Chapter 4

RESEARCH-BASED ASSESSMENT OF SOCIAL ANXIETY AND SOCIAL PHOBIA IN YOUTHS

Previous chapters have covered the primary characteristics of youths with social anxiety and social phobia. In this chapter, the major research-based assessment techniques that have been designed for this population are discussed. These techniques include interviews, child self-report questionnaires, parent and teacher scales, family assessment measures, behavioral assessment tests, self-monitoring procedures, cognitive and physiological assessment measures, functional assessment strategies, and other methods. Chapter 5 will concentrate on suggestions for tailoring these techniques to general *clinical* settings during screening, formal evaluation, and consultation phases. For the purposes of this chapter, one should note that many assessment techniques have been devised for constructs *related* to social anxiety and phobia, such as introversion/shyness, self-esteem, depression, and social skills, withdrawal, and competence. However, a full description of these related measures is outside the scope of this book.

INTERVIEWS

Interviews for assessing anxious youths may be structured or more general in nature. Suggested topics for more general interviews are discussed in Chapter 5. With respect to *structured* interviews, several have

been designed for children and some have been used to help study anxious youths. Although psychometrically strong, these interviews tend to devote less attention to anxiety than to other mental disorders (Silverman, 1994). Common examples include the:

- *Child and Adolescent Psychiatric Assessment* (Angold & Costello, 2000)
- *Child Assessment Schedule* (Hodges, McKnew, Cytryn, Stern, & Kline, 1982)
- *Diagnostic Interview for Children and Adolescents* (Welner, Reich, Herjanic, Jung, & Amado, 1987)
- *Interview Schedule for Children* (Kovacs, 1985)
- *National Institute of Mental Health Diagnostic Interview Schedule for Children* (Shaffer et al., 1996)
- *Pediatric Anxiety Rating Scale* (Research Units on Pediatric Psychopharmacology Anxiety Study Group, 2002)
- *Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version* (Kaufman et al., 1997)

For assessing anxiety disorders in youths, including social phobia, the primary interview that has been used is the *Anxiety Disorders Interview Schedule for Children* (ADIS-C) (Silverman & Albano, 1996; Silverman & Nelles, 1988), a downward extension of the ADIS adult version (Brown, DiNardo, & Barlow, 1994; DiNardo, O'Brien, Barlow, Waddell, & Blanchard, 1983). The ADIS-C has both child and parent versions and concentrates heavily on anxiety and anxiety-related disorders along a largely structured, DSM-based format. Although anxiety disorders are the main focus of the ADIS-C, other internalizing and externalizing childhood disorders are included as well. The social phobia section in the most current ADIS-C child version (see below) (Silverman & Albano, 1996) is in Figure 4.1. Questions generally surround DSM criteria, specific targets of social anxiety, and ratings of fear, avoidance, and interference.

The original version of the ADIS-C was based on DSM-III-R criteria. Several studies examined the psychometric strength of this version and generally found strong reliability and validity (Silverman & Eisen, 1992; Silverman & Nelles, 1988; Silverman & Rabian, 1995). Regarding social phobia in particular, however, only moderate Kappa coefficients were reported (i.e., .46 and .54 for child and parent interview, respectively) (Silverman & Eisen, 1992). Rapee and colleagues (1994), examining a large sample of children with anxiety disorders, found higher interrater reliability for social phobia diagnoses based on combined child and parent report (i.e., Kappa coefficients = .82 and .77 for principal and any diagnosis of social phobia, respectively). In addition, Kappa coefficients were generally strong

Social Phobia (Social Anxiety Disorder)

Initial Inquiry

Some kids (teenagers) **feel *really* scared and uncomfortable in situations with other people—so scared and uncomfortable that they might want to *stay away* from these places. Some kids** (teenagers) **might also cry, or even have a temper tantrum, or get angry when they have to be in situations with other people. What happens is that they might be told to go to these places, but they would rather not. They are much more afraid of these situations than other kids their age are.**

1a. **When you are in certain places with other people like school, restaurants, or parties, do you feel that people might think that something you do is stupid or dumb?** ☐ Yes ☐ No ☐ Other

If "Yes," place a check mark in the circle. SYMPTOM

1b. **When you are in certain places with other people, like school, restaurants, or parties, do you think that people might laugh at you?** ☐ Yes ☐ No ☐ Other

If "Yes," place a check mark in the circle. SYMPTOM

1c. **When you are in these situations with other people, do you worry that you might do something that will make you feel ashamed or embarrassed?** ☐ Yes ☐ No ☐ Other

If "Yes," place a check mark in the circle. SYMPTOM

If one or more "Yes" responses to Questions 1a–1c, place a check mark in the diamond. CRITERION

For any of Questions 1a–1c that the child endorsed, the interviewer might wish to obtain further elaborations to determine if that area is clinically significant. Also, if the child responded

FIGURE 4.1. ADIS child version. (Used with permission).

regardless of child gender and age and format for rating the interview (i.e., live versus videotaped). Lower agreement was found between child and parent reports (i.e., Kappa coefficients = .44 and .25 for principal and any diagnoses of social phobia, respectively).

The ADIS-C was subsequently and extensively revised to reflect DSM-IV criteria, incorporate more extensive rating scales, and improve its utility,

"No" to Questions 1a–1c, the interviewer may use discretion in inquiring about the situations listed in Question 2c.

Fear (Yes or No)

2a. **Now I am going to give you a list of some situations** (see list following Question 2c)**. I want to know if you think you get more nervous or scared in these situations than other kids your age do. Answer "Yes" only if these situations almost always make you scared or nervous, not if it has just happened once or twice. First, just tell me "Yes" or "No."**

Note. The interviewer may use discretion inquiring about age-relevant situations. Those situations more common to older children and adolescents are grouped at the end of the list. Also, if the child responded "No" to Questions 1a–1c, the interviewer may use discretion in inquiring about all the situations listed.

Fear Ratings (0–8)

2b. For each situation to which the child responded "Yes," obtain fear ratings using the Feelings Thermometer (found on the back cover of the Clinician Manual). Ask, **When you say that you're afraid or nervous** (e.g., giving an oral report)**, how afraid do you feel when you're** (e.g., giving an oral report)**? Use the thermometer to show me how afraid or nervous you get.**

Avoidance/Distress (Yes or No)

2c. For each situation in Question 2b with a fear rating of 4 *(Some)* or greater, inquire about avoidance behavior and endurance with distress. Ask, **For those things you rated some or more fear (4 or higher), I now want to know if you ever try to avoid or stay away from these situations** (e.g., working in groups)**?**

If one or more situations in the list are endorsed as either avoided or endured, place a check mark in the diamond.

FIGURE 4.1. (*Continued*)

clarity, and psychometric strength. The result was the *Anxiety Disorders Interview Schedule for DSM-IV: Child and Parent Versions* (ADIS for DSM-IV: C/P) (Silverman & Albano, 1996). The reliability of this measure was examined by Silverman and colleagues (2001) among children referred for anxiety treatment. Kappa coefficients for social phobia diagnoses based on child, parent, and combined (child + parent) reports were .71, .86, and

	Fear		Fear Rating	Avoidance/ Distress	
	Yes	No	(0–8)	Yes	No
Answering questions in class	☐	☐	☐	☐	☐
Giving a report or reading aloud in front of the class	☐	☐	☐	☐	☐
Asking the teacher a question or for help	☐	☐	☐	☐	☐
Taking tests	☐	☐	☐	☐	☐
Writing on the chalkboard	☐	☐	☐	☐	☐
Working or playing with a group of kids	☐	☐	☐	☐	☐
Gym class	☐	☐	☐	☐	☐
Walking in the hallways or hanging out by your locker	☐	☐	☐	☐	☐
Starting or joining in on a conversation	☐	☐	☐	☐	☐
Using school or public bathrooms	☐	☐	☐	☐	☐
Eating in front of others (e.g., home, school cafeteria, restaurants)	☐	☐	☐	☐	☐
Meetings such as girl or boy scouts or team meetings	☐	☐	☐	☐	☐
Answering or talking on the telephone	☐	☐	☐	☐	☐
Musical or athletic performances	☐	☐	☐	☐	☐
Inviting a friend to get together	☐	☐	☐	☐	☐
Speaking to adults (e.g., store clerk, waiters, principal)	☐	☐	☐	☐	☐
Talking to persons you don't know well (e.g., strangers, new or unfamiliar people)	☐	☐	☐	☐	☐
Attending parties, dances, or school activity nights	☐	☐	☐	☐	☐
Having your picture taken (e.g., for the yearbook)	☐	☐	☐	☐	☐
Dating	☐	☐	☐	☐	☐
Being asked to do something that you really don't want to do, but you can't say no. For example, if someone wants to borrow your homework or favorite toy, is it hard to say no?	☐	☐	☐	☐	☐
Having someone do something to you that you don't like, but you can't tell them to stop. For example, if someone is teasing you, is it hard for you to tell them to leave you alone?	☐	☐	☐	☐	☐

FIGURE 4.1. (*Continued*)

.92, respectively. Reliability was also good regardless of child age and for social phobia symptom scales (.81–.87) and parent and clinician ratings of impairment (.81 and .84, respectively). Poor reliability was found for social phobia child ratings of impairment (.10).

Are there any other times that being around people makes you nervous or scared? ☐ Yes ☐ No ☐ Other

If "Yes," **Could you tell me about that?** _____

If the child responded "No" to any of Questions 1a–1c and reports no fear or avoidance in any situation in Questions 2a–2c, skip to Specific Phobia (p. 23).

To meet diagnostic criteria for Social Phobia, the child must respond "Yes" to at least one question from Questions 1a–1c, respond "Yes" to at least one situation listed in Question 2a, and either avoid or endure social situations with intense anxiety or distress. In addition, there must be evidence of significant interference in the child's normal routine as indicated by the response in the Interference section.

Now I want to find out more details about some of those things that bother you. When you tell me that (insert specifics of the child's fear, e.g., "you don't like to start a conversation"):

3. **Does it make a difference if the people are friends or strangers?** ☐ Yes ☐ No ☐ Other

   If "Yes," **Which is easier?**
   ☐ Friends ☐ Strangers

4. **Does it make a difference if the group is boys, girls, or boys and girls?** ☐ Yes ☐ No ☐ Other

   If "Yes," **Which is easier?**
   ☐ Boys ☐ Girls ☐ Boys and Girls Together

5. **Does the age of the people matter?** ☐ Yes ☐ No ☐ Other

   If "Yes," **Which is easier—older than you, younger than you, or the same age as you?**
   ☐ Older than you ☐ Younger than you ☐ Your age

6. **Does the size of the group make a difference?** ☐ Yes ☐ No ☐ Other

   If "Yes," **Which is easier—big groups, small groups, or medium size groups?**
   ☐ Big ☐ Small ☐ Medium

FIGURE 4.1. (*Continued*)

Wood and colleagues (2002) also found good concurrent validity for the ADIS for DSM-IV: C/P among youths with anxiety disorders. For example, the authors found that youths with social phobia, compared to youths with other anxiety disorders, scored significantly higher on the social anxiety subscale of the Multidimensional Anxiety Scale for Children

7. **What do you think will happen when you are in** (give specifics of feared social situation)? _____

_____

_____

Interference

Okay, I want to know how much you feel this problem has messed things up in your life. That is, how much has it messed things up for you with friends, in school, or at home? How much does it stop you from doing things you would like to do? Tell me how much by using the Feelings Thermometer we discussed earlier, okay? If necessary, review the scale with the child. Show the child the Feelings Thermometer (found on the back cover of the Clinicial Manual) and obtain an overall rating of interference. Record the number corresponding to the child's anchor response, 0–8.

Child's Rating ☐

If clinical interference is indicated (a rating of 4 or greater), place a check mark in the diamond.

CRITERION

If all three diamonds are checked, consider Social Phobia (Social Anxiety Disorder) diagnosis and place a check mark in the star.

FIGURE 4.1. (*Continued*)

(MASC) (March, 1997). This was true for both child (MASC-C) and parent (MASC-P) reports of child social anxiety, and for younger and older children. Furthermore, good agreement between clinicians and a consensus team was found for social phobia diagnoses (Kappa = .94) and severity ratings (r = .75).

The ADIS for DSM-IV: C/P is currently the gold standard for assessing anxious youths, including those with social phobia, via structured interview. The measure is psychometrically strong and has been used widely in empirical studies of anxious children both as a means of assessing their characteristics and as an outcome measure. Concerns regarding the interview include sensitivity to developmental differences, tight linkage to DSM criteria, and varying reports across interviewees.

Regarding the latter, for example, DiBartolo and colleagues (1998) examined youths with social phobia using the ADIS-C and found that child and parent reports were similar for child social fear but *not* social avoidance. In particular, children reported less social avoidance on their part than parents. Child reports of less social avoidance may have been influenced by social desirability concerns, meaning that clinicians should take care when interpreting such reports and may wish to include a measure of social desirability during assessment (e.g., Revised Children's Manifest Anxiety Scale lie subscale) (see below) (DiBartolo, Albano, Barlow, & Heimberg, 1998). Research is needed, however, to assess whether such concerns apply to the revised version of the ADIS-C.

CHILD SELF-REPORT QUESTIONNAIRES

In addition to clinical interview, a common method for assessing childhood social anxiety is a self-report questionnaire. This method is especially important given the subjective and internalized nature of social anxiety, and is now an essential component of empirical research in this area. Special attention is given in this section to the two scales that have been most commonly used and researched.

Social Anxiety Scale for Children

One of the first and most venerable child self-report measures of social anxiety is the *Social Anxiety Scale for Children* (SASC) and its subsequent revision, developed by La Greca and her colleagues (La Greca et al., 1988). Items for this scale were originally crafted by examining existing anxiety measures and rewording items that were relevant to peer relations and three hypothetical aspects of social anxiety: *fear of negative evaluation*, *social avoidance*, and *social distress*. Items were evaluated by experts and ten items were retained. Children responded to items on a 0–2 scale of never true (0), sometimes true (1), or always true (2). The scale was administered to second- to sixth-graders along with sociometric ratings and child self-reports of anxiety via the Revised Children's Manifest Anxiety Scale (RCMAS) (Reynolds & Richmond, 1985).

Factor analysis indicated the presence of two main factors: *fear of negative evaluation* (FNE; 6 items; 64.4% of variance) and *social avoidance and distress* (SAD; 4 items; 23.5% of variance). The first factor refers to worry or nervousness in peer-related social/evaluative situations. Results further indicated that total SASC scores had good internal consistency ($r = .76$) and test-retest reliability ($r = .67$), as did the two factor scores. In addition, total, FNE, and SAD scores were significantly related to total and subscale RCMAS scores (i.e., physiological anxiety, worry/oversensitivity, and social concerns/concentration). Children identified as neglected also showed significantly higher total SASC scores than popular or controversial children and were no different than rejected children. This was particularly so for FNE scores, and the authors concluded that this subscale may be psychometrically stronger than SAD.

La Greca and Stone (1993) revised the SASC by expanding the number of items to 26 (9 FNE, 13 SAD, 4 filler) and evaluating them as before. Fourth- to sixth-graders responded to the items on a 1–3 or 1–5 scale (not at all to all the time), the latter of which was found to have better psychometric strength (range of total scores thus 18–90). Three primary factors were identified: *fear of negative evaluation from peers* (FNE; 8 items; 68.9% of variance),

social avoidance and distress specific to new situations (SAD-N; 6 items; 13.1% of variance), and *generalized social avoidance and distress* (SAD-G; 4 items; 7.8% of variance). Four items loaded improperly on these factors and were deleted, and four filler items loaded on separate factors as expected. Results further indicated that each revised (i.e., SASC-R) subscale had good internal consistency (r = .69–.86) and that neglected and rejected youths had significantly higher SASC-R scores than popular or average children. The authors concluded that the SASC-R is a more precise instrument than the SASC, especially with respect to social avoidance and inhibition. Other studies have shown similar results to support the psychometric strength of the SASC-R (Ginsburg et al., 1998; Peleg-Popko & Dar, 2001; Vernberg et al., 1992).

La Greca and Lopez (1998) modified the SASC-R for use with adolescents and examined the psychometric properties of the new *Social Anxiety Scale for Adolescents* (SAS-A). The SAS-A is largely similar to the SASC-R but items were reworded to reflect the greater sophistication of adolescents (e.g., use of the word "peers"). High school students completed the scale and other measures, and factor analytic results were identical to the SASC-R. The subscales also displayed good internal consistency (r = .76–.91).

Inderbitzen-Nolan and Walters (2000) replicated the 3-factor structure of the SAS-A. In addition, they found that SAS-A total and subscale scores correlated significantly with subscales of the Revised Children's Manifest Anxiety Scale and with negative mood, anhedonia, and negative self-esteem subscales of the Children's Depression Inventory (CDI) (Kovacs, 1992). Interestingly, no significant correlation was found between SAS-A and CDI interpersonal problems and ineffectiveness subscale scores. However, an important result of these studies was that social anxiety could now be measured reliably across youths of various developmental levels.

Myers and colleagues (2002) further examined the SAS-A in a large sample of high school students. The factorial model identified by La Greca and Lopez (1998) was not fully supported, as several items loaded on more than one factor or failed to load properly onto one factor. Instead, exploratory factor analysis revealed three new factors: fear of negative evaluation, novel social situation fears, and general social situation fears. Retaining only items that had a factor loading of .40+ whittled the items in each factor to 6, 4, and 3, respectively (i.e., a 13-item SAS-A short form). Concurrent validity of this short form was supported by significant correlations of the subscales with a measure of negative affectivity. Although the SAS-A structure was altered in this study, evidence still supported the scale's general utility for measuring social anxiety in adolescents.

La Greca (1998, 1999) summarized the major research conducted with respect to her social anxiety scales as well as various normative data and

cutoff scores. In doing so, the recommendation was made to use subscale rather than total scores in clinical and research practice given the distinct differences among the subscales. The scales were also recommended for purposes of screening community samples, identifying youths with impaired social functioning and social anxiety disorder, measuring social distress, and serving as dependent measures in treatment outcome and longitudinal studies. Indeed, the SASC-R and SAS-A are now considered staples for assessing social anxiety in youths.

Social Phobia and Anxiety Inventory for Children

Another common and psychometrically strong child self-report measure of social anxiety is the *Social Phobia and Anxiety Inventory for Children* (SPAI-C), developed by Beidel and her colleagues (Beidel, Turner, & Morris, 1995). The SPAI-C was derived from an adult self-report measure for social phobia and agoraphobia: the 32-item *Social Phobia and Anxiety Inventory* (SPAI) (Turner, Beidel, Dancu, & Stanley, 1989). Items on this scale surround social anxiety-related thoughts and somatic concerns about situations involving strangers, authority figures, and people of the opposite gender and in general.

Clark and colleagues (1994) provided psychometric information regarding the SPAI for 12–18-year olds. Two expected scale factors, social phobia and agoraphobia, were found. In addition, the scale demonstrated excellent internal consistency (Cronbach's alpha = .91–.97), differentiated youths who did or did not meet DSM-III-R criterion A for social phobia (see Chapter 1), and correlated significantly with measures of fear, trait anxiety, willingness and ability for dating, and assertiveness (inversely with the latter two constructs). In addition, SPAI social phobia and total scores differentiated youths with social phobia from youths with other anxiety, other mental, or no other mental disorders. The authors concluded that the SPAI could be used as a valid measure of social anxiety in adolescents. Other researchers also found the SPAI to be a reliable and valid measure for assessing Spanish adolescents (Olivares, Garcia-Lopez, Hidalgo, Turner, & Beidel, 1999).

Beidel and her colleagues revamped the SPAI for use with younger children (aged 8–14 years) (SPAI-C) and to measure social *phobia* in youths as well as social anxiety. The scale measures social distress across various situations in general and those involving adults and familiar and unfamiliar peers. Items are scored on a 0–2 scale of never or hardly ever (0), sometimes (1), and most of the time or always (2). In the final version, 16 of 26 items require multiple responses, mean ratings are summed across various items, and the range of scores is 0–52.

Beidel, Turner, and Morris (1995) examined youths with social phobia, other anxiety disorders, and controls in the initial development of the SPAI-C. Items were derived from childrens' responses to interviews, daily diary information, and the adult-based SPAI. The number of items was trimmed to 26 by deleting those that failed to significantly differentiate anxious and nonanxious youths. The final version of the SPAI-C clearly differentiated socially anxious and non-socially anxious children. In addition, a suggested cutoff score (18), internal consistency (Cronbach's alpha = .95), and short-term (r = .86) and long-term (r = .63) test-retest reliabilities were established. With respect to concurrent validity, the SPAI-C was significantly related to (1) the trait (r = .50) but not the state subscales of the State-Trait Anxiety Inventory for Children (Spielberger, 1973), (2) factors of the Fear Survey Schedule for Children-Revised (Ollendick, 1983), including failure and criticism (r = .53), and (3) parent ratings of internalizing (r = .45) but not externalizing behavior on the Child Behavior Checklist (Achenbach & Edelbrock, 1983).

Factor analysis of the SPAI-C also revealed three main factors: *assertiveness/general conversation* (13 items; 48% of variance), *traditional social encounters* (9 items; 6% of variance), and *public performance* (7 items; 5% of variance). Some items loaded strongly on more than one factor. Each factor significantly differentiated children with and without social anxiety, and the authors noted that the factors may correspond, respectively, with generalized social phobia, social anxiety in limited encounters with others, and specific social phobia.

Beidel, Turner, and Fink (1996) further examined the convergent, discriminant, and construct validity of the SPAI-C via interview and daily diary information in children with or without social phobia. Regarding convergent validity, SPAI-C scores were somewhat related to number of distressing social events per day (r = .50) and ratings of distress regarding those events (r = .41). Regarding discriminant validity, SPAI-C scores differentiated youths with social phobia from those with no mental disorder as well as those with externalizing behavior problems. Regarding construct validity, factor analysis yielded five factors: *assertiveness* (7 items; 35.0% of variance), *general conversation* (6 items; 7.5% of variance), *physical and cognitive symptoms* (4 items; 5.8% of variance), *avoidance* (4 items; 5.3% of variance), and *public performance* (4 items; 4.7% of variance).

Beidel and colleagues further examined the discriminative and external validity of the SPAI-C (Beidel, Turner, Hamlin, & Morris, 2000). SPAI-C scores from anxious and nonanxious children were compared to parent reports of social anxiety in their children and independent observer ratings of social skill and anxiety in interaction role-play and performance-based reading tasks. Regarding discriminative validity, SPAI-C scores

differentiated youths with social phobia from those with other anxiety disorders. Regarding external validity, SPAI-C scores were only somewhat related to parental ratings of social anxiety (r = .31) and independent observer ratings of role-play effectiveness or skill (r = −.29) and speech latency (r = .37). No substantial relationship was found between SPAI-C scores and role-play and reading anxiety or reading effectiveness. The SPAI-C, like the SASC-R, is now a widely used child self-report measure for youths with social anxiety and social phobia.

Comparisons of the SASC-R and SPAI-C

Several researchers have compared the SASC-R and SPAI-C. For example, Morris and Masia (1998) examined elementary school children and presented normative data for total and subscale SASC-R and SPAI-C scores. Total scores correlated modestly (.63) and all subscale scores from both measures correlated significantly with one another (range, .34–.65). In addition, ranges of scores from one measure corresponded with ranges of scores for the other measure 63% of the time. The authors endorsed the concurrent validity of the scales but warned that they likely assess somewhat different constructs *and* that a substantial number of children exceed the recommended cutoff scores on each measure.

Extending these findings, Epkins (2002) examined SPAI-C and SASC-R scores and parent ratings of behavior in youths referred or not referred for outpatient therapy. The SPAI-C and two SASC-R subscales (FNE, SAD-New) differentiated the two groups but many non-referred children did exceed clinical cutoff scores on each measure (37% and 20%, respectively). In addition, higher SPAI-C and SASC-R scores were related to more parent-reported internalizing problems and lower social competence in children. Total SPAI-C and SASC-R scores significantly correlated in the non-referred and referred groups (r = .75 and .81, respectively) and ranges of scores from one measure generally (82–91%) corresponded with ranges of scores for the other measure. The authors concluded that the instruments appear to measure somewhat different constructs and that greater research attention is needed with respect to cutoff scores and normative data for subgroups.

Garcia-Lopez and colleagues (2001) also examined the SAS-A, SPAI, Fear of Negative Evaluation Scale, and Social Avoidance and Distress Scale (Watson & Friend, 1969) in a large sample of Spanish adolescents. An adult-based structured diagnostic interview (social phobia section) was also used (ADIS-IV-L) (DiNardo, Brown, & Barlow, 1994). Numbers of feared social situations derived from the interview correlated well with total and subscale scores of each dependent measure (range, .57–.78) and total and

subscale scores from the dependent measures largely correlated significantly with one another.

Factor analysis of the measures yielded one social anxiety factor, and the measures were found to significantly differentiate adolescents with or without social phobia and adolescents with specific or generalized social phobia. In addition, test-retest reliability was good for all SAS-A and SPAI subscale scores (range, .75–.86). The authors concluded that the measures in general were psychometrically strong and that they appear to largely tap one general construct of social anxiety. Another, similar study conducted by the authors revealed two factors ("cognitive symptoms" and "behavioral and somatic symptoms") that were highly intercorrelated and that represented a "unidimensional structure" of social anxiety (Olivares, Garcia-Lopez, Hidalgo, & Caballo, 2004) (see also Garcia-Lopez, Olivares, & Vera-Villarroel, 2003).

Storch and colleagues (2004) similarly compared the SAS-A and SPAI-C in a large sample of adolescents. In addition to providing normative data, the authors found the SAS-A and SPAI-C to identify 18.1% and 19.9% of youths, respectively, as socially anxious. Factor analysis also supported La Greca and Lopez's (1998) 3-factor SAS-A model and Beidel and colleagues' (1996) 5-factor SPAI-C model. All subscales of each measure showed good internal consistency (Cronbach alpha range = .65–.93) and modest test-retest reliability over a one-year period. Scores significantly declined at time two administration. All subscales of each measure also correlated significantly with all other subscales, and total scores from each measure correlated at .76. In particular, the SAD-New and SAD-General subscales of the SAS-A correlated most strongly with the SPAI-C Avoidance subscale. The authors concluded that the two instruments do appear to be measuring somewhat different aspects of social anxiety.

Inderbitzen-Nolan, Davies, and McKeon (2004) also compared the SAS-A and SPAI-C in a large sample of adolescents. The ADIS for DSM-IV: C/P was also used to identify youths with diagnoses of social phobia (n = 78), and youths were classified with high or low social anxiety based on SAS-A and SPAI-C cutoff scores. Interestingly, like earlier findings, SAS-A and SPAI-C total scores correlated at .79. Furthermore, social anxiety classification (high and low) by one measure was largely confirmed by the other measure (high: 63–77%; low: 84–91%). Using interview information, sensitivity to diagnoses of social phobia was only 43.6% for the SAS-A, but 61.5% for the SPAI-C. Using both measures' cutoff scores reduced sensitivity to 39.7%, but using one cutoff score from either measure increased sensitivity to 65.4%. The scales were much more sensitive to *no* diagnosis of social phobia (82.7% for each). The authors concluded that the SPAI-C is perhaps a better instrument for identifying youths with clinically significant

symptoms of social phobia. However, many youths (38.5%) with social phobia did not exceed the SPAI-C cutoff score, meaning that a combination of interview and child self-report measures is likely a good option when assessing this population.

Overall, adolescent measures of youth social anxiety seem to overlap more so than child measures. Regarding the latter, some contend that the SPAI-C is somewhat more salient when assessing *clinical* populations and may be more sensitive to specific aspects of social anxiety such as assertiveness, avoidance, and concerns about conversations and public performance. However, the SASC-R does contain many items for cognitive symptomatology, so a good strategy might be to use both measures for a particular child.

Other Child Self-Report Questionnaires

Other anxiety self-report questionnaires also contain *subscales* or *subsections* that are relevant to social anxiety and social phobia in youths. Common examples include the:

- *Multidimensional Anxiety Scale for Children*, a measure of childhood anxiety with subscales for harm avoidance and physical, separation, and social anxiety (i.e., humiliation and performance fears) (March, 1997; March, Sullivan, & Parker, 1999)
- *Screen for Child Anxiety-Related Disorders*, a measure of childhood anxiety with five main factors: somatic/panic, general anxiety, separation anxiety, school phobia, and social phobia (Birmaher et al., 1997, 1999). A revision of this scale has also been reported (Muris, Merckelbach, Schmidt, & Mayer, 1999)
- *Spence Children's Anxiety Scale*, a measure of childhood anxiety with subscales for social phobia, separation anxiety, panic attacks/agoraphobia, obsessive-compulsive disorder, generalized anxiety, and fears of physical injury (Spence, Barrett, & Turner, 2003)
- *Fear Survey Schedule for Children-Revised*, a measure of general fearfulness with a factor related to fear of failure and criticism (Ollendick, 1983)
- *School Refusal Assessment Scale-Revised*, a measure of the relative strength of different functions of school refusal behavior with a subscale for escaping aversive social and/or evaluative situations at school (Kearney, 2002)

Other anxiety self-report questionnaires also contain *items* that are relevant to social anxiety and social phobia in youths. Common examples include the:

- *Childhood Anxiety Sensitivity Index*, a measure of fear of dangerousness of internal physical symptoms with items surrounding worry about others' knowledge of these symptoms (Silverman, Ginsburg, & Goedhart, 1999)
- *Revised Children's Manifest Anxiety Scale* and *State-Trait Anxiety Inventory for Children*, measures of general anxiety and negative affectivity with items relevant to worries about making mistakes and others' perceptions and reactions (Reynolds & Richmond, 1985; Spielberger, 1973)
- *Daily Life Stressors Scale* and other hassles scales, measures of difficulties that youths encounter daily with items surrounding conversations with, and performances before, others (Kearney, Drabman, & Beasley, 1993)
- *Test Anxiety Scale for Children*, a measure of test anxiety with items surrounding worry about performance in this area (Sarason, Davidson, Lighthall, Waite, & Ruebush, 1960)
- *Youth Self-Report*, a measure of internalizing and externalizing behavior problems with items relevant to social anxiety and withdrawal (Achenbach & Rescorla, 2001).

Other measures pertinent to the assessment of childhood social phobia have also been reported, but require more empirical attention. Examples include the *Dating Anxiety Scale for Adolescents* (Glickman & La Greca, 2004), *Liebowitz Social Anxiety Scale for Children and Adolescents* (Masia, Klein, Storch, & Corda, 2001), *Social Fears Belief Questionnaire* (Field et al., 2003), *Social Worries Questionnaire* (and its parent version) (Spence et al., 1999), and *Worry Scale* (Perrin & Last, 1997).

PARENT AND TEACHER QUESTIONNAIRES

Parent-based interviews are commonly used to assess social anxiety and social phobia in youths, but parent and teacher questionnaires regarding these constructs have not received as much empirical attention. Exceptions include parent versions of the *Social Anxiety Scale for Children-Revised* and *Social Anxiety Scale for Adolescents* (SAS-A) (La Greca, 1998). These versions are nearly identical except that "My child" in the parent versions replaces the "I" in the child versions. Data regarding the SAS-A were reported by La Greca (1998), who stated that the parent version had a very similar factor structure to the adolescent version as well as good internal consistency. In addition, parent and adolescent SAS-A scores correlated modestly but more so for girls, two-parent households, adolescents with higher levels of social anxiety, and items about observable events. The

author encouraged users of the SAS-A parent version to exercise caution, especially regarding boys, and that adolescents are likely the best source for assessing their social anxiety. Other measures containing subscales for social anxiety have also been modified for parent-based ratings (e.g., Birmaher et al., 1999).

General parent and teacher measures of child behavior also include subscales related to social anxiety and social phobia. These most commonly include the *Child Behavior Checklist* and *Teacher's Report Form* (Achenbach & Rescorla, 2001) *Conners Rating Scales* (Parent and Teacher Versions-Revised) (Conners, 1997), and *Child Symptom Inventory-4* (Sprafkin, Gadow, Salisbury, Schneider, & Loney, 2002). In general, however, teachers may not be accurate reporters of youth social anxiety given the subjective and often covert nature of the problem. Indeed, peer ratings are often better predictors of a child's social anxiety than teacher ratings, although teachers are good at identifying youths with test anxiety (La Greca, 2001).

FAMILY ASSESSMENT MEASURES

Investigations of family dynamics with respect to childhood anxiety disorders are burgeoning (see Chapters 2 and 3). As such, assessment technology in this area is also burgeoning, and consists primarily of questionnaires and behavioral observation. Questionnaires typically focus on key family dynamics such as cohesion, flexibility, conflict, control, independence, expressiveness, and affective involvement. Common examples include the *Family Environment Scale*, *Family Adaptability and Cohesion Evaluation Scale*, and *Family Assessment Measure* (Moos & Moos, 1986; Olson, Portner, & Lavee, 1987; Skinner, Steinhauer, & Santa-Barbara, 1995, respectively). Measures of parental expectancies and practices regarding a child's social performance, such as the *Parental Expectancies Scale* and *Alabama Parenting Questionnaire*, are also relevant to socially anxious children (Eisen, Spasaro, Brien, Kearney, & Albano, 2004; Shelton, Frick, & Wootten, 1996, respectively).

A more intensive and specific form of family assessment regarding anxious children, including those with social phobia, was conducted by Barrett and colleagues (1996). The authors presented 12 ambiguous scenarios that could be construed as physically or socially threatening or nonthreatening (e.g., having a strange feeling in stomach, seeing other children laugh upon approach to them). Children and parents answered questions about what they believed was happening in each situation, their explanations for each situation (chosen from two threat-based and two neutral choices), and what the child would do in the situations. Videotaped

responses were later coded along avoidant, aggressive, and proactive categories. After answering the questions, families engaged in 5-minute discussions regarding one physical and one social threat scenario. Following parental help, children were instructed to give a final answer about what they would do in the given situation. Results indicated that parents enhanced avoidant responses in anxious children. Woodruff-Borden and colleagues (2002) similarly videotaped parents and their anxious children, some with social phobia, during speech preparation and problem-solving tasks. Parental behaviors were coded as engaging, withdrawn, overcontrolling, and negative. Compared to controls during the tasks, parents of anxious children were more withdrawn and less productively engaged.

Although these *formal* observations were nicely designed and conducted, their practicality for many clinical settings may be limited. Still, results of these and related studies do indicate the importance of evaluating family processes among anxious children, including those with social phobia. Questionnaire information is likely helpful in this regard, though some *general* in-session observation of family dynamics can be quite instructive as well. Suggestions for doing so are presented in Chapter 5.

BEHAVIORAL ASSESSMENT TESTS

Another common form of evaluating children with social phobia is a *behavioral assessment test*, or BAT, which usually involves having a child role play a given situation or perform in some way before others. As the child does so, various measures can be employed, such as ratings of distress (e.g., 0–100 Subjective Units of Distress Scale), independent observer ratings of child behavior, and even psychophysiological recordings. Among adults with social phobia, common BATs include conversations with others, writing or solving problems before others, and public speaking, the latter of which may have the best external validity (Hofmann, 2000; McNeil, Ries, & Turk, 1995). These scenarios may apply to youths as well.

Among children with social phobia, common BATs in research settings involve taking tests (e.g., subsections of a standardized achievement test) (Beidel, 1991), reading a story aloud, and engaging in social interactions. Beidel and colleagues (1999), for example, asked children to read aloud the story of Jack and the Beanstalk for 10 minutes before a small audience. In addition, children interacted with a trained, same-age/gender peer in different role play scenarios. These scenarios included having a conversation, giving and receiving a compliment, asking someone to change a negative behavior, and receiving an offer of help. The scenarios were then videotaped and rated for skill and perceived anxiety by independent but

blind observers. In addition, child ratings of distress were obtained and speech latency was measured. In this study, interrater reliability regarding the BAT variables was very good ($r = .80–.94$).

Behavioral assessment tests for this population are often standardized in research settings, but should probably be tailored more to a client's particular concerns in clinical settings. Among my cases of youths with social phobia, common observations involve those mentioned above in addition to approaching others for help (e.g., asking for the time, directions, or additional information), ordering food, interacting with others in a naturalistic setting (e.g., church, school, birthday party), and using appropriate social mannerisms for a given situation. Particular attention is also paid to a child's skill and effectiveness in these situations. The observations may be conducted in-session but in community-based settings as well. Before, during, and after the observations, the child usually rates his or her anxiety and/or desire to escape the situation. In addition, the therapist may rate the child's level of skill, effectiveness, anxiety, or other relevant behaviors. In urgent cases, these observations may be linked quickly to exposure-based treatment practices (see Chapter 9).

SELF-MONITORING PROCEDURES

Behavioral assessment of youths with social phobia may also be done via *self-monitoring*, or child-based daily logs of anxiety-related behaviors. Self-monitoring may be particularly useful for measuring subjective anxiety states that are best reported by a child, but may also be used to gather information about anxiety-provoking events, degree and strategies of avoidance and escape, efforts to cope with a given situation, and anxiety-based thoughts, emotions, and physical symptoms. In many cases, separate but parallel parent or teacher monitoring forms may be given as well. However, compliance regarding this form of assessment is often problematic among youths and the psychometric strength of self-monitoring remains in need of further study.

The utility and validity of self-monitoring for anxious children has been supported on a preliminary basis (Beidel, Neal, & Lederer, 1991). In this particular study, children were asked to complete a daily diary for 14 days regarding type of anxious situations, time and setting of the situations, the child's response to the situations, and endorsement of an illustration that represented how the child felt in the situations. Incentives were offered for compliance, but only 31–39% of the youths completed the measure for all 14 days. Among children with social phobia, Beidel and colleagues (1999) used daily diary ratings over a 14-day period to

assess avoidance, physical symptoms, and coping skills. Despite the use of incentives, children engaged in self-monitoring for an average of only 12.1 days.

In clinical settings, self-monitoring should be tailored to the concerns of a particular client, tied to detailed instructions about their completion, linked to incentives and consequences for compliance and noncompliance, and supervised by significant others. In addition, compliance to self-monitoring forms may be enhanced by regular contact with a child (e.g., between-session calls) and simplification (e.g., checklist, single rating). Obstacles to compliance should be addressed as well, and the importance of the measure for treatment purposes should be made repeatedly clear. If a child continues to fail to comply with self-monitoring, then other methods may be emphasized.

COGNITIVE ASSESSMENT MEASURES

As mentioned in Chapters 2 and 3, anxious children may have biased thought processes and self-focused attention that contribute to, and/or help maintain, their high levels of general and social anxiety. Assessing relevant types of cognitions may be done in various ways, including self-report questionnaires, thought listing and think-aloud procedures, and stories. Laboratory-based measures such as Stroop color-naming and probe detection tasks have also been used to assess biased attention in youths with anxiety disorders (Martin, Horder, & Jones, 1992; Vasey et al., 1995). These often computer-based measures focus on response latency to emotionally threatening words, which is sometimes longer for anxious children than controls. These measures are not generally applicable to clinical settings, however, and have methodological and theoretical limitations (Vasey, Dalgleish, & Silverman, 2003). Therefore, they are not emphasized here.

Common examples of questionnaires to measure self-statements in anxious children include the *Cognition Checklist* (for children), *Cognitive Triad Inventory for Children*, *Automatic Thoughts Questionnaire*, *Thought Checklist for Children*, *Children's Negative Cognitive Error Questionnaire*, *Negative Affect Self-Statement Questionnaire*, and *Children's Cognitive Assessment Questionnaire* (CCAQ) (Ambrose & Rholes, 1993; Kaslow, Stark, Printz, Livingston, & Tsai, 1992; Kazdin, 1990; Laurent & Stark, 1993; Leitenberg, Yost, & Carroll-Wilson, 1986; Ronan, Kendall, & Rowe, 1994; Zatz & Chassin, 1983, respectively). However, no specific self-statement-based questionnaires have been designed for youths with social anxiety or social phobia. In addition, such questionnaires are problematic anyway given children's sometimes limited cognitive development, and even adult

measures in this area have been criticized with respect to clinical utility (Woody, Chambless, & Glass, 1997).

As an alternative, *thought listing* requires a child keep a written log of thoughts before, during, and after various social and/or evaluative situations (Kendall & Chansky, 1991). The child may be asked to log thoughts in such situations as they are encountered on a daily basis or do so in a clinical setting during a behavioral assessment test. Spence and colleagues (1999), for example, assigned social-evaluative tasks to children with or without social phobia and videotaped their behaviors. Following the tasks, videotapes were reviewed with each child, who then gave ratings of their performance and recalled their cognitions during different segments. Cognitions were then coded into categories and interrater reliability was excellent (kappa = .88). *Think-aloud procedures* are similar to thought listing but require a child to *verbalize* thoughts and feelings before, during, and after a behavioral assessment test (Houston, Fox, & Forbes, 1984). Cognitions derived from these procedures may then be coded along different categories of content and valence (e.g., negative, positive, neutral) (Chansky & Kendall, 1997).

Although thought listing and think-aloud procedures are potentially useful, compliance is often problematic because of high anxiety or forgetfulness, the procedures are subject to reactivity, administration and scoring vary widely across settings, and the obtained information is sometimes limited and not clinically useful (Eisen & Kearney, 1995). For example, many children give incomplete, solitary, or only positive or only negative responses (Kendall & Chansky, 1991). Furthermore, in a comparison of questionnaire (CCAQ) and thought listing procedures among children with test anxiety, Prins and Hanewald (1997) found that the latter produced fewer positive and coping cognitions and predicted task performance less well. However, thought listing and think-aloud procedures would seem useful for assessing certain cases, particularly those involving older youths, youths whose social anxiety is clearly associated with cognitive biases, and youths for whom cognitive therapy will be used in treatment.

Another cognitive assessment method is to read very short *stories* or scenarios to children and obtain questionnaire information or ratings of threat and emotion (Field et al., 2003). Muris, Merckelbach, and Dansma (2000), for example, read seven, 5-sentence stories to children and periodically assessed their ratings of threat perception and their emotions. Childrens' thoughts were also obtained about whether they believed the stories would be threatening or nontheatening. Raters of the childrens' answers largely agreed (Kappa = .85). Bogels and Zigterman (2000) also read nine stories to children surrounding separation, social, and generalized anxiety situations. Following each story, children were asked

open- and closed-ended questions about threat, emotions, and coping strategies. Cognitions were coded as positive, negative, and neutral. Interrater reliability was generally good regarding cognition valence (kappa = .78) and categorization of negative cognitions (kappa = .63). Although the importance of cognitive content in anxious children remains controversial, the use of cognitive assessment measures is likely key to certain cases of social phobia that are clearly maintained by cognitive biases and distortions.

PHYSIOLOGICAL ASSESSMENT MEASURES

Physiological assessment of anxious children most commonly includes measures of heart rate and blood pressure, skin conductance and resistance, perspiration, adrenergic activity, and muscle tension (King, 1994). Cardiac measures have been most frequently used for youths with social phobia (Beidel, 1989). Several limitations are associated with physiological assessment of anxiety in children, however. These include unstable responses, lack of psychometric and normative data, poor clinical relevance, expense, and demands for technical sophistication and training (Schniering, Hudson, & Rapee, 2000). In addition, very little data are available with respect to the physiological status of youths with social anxiety and social phobia, and assessment in this area remains in its infancy. However, future research into how children with social phobia react in various situations may be instructive with respect to choice and priority of treatment options (e.g., somatic management exercises).

FUNCTIONAL ASSESSMENT

The measures described so far concentrate heavily on the *form* of behavior, or symptomatology. Of equal concern, however, is the *function* of behavior, or why socially anxious behaviors such as avoidance are maintained over time. In many cases, of course, social avoidance is maintained by *negative reinforcement*, or relief from anxiety as a child withdraws from a given situation. In some cases, however, social avoidance can also be maintained by factors such as *attention* and *tangible reinforcement*. For example, an anxious child may leave a birthday party early and receive extensive comfort from his parents, who have now inadvertently but positively rewarded the escape behavior. During treatment for this child, a therapist may have to address escape that is motivated as much by attention or tangible rewards as by negative reinforcement. Functional assessment of

anxiety-related behaviors has been developed for youths with school refusal behavior (Kearney, 2001), but has yet to be fully extended to youths with social phobia. Suggestions regarding the latter are presented in Chapter 5.

OTHER ASSESSMENT METHODS

Although not commonly used, other methods may also be relevant for assessing children with social anxiety. *Formal testing*, for example, including achievement or intellectual or personality instruments, can be used to assess a child's academic standing, cognitive developmental status, temperament, or other variables that could influence treatment. In addition, *projective testing* may be useful for youths with difficulty expressing specific anxiety-related thoughts or emotions or for youths who require extensive rapport-building. Finally, *sociometric measures* in the form of peer-based questions (e.g., who do you most/least like to play with?) can be useful for identifying a child's social status and degree of social isolation.

FINAL COMMENTS

The development of assessment methods for anxious children in general and youths with social anxiety and social phobia in particular has proceeded with increased pace in recent years. As such, clinicians have a wider array of tools to discover the exact nature of a child's form and function of behavior. In related fashion, the development of this wide array of measures now allows clinicians to adopt a multisource, multimethod assessment approach for this population. In addition, greater sensitivity to developmental differences may now be incorporated into an assessment approach. These themes are expanded in the next chapter, which covers recommendations for assessment in general clinical settings.