

Kutcher Generalized Social Anxiety Disorder Scale for Adolescents (K-GSADS-A)

Section A: Fear and Avoidance

Scoring: 0 = Never; 1 = Mild; 2 = Moderate; 3 = Severe/Total Avoidance

	Item	Discomfort, Anxiety, Distress (0-3)	Avoidance (0-3)
1	Initiating conversation with a member of the opposite sex		
2	Attending a party or other social gathering with people you don't know very well		
3	Speaking up, answering questions in class/participating in class discussions		
4	Presenting in front of a small group or in a classroom setting		
5	Attending overnight group activities such as camps, school trips, etc.		
6	Speaking to a store clerk, bank teller, etc.		
7	Asking a stranger for directions		
8	Changing in a common locker room		
9	Showering in a common shower room		
10	Using a public toilet facility or urinating in public (score whatever is greater)		
11	Telephoning to ask for information or to speak to someone you don't know very well (score whatever is greater)		
12	Entering a classroom or social group once the class or activity is already underway		
13	Initiating conversation with strangers		
14	Speaking with authority figures: i.e. teachers, counselor, principal, police officers, clergy, physician, etc.		
15	Eating in public		
16	Going to a party alone		
17	Asking someone for a date		
18	Writing your name in public		

Section B: Fear/Avoidance - Seminal Items

What are your three most feared social situations and how strong is the fear/avoidance of each
 Scoring: 0 = Never; 1 = Mild; 2 = Moderate; 3 = Severe/Total Avoidance

	Fear	Avoidance (0-3)
1		
2		
3		

Section C: Distress Quotient

In general, how strongly do these items occur to you in most social situations?
 Scoring: 0 = Never; 1 = Mild; 2 = Moderate; 3 = Severe/Total Avoidance

	Item	Score (0 - 3)
1	Feeling embarrassed or humiliated	
2	Feeling 'centered out', scrutinized by others	
3	Feeling judged or critically evaluated by others	
4	Wanting to leave the social situation	
5	Anxious anticipation of social situation	
6	Experiences a panic attack	
7	Blushes	
8	Sweats or hot/cold flashes	
9	Urination urges	
10	Gastrointestinal distress	
11	Trembling or shaking	

Subscale scores and Total Score:

SS1: Fear and Anxiety Score (Items A 1-18, anxiety column)	
SS2: Avoidance Score (Items A 1-18, avoidance column)	
SS3: Affective Distress Score (Items C 1-5)	
SS4: Somatic Distress Score (Items C 6-11)	
Total K-GSADS-A Score (SS1 + SS2 + SS3 + SS4)	

Interpretation of scores: There are no validated diagnostic categories associated with particular ranges of scores. All scores should be assessed relative to an individual patient's baseline score (higher scores indicating worsening social phobia, lower scores suggesting possible improvement).

The Kutcher Generalized Social Anxiety Disorder Scale for Adolescents: Assessment of its Evaluative Properties Over the Course of a 16-Week Pediatric Psychopharmacotherapy Trial

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ABSTRACT

Objective: This study investigated the psychometric properties of a new clinician-rated scale designed to assess the severity of social phobia and measure treatment outcome in adolescents: the Kutcher Generalized Social Anxiety Disorder Scale for Adolescents (K-GSADS-A).

Methods: Two hundred fifty-one (251) adolescents (11–17 years; mean age 14.2 years) with DSM-IV social phobia enrolled in a multicenter, 16-week, double-blind, placebo-controlled study of paroxetine. Efficacy assessments were conducted at baseline and at weeks 4, 8, 12, and 16 with the K-GSADS-A, three other clinician-rated scales (including the Clinical Global Impression of Severity scale), and a self-rated social phobia scale. Additionally, the Clinical Global Impression of Improvement scale was administered at each postbaseline assessment, and the Children's Depression Rating Scale—Revised was administered at baseline and at week 16. These data were used to assess the internal consistency, convergent and divergent validity, and sensitivity to change of the K-GSADS-A.

Results: The internal consistency of the K-GSADS-A was adequate, and supportive evidence was obtained for its convergent validity with other severity measures, and its divergent validity with respect to depression. The K-GSADS-A also demonstrated good sensitivity to changes in severity.

Conclusions: These results suggest that the K-GSADS-A is a valid measure of treatment outcome in adolescents with DSM-IV social phobia.

INTRODUCTION

SOCIAL PHOBIA (i.e., social anxiety disorder) is a common psychiatric disorder involving substantial comorbidity with other anxiety and personality disorders (Hazen and Stein 1995). Social phobia is also associated with financial dependency and elevated rates

of suicide (Schneier et al. 1992). Lifetime prevalence rates are as high as 13% (Anderson et al. 1987; Magee et al. 1996), and the disorder most commonly onsets in mid-adolescence (Schneier et al. 1992). During adolescence, the disorder has been shown to have a negative impact on academic achievement (Francis and Radka 1995), and to be associ-

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ated with an increased risk of alcohol abuse (Clark and Sayette 1993).

Recent years have witnessed a surge in clinical treatment studies for pediatric anxiety disorder, including social phobia (e.g., Compton et al. 2001; Pine et al. 2001; Silverman et al. 1999). The success of such studies depends on the ability of investigators to accurately measure the severity of target symptoms over time. While a few self-rated scales for assessing social anxiety severity have been shown to have validity in adolescent samples—for example, the Social Phobia Anxiety Inventory (Turner et al. 1989) and the Social Anxiety Scale for Adolescents (La Greca and Lopez 1998)—there is a dearth of clinician-rated tools designed for this purpose (Brooks and Kutcher 2003).

One recently developed clinician-rated tool for assessing symptoms of anxiety in youngsters (6–17 years) is the Pediatric Anxiety Rating Scale (PARS; Riddle et al. 2002). It appears to have promising psychometric properties for indexing the overall severity of symptoms of anxiety disorders, including symptoms of generalized anxiety disorder, social phobia, separation anxiety disorder, and specific phobia. However, neither its total score nor any of its component summary scores are specific to symptoms of social phobia.

The instrument tested in this study—the Kutcher Generalized Social Anxiety Disorder Scale for Adolescents (K-GSADS-A)—was designed specifically to serve as a measure of treatment outcome for adolescents with social phobia. At the time of its initial development (during 1999), the authors were aware of no other clinician-rated tools being available for assessing the severity of social phobia in either children or adolescents.

The scale can be administered without specific training by clinicians who have recognized competency in child and adolescent health, and who are knowledgeable about social phobia. Physicians, social workers, and nurses who have experience with socially anxious adolescents would be suitable administrators, as well as mental health specialists.

The aim of this study was to evaluate the psychometric properties of the K-GSADS-A in a clinical sample of adolescents. We examined the internal consistency, test-retest reliability,

convergent and divergent validity, and sensitivity to change of the K-GSADS-A in a sample of 251 adolescents, who enrolled in a 16-week, randomized, double-blind, placebo-controlled trial of paroxetine as a treatment for social phobia in children and adolescents. Paroxetine was established as an effective treatment in this pediatric sample (8–17 years; $n = 319$; Dineen Wagner et al. 2002). We also examined whether there were significant gender- and/or age-related differences among the responses to K-GSADS-A items in our clinical adolescent sample. Finally, we examined the similarities and differences between the K-GSADS-A and the Liebowitz Social Anxiety Scale for Children and Adolescents (LSAS-CA; Masia-Warner et al. 2003)—another clinician-rated scale for assessing pediatric social phobia, which was developed by other authors at the same time as the K-GSADS-A.

METHODS

The sample consisted of 251 adolescents (aged 11–17 years) who participated in an international multicenter, 16-week, randomized, double-blind, placebo-controlled study to evaluate the safety and efficacy of paroxetine in children and adolescents (aged 8–17 years) with DSM-IV social phobia. In this study, paroxetine was demonstrated to be an effective treatment for social phobia in this age group (Dineen Wagner et al. 2002), thus allowing for appropriate evaluation of the properties of the K-GSADS-A. Thirty-eight (38) centers contributed adolescent subjects to the study: 22 in the USA, 10 in South Africa, 4 in Canada, and 2 in Belgium. The number of adolescent subjects per center ranged from 1 to 16 (mean = 6.8; standard deviation = 3.7). At enrollment, all subjects met the DSM-IV criteria for a primary diagnosis of social phobia, as confirmed by the DSM-IV version of the Anxiety Disorders Interview Schedule for Children (ADIS-C/P; Silverman and Albano 1996). Exclusion criteria precluded the participation of patients who were judged to have a clinically predominant Axis I disorder other than social phobia, concurrent major depression, or any history of psychosis, bipolar disorder, or per-

vasive developmental disorder. Patients considered to be at-risk for suicide or homicide, and patients with a history of substance abuse or dependence within the preceding 3 months, were also excluded. Other grounds for exclusion were concurrent psychotherapy and/or the concurrent use of psychoactive medications.

The trial investigators felt that because of the chronic nature of social phobia, a standard 8- to 10-week design would not be adequate for this population. Subjects who were responding poorly to treatment with either paroxetine or a placebo could withdraw from the study at any time and be provided with an alternative treatment.

Subjects were scheduled to be assessed with the K-GSADS-A (and other instruments) on five occasions—at baseline and on four subsequent occasions; wherever possible, the same clinician (psychiatrist, clinical psychologist, or psychometrician with a minimum of 2 years of experience with pediatric patients) conducted all the assessments. Relative to the start of the paroxetine/placebo treatment, the four postbaseline assessments were scheduled for weeks 4, 8, 12, and 16. On each of these occasions, in the clinician's chosen order, subjects were rated on the K-GSADS-A, the Global Assessment of Functioning (GAF) scale, the Clinical Global Impression of Severity (CGI-S; Guy 1976) scale and the LSAS-CA. All subjects were additionally assessed on the Clinical Global Impression of Improvement (CGI-I; Guy 1976) scale at each postbaseline assessment, and with the Children's Depression Rating Scale—Revised (CDRS-R; Poznanski et al. 1985) at baseline and week 16. Subjects aged 11–13 years completed the self-rated Social Phobia and Anxiety Inventory for Children (SPAI-C; $n = 91$), while those aged 14–17 completed the self-rated Social Phobia and Anxiety Inventory (SPAI; $n = 160$).

Clinicians in centers in Belgium and South Africa were responsible for translating (and/or paraphrasing) the items of English-language copies of the various clinician-rated scales, including the K-GSADS-A, into the local language appropriate for their subjects (i.e. French, Dutch, or African). These clini-

cians were all fluent in English, as well as in their countries' local language(s). Their subjects were given the appropriate written translation of the self-rated SPAI or SPAI-C. French-language versions of these scales were already available prior to the study. Dutch and African translations were produced for the study; back-translations were performed to check for clarity and consistency with the original SPAI and SPAI-C scales.

Measures

K-GSADS-A. The K-GSADS-A is a new, clinician-rated instrument for assessing the severity of social phobia in adolescents (11–17 years) and for measuring treatment outcome. It was developed by the second author (an expert in adolescent mental health), in conjunction with input from physicians and nurses who have years of experience in treating socially phobic adolescents and trying to monitor their symptoms. The K-GSADS-A has three sections, each reflecting different aspects of social phobia. A list of items describing different social situations in which adolescents may feel exposed to possible scrutiny by others (strangers and peers) was drafted, in accordance with DSM-IV diagnostic criteria for social phobia. This list was subsequently revised in light of the results of a survey of over 60 socially anxious adolescents (13–19 years), which asked participants to report the most troublesome situations they faced with regard to their disorder.

Eighteen (18) items (e.g., "initiating conversation with a member of the opposite sex") were selected to comprise Section A of the K-GSADS-A. Each item is rated on a scale of 0 (none) to 3 (severe/total avoidance) for:

- i. the level of discomfort/distress/anxiety that the adolescent associates with the situation and
- ii. the adolescent's level of avoidance of the situation.

The ratings of discomfort and avoidance should reflect a clinical judgement of actual situations. However, if the subject indicates that he/she has not had any opportunity to

participate in a specified social situation during the period of interest (e.g., since the last assessment), despite previously reporting discomfort and/or avoidance for that situation, the clinician should mention the previous identification of the situation (e.g., "In the past, you have identified [describe situation] as difficult for you . . .") and assess the degree of discomfort and avoidance that the subject would have experienced if the situation had arisen in the past week. (E.g., "Imagine that the situation occurred during the past week. How much discomfort/distress/anxiety would it have caused you? How strongly would you have avoided the situation?")

While most socially anxious adolescents will report some anxiety and/or avoidance for many of the items in Section A, the specific social situation(s) causing the most interference with daily social functioning for a particular individual may not necessarily appear in the list. This is a potential problem for all social phobia rating scales that purport to provide measures of severity and treatment outcome with a limited list of social situations. To overcome this contingency, Section B prompts for the adolescent's three most problematic social situations, to be recorded and then to be rated as for Section A items. On repeated administration of the K-GSADS-A, ratings would be made for the same three situations specified at the initial assessment.

Section C enables the investigation of whether a particular treatment has differential effects on affective and somatic symptoms. It contains a total of 11 items describing "affective distress" symptoms (e.g., "wanting to leave the social situation") and "somatic distress" symptoms (e.g., "urination urges") and prompts for ratings of how strongly each symptom occurs in most social situations, on a scale of 0 (never experienced) to 3 (severe).

Four subscale scores are calculated:

- i. Fear and Anxiety (the sum of Section A's 18 discomfort ratings);
- ii. Avoidance (the sum of Section A's 18 avoidance ratings);
- iii. Affective Distress (the sum of Section C's "affective" item scores); and

- iv. Somatic Distress (the sum of Section C's "somatic" item scores).

The K-GSADS-A Total Score is the sum of these four subscale scores. (Section B scores do not contribute to the Total Score.) Its possible score range is 0 to 141.

ADIS-C/P. The DSM-IV ADIS-C/P is a semi-structured interview schedule designed to enable trained clinicians to differentially diagnose anxiety disorders in youngsters aged 6–17 years. It also enables the clinician to rate symptoms of other disorders. Diagnoses can be provided on the basis of the child interview (ADIS-C), or the parent interview (ADIS-P), or both (ADIS-C/P). Good test-retest reliability of DSM-IV ADIS-C/P diagnoses has been demonstrated in a clinical sample of adolescents (Silverman et al. 2001). The DSM-III-R version of the instrument has been shown to have good interrater reliability (Rapee et al. 1994), and youngsters with DSM-III-R ADIS-C diagnoses (i.e., based on child-only interviews) have been shown to score higher on other measures of anxiety than normal youngsters (Beidel et al. 1995; Vasey et al. 1995).

CGI-S. The CGI-S scale is a clinician-rated measure of the severity of a subject's illness. Possible scores range from 1 (normal, not at all ill) to 7 (among the most extremely ill).

CGI-I. The CGI-I scale is a clinician-rated measure of the change in the subject's illness from baseline. Possible scores range from 1 (very much improved) through 4 (no change) to 7 (very much worse).

GAF. The GAF scale is a clinician-rated scale for assessing a subject's current overall level of psychological, social, and occupational functioning. Broadband score guidelines (brief notes and examples) are provided. Potential scores range from 1 (lowest level of functioning) to 100 (superior functioning).

LSAS-CA. The 24-item LSAS-CA is a recently developed clinician-rated instrument for rating social anxiety in children and adolescents.

It is akin to the Liebowitz Social Anxiety Scale (Liebowitz 1987) for adults. The LSAS-CA is designed to investigate 12 social interaction and 12 performance situations that youngsters may fear and/or avoid. The clinician prompts the subject to provide separate ratings on a scale of 0 to 3 of his or her:

- i. anxiety and
- ii. avoidance of each situation.

The clinician can question the subject's responses and adjust ratings based on the clinical judgment and direct observation of the subject. The LSAS-CA provides seven scores that are calculated by summing the appropriate ratings:

- a. anxiety related to social interaction,
- b. performance anxiety,
- c. total anxiety,
- d. avoidance of social interaction,
- e. avoidance of performance situations,
- f. total avoidance, and
- g. a total LSAS-CA score.

A recent psychometric evaluation of the LSAS-CA indicates that it has high internal consistency ($0.90 \leq \text{Cronbach's [1951] alpha} \leq 0.97$) and good interrater reliability ($0.89 \leq \text{intra-class correlation coefficients [ICC]} \leq 0.94$) over a test-retest interval of 3 to 7 days. The instrument's ability to discriminate from youngsters with social phobia from normal controls and from youngsters with other anxiety disorders has also been demonstrated (Masia-Warner et al. 2003).

SPAI and SPAI-C. The 45-item SPAI is a self-report scale designed to assess the severity of social phobia in adolescents and adults. It consists of a 32-item social phobia scale and a 13-item agoraphobia scale. Subjects rate on a 7-point scale (0 = "never" to 6 = "always") how often their feelings, thoughts, or avoidance behaviors match those described in the item. The range of total scores possible for the social phobia and agoraphobia scales are 0 to 192 and 0 to 78. The SPAI "difference" score is calculated by subtracting the agoraphobia

score from the social phobia score, and it can range from -78 to 192. The internal consistency, test-retest reliability, and diagnostic validity of the SPAI has been demonstrated in adolescent samples (Clark et al. 1994; García-López et al. 2001).

The 26-item SPAI-C is an adaptation of the SPAI, designed to be suitable for children and younger adolescents. Subjects rate on a 3-point scale (0 = "never, or hardly ever," 1 = "sometimes," 2 = "most of the time, or always") how often their experiences match those described in each item. All items relate to social phobia. (There is no agoraphobia scale.) The total score can range from 0 to 52. The SPAI-C has been shown to be internally consistent and to have good test-retest reliability (Beidel et al. 1995). Its convergent validity with other measures of social anxiety and its diagnostic validity has also been demonstrated (Beidel et al. 1996; 2000).

CDRS-R. The 17-item CDRS-R is a clinician-rated instrument designed to measure the severity of depression in children aged 6–12 years (Poznanski et al. 1985). The items cover impairment of schoolwork, difficulty having fun, social withdrawal, sleep disturbance, appetite disturbance, fatigue, preoccupation with physical complaints, irritability, guilt, low self-esteem, depressed feelings, morbid ideation, suicidal ideation, weeping, depressed facial affect, listless speech, and hyperactivity. Possible raw score totals range from 17 to 113. It has high interrater reliability, good test-retest reliability, good internal consistency, and good convergent and discriminative validity (Poznanski and Mokros 1996); although designed for 6- to 12-year-olds, it has also been used successfully with adolescents.

Statistical analyses

All adolescents were included in each analysis if their data from the relevant instruments were complete. K-GSADS-A data from Section B of the instrument was not analyzed because this section was not implemented correctly in the research study. Investigators asked

subjects to name (and rate their fear and avoidance of) their three most feared social situations anew at each assessment, rather than asking subjects to rate their fear and avoidance of the three situations that subjects specified at their baseline assessment. Subjects did not always report the same three social situations, which then made it impossible to monitor the outcome of these particular items, as intended. Other than this problem with Section B, there were no systematic missing data, although some data were missing for one or more measures at each assessment.

Analyses of variance (ANOVAs) were conducted to examine whether there were any age- or gender-related differences among subjects' K-GSADS-A ratings at baseline. Subjects were categorized as either preteens (11–12 years), young teens (13–15 years), or older teens (16–17 years) in these analyses. Where appropriate, significant main effects were investigated further with post hoc Bonferroni pairwise comparison tests. All tests were two-tailed. Significance is reported at the $p < 0.05$ level.

Internal consistency. The internal consistency of the K-GSADS-A was assessed by calculating Cronbach's alpha for the full instrument (i.e., all item scores contributing to the Total Score) and for each of its four subscales, and by computing Pearson product-moment correlation coefficients among the subscale scores and Total Score.

Test-retest reliability. The test-retest reliability of the K-GSADS-A Total Score was estimated by computing the single-measure one-way random effects ICC for the baseline and week 4 scores of subjects in the placebo group. Subjects in the paroxetine group were excluded, to avoid drug effects influencing the reliability coefficient.

Validity. The convergent validity of the K-GSADS-A was evaluated by calculating Pearson or Spearman (as appropriate) correlation coefficients between the K-GSADS-A Total Score and the CGI-S and GAF ratings, the LSAS-CA total score, and the SPAI "Difference" score or the SPAI-C total score. A preliminary assessment of divergent validity with

respect to depression was conducted by examining the correlation between the total scores of the K-GSADS-A and the CDRS-R.

Sensitivity to change. Correlations were computed between absolute changes in subjects' K-GSADS-A Total Scores from baseline to week 16 and absolute changes in their CGI-S, GAF, LSAS-CA, and SPAI/SPAI-C scores over the same period. The correlation between absolute changes in subjects' K-GSADS-A Total Scores and their CGI-I ratings at week 16 was also computed. These calculations were conducted to establish whether the overall changes (or lack of change) in illness severity between the beginning and end of the study suggested by the other instruments' scores were being mirrored by similar changes (or constancy) in subjects' K-GSADS-A Total Scores. The calculations essentially assessed the extent to which the ranking of subjects according to the direction (improvement/worsening) and magnitude of illness change suggested by their change scores on the K-GSADS-A agreed with their rankings according to each of their change scores on the other instruments.

Other correlation computations were conducted to further assess whether subjects' patterns of K-GSADS-A Total Scores across the five assessments were mirrored by corresponding patterns in their other instruments' scores. For each subject whose data were complete for all five assessments ($n = 142$), the correlations between his or her five K-GSADS-A Total Scores and his or her five concurrent ratings on each of the other instruments were calculated in turn. I.e., for each subject, the following four within-subject correlations were computed: K-GSADS-A versus CGI-S; K-GSADS-A versus GAF; K-GSADS-A versus LSAS-CA; and K-GSADS-A versus SPAI or SPAI-C.

Analyses were also conducted to assess whether K-GSADS-A Total Scores significantly distinguished between the placebo and paroxetine groups over the course of the trial. A two-way ANOVA, with the treatment group and gender as between-subject factors, was conducted on baseline scores of subjects for whom there were no missing K-GSADS-A data. Cor-

relation coefficients between these subjects' baseline and postbaseline K-GSADS-A Total Scores were calculated. Finally, multivariate ANOVAs with the treatment group and gender as between-subject factors were conducted on these subjects' postbaseline (weeks 4, 8, 12, and 16) K-GSADS-A Total Scores, with baseline K-GSADS-A Total Scores used as the covariate.

RESULTS

One hundred and twenty-five (125) subjects were male (50%) and 126 subjects were female. Subjects' mean age at enrollment was 14.2 years (range 11–17 years). Two hundred and eleven (211) subjects (84%) were Caucasian, 9 subjects (4%) were Hispanic, 8 subjects (3%) were African-American, 11 subjects (4%) were of mixed race, and 12 subjects (5%) were of other races. One hundred and twenty six (126) subjects were randomized to paroxetine treatment, and the remaining 125 were randomized to placebo. Eighty-two (82) subjects met the ADIS-C/P criteria for between 1 and 4 other anxiety disorders: generalized anxiety disorder ($n = 55$); specific phobia ($n = 36$); separation anxiety disorder ($n = 22$); posttraumatic stress disorder ($n = 5$); agoraphobia ($n = 4$); obsessive compulsive disorder ($n = 2$); and panic disorder ($n = 1$).

Retention of subjects. One hundred and eighty-five (185) (74%) of the subjects participated throughout the full 16 weeks of the study. An unpaired t test on subjects' ages and chi-squared tests on their gender, race, and treatment condition (i.e., paroxetine/placebo) variables indicated that these 185 "completers" (mean age 14.2 years; 85 males; 158 Caucasians; 100 taking paroxetine) did not differ significantly from the 66 "noncompleters" (mean age 14.4 years; 40 males; 53 Caucasians; 26 taking paroxetine) on any of these variables, although gender and treatment condition differences approached some statistical significance ($\chi^2 = 3.6$, $p = 0.057$, in both cases).

Baseline scores. The means and standard deviations of individual K-GSADS-A Section A and

Section C item scores at baseline are presented in Table 1 for the age and gender subgroups and for the total sample. Regarding Section A, preteens' (11–12 years; $n = 56$) baseline item scores (fear and anxiety ratings, and avoidance ratings) were generally slightly lower than those of young teens (13–15 years; $n = 120$) and older teens (16–17 years; $n = 75$); these differences were significant ($p < 0.05$) for Items A9 ("showering in a common shower room"), A15 ("eating in public"), and A16 ("going to a party alone"). Young teens' scores tended to be higher than those of preteens and older teens; these differences were significant for Items A9 and A15. Regarding Section C, preteens' ratings for Item C5 ("anxious anticipation of social situation") were significantly lower than those of older teens, and preteens' Item C8 ("sweats or hot/cold flashes") ratings were significantly lower than those of young teens, but no other differences were significant among the age categories. Females' Section A ratings were generally somewhat higher than those of males, though significantly so only for Item A3 ("Speaking up, answering questions in class/participating in class discussions"). Females' Section C ratings were also generally higher than those of males, significantly so for items C2 ("feeling 'centered out,' scrutinized by others"), C3 ("feeling judged or critically evaluated by others"), C4 ("wanting to leave the social situation"), and C10 ("gastrointestinal distress").

Internal consistency. Prior to this study, Items C1–C6 were originally deemed "affective distress" items while Items C7–C11 were deemed "somatic distress" items. However, the internal consistency analyses indicated that Item C6 ("experiences a panic attack") would be better considered part of the "somatic distress" subscale. Table 2 shows the mean, standard deviation, and range of Cronbach's α values obtained across the five assessments (i.e., the baseline assessment and four subsequent assessments) for the K-GSADS-A Total Score, the subscale scores as they were originally designed, and the modified Section C subscales, in which the affective distress subscale comprises Items C1–C5, and the somatic distress subscale comprises

TABLE 1. MEAN (AND STANDARD DEVIATION) K-GSADS-A ITEM SCORES AT BASELINE FOR AGE AND GENDER SUBGROUPS AND THE TOTAL SAMPLE

Item number and abbreviated content	Rating	Preteens	Young teens	Older teens	Males	Females	Total
		(11–12 years; n = 56)	(13–15 years; n = 120)	(16–17 years; n = 75)	(n = 125)	(n = 126)	sample (n = 251)
A1: start conversation with s/o of opposite sex	fear	2.0 (1.1)	2.0 (1.1)	2.1 (0.9)	2.1 (1.0)	2.0 (1.1)	2.0 (1.0)
	avoidance	2.0 (1.2)	2.0 (1.1)	1.9 (1.0)	2.0 (1.1)	2.0 (1.1)	2.0 (1.1)
A2: attend party with people not known well	fear	2.1 (1.0)	2.4 (0.7)	2.5 (0.7)	2.3 (0.8)	2.4 (0.8)	2.4 (0.8)
	avoidance	2.1 (1.1)	2.4 (0.8)	2.3 (1.0)	2.3 (1.0)	2.4 (0.9)	2.3 (0.9)
A3: speak up or answer in class (discussion)	fear	1.7 (1.2)	2.1 (1.0)	2.0 (1.0)	1.8 (1.1) <	< 2.2 (1.0)	2.0 (1.1)
	avoidance	1.8 (1.1)	2.0 (1.0)	2.0 (1.1)	1.8 (1.1) <	< 2.2 (1.0)	2.0 (1.1)
A4: make presentation to class/small group	fear	2.0 (1.1)	2.3 (0.9)	2.4 (0.8)	2.2 (0.9)	2.4 (0.9)	2.3 (0.9)
	avoidance	1.9 (1.2)	2.1 (1.0)	2.2 (0.9)	2.0 (1.0)	2.1 (1.0)	2.1 (1.0)
A5: attend overnight activity	fear	1.4 (1.1)	1.6 (1.1)	1.5 (1.0)	1.5 (1.1)	1.6 (1.1)	1.5 (1.1)
	avoidance	1.3 (1.2)	1.6 (1.2)	1.4 (1.1)	1.4 (1.2)	1.5 (1.2)	1.4 (1.2)
A6: speak to store clerk, etc.	fear	1.6 (1.1)	1.8 (1.0)	1.4 (1.0)	1.6 (1.0)	1.7 (1.1)	1.6 (1.0)
	avoidance	1.6 (1.1)	1.8 (1.1)	1.4 (1.1)	1.6 (1.1)	1.7 (1.2)	1.6 (1.1)
A7: ask stranger for directions	fear	2.1 (1.0)	2.0 (1.0)	1.8 (1.1)	1.9 (1.0)	2.0 (1.0)	2.0 (1.0)
	avoidance	2.0 (1.0)	2.1 (1.1)	1.7 (1.2)	1.9 (1.1)	2.0 (1.1)	1.9 (1.1)
A8: change in common locker room	fear	1.6 (1.2)	1.6 (1.2)	1.4 (1.2)	1.5 (1.1)	1.6 (1.2)	1.5 (1.2)
	avoidance	1.5 (1.3)	1.5 (1.3)	1.4 (1.3)	1.4 (1.2)	1.5 (1.3)	1.5 (1.3)
A9: shower in common shower room	fear	2.0 (1.2) <	< 2.4 (1.0) >	> 1.9 (1.2)	2.0 (1.2)	2.2 (1.1)	2.1 (1.1)
	avoidance	1.9 (1.2) <	< 2.4 (1.0) >	> 1.9 (1.3)	2.0 (1.2)	2.3 (1.1)	2.1 (1.2)
A10: use public toilets or urinate in public	fear	1.0 (1.2)	1.2 (1.2)	0.8 (1.0)	1.0 (1.1)	1.0 (1.2)	1.0 (1.2)
	avoidance	0.9 (1.1)	1.0 (1.2)	0.8 (1.0)	0.9 (1.1)	1.0 (1.2)	0.9 (1.1)
A11: phone to get info or phone s/o not known well	fear	1.7 (1.2)	2.0 (1.0)	1.7 (1.1)	1.7 (1.1)	1.9 (1.1)	1.8 (1.1)
	avoidance	1.7 (1.3)	1.9 (1.0)	1.6 (1.2)	1.7 (1.1)	1.9 (1.1)	1.8 (1.1)
A12: join class or group after activity started	fear	1.5 (1.1)	2.0 (1.0)	2.0 (1.0)	1.7 (1.1)	2.0 (1.0)	1.9 (1.0)
	avoidance	1.4 (1.2)	1.7 (1.1)	1.9 (1.1)	1.6 (1.1)	1.8 (1.2)	1.7 (1.2)
A13: start conversation with strangers	fear	2.3 (0.8)	2.3 (0.8)	2.2 (0.9)	2.2 (0.9)	2.3 (0.8)	2.2 (0.9)
	avoidance	2.3 (0.9)	2.2 (0.9)	2.2 (1.0)	2.2 (0.9)	2.3 (0.9)	2.2 (0.9)
A14: speak with authority figure	fear	1.9 (1.1)	1.9 (1.0)	1.9 (0.9)	1.8 (1.0)	2.0 (1.0)	1.9 (1.0)
	avoidance	1.8 (1.1)	1.8 (1.0)	1.9 (1.0)	1.8 (1.0)	1.9 (1.1)	1.8 (1.0)
A15: eat in public	fear	0.8 (1.1) <	< 1.2 (1.1) >	> 0.8 (1.1)	0.9 (1.0)	1.2 (1.2)	1.0 (1.1)
	avoidance	0.8 (1.1) <	< 1.2 (1.2) >	> 0.7 (1.1)	0.9 (1.1)	1.0 (1.2)	0.9 (1.1)
A16: go to party alone	fear	1.9 (1.1) <	< 2.5 (0.9)	< 2.4 (0.9)	2.3 (1.0)	2.4 (0.9)	2.3 (1.0)
	avoidance	1.9 (1.2) <	< 2.5 (0.9)	< 2.4 (0.9)	2.3 (1.0)	2.4 (0.9)	2.3 (1.0)
A17: ask s/o for a date	fear	2.6 (0.9)	2.6 (0.9)	2.5 (0.9)	2.5 (0.8)	2.5 (0.9)	2.5 (0.9)
	avoidance	2.3 (1.1)	2.4 (1.0)	2.3 (1.1)	2.3 (1.0)	2.4 (1.0)	2.4 (1.0)
A18: write name in public	fear	0.7 (1.1)	0.9 (1.0)	0.8 (1.0)	0.7 (1.0)	0.8 (1.1)	0.8 (1.0)
	avoidance	0.7 (1.1)	0.8 (1.1)	0.6 (1.0)	0.7 (1.0)	0.8 (1.1)	0.7 (1.1)
C1: feel embarrassed	severity	2.3 (0.9)	2.3 (0.8)	2.2 (0.8)	2.2 (0.8)	2.3 (0.8)	2.3 (0.8)
C2: feel scrutinized	severity	2.1 (1.0)	2.2 (0.8)	2.2 (0.9)	2.1 (0.9) <	< 2.3 (0.9)	2.2 (0.9)
C3: feel judged	severity	2.0 (1.0)	2.4 (0.8)	2.4 (0.9)	2.2 (0.9) <	< 2.4 (0.8)	2.3 (0.9)
C4: want to leave	severity	2.3 (0.9)	2.3 (0.8)	2.4 (0.9)	2.3 (0.9) <	< 2.5 (0.8)	2.3 (0.8)
C5: anxious anticipation	severity	2.1 (1.0) <	2.3 (0.8)	< 2.5 (0.7)	2.3 (0.9)	2.4 (0.7)	2.3 (0.8)
C6: have panic attack	severity	1.2 (1.1)	1.2 (1.1)	1.1 (1.1)	1.2 (1.1)	1.1 (1.1)	1.1 (1.1)
C7: blush	severity	1.7 (1.2)	1.6 (1.1)	1.7 (1.0)	1.5 (1.0)	1.7 (1.1)	1.6 (1.1)
C8: sweat or hot/cold flash	severity	1.1 (1.0) <	< 1.5 (1.0)	1.3 (1.1)	1.2 (1.0)	1.4 (1.1)	1.3 (1.1)
C9: urination urge	severity	0.4 (0.8)	0.7 (0.9)	0.5 (0.9)	0.6 (0.9)	0.6 (0.9)	0.6 (0.9)
C10: gastrointest. distress	severity	1.1 (1.2)	1.3 (1.2)	1.2 (1.1)	1.0 (1.2) <	< 1.5 (1.1)	1.2 (1.2)
C11: tremble or shake	severity	1.2 (1.1)	1.2 (1.0)	1.4 (1.1)	1.1 (1.0)	1.4 (1.1)	1.3 (1.1)

K-GSADS-A = Kutcher Generalized Social Anxiety Disorder Scale for Adolescents. Scores in the same row that are both marked with an identical symbol as one another (either a "<" or a ">") are significantly different from one another at $p < 0.05$. For example, regarding the row displaying fear ratings for item A9, the "<" symbols indicate that preteens' scores are significantly different from those of younger teens, while the ">" symbols indicate that younger teens' scores were also significantly different from those of older teens. (Preteens' and older teens' scores do not share the same symbol, indicating that they do not significantly differ from one another.)

Items C6–C11. Internal consistency of the full instrument, and three of the four original sub-

scales, was good; that of the original five-item Somatic Distress subscale was borderline

TABLE 2. INTERNAL CONSISTENCY OF THE K-GSADS-A: CRONBACH'S ALPHA VALUES, α , ACROSS THE FIVE ASSESSMENTS (I.E., BASELINE AND WEEKS 4, 8, 12, AND 16)

(Sub)scale	Items	Mean α	SD	Range
Fear and Anxiety subscale	A1-A18	0.92	0.02	0.89 to 0.93
Avoidance subscale	A1-A18	0.91	0.02	0.88 to 0.92
original Affective Distress subscale	C1-C6	0.84	0.05	0.76 to 0.89
modified Affective Distress subscale	C7-C11	0.86	0.05	0.78 to 0.91
original Somatic Distress subscale	C1-C5	0.70	0.05	0.63 to 0.76
modified Somatic Distress subscale	C6-C11	0.74	0.05	0.68 to 0.80
Full instrument	All A and C items	0.96	0.01	0.94 to 0.97

K-GSADS-A = Kutcher Generalized Social Anxiety Disorder Scale for Adolescents.
SD = Standard Deviation.

unsatisfactory. Internal consistency results for both the modified Affective Distress subscale and the modified Somatic Distress subscale were better than their corresponding original subscales. Henceforth, further results will be reported only for the modified versions of these subscales.

The mean correlation coefficients obtained among the K-GSADS-A subscale scores and Total Score across the five assessments are shown in Table 3. Throughout the study, the correlations were all positive and statistically significant. The Section A subscales (Fear and Anxiety, and Avoidance) correlated very strongly with one another and with the K-GSADS-A Total Score (all $r \geq 0.92$). The Section C subscales correlated fairly strongly with the Total Score ($0.60 \leq r \leq 0.81$), moderately with one another ($0.51 \leq r \leq 0.68$), and moderately with the Section A subscales ($0.44 \leq r \leq 0.73$).

Mean scores of the gender and age subgroups. The means and standard deviations of the subscale

scores and Total Scores at baseline are presented in Table 4 for the age and gender subgroups, and for the total sample. No statistically significant differences were observed among the age groups for any of these baseline scores, although preteens' scores were generally slightly lower than those of young and older teens. Females' subscale scores and Total Scores were generally slightly higher than those of males, but this difference was statistically significant only for the Affective Distress subscale score.

Test-retest reliability. Of the 125 placebo subjects, 110 subjects completed their baseline and week 4 assessments with the K-GSADS-A. Their mean (and standard deviation) Total Scores were 81.9 (25.3) and 68.0 (27.2), respectively. The one-way random effects ICC was 0.64 ($0.52 \leq ICC \leq 0.74$ at the 95% confidence interval; $F[109, 110] = 4.55$), indicating a fair level of agreement in scores over this 4-week interval, considering the likely placebo effect on their postbaseline symptoms.

TABLE 3. INTERNAL CONSISTENCY: MEAN (AND RANGE) OF CORRELATION COEFFICIENTS AMONG K-GSADS-A SUBSCALE SCORES AND THE TOTAL SCORE ACROSS THE FIVE ASSESSMENTS (I.E., BASELINE AND WEEKS 4, 8, 12, AND 16)

Mean (range)	Fear and anxiety	Avoidance	Affective distress (items C1-C5)	Somatic distress (items C6-C11)
Total Score	0.97 (0.97-0.98)	0.96 (0.96-0.97)	0.77 (0.71-0.81)	0.68 (0.60-0.73)
Fear and Anxiety	1	0.93 (0.92-0.94)	0.68 (0.62-0.73)	0.58 (0.47-0.64)
Avoidance		1	0.64 (0.59-0.68)	0.65 (0.44-0.62)
Affective Distress			1	0.62 (0.51-0.68)

K-GSADS-A = Kutcher Generalized Social Anxiety Disorder Scale for Adolescents.

TABLE 4. MEAN (AND STANDARD DEVIATION) K-GSADS-A SUBSCALES SCORES AND THE TOTAL SCORE AT BASELINE FOR AGE AND GENDER SUBGROUPS AND THE TOTAL SAMPLE

(Sub)scale	<i>Preteens</i>	<i>Young teens</i>	<i>Older teens</i>	<i>Males</i>	<i>Females</i>	<i>Total sample</i>
	(11–12 years; <i>n</i> = 56)	(13–15 years; <i>n</i> = 120)	(16–17 years; <i>n</i> = 75)	(<i>n</i> = 125)	(<i>n</i> = 126)	(<i>n</i> = 251)
Fear and Anxiety Avoidance	30.9 (11.9)	34.4 (11)	31.9 (9.3)	31.6 (10.5)	34.2 (10.9)	32.9 (10.8)
Affective Distress (items C1–C5)	29.8 (12.5)	33.4 (11.0)	30.6 (10.4)	30.7 (10.9)	32.8 (11.5)	31.8 (11.3)
Somatic Distress (items C6–C11)	10.8 (3.5)	11.5 (2.9)	11.6 (2.9)	11.0 (3.0)*	11.8 (3.1)*	11.4 (3.0)
Total Score	78.1 (28.8)	86.7 (25.8)	81.3 (22.7)	79.8 (25.1)	86.5 (26.1)	83.2 (25.8)

K-GSADS-A = Kutcher Generalized Social Anxiety Disorder Scale for Adolescents. Scores sharing * symbols are significantly different from one another at $p < 0.05$.

Validity. Table 5 summarizes the correlation coefficients obtained between the K-GSADS-A Total Scores and scores on the other measures of anxiety. All correlations were in the expected directions and statistically significant, although they were less strong at baseline than at subsequent assessments, possibly because of restricted score ranges in the early stages of the study (because of the absence of “normal” subjects in the sample); most of the correlations increased in magnitude at each successive assessment. Correlations with the CGI-S and GAF were generally moderate in strength. Correlations with the LSAS-CA were very

strong. Correlations with the self-rated SPAI and SPAI-C were also strong.

At baseline, the correlation between the K-GSADS-A Total Score and the CDRS-R was very weak ($r = 0.10$) and not statistically significant, although this could have been partly because of the restricted K-GSADS-A score range (because “normal” subjects were absent from the sample) at baseline and/or partly because of a restricted score range on the CDRS-R (because concurrent depression was one of the study’s exclusion criteria). At week 16, the correlation ($r = 0.43$; $n = 180$) was statistically significant, but still relatively weak, compared

TABLE 5. CONVERGENT VALIDITY OF THE K-GSADS-A TOTAL SCORE WITH OTHER INDICES: CORRELATION COEFFICIENTS, *r*, AND NUMBER OF SUBJECTS, *n*, ACROSS THE FIVE ASSESSMENTS (I.E., BASELINE AND WEEKS 4, 8, 12, AND 16)

Assessment: Instrument	Baseline		Week 4		Week 8		Week 12		Week 16	
	<i>r</i>	<i>n</i>								
CGI-S [‡]	0.31	251	0.41	224	0.50	195	0.56	185	0.62	173
GAF [‡]	–0.26	251	–0.47	227	–0.57	199	–0.58	190	–0.69	181
LSAS-CA [†]	0.89	251	0.92	227	0.93	199	0.94	190	0.93	181
SPAI [†]	0.56	173	0.67	155	0.74	134	0.75	131	0.79	121
SPAI-C [†]	0.70	74	0.77	66	0.84	57	0.76	57	0.72	53

CGI-S = Clinical Global Impression of Severity; GAF = Global Assessment of Functioning; K-GSADS-A = Kutcher Generalized Social Anxiety Disorder Scale for Adolescents;

LSAS-CA = Liebowitz Social Anxiety Scale for Children and Adolescents;

SPAI = Social Phobia Anxiety Inventory; SPAI-C = SPAI for Children.

[‡]Spearman’s formula.

[†]Pearson’s formula.

[‡]Correlations with the GAF were negative, as high GAF scores indicate high functioning levels.

to correlations between the K-GSADS-A and the other anxiety measures at this assessment; again, however, a restricted score range on the CDRS-R could have contributed to the relative weakness of this correlation.

Sensitivity to change. Table 6 shows correlations between the change scores (week 16 scores—baseline scores) of the K-GSADS-A Total Score and those of the other instruments, and the correlation between week 16 CGI-I ratings and the K-GSADS-A change scores. The correlations were all in the expected directions and were statistically significant. Correlations with the CGI-S, GAF, and CGI-I were moderate in strength. The correlation with the LSAS-CA was very strong. Correlations with the SPAI and SPAI-C were also strong.

Table 7 shows the mean, median, standard deviation, and range of within-subject correlation coefficients obtained for the K-GSADS-A Total Scores with each of the other anxiety measures for the 142 subjects whose data were complete for all five assessments. Medians were included because the means were affected by a small number of outlying values. The correlations were generally strong, indicating that fluctuations in each subject's K-GSADS-A Total Scores from assessment to assessment were generally well matched by corresponding fluctuations in his or her scores on the other instruments.

TABLE 6. CORRELATIONS BETWEEN CHANGE SCORES OF THE K-GSADS-A TOTAL SCORE AND CORRESPONDING SCORES ON THE OTHER OUTCOME MEASURES

Other outcome measures	Correlation with the K-GSADS change score
CGI-I ratings at week 16 (n = 179)	-0.63 ^{†*}
CGI-S change scores (n = 173)	0.47 [†]
GAF change scores (n = 181)	-0.65 ^{†f}
LSAS-CA change scores (n = 181)	0.90 [†]
SPAI change scores (n = 119)	0.79 [†]
SPAI-C change scores (n = 52)	0.79 [†]

CGI-I = Clinical Global Impression of Improvement; CGI-S = Clinical Global Impression of Severity; GAF = Global Assessment of Functioning; K-GSADS-A = Kutcher Generalized Social Anxiety Disorder Scale for Adolescents; LSAS-CA = Liebowitz Social Anxiety Scale for Children and Adolescents; SPAI = Social Phobia Anxiety Inventory; SPAI-C = SPAI for Children.

[†]Spearman's formula.

*The correlation with CGI-I ratings was negative because while positive change scores in the K-GSADS-A indicate worsening, higher positive CGI-I ratings indicate improvements.

[†]Pearson's formula.

^fThe correlation with the GAF was negative because while negative change scores in the K-GSADS-A indicate improvement, negative change scores in the GAF scale indicate worsening.

An ANOVA conducted on the baseline K-GSADS-A Total Scores of all subjects whose baseline and postbaseline K-GSADS-A data were complete (n = 163) revealed that the baseline scores of paroxetine and placebo subjects

TABLE 7. THE MEAN, MEDIAN, STANDARD DEVIATION AND RANGE OF WITHIN-SUBJECT CORRELATION COEFFICIENTS PRODUCED BY SUBJECTS WHOSE DATA WERE COMPLETE FOR ALL FIVE ASSESSMENTS (I.E., BASELINE AND WEEKS 4, 8, 12, AND 16)

K-GSADS-A versus . . .	Mean <i>r</i>	Median	SD	Range
CGI-S (n = 142)	0.57 [†]	0.78	0.47	-0.97 to 0.99
GAF (n = 142)	-0.70 ^{†&f}	-0.87	0.41	-0.85 to -1.00
LSAS-CA (n = 142)	0.83 [†]	0.95	0.26	-0.34 to 1.00
SPAI (n = 99)	0.71 [†]	0.88	0.36	-0.51 to 1.00
SPAI-C (n = 43)	0.69 [†]	0.82	0.38	-0.45 to 1.00

CGI-S = Clinical Global Impression of Severity; GAF = Global Assessment of Functioning; K-GSADS-A = Kutcher Generalized Social Anxiety Disorder Scale for Adolescents; LSAS-CA = Liebowitz Social Anxiety Scale for Children and Adolescents; SD = standard deviation; SPAI = Social Phobia Anxiety Inventory; SPAI-C = SPAI for Children.

[†]Spearman's formula.

[†]Pearson's formula.

^fCorrelations with the GAF were generally negative, as high GAF scores indicate high functioning levels.

did not differ ($F < 1$). There was a significant main effect of gender ($F = 6.98$), with males' scores (mean = 74.8, $SD = 24.7$) being significantly lower than females' scores (mean = 85.0, $SD = 25.7$), but the interaction between treatment group and gender was not significant. There were significant correlations between these subjects' baseline scores and their week 4, week 8, week 12, and week 16 scores ($r = 0.68, 0.50, 0.37, \text{ and } 0.34$, respectively). A multivariate ANOVA conducted on these postbaseline data, with treatment group and gender as between-subject factors and with baseline scores as the covariate, revealed that K-GSADS-A Total Scores significantly distinguished paroxetine and placebo subjects at each of the four postbaseline assessments. Table 8 shows the group means, standard deviations, and F -values for this effect. Gender did not have a significant main effect and did not interact significantly with the treatment group. Similar analyses established that postbaseline scores of each of the four K-GSADS-A subscales also significantly distinguished between the placebo and paroxetine groups. There was no indication that treatment condition had differential effects on different types of symptoms.

DISCUSSION

This study examined the psychometric properties of the K-GSADS-A, a clinician-rated instrument for assessing the severity of social phobia in adolescents. At the time of the K-GSADS-A's initial development (during 1999), the authors were not aware of any clinician-rated scales being available or under development for assessing this disorder in children or

adolescents. The K-GSADS-A was designed to fill the gap in adolescent anxiety-assessment tools, particularly by providing a measure of treatment outcome with clinical and research utility. The results of this initial study suggest that the K-GSADS-A has the potential to fill this role.

A number of robust gender and age-related differences were noted for ratings for some of the K-GSADS-A items at baseline. While all subjects met the diagnostic criteria for DSM-IV social phobia, females' item ratings were generally higher than males, while preteens' (11–12 years) item ratings were generally lower than both young teens' (13–15 years) and older teens' (16–17 years) ratings and, more often than not, young teens' ratings were higher than those of older teens. However, in terms of subscale scores, these trends amounted only to a significant gender difference in the modified Affective Distress subscale score. It remains to be investigated whether this and/or other differences would be obtained in normative samples.

The results of the internal consistency analyses (Cronbach's alpha and inter-subscale/ Total Score correlation computations) supported the summation of Section A's and Section C's 47 item ratings to provide a single index of overall social phobia severity. The results also provided support for several subscale scores, but indicated that Item C6 ("experiences a panic attack") would be better considered as part of the "Somatic Distress" subscale, rather than part of the "Affective Distress" subscale. The moderate correlations between the two Section C subscales, and between these subscales and the Section A subscales, are consistent with the supposition that the Section C subscales measure

TABLE 8. SUMMARY OF THE RESULTS OF A MULTIVARIATE ANOVA CONDUCTED ON POST-BASELINE K-GSADS-A TOTAL SCORES WITH TREATMENT GROUP AS A BETWEEN-SUBJECT FACTOR AND BASELINE SCORES AS COVARIATE

Group	Week 4		Week 8		Week 12		Week 16	
	Mean (SD)	F						
Paroxetine	55.4 (26.4)	13.3*	40.8 (27.0)	33.0*	34.0 (24.2)	39.9*	31.6 (24.3)	36.5*
Placebo	66.7 (27.2)		62.3 (28.2)		59.2 (29.2)		55.8 (29.0)	

*Treatment effect significant at $p < 0.01$.

Gender was also included as a between-subject factor. Neither its main effect nor its interaction with treatment group were significant.

interrelated, but somewhat distinct, aspects of social phobia from one another and from the Section A subscales.

The K-GSADS-A Total Score correlated moderately with the two illness-nonspecific, clinician-rated instruments used in the study, the CGI-S and GAF scales. It also correlated very strongly with another new (and recently validated) clinician-rated measure of pediatric social phobia severity, the LSAS-CA. Correlations between the K-GSADS-A and the two versions of the SPAI and SPAI-C were also strong, particularly so given that the K-GSADS-A is clinician-rated, while the SPAI and SPAI-C are self-rated. In contrast, the K-GSADS-A Total Score correlated relatively weakly with the clinician-rated depression measure, the CDRS-R. Collectively, these results support the K-GSADS-A's convergent validity as a measure of social phobia and its divergent validity with respect to depression.

The three sets of analyses investigating the sensitivity to change of the K-GSADS both provided evidence that its Total Score is a valid measure of treatment outcome. The apparent changes in illness severity indicated by changes in subjects' K-GSADS-A Total Scores (both the overall change between the start [i.e., baseline] and end [i.e., week 16] of the study, and that between each of the five assessment occasions for each subject [i.e., baseline, and weeks 4, 8, 12, and 16]) were well mirrored by corresponding changes in the scores on the other instruments. Placebo and paroxetine subjects' Total Scores did not differ at baseline, but these groups' Total Scores differed significantly at all postbaseline assessments.

The K-GSADS-A and the LSAS-CA produced very similar results to one another throughout the study. The 18-item Section A of the K-GSADS-A and the 24-item LSAS-CA are similar in general design (each seeking ratings of fear and of avoidance for each item) and share more than half of their item content. However, the K-GSADS-A contains a couple of items that are more age-appropriate for adolescents than for preadolescents, while the LSAS-CA does not. The K-GSADS-A also differs from the LSAS-CA in containing two additional sections: Section B, in which subjects' three most problematic social situations are reported and

rated (for fear and avoidance); and Section C, which assesses the severity with which subjects experience specific affective and somatic symptoms.

Further studies are needed to evaluate the utility of the K-GSADS-A Section B, and it remains to be established whether the four subscales of the K-GSADS-A will show different degrees of sensitivity to changes in illness (due to different types of treatment). Other properties of the K-GSADS-A that remain to be examined are its interrater reliability and its discriminative validity (i.e., its ability to distinguish adolescents with social phobia from adolescents who do not have social phobia).

CONCLUSIONS

This preliminary investigation suggests that the K-GSADS-A is a useful measure of treatment outcome in clinical samples of adolescents with DSM-IV social phobia.

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