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

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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.

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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 et al. (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.

1. Method

1.1. 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.

1.2. Participants

Data were obtained from two groups of participants: clinical and non-clinical. The clinical group consisted of 229 individuals (118 males, 111 females) 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 males, 36 females) 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 males, 69 females) completed a group treatment program for social phobia and provided data at post-treatment (see Section 1.4).

1.3. 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 et al., 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, 1994/1995): The APPQ-Social Phobia subscale was developed as a self-report measure to assess fear of social situations (Rapee et al., 1994/1995). Participants rate on an eight-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., 1994/1995).