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A self report measure of subtle avoidance and safety behaviors relevant to social anxiety: Development and psychometric properties

Samantha Cuming ¹,

Ronald M. Rapee ¹,

Nicola Kemp ¹,

Maree J. Abbott ²,

Lorna Peters ¹,

& Jonathan E. Gaston ¹

1. Centre for Emotional Health, Macquarie University, Sydney.
2. Department of Psychology, University of Sydney.

Correspondence to: Ron Rapee, Department of Psychology, Macquarie University, Sydney, NSW, 2109, Australia, Ron.Rapee@mq.edu.au

Running Head: Development of a measure of safety behaviors

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Abstract

According to cognitive theories, safety-seeking behaviors are crucial in both the maintenance and management of social anxiety. In order to facilitate assessment of these behaviors the Subtle Avoidance Frequency Examination (SAFE) was developed. Three factors emerged from the SAFE, which appeared to reflect active “safety” behaviors, subtle restriction of behavior, and behaviors aimed at avoiding or concealing physical symptoms. The SAFE demonstrated strong internal consistency, good construct validity and the ability to discriminate between clinical and non-clinical participants. In addition, the SAFE was responsive to the effects of treatment. Given its excellent psychometric properties, the SAFE may be useful to further investigate the role of safety strategies in social anxiety and to assess treatment outcomes.

Cognitive models of social phobia or social anxiety disorder view safety behaviors as playing a crucial role in the maintenance of the disorder (Clark & Wells, 1995; Hofmann, 2007; Rapee & Heimberg, 1997). The term “safety behavior” is generally used to refer to a range of strategies that can be employed prior to or during social situations. The strategies are logically linked to the nature of the individual’s feared social consequences (e.g., attracting attention, performing poorly, making a bad impression, displaying visible signs of anxiety), and are designed to reduce the likelihood of negative evaluation by others. For example, a person who is afraid of showing signs of anxiety like sweating may say “it is hot” in an attempt to account for any sweating that is evident and thus minimize reasons for being evaluated negatively. “Safety behavior” has been used to refer to strategies that involve both active behaviors (e.g., speaking quickly, making excuses) and the restriction of behavior (e.g., avoiding speaking about oneself, avoiding eye contact). Similarly, the term has been used to refer to both cognitive (e.g., thinking of ways to escape, mentally rehearsing what to say) and behavioral strategies (e.g., pretending to be busy, speaking quietly). The term “subtle avoidance behavior” has also been used to refer to this broad set of behaviors (Rapee & Heimberg, 1997) thereby contrasting safety behaviors from the more total and overt avoidance of social situations. Safety behaviors constitute subtle forms of avoidance employed by socially anxious individuals while they generally remain in anxiety-provoking social situations.

Safety behaviors play a key role in Clark and Wells’ (1995) cognitive model of social phobia. Safety behaviors are hypothesised to be triggered by the unrealistic beliefs that are activated when a socially anxious individual enters a feared social situation, and are intended to prevent or minimize the feared social catastrophe.

Drawing on the work of Salkovskis (1991), Clark and Wells (1995) argue that safety

behaviors prevent the unambiguous disconfirmation of unrealistic beliefs about danger inherent in certain social situations in two ways. First, social phobics are likely to attribute the non-occurrence of feared consequences to implementation of the safety behavior and thereby maintain an expectancy of negative evaluation in the absence of the behavior. Second, safety behaviors may actually increase the likelihood of feared outcomes. For example, they may directly exacerbate feared physiological symptoms (e.g., holding a glass tightly may increase the likelihood of shaking), and/or may inhibit performance in such a way as to negatively influence the responses of others in social encounters (e.g., remaining quiet in social encounters may increase the likelihood of being ignored by others). By preventing the disconfirmation of threat-related beliefs, safety behaviors maintain social anxiety. In a similar fashion, Rapee and Heimberg (1997) have suggested that subtle avoidance behaviors comprise one of the main responses of socially anxious individuals to heightened expectancies of negative evaluation. In turn, subtle avoidance behaviors often have the effect of reducing effective social performance which may reinforce the individual's negative mental representation, thereby maintaining social anxiety.

In these models of the maintenance of social phobia, safety or subtle avoidance behaviors hold marked implications for treatment. The treatment effectiveness of exposure to feared situations will be reduced if the socially anxious individual continues to adopt safety behaviors. An important feature of the successful management of social phobia involves identification of idiosyncratic safety behaviors and encouragement of the individual to drop these strategies prior to engaging in in vivo exposure (Clark, 2001). Indeed there is growing empirical support for this suggestion.

Wells and colleagues (1995) reported significantly greater efficacy of one session of in vivo exposure combined with a decrease in safety behaviors compared with a single session of exposure alone. Another study compared the relative efficacy of standard group cognitive behavior therapy (CBT) and group CBT plus reduction in safety behaviors (Morgan & Raffle, 1999). While both groups showed significant improvements on measures of social anxiety, those who were educated in the importance of dropping safety behaviors achieved greater gains than those who were not. Recently, Kim (2005) found that exposure training where safety behaviors were decreased using a cognitive rationale produced significantly greater reductions in anxiety and belief ratings for feared outcomes, than either exposure with no change in safety behaviors or even exposure with decreased safety behaviors based on an extinction rationale. These results suggest that facilitating disconfirmation of negative attributions contributes to increased effectiveness of dropping safety behaviors.

Given the central role of subtle avoidance in both the maintenance and management of social anxiety, reliable and valid assessment of these strategies is important for both clinicians and researchers. Yet surprisingly, there have been few attempts to assess these behaviors using psychometrically sound instruments. While many measures exist to assess the typical overt avoidance behaviors found in social phobia (e.g., avoiding social situations completely), these measures do not tend to include the more subtle behaviors that comprise these safety strategies. There is, therefore, a need for a detailed measure of subtle avoidance that measures a broad range of relevant behaviors. The current paper describes the development of a dedicated scale, the Subtle Avoidance Frequency Examination (SAFE), and reports on its psychometric properties.

METHOD

Initial item generation

An initial pool of 39 items was constructed by research clinicians, who had extensive experience with the assessment and treatment of social phobia. In creating items, clinicians were asked to consider actual patients with social phobia and the ways in which they had tried to reduce the probability and cost of their feared social outcomes or reduce the subjective experience of anxiety in social situations.

Clinicians were instructed to consider behaviors that did not involve actual overt avoidance or escape from the situation itself, but more subtle behaviors that, in turn, allowed the individual to contain their anxiety sufficiently to remain in the situation. Items included active and passive behaviors, as well as cognitive and behavioral strategies, which could be employed prior to or during social situations.

Participants

Data were obtained from two groups of participants: clinical and non-clinical. The clinical group consisted of 229 individuals (118 male, 111 female) who sought treatment at the Centre for Emotional Health at Macquarie University in Sydney, Australia. All participants met Diagnostic and Statistical Manual – Fourth Edition (DSM-IV; American Psychiatric Association, 1994) criteria for either a primary or additional diagnosis of social phobia. The non-clinical group consisted of 64 (28 male, 36 female) first-year undergraduate psychology students from Macquarie University who received course credit for their participation. There was no significant difference on sex distribution between the clinical and non-clinical samples, $\chi^2(1, 293) = 1.2, p = .32$. Unsurprisingly, clinical participants ($M = 33.8$ years, $SD = 11.3$)

were significantly older than non-clinical participants ($M = 20.2$ years, $SD = 2.5$), $t(291) = -9.6, p < .0005$.

Clinical participants were assessed prior to treatment by either clinical psychologists or trained graduate students in clinical psychology using the Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV; DiNardo, Brown, & Barlow, 1994). Data from our laboratory using this interview and including a proportion of the current sample have indicated a moderate to strong inter-rater reliability for diagnoses of anxiety and mood disorders, including a very high reliability for a diagnosis of social phobia ($\kappa = .89$). All participants in the current study had received an ADIS-IV clinical severity rating for social phobia of at least 4 (out of 8). The majority ($n = 195$) was judged to meet criteria for a diagnosis of generalized social phobia, while 23 were diagnosed with specific social phobia (data were not available for the remaining 11 participants). Of the clinical participants, 125 (56 male, 69 female) completed a group treatment program for social phobia and provided data at post-treatment (see Procedure, below).

Measures

Clinical and non-clinical participants completed the SAFE by rating on a five-point scale the frequency with which they would engage in the strategies if they were in a social situation (from “never” to “always”). Higher scores indicated greater use of safety-seeking behaviors.

Social Interaction Anxiety Scale and *Social Phobia Scale* (SIAS and SPS; Mattick & Clarke, 1998): The SIAS and SPS were developed as companion self-report measures of social phobia to assess social interaction anxiety and performance/scrutiny fears,

respectively. Participants rate on a five-point scale the extent to which they feel each statement is characteristic or true of them (from “not at all characteristic or true” to “extremely characteristic or true”). Total scores on each of the 20-item scales, therefore, range from 0 to 80, with higher scores indicating greater anxiety. Both the SIAS and SPS have been demonstrated to possess excellent psychometric properties, with high internal consistency and test-retest reliability, and good discriminant and construct validity (Brown, Turovsky, Heimberg, Juster, Brown, & Barlow, 1997; Heimberg, Mueller, Holt, Hope, & Liebowitz, 1992; Mattick & Clarke, 1998).

The clinical participants also completed the questionnaires outlined below, with a proportion of these participants completing the same questionnaires subsequent to treatment.

Albany Panic and Phobia Questionnaire-Social Phobia subscale (APPQ; Rapee, Craske, & Barlow, 1994/5): The APPQ-Social Phobia subscale was developed as a self-report measure to assess fear of social situations (Rapee, Craske, & Barlow, 1994/5). Participants rate on an 8-point scale the extent of fear they believe they would experience if each of the activities were to occur in the following week (from “no fear” to “extreme fear”). Total scores on the 10-item subscale, range from 0 to 80, with higher scores indicating greater fear. The subscale has demonstrated favorable psychometric properties, with strong internal consistency, test–retest reliability, and construct validity (Brown, White, & Barlow, 2005; Rapee et al., 1994/5).

Depression Anxiety Stress Scales-21 item version (DASS-21; Lovibond & Lovibond, 1995): The DASS-21 was developed as shortened version of the DASS, a self-report

measure of depression, anxiety and stress/tension. The trait version of the questionnaire was employed, in which participants rate on an 4-point scale the extent to which they feel each statement applies to them *generally* (from “does not apply at all” to “applies very much or most of the time”). Total scores on the three 7-item subscales range from 0 to 21, with higher scores indicating greater symptomatology. The DASS-21 demonstrates an excellent factor structure, distinguishing clearly between features of depression, physical arousal and psychological tension, and agitation. It has also been shown to have good internal consistency and concurrent validity (Antony, Bieling, Cox, Enns, & Swinson, 1998).

Life Interference Scale (LIS): The LIS is a 6-item measure that assesses the life impact of individuals’ social fears. Respondents indicate the impact of their fears on various components of their life including work, family life, and leisure activities using 0-8 Likert scales that are summed to provide a total interference rating from 0 (no interference) to 48 (maximum interference). Previous analysis in our centre has shown excellent internal consistency ($\alpha = .90$) and the total correlates significantly with the 12-item Short Form Health Survey (SF-12; Ware, Kosinski, & Keller, 1996) mental component subscale (Rapee, Abbott, Baillie, & Gaston, 2007).

Procedure

Following an initial telephone screening, questionnaires were mailed to clinical participants to complete and return on attendance at their pre-treatment assessment interview. A proportion of participants completed one of two group cognitive behavioral treatment (CBT) programs (Standard: $n = 37$; Enhanced: $n = 50$), or a stress management program ($n = 38$). The groups did not differ at pre-treatment

in the severity of their social anxiety (as measured by the SPS, SIAS, and APPQ) nor in their SAFE scores. All programs involved 12, weekly treatment sessions in small groups based on detailed treatment manuals. Treatment was delivered by therapists with postgraduate training in psychology. Both CBT treatments included in vivo exposure and cognitive restructuring exercises, while the enhanced CBT treatment included additional strategies such as work on schemas, attention retraining, and performance feedback, as well as specifically addressing safety behaviors. The stress management program was aimed at management of stress and general anxiety and mostly focused on training in relaxation skills, but also included problem solving, time management, and healthy lifestyle habits. More details can be found in Rapee, Abbott, and Gaston, 2008.

Questionnaires and assessment interviews were then re-administered to participants following the treatment program, approximately 12 weeks after the initial data collection.

Non-clinical participants were recruited from the first year subject pool and attended a research session in which they completed the SAFE, the SIAS, and the SPS.

RESULTS

Sample characteristics

As expected, clinical participants had significantly higher scores on the SIAS than did non-clinical participants (clinical: $M = 46.78$, $sd = 12.47$; non-clinical: $M = 23.30$, $sd = 14.17$; $t(291) = 12.92$, $p < .05$). A similar pattern was observed for the SPS (clinical: $M = 34.23$, $sd = 15.44$; non-clinical: $M = 17.66$, $sd = 13.80$; $t(291) = 7.75$, $p < .05$).

Inter-item relationships

Correlation coefficients between each item and the total score on the scale were calculated. Items with an item-total correlation less than 0.3 were excluded from the scale. This resulted in six items being dropped (2, 8, 23, 33, 36, 39), with 33 items remaining.

Inter-item correlations for the items of the SAFE were calculated and the semantic similarity of item pairs with correlations over 0.5 was examined. None were considered to overlap to the extent that either item was superfluous, and no pairs of items correlated more than .76.

Factor structure

An exploratory principal components analysis with varimax rotation was carried out on the 33-items of the SAFE, and the extent to which the components were interpretable and meaningful was examined. Eight components had eigenvalues above 1.0, with this solution explaining 60.9% of variation in scores. The scree test (Cattell, 1966) was inconclusive with either three or four principal components identified. Both a three and a four component analysis were conducted. The three component solution explained 42.4% of variation in scores on the 33 items while the four component solution explained 47.1%. The three component solution was preferred for parsimony as well as ease of interpretability. Principal component loadings for the 33-item scale administered to the clinical sample are presented in Table 1.

Insert Table 1 here

One item, 18 (“Avoid speaking certain words to prevent stuttering”) cross-loaded weakly on components one (0.356) and two (0.338). As this item did not clearly load more strongly on either of these factors, and given that the content of the item appeared specific to a particular population, the decision was made to drop this item from the scale. Thus, the final scale contained 32 items.

Examining the items that loaded on each of the three components suggested that each consisted of a relatively coherent group of safety behaviors that are perhaps more likely to be employed together. The first component appeared to reflect what might be referred to as inhibiting or restricting behaviors, with the items loading on it each representing ways in which the individual may inhibit or restrict their behavior in order to avoid attracting attention. Items that loaded on the second component related to more active behaviors that individuals may employ to try to present well in social situations. Items that loaded on the third component involved ways in which individuals may manage the physical symptoms of blushing and sweating.

Item characteristics

Means for the 32 items of the SAFE administered to the clinical sample prior to treatment ranged from 0.53 to 2.76, and standard deviations ranged from 0.91 to 1.34. Skewness of the items ranged from -0.69 to 2.10 and kurtosis ranged from -1.18 to 3.24.

Internal consistency

Cronbach’s coefficient alpha was calculated as an index of the internal consistency of the scale administered to the clinical sample prior to treatment. The

resulting 32-item scale had a coefficient alpha of 0.913. The alphas for the three component scales were 0.865, 0.850 and 0.833 respectively.

Discriminant validity

Discriminant validity was evaluated by examining the capacity of the SAFE to discriminate between clinical and non-clinical participants. Mean SAFE scores by gender and sample are presented in Table 2. Results of a two-way ANOVA revealed a main effect for sample, indicating that the mean SAFE score for the clinical sample was significantly higher than for the non-clinical sample, $F(1) = 13.28, p < .0005$. Thus, the SAFE was able to discriminate between clinical and non-clinical participants. Neither the main effect for gender, $F(1) = 1.88, p = .17$, nor the interaction between gender and sample, $F(1) = 0.92, p = .34$, was significant. There was also no significant association between SAFE score and age ($r = -.10, p = .37$).

Insert Table 2 here

Construct validity

Convergent and divergent validity of SAFE scores was examined via correlations with scores obtained on other measures administered to the clinical sample prior to treatment. Results were as theoretically expected and are shown in Table 3. Correlations were highest between the SAFE and measures of social anxiety, and were not significantly different between the SPS and SIAS ($t(224) = 1.76, p = 0.08$), although the correlation with the SPS was higher than with the APPQ-Social, $t(224) = 2.49, p < 0.05$. There was also a moderate correlation between the SAFE and

the DASS Anxiety scale, which was significantly weaker than the correlation with the SPS, $t(223) = 3.03, p < .01$, but not significantly different from the correlations with the SIAS and APPQ-Social, both $t(225) < 0.88, p > 0.38$. Correlations were lowest with measures of different but related constructs, the DASS Stress and Depression scales, and these correlations were significantly lower than those with each of the measures of social anxiety, (all $t(223) > 2.24, p < 0.03$).

Insert Table 3 here

Construct validity was further investigated by determining whether SAFE scores provided a significant unique contribution to the prediction of clinical outcomes, taking into account the prediction afforded by a general measure of social anxiety symptomatology. A regression analysis was conducted with change in LIS scores from pre- to post-treatment as the dependent variable, change in SAFE scores as the independent variable, and change in SIAS scores as the covariate. The overall regression model was statistically significant ($F(2,179) = 90.65, p < .0005$), and change in SAFE scores was a significant predictor of change in LIS scores, after controlling for change in SIAS scores ($t(180) = 2.36, p < .05$).

Responsiveness to change

Responsiveness to change was evaluated by examining the capacity of the SAFE to detect change resulting from treatment. There was a significant correlation between the degree of change in SIAS scores and degree of change in SAFE scores resulting from treatment ($r = .63, p < .0005$). A one-way ANOVA revealed that the reduction in SAFE scores increased linearly across treatment groups ($F(1) = 3.88, p =$

0.05), with the least change seen in the stress management group ($M = -10.0$, $SD = 15.8$), greater change in the standard CBT group ($M = -16.2$, $SD = 17.5$), and the greatest change in the enhanced CBT group ($M = -17.0$, $SD = 16.3$).

DISCUSSION

Results of this study suggest that the SAFE has good psychometric properties, including high internal consistency, and good discriminant, and construct validity. In addition, the SAFE appears to be responsive to the effects of treatment, suggesting that it may be useful for measuring treatment outcome. Indeed, our results showed that CBT programs resulted in a greater reduction in the use of subtle avoidance behaviors than a broader stress management program.

Previous researchers (e.g., Morgan & Raffle, 1999) have commented that the quality of research has been hindered by the crude measures of safety behaviors used. Thus, the SAFE may also be useful to further investigate the role of safety-seeking behaviors in social anxiety, including the mechanisms by which they contribute to the maintenance of social anxiety, as well as the improvement in social anxiety via treatment.

The three factors emerging from the SAFE appear to reflect different, but related, safety-seeking behaviors. The first two factors suggest that distinction may be made between safety-seeking behaviors that reflect positive actions that an individual does in a situation (i.e., active behaviors) and behaviors an individual does not do in a situation (i.e., restricting or limiting behavior), in order to avoid feared social outcomes. For example, individuals who fear stumbling over their words when speaking may actively rehearse sentences in their mind before speaking, or may restrict or limit their behavior by speaking in short sentences. The factor structure

suggests that individuals who engage in one type of active behavior (e.g., rehearsing sentences) are more likely to also engage in other active behaviors. Interestingly, the behaviors aimed at avoiding or concealing physical symptoms formed their own, independent factor. This third factor may reflect a subgroup of individuals with social phobia who are especially concerned about visible autonomic symptoms.

One of the strengths of the current study was the use of a large sample of participants with clinically diagnosed social phobia. However, of necessity the limited ethnic and socioeconomic variance restrict the generalizability of results. It would have also been of value to validate the measure against observational or other independent measures of subtle avoidance. In addition, the non-clinical sample consisting of undergraduates may not have matched the clinical sample on variables such as socio-economic status or education. Thus, discriminant analyses conducted in future studies would be strengthened by the use of a matched community sample.

The central role given to safety behaviors and subtle avoidance in cognitive models of social anxiety make the development of this measure of particular importance. Continued development and validation should help to further refine the measure and provide a standard and valid assessment for this clinically and theoretically important construct. In particular, it would be important to demonstrate the ability of the SAFE to contribute significantly to the prediction of clinical outcomes over and above the prediction afforded by measures of overt avoidance.

REFERENCES

- American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). Washington, DC: American Psychiatric Association.
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales (DASS) in clinical groups and a community sample. *Psychological Assessment*, 10, 176-181.
- Brown, E. J., Turovsky, J., Heimberg, R. G., Juster, H. R., Brown, T. A., & Barlow, D. H. (1997). Validation of the Social Interaction Anxiety Scale and the Social Phobia Scale across the anxiety disorders. *Psychological Assessment*, 9, 21-27.
- Brown, T. A., DiNardo, P. A., Lehman, C. L., & Campbell, L. A. (2001). Reliability of DSM-IV anxiety and mood disorders: Implications for the classification of emotional disorders. *Journal of Abnormal Psychology*, 110, 49-58.
- Brown, T. A., White, K. S., & Barlow, D. H. (2005). A psychometric reanalysis of the Albany Panic and Phobia Questionnaire. *Behaviour Research and Therapy*, 43, 337-355.
- Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*, 1, 245 -276.
- Clark, D. M. (2001). A cognitive perspective on social phobia. In W. R. Crozier, & L. E. Alden's (Eds.), *International Handbook of social anxiety : Concepts, research and interventions relating to the self and shyness*. New York, NY: John Wiley & Sons, Chichester.
- Clark, D. M., & Wells, A. (1995). A cognitive model of social phobia. In R. Heimberg, M. Liebowitz, D. A., Hope & F. R. Schneier (Eds.), *Social phobia : Diagnosis, assessment and treatment*. New York, NY : Guilford.

- DiNardo, P. A., Brown, T. A., & Barlow, D. H. (1994). *Anxiety Disorders Interview Schedule for DSM-IV*. San Antonio: The Psychological Corporation, Harcourt Brace and Company.
- Heimberg, R. G., Mueller, G. P., Holt, C. S., Hope, D. A., & Liebowitz, M. R. (1992). Assessment of anxiety in social interaction and being observed by others: The Social Interaction Anxiety Scale and the Social Phobia Scale. *Behaviour Therapy*, 23, 53-73.
- Hofmann, S. G. (2007). Cognitive factors that maintain social anxiety disorder: A comprehensive model and its treatment implications. *Cognitive Behaviour Therapy*, 36(4), 193-209.
- Kim, E.-J. (2005). The effect of decreased safety behaviours on anxiety and negative thoughts in social phobia. *Anxiety Disorders*, 19, 69-86.
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33, 335-343.
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the Depression Anxiety Stress Scales*. Sydney: The Psychology Foundation of Australia.
- Mattick, R. P., & Clarke, J. C. (1998). Development and validation of measures of social phobia scrutiny fear and social interaction anxiety. *Behaviour Research and Therapy*, 36, 455-470.
- Morgan, H., & Raffle, C. (1999). Does reducing safety behaviours improve treatment response in patients with social phobia? *Australian and New Zealand Journal of Psychiatry*, 33, 503-510.

- Rapee, R. M. (1995). Descriptive psychopathology of social phobia : In R. G. Heimberg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social phobia: Diagnosis, assessment and treatment* (pp. 41-66). New York, NY: The Guilford Press.
- Rapee, R. M., Abbott, M. J., Baillie, A. J., & Gaston, J. E. (2007). Treatment of social phobia through pure self help and therapist-augmented self help. *British Journal of Psychiatry*, 191, 246-252.
- Rapee, R. M., Gaston, J. E., & Abbott, M. J. (2009). Testing the efficacy of theoretically-derived improvements in the treatment of social phobia. *Journal of Consulting and Clinical Psychology*, 77, 317-327.
- Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behaviour Research and Therapy*, 8, 741-756.
- Rapee, R. M., Craske, M. G., Barlow, D. H. (1994/1995). Assessment instrument for panic disorder that includes fear of sensation-producing activities: The Albany Panic and Phobia Questionnaire. *Anxiety*, 1, 114-122.
- Salkovskis, P. M. (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural Psychotherapy*, 19, 6-19.
- Ware, J. E., Kosinski, M., & Keller, S. D. (1996). A 12-item short-form health survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care*, 34, 220-233.
- Wells, A., Clark, D. M., Salkovskis, P., Ludgate, J., Hackman, A., & Gelder, M. (1995). Social phobia: The role of in-situation safety behaviours in maintaining anxiety and negative beliefs. *Behavior Therapy*, 26, 153-161.

Table 1

Factor loadings for the 33-item SAFE in the clinical sample (n = 229)

	Component		
	1	2	3
3. Remain silent	0.756		
5. Speak softly	0.699		
24. Speak in short sentences	0.694		
22. Avoid asking questions	0.684		
32. Position yourself so as not to be noticed	0.648		
38. Be reserved about what you say	0.635		
25. Keep still to avoid drawing attention to yourself	0.619		
12. Avoid eye contact	0.568		
4. Try to keep tight control of your behavior	0.557		
7. Blank out or switch off mentally	0.462		
10. Spend time thinking of good excuses for escaping	0.462		
18. Avoid speaking certain words to prevent stuttering	0.356		
16. Rehearse sentences in your mind		0.635	
27. Make excuses about your appearance		0.612	
17. Spend hours on grooming prior to the situation		0.607	

35.	Ask others about your performance	0.606	
6.	Say 'I'm not usually like this'	0.602	
1.	Before you arrive, excessively rehearse what you might say or how you might behave	0.584	
20.	Say that you are sick/unwell	0.522	
30.	Try to think of reasons why the other person is inferior to you	0.504	
21.	Look closely at other people and try to gauge their reactions to you	0.496	
37.	Imagine you are somewhere else	0.445	
34.	Hold your cup or glass tightly	0.431	
15.	Account for poor performance by saying that you didn't have time to prepare	0.421	
9.	Hold your arms still	0.417	
29.	Try to think about other things	0.400	
31.	Avoid pauses in speech	0.344	
14.	Say 'it's hot' to explain sweating or blushing		0.800
13.	Wear clothes or makeup to hide blushing		0.776
28.	Check the redness of your face in a mirror		0.751
11.	Wear cool clothes to prevent sweating		0.712
19.	Wear clothes that will conceal sweating if it occurs		0.706
26.	Hide your face		0.460

Table 2.

Mean SAFE scores by gender and sample

	Control (n = 64)			Clinical (n = 229)		
	Male	Female	Total	Male	Female	Total
Mean	39.4	40.5	40.0 ^a	46.8	53.2	49.9 ^a
SD	19.7	18.3	18.8	19.5	19.4	19.7
Range	5-86	15-82	5-86	10-93	3-100	3-100

- a. Numbers sharing the same superscript are significantly different from one another; $p < .05$

Table 3

Correlations between SAFE and measures of psychopathology in the clinical sample

	SAFE
SPS	.70**
SIAS	.62**
APPQ – Social	.60**
DASS – Anxiety	.57**
DASS – Stress	.47**
DASS – Depression	.41**

* $p < .05$, ** $p < .001$