

Psychopathology of Childhood Social Phobia

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ABSTRACT

Objective: To describe the clinical syndrome of social phobia in preadolescent children. **Method:** Fifty children with *DSM-IV* social phobia were assessed with semistructured diagnostic interviews, self-report instruments, parental and teacher ratings, a behavioral assessment, and daily diary recordings. In addition, the behaviors of these children were compared with those of a sample of normal peers. **Results:** Children with social phobia had a high level of general emotional over-responsiveness, social fear and inhibition, dysphoria, loneliness, and general fearfulness. Sixty percent suffered from a second, concurrent disorder. Socially distressing events occurred quite frequently and were accompanied by maladaptive coping behaviors. In addition, children with social phobia had significantly poorer social skills. There were few differences based on gender or race. **Conclusions:** Children with social phobia suffer pervasive and serious functional impairment. In addition, the clinical presentation suggests specific avenues for psychosocial interventions. *J. Am. Acad. Child Adolesc. Psychiatry*, 1999, 38(6):643–650. **Key Words:** social phobia, gender, race, comorbidity, functional impairment.

Although shyness and social isolation have been studied by developmental and social psychologists, only during the past 2 decades have clinical researchers addressed the nature and treatment of maladaptive social fears. Social phobia was first included in the *DSM-III* (American Psychiatric Association [APA], 1980) and its revision, *DSM-III-R* (APA, 1987). Neither publication restricted this diagnosis to adults, but social phobia rarely was diagnosed in children. One probable reason was that the child and adolescent section of the diagnostic manuals listed 2 very similar conditions. Avoidant disorder of childhood described children with social-evaluative fears and sometimes, social avoidance. Overanxious disorder also contained criteria that were social-evaluative in nature. Because of the substantial symptom overlap, children with social fears received various diagnostic labels (e.g., Beidel, 1991; Francis et al., 1992).

Figures based on *DSM-III-R* criteria placed the population prevalence of social phobia in children at approx-

imately 1%. However, the rate may rise dramatically because of the diagnostic revisions in *DSM-IV* (APA, 1994). Kendall and Warman (1997) reported that 18% of their clinic sample met *DSM-III-R* criteria for social phobia, whereas 40% of the same sample met *DSM-IV* criteria. Similarly, if rates for *DSM-III-R* social phobia and avoidant disorder were combined (e.g., McGee et al., 1990), the population prevalence rate for social phobia would be 3% to 4%. Therefore, a significant number of children are affected by this disorder.

Studies describing the clinical features of childhood social phobia and comparisons with peers without psychiatric disorders are virtually nonexistent. Beidel (1991) reported that children with *DSM-III-R* social phobia could be differentiated from normal peers on the basis of higher trait anxiety, lower perceptions of cognitive competence, higher distress ratings during a behavioral task, higher ratings of daily social distress, and negative coping strategies. Although Beidel (1991) highlighted some important considerations, to date there are no studies addressing *DSM-IV* childhood social phobia.

This study examined the clinical syndrome of *DSM-IV* social phobia in preadolescent children and compared aspects of their functioning to that of children without psychiatric disorders. This study also examined racial or gender differences in clinical presentation. In addition to traditional diagnostic interviews and self-report inventories, a direct assessment of social behavior

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was undertaken. No study to date has assessed directly social interaction skills, even though social skills deficits have been reported in adults with generalized social phobia (Turner et al., 1994) and in socially isolated children (e.g., Rubin et al., 1990).

METHOD

Subjects

The patient sample consisted of 50 children referred for treatment of social phobia to the Medical University of South Carolina's Anxiety Prevention and Treatment Research Center. Children were referred by parents, school counselors, or other clinicians, or their parents responded to announcements regarding free treatment for "shy" children. Mean age was 10.1 years (range 7–13 years) and children were enrolled in the 2nd through 8th grade. There were 33 white children (66%), 14 African-American children (28%), 1 biracial child (white and African-American; 2%), and 2 Hispanic children (4%). Seventy percent were from the middle class according to the Hollingshead Index of Social Position. There were 22 boys (44%) and 28 girls (56%). All were enrolled in regular classroom settings and were of normal intelligence. Mean IQ score was 103 as estimated by the Block Design and Vocabulary subsections of the WISC-III (Wechsler, 1991).

The normal sample consisted of 22 children recruited as role-play confederates and "peer helpers" in a social phobia behavioral treatment program. Fifteen of these children had served as normal controls in a previous study assessing risk factors for anxiety (Beidel and Turner, 1997). Children were interviewed with the Schedule for Affective Disorders and Schizophrenia for School-Age Children modified for anxiety disorders (Last, 1986). None met diagnostic criteria for any disorder. The remaining 7 children did not participate in a semistructured interview but were interviewed clinically by the first author. All parents denied the presence of any psychiatric disorder in the children, and no child had ever been in treatment. All children were enrolled in regular classroom settings and none had academic difficulties. The average age was 11.7 years (range 9–14 years). There were 7 boys (32%) and 15 girls (68%); 16 (73%) were white, 4 (18%) were African-American, and 2 (9%) were Hispanic; the majority (75%) were from the middle class. There were no significant group differences on any demographic variable. Furthermore, there were no differences between normal controls who received a diagnostic interview and those who did not on any demographic or dependent variables.

Assessment

Semistructured Interview. Children with social phobia and their parents were interviewed by 1 of the first 2 authors using the Anxiety Disorders Interview Schedule for Children (ADIS-C) (Silverman and Albano, 1996) to document the presence of social phobia and additional diagnoses, including depression, anxiety disorders, attention-deficit/hyperactivity disorder, conduct disorder, psychotic disorders, and selective mutism. The ADIS-C uses *DSM-IV* (APA, 1994) criteria and lists potentially socially fearful situations that are rated on a 5-point Likert scale. Kendall (1994) and Kendall and Southam-Gerow (1996) have reported interrater reliability (κ) coefficients for the ADIS-C anxiety disorders categories ranging from 0.85 to 1.0. In the current study, diagnosis was determined by the clinician on the basis of information provided by both child and parent. Twenty-five percent of the interviews were videotaped and indepen-

dently rated by a second clinician. The resultant κ coefficient was 0.85 for the diagnosis of social phobia.

Self-Report Inventories. Children completed the following instruments. The Children's Depression Inventory (Kovacs, 1985) assesses the presence and severity of depressed mood. The Junior Eysenck Personality Inventory (EPI) (Eysenck and Eysenck, 1968) measures neuroticism, extroversion, and psychoticism. This study used the first 2 subscales. Neuroticism is defined as general overresponsiveness to events and situations, and Extroversion assesses outgoing, uninhibited, impulsive, and sociable tendencies. The Social Phobia and Anxiety Inventory for Children (SPAI-C) (Beidel et al., 1995) assesses potentially fearful social encounters, including physiological, cognitive, and behavioral components of social phobia. The Loneliness Scale (Asher and Wheeler, 1985) assesses feelings of loneliness and social dissatisfaction.

Parental and Teacher Rating Scales. Parents of children with social phobia completed the Child Behavior Checklist (CBCL) (Achenbach, 1991). In addition, the child's teacher completed the Teacher's Report Form (TRF) (Achenbach, 1991). In most cases, teachers were unaware of the specific treatment program, but in some cases they knew that the child was part of a research study. Although not every teacher participated, those who did ($n = 28$) were reimbursed \$5.00.

Behavioral Assessment. The behavioral assessment evaluated skill and anxiety in 2 tasks: social interactions (role-play task) and reading aloud before a small audience (performance task). Order of task presentation was randomized. For the read-aloud task, the child read aloud the story of Jack and the Beanstalk for 10 minutes (Beidel and Turner, 1988). The audience included a same-age peer and 2 young adults. The social interaction task consisted of 5 role-play scenes requiring interaction with a same-age peer, including (1) carrying on a conversation, (2) giving a compliment, (3) graciously receiving another's offer of help, (4) receiving a compliment, and (5) requesting another to change negative behavior. The role-play partner was a peer of the same age and gender selected from the normal control pool described above. Peers received training, and their responses were standardized using "cue cards."

The assessment was videotaped and rated for skill on a 5-point Likert scale (1 = not at all effective; 5 = very effective) by raters unaware of the child's classification. Perceived anxiety was rated on a 4-point scale (1 = not at all anxious and 4 = severely anxious). Twenty-five percent of the videotapes were rated by a second rater, also unaware of the child's diagnosis. Interrater reliabilities (Pearson correlation coefficients) ranged from $r = 0.80$ to $r = 0.94$. In addition, speech latency (i.e., time length to respond to the peer's prompt) was assessed. Finally, children rated their distress using a 5-point Likert scale, where 1 = extremely anxious and 5 = completely relaxed.

Daily Diary Ratings. For 2 weeks, each child completed a daily diary which listed potentially fearful social situations and possible responses (e.g., see Beidel et al., 1991). Because more than one event could occur per day, children could complete more than one diary entry per day. Events listed included performing in front of a group, interacting with a teacher or peer, eating in front of others, and using a public rest room. Responses included various types of avoidance, presence of physical symptoms, compliance with the task, and positive coping skills. The diary included an "other" category allowing additional listings. In addition, children rated their distress using a 5-point Likert scale. Children were rewarded with fast-food gift certificates for diary completion. Because not all children recorded for the entire 14 days (mean = 12.1 days), the percentage of days during which a distressing event occurred was calculated on the basis of number of days recorded (number of events/number of days recorded).

Children with diagnosed social phobia completed the entire assessment. Those without a diagnosis (normal peers) completed the

TABLE 1
Types of Social Situations Feared by Children
With Social Phobia ($n = 50$)

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 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 the lockers	16
Answering or talking on the telephone	13
Eating in front of others	10
Dating	NA

Note: NA = not applicable.

EPI and the SPAI-C. In addition, 19 normal children completed the behavioral assessment. These children completed the assessment before they were trained as role-play partners.

RESULTS

Comparisons of social-phobic children and the normal peers were conducted using t tests. When normal comparison data were not available, statistical analyses were conducted using 1-sample t tests (SPSS, 1996).

Social Anxiety and Distress

Children with social phobia reported substantial distress across many social situations including (1) public performances (reading or reciting in front of others, performing in a play, or playing soccer) and (2) ordinary social interactions (starting conversations, joining in on conversations, talking to adults, or answering the telephone). *DSM-IV* allows for the assignment of subtypes of social phobia. The generalized subtype is assigned when children experience distress across a broad range of social encounters. The specific subtype is used when fears are limited to only a few social situations. On the basis of

the number of situations endorsed, only 11% of the children were classified as having the specific subtype of social phobia, consistent with other data indicating that most children exhibited a pervasive pattern of social distress (Beidel and Turner, 1988).

Table 1 lists the percentage of children reporting at least moderate distress (rating of 2 or higher on the 0–4 scale) for each ADIS-C situation. Performing in front of others (reading aloud in front of the class, and music or athletic performances) was most frequently identified, followed by general conversational interactions (speaking to adults, initiating or joining in on peer conversations). Less frequently endorsed situations included having one's picture taken, eating in front of others, answering or talking on the telephone, and walking in the hallways/hanging out by the locker. These data illustrate a situational continuum that creates social distress. Although just the presence of others may elicit distress for some children, the general requirement to interact or perform in public creates substantial distress for the majority of children with this disorder.

Consistent with the ADIS-C situations, daily diary data also identify a broad pattern of social distress (Table 2). The "other" category was most commonly endorsed

TABLE 2
Frequency of Distressful Events and Children's Responses ($n = 50$)

Event	% of Events/ Responses Endorsed
I had to perform in front of others (sing, dance, play an instrument)	17
The teacher called on me to answer a question	15
A popular kid spoke to me	13
I had to talk to someone on the telephone	11
I had to eat in a public place	9
I had to use a public restroom	6
I had to work with a popular kid in class	4
Other	27
Response	
Did what I was supposed to do	37
Pretended I was sick, so I would not have to go	14
Cried	11
Waited to go to the bathroom until I got home	9
Told myself not be nervous, it would be OK	6
Got a stomach ache or headache	6
Pretended I didn't hear the person talking to me	4
Refused to do what I was asked	3
Did not go to the place (baseball game) so I would not have to do it	3
Hid my eyes so I was not called on	1
Other	9

(27%), and it included unstructured social interactions (asking the teacher a question or introducing oneself to an unknown peer). Other situations included performing in front of a group (17%), answering questions in class (15%), and speaking to a popular child (13%). These data illustrate an important point. Although performance situations appear to be the most universally distressful, general social interactions are the situations most frequently encountered.

With respect to frequency, daily diary data reveal that socially distressful events occur often (Table 2). Overall, 79% of the diary entries recorded a distressing event. Thus, approximately 5 distressful events occurred every 7 days, significantly higher than that recorded by a normal sample (mean = 2.2, as reported by Beidel et al., 1991; $t_{49} = 3.16, p < .05$, 1-sample t test).

Finally, children with social phobia are aware that their social distress is outside of what is considered "normal" for the situation. For example, despite a strong desire, one boy was only able to participate in a school play when all the characters wore masks "because then they could not see how badly I blush." Such clinical descriptions of high social distress are confirmed by significant group differences on the SPAI-C total score (social phobia mean = 25.8 [SD = 10.4] versus normal mean = 4.2 [SD = 4.1]; $t_{69} = 12.55, p < .0005$). In addition, children with social phobia rated themselves as more anxious during both the read-aloud task ($t_{60} = 4.22, p < .005$) and the social skills task ($t_{61} = 4.75, p < .0005$) (Table 3). Finally, daily diary data also affirm higher distress. The mean anxiety rating for distressful events was 3.4 (on a scale of 1–5), signifi-

cantly higher than that reported by a normal sample (2.2; $t_{49} = 3.39, p < .05$, 1-sample t test) (Beidel et al., 1991).

Social and Performance Skills of Children With Social Phobia

Children with social phobia often are described by their parents as "loners." Parents and teachers report that they often do not play with others at recess, ostensibly preferring to sit alone and engage in solitary activities. During a clinical interview, one boy stated, "all I want is one friend." These clinical reports were confirmed by significant group differences on the EPI Extroversion subscale (social phobia mean = 12.1 [SD = 4.9] versus normal mean = 21.4 [SD = 2.7]; $t_{64} = 9.66, p < .0005$). In addition, expressions of loneliness were supported by significantly higher scores on the Loneliness Scale when compared to the mean score of "average" children (as reported by the scale's authors; mean = 40.9 [SD = 11.1] versus mean = 29.9 [SD = 8.0], respectively; $t_{49} = 6.76, p < .0005$, 1-sample t test).

Socially withdrawn children have poor social skills (Rubin et al., 1990). Compared with normal peers, children with social phobia were rated as less skilled ($t_{61} = 5.91, p < .0005$) and more anxious ($t_{61} = 10.81, p < .0005$) when reading aloud (Table 3). During the social skills task, they were also less interpersonally skilled ($t_{62} = 7.70, p < .0005$) and more anxious ($t_{62} = 9.83, p < .0005$). Finally, they had significantly longer speech latencies ($t_{62} = 4.57, p < .0005$).

Functional Limitations as a Result of Social Phobia

The loneliness data suggest that social phobia affects friendship patterns and impairs other aspects of functioning. On the ADIS-C interview, 75% reported no or few friends, 50% were not involved in any extracurricular or peer activities, 50% reported that they did not like school, and 10% refused to attend school regularly. Daily diary data also confirm the impact on daily functioning. Approximately 35% of the distressing events resulted in use of an avoidance strategy (pretended not to hear the person talking to them, hid their eyes so they would not be called on, pretended to be sick, refused to do as they were asked, did not go to the distressing place, waited to go to the bathroom until at home).

Presence of Concurrent Diagnoses

Sixty percent of children with social phobia had a secondary Axis I diagnosis (Table 4). The majority (36%) were anxiety disorders. Generalized anxiety dis-

TABLE 3
Performance on the Behavioral Assessment Task

Rating	Social Phobia (<i>n</i> = 50)		Normal Controls (<i>n</i> = 19)		<i>p</i>
	Mean	(SD)	Mean	(SD)	
Read-aloud task					
Effectiveness ^a	2.4	(0.9)	4.0	(1.0)	.0005
Anxiety ^b	2.9	(0.9)	1.2	(0.4)	.0005
Self-rating ^c	3.1	(1.4)	4.3	(0.8)	.0005
Role-play scenes					
Effectiveness	1.9	(0.8)	3.8	(0.8)	.0005
Anxiety	3.0	(0.8)	1.4	(0.5)	.0005
Speech latency	4.6	(3.1)	1.4	(1.2)	.0005
Self-rating	3.1	(1.4)	4.5	(0.9)	.0005

^a Higher ratings indicate greater effectiveness.

^b Higher ratings indicate greater anxiety.

^c Higher ratings indicate less anxiety.

TABLE 4

Concurrent Diagnoses in a Sample of Social-Phobic Children

Secondary Diagnosis	%
None	40
Generalized anxiety disorder	10
Attention-deficit/hyperactivity disorder	10
Simple phobia	10
Selective mutism	8
Separation anxiety disorder	6
Obsessive-compulsive disorder	6
Depression	6
Panic disorder	2
Adjustment disorder with anxious and depressed mood	2

order (10%), attention-deficit/hyperactivity disorder (10%), and specific phobia (10%) were most common. Selective mutism was diagnosed in 8% of the sample.

Even when diagnostic criteria are not met, children with social phobia have symptoms of general anxiety and many specific fears. Overall, 87% of children with social phobia endorsed at least one nonsocial situation as moderately distressful (Table 5). Fears of injections (51%) and blood tests (35%) were most common, followed by fears of high places (30%), blood (28%), and the dark (23%). In many instances, the fear did not impair daily functioning, thus not warranting a specific phobia diagnosis. However, the high prevalence indicates that these children also suffer distress in nonsocial situations. Furthermore, their significantly higher score on the EPI Neuroticism scale (mean = 10.5 [SD = 5.0] versus mean = 6.8 [SD = 4.2]; $t_{64} = 2.77, p < .05$) suggests a general tendency toward overresponsiveness to various events and situations. This tendency is consistent with general expressions of fear and may contribute to general anxious overarousal as well.

Few children with social phobia had concurrent affective disorders (6%). However, dysphoric mood sometimes existed. Children with social phobia had significantly higher Children's Depression Inventory scores when compared with the normative sample (mean = 11.2 [SD = 7.5] versus mean = 9.0 [SD not available from manual]; $t_{49} = 2.1, p < .05$, 1-sample t test).

Parents reported anxious and depressed moods in social-phobic children as indicated by the mean CBCL Internalizing scale T score of 67.8 (SD = 8.2). By 1-sample t test, this score was significantly different from the normative sample T score of 50 ($t_{49} = 15.1, p < .0005$). On the TRF, children with social phobia had an Internalizing T subscale score of 62.9 (SD = 11.2), again signif-

icantly different from that of the normative group ($t_{28} = 6.31, p < .0005$, 1-sample t test). In both cases, the scores represent elevated, but not marked, anxiety and depression.

As noted, daily diary data indicate that children sometimes avoid or exhibit oppositional behavior when feeling anxious (Table 2). However, in general children with social phobia are not often perceived by parents or teachers as having behavior problems. On the CBCL Behavior Problems subscale, the mean T score was 65.4 (SD = 9.3), significantly different from the 50th percentile ($t_{49} = 6.54, p < .0005$, 1-sample t test). On the TRF Behavior Problems subscale, the mean T score was 57.6 (SD = 9.8), again significantly different from the 50th percentile ($t_{28} = 4.30, p < .0005$; 1-sample t test).

Few children met criteria for externalizing disorders (10%), consistent with parental and teacher reports. On the CBCL Externalizing subscale, the mean T score was 58.5 (SD = 9.9), significantly different from the normative group ($t_{49} = 5.98, p < .0005$, 1-sample t test). Similarly, on the TRF Externalizing subscale, the mean score for the social-phobic group was 54.6 (SD = 8.7), again significantly different from the 50th percentile ($t_{29} = 3.01, p < .01$, 1-sample t test). Even though there were statistically significant differences, the lack of externalizing diagnoses suggests that despite the occasional presence of some oppositional behaviors, these characteristics

TABLE 5

Specific Fears in Children With Social Phobia ($n = 50$)

Fear	% Endorsing at Least Moderate Fear
Getting shots	51
Having blood tests	35
High places	30
Seeing blood from a cut or scrape	28
Darkness	23
Bees/insects	21
Thunderstorms/lightning	21
Doctors/dentists	21
Loud noises	19
Water (swimming pool or ocean)	16
Choking	16
Catching a disease/germs	16
Planes	14
Vomiting	12
Elevators	9
Dogs	5
Costumed characters	2

Note: Listing of fears is from the Anxiety Disorders Interview Schedule for Children (Silverman and Albano, 1996).

were not severe enough to be perceived as a significant problem.

Effects of Gender

Gender differences in clinical presentation, examined with Hotelling's T^2 , did not show an overall significant group difference. However, because no previous studies examined gender effects, differences on specific variables also were examined. There were no significant differences in the percentage of boys and girls who had secondary diagnoses, or the presence of any particular diagnosis, teacher ratings, behavioral assessment ratings, daily diary ratings, and most parental ratings and self-report measures. However, on the CBCL Internalizing subscale, girls were rated significantly higher than boys (mean = 70.1 versus mean = 64.6, respectively; $t_{47} = 2.44$, $p < .025$). Girls also scored higher than boys on the EPI Neuroticism scale (mean = 11.8 versus mean = 8.9, respectively; $t_{47} = 2.02$, $p < .05$). Finally, there was a trend for girls to score higher than boys on the SPAI-C (mean = 28.2 versus mean = 22.9, respectively; $p < .08$).

Effects of Race

Using the same strategy as for gender, we examined potential differences in the clinical presentation of African-American and white children with social phobia. There were no group differences in the percentage of children who met criteria for an additional diagnosis, a specific additional diagnosis, or any other dependent variable. However, as with gender, there was a trend suggesting differences on the SPAI-C. Specifically, African-American children tended to have lower scores than white children (mean = 21.2 versus mean = 27.0; $p < .08$).

DISCUSSION

These data illuminate the clinical picture of childhood social phobia. These children suffer substantial emotional distress and impairment in their daily social, academic and family functioning. They have few if any friends, are extremely lonely, and avoid extracurricular activities. They are generally anxious and experience somatic symptoms such as headaches and stomach aches. In extreme cases, school refusal or selective mutism is present. Although not exhibiting behaviors that typically lead teachers to complain or parents to seek help, they have seriously impaired interpersonal functioning which prevents engagement in "typical" childhood activities.

Thus, like their adult counterparts, children with social phobia often suffer in silence.

Children with social phobia scored higher on neuroticism and lower on extroversion, suggesting a temperament characterized by general emotional overresponsiveness (high neuroticism) and the antipathy of outgoing, uninhibited, impulsive, and sociable inclinations (low extroversion). The emotional overresponsiveness also is supported by the presence of a substantial number of moderately distressing, specific fears. In addition, these children may be depressed and lonely. Although the study design does not allow one to determine whether these behaviors preceded or resulted from restricted social interactions, Perrin and Last (1993) indicated that in most cases, social phobia precedes the onset of depression. This would suggest that dysphoria most often is secondary to social phobia, but this is in need of further study.

Bernstein et al. (1996) and Francis et al. (1992) reported that males and females were equally likely to develop social phobia, as was the case in this investigation. With respect to comorbidity, 60% of this sample had a concurrent disorder, most commonly another anxiety disorder (36%), and specifically generalized anxiety disorder, specific phobia, or separation anxiety disorder. However, the rate of comorbidity for children with *DSM-IV* social phobia was lower than rates reported using *DSM-III-R* criteria (approximately 66%–80%) (Last et al., 1992; Strauss and Last, 1993). The most parsimonious explanation is that the restructured diagnostic criteria eliminated co-occurrence of social phobia and avoidant disorder of childhood and vastly decreased the co-occurrence of social phobia and overanxious disorder (now included under generalized anxiety disorder). The pattern of concurrent disorders found in this study is strikingly similar to those found in studies of adult social phobia (e.g., Turner et al., 1991). Although rates of affective and externalizing disorders were low in this sample, these results should be interpreted cautiously as they may, in part, reflect referral practices to our specialty anxiety clinic. Furthermore, the higher rate of affective disorders reported by Strauss and Last (1993) also may reflect the fact that their sample was older (mean age = 14.9 years) than the current sample. More accurate estimates of concurrent disorders can be gleaned from community samples.

This study also examined the clinical presentation of social phobia by race and gender. Some subsamples were smaller than what might be considered optimal, but the

results indicate that overall the clinical syndrome did not differ by race or gender. With respect to gender, only on the EPI Neuroticism scale did girls score higher than boys. Furthermore, parents rated their daughters as exhibiting significantly more anxious and depressive symptoms than their sons, consistent with an extensive clinical literature suggesting that females report greater anxiety and fear and suffer more anxiety disorders. It is interesting that there were no differences in actual observed behaviors. This raises the question of whether the apparent differences were "real" or merely reflecting a tendency for females to more freely reveal their anxieties and fears. This issue needs to be addressed further in community samples.

There were no differences between African-American and white children, other than a trend for African-American children to have lower SPAI-C scores. Although the African-American sample contained only 14 children, mean scores were very similar for both groups. Thus, this is not a situation in which the 2 groups had very different mean scores but a lack of statistical power precluded the finding of statistical significance, except perhaps for the SPAI-C. Overall, our results are consistent with those reported by Neal et al. (1995). That study did not find race-based differences in children's top 10 fears. Thus, the findings here suggest that the clinical presentation of social phobia is consistent across race and gender but do not address whether parameters associated with development and manifestation differ by gender or race. These questions will need to be addressed in future studies.

Consistent with studies of adults (e.g., Turner et al., 1986), a very important finding was that children with social phobia had significantly poorer social skills than children without psychiatric disorders. This is the first study to directly assess and compare social skills. In addition, social-phobic children had longer speech latencies. Longer latencies are characteristic of behavioral inhibition, a temperamental style detected at very early ages (e.g., Kagan et al., 1987). The current study does not allow us to determine whether long speech latencies preceded the development of social phobia, but the data do indicate that long latencies are characteristic of both behavioral inhibition and childhood social phobia, suggesting the possibility of some relationship between these constructs.

In addition to documenting the clinical syndrome, findings regarding poor social skills have important theoretical and clinical implications. Developmental psychologists long have suggested that early social isolation prevents the acquisition of social skills (Rubin et al.,

1990), because most social behavior is learned by engagement in peer interactions. Without the knowledge or ability to initiate and maintain social relationships, these children run the risk of remaining socially isolated. Furthermore, interventions that do not address skill deficits run the risk of an attenuated treatment outcome. Two psychological interventions developed specifically for children and adolescents with social phobia (Cognitive-Behavioral Group Treatment for Adolescents, Albano et al., 1995; Social Effectiveness Training for Children, Beidel et al., 1994) include social skills training components. These results suggest a need for interventions to incorporate strategies to address social skills deficiencies.

Limitations

This study is not without some limitations. First, some normal peers did not participate in a structured diagnostic interview, but were clinically interviewed by a very experienced clinician. Second, peers did not complete the entire assessment battery, but they participated in the most important part of the assessment (i.e., the behavioral assessment of social skills). Third, the sample of African-American children with social phobia was small. A larger sample is desirable. Fourth, this sample was drawn from those seeking treatment at an anxiety disorders clinic and thus may not represent the entire population of children with social phobia. Finally, the syndrome documented by this study pertains to a clinic sample and could differ somewhat from a community sample.

Clinical Implications

Despite these limitations, however, this is the first study of the psychopathology of *DSM-IV* social phobia in preadolescent children and the first study to use a broad-based assessment strategy, particularly a behavioral assessment using raters unaware of the child's diagnostic status. Thus, despite its limitations, it provides a first examination of what apparently is a highly prevalent childhood disorder. Finally, based on this clinical presentation, interventions combining skill-building and anxiety reduction appear necessary for maximum successful treatment outcome. The results of such an intervention currently are being analyzed and will be reported in a forthcoming article.

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Maternal Feeding Practices and Childhood Obesity: A Focus Group Study of Low-Income Mothers. Amy E. Baughcum, Kathleen A. Burklow, PhD, Cindy M. Deeks, MEd, RD, Scott W. Powers, PhD, Robert C. Whitaker, MD, MPH

Objective: To identify maternal beliefs and practices about child feeding that are associated with the development of childhood obesity. **Design:** Four focus groups. One group of dietitians from the Supplemental Nutrition Program for Women, Infants, and Children (WIC) in the Northern Kentucky Health District and 3 groups of mothers with children enrolled in WIC. **Setting:** The WIC program in the Northern Kentucky Health District. **Participants:** Fifteen WIC dietitians and 14 mothers (14 to 34 years of age) with young children (12 to 36 months of age) enrolled in WIC. **Results:** The mothers in this study (1) believed that it was better to have a heavy infant because infant weight was the best marker of child health and successful parenting, (2) feared that their infants were not getting enough to eat, which led them to introduce rice cereal and other solid food to the diets before the recommended ages, and (3) used food to shape their children's behaviors (eg, to reward good behavior or to calm fussiness). The mothers acknowledged that some of their child-feeding practices went against the advice of their WIC nutritionists and physicians. Instead, the participants relied on their mothers as their main source of information about child feeding. **Conclusions:** Physicians and allied health professionals discussing childhood growth with mothers should avoid implying that infant weight is necessarily a measure of child health or parental competence. Parents who use food to satisfy their children's emotional needs or to promote good behavior in their children may promote obesity by interfering with their children's ability to regulate their own food intake. Interventions to alter child-feeding practices should include education of grandmothers. *Arch Pediatr Adolesc Med* 1998;152:1010-1014

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