated the mechanisms of information transfer. Patterns of familial communication must be examined in laboratory and naturalistic settings, with a goal toward expanding the limited roster of variables that have been investigated thus far (e.g., warmth, control). With few exceptions, research on parent–child interaction and child psychopathology has included mothers as the sole parental representative. Greater effort must be made to include fathers in

all research investigations. Furthermore, si
have been ignored. If we are to attempt to u
they relate to social anxiety, we must attemp
family whenever possible.

The literature on the treatment of social
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For instance, parents might be trained to as
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SUMMA

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all research investigations. Furthermore, sibling relationships practically have been ignored. If we are to attempt to understand family dynamics as they relate to social anxiety, we must attempt to include all members of the family whenever possible.

The literature on the treatment of social phobia in children is in a more advanced stage than that on etiological processes. Exposure has been identified as a prime effective, perhaps necessary, component of successful treatment. It is important that we work to educate physicians, clinicians, and school counselors as to the positive benefits that may be obtained through short-term behavior therapy. Future research should investigate modes of delivery of exposure in an effort to provide relevant treatment guidelines. For instance, parents might be trained to assist with *in vivo* exposure activities, given limits on the out-of-office work that may be conducted under therapist direction. No matter the form of intervention—behavioral, pharmacological, or combined—long-term posttreatment follow-up investigation is needed to more thoroughly evaluate treatment efficacy. Likewise, the potential necessity for—and optimal timing of—booster sessions warrants examination. Importantly, it is time for treatment research to move beyond the specialty clinic. Transportability studies are greatly needed. We must find ways to export effective treatments to rural and school settings to reach the greatest number of children. Additionally, school settings would seem the optimal entry point for efforts directed at screening and early intervention.

SUMMARY

Since the release of the first edition of this book, significant advances have been made in the assessment and treatment of social phobia in children. In an effort to expand our understanding of the disorder, research on factors related to the development and maintenance of social phobia is receiving increased attention. Temperament, parent–child interaction, peer socialization, and traumatic conditioning all have been implicated in the development of social phobia, although it is widely acknowledged that the disorder results from the interplay of multiple factors.

As social phobia largely has been found to be an early-onset, comorbid, and chronic disorder, early detection and intervention could help avert a lifetime of personal distress and social maladjustment. The first controlled behavioral and pharmacological treatment trials recently have been conducted. A manualized multicomponent treatment program has been developed and is being made available to therapists, thus expanding the number of competent professionals available to provide effective treatment for children with social phobia. Behavioral interventions have been ex-

panded to include parents and peers, attesting to increased developmental sensitivity to the needs of children and adolescents. Undoubtedly, the next decade will give witness to continued acceleration in the empirical exploration of the nature of social phobia and the means by which to remediate the disorder.

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