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Differential effects of safety behaviour subtypes in social anxiety disorder

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ABSTRACT

Clinical observations indicate that individuals with Social Anxiety Disorder (SAD) use a variety of safety behaviours; however, virtually no research has examined the functional effect of different safety-seeking strategies. Accordingly, we conducted two studies to address this issue. Study 1 measured global patterns of safety behaviour use in a large analogue sample. Factor analysis revealed two primary safety behaviour categories, avoidance and impression management. Study 2 assessed situational use of safety behaviours during a controlled social interaction in a clinical sample of 93 patients with Generalised SAD. Factor analysis again revealed support for avoidance and impression-management subtypes. Notably, the two types of safety behaviours were associated with different social outcomes. Avoidance safety behaviours were associated with higher state anxiety during the interaction and negative reactions from participants' interaction partners. Impression-management strategies appeared to impede corrections in negative predictions about subsequent interactions. These findings suggest that it may be beneficial to consider the unique effects of different safety-seeking strategies when assessing and treating SAD.

Cognitive models of Social Anxiety Disorder (SAD) implicate safety-seeking behaviours (*safety behaviours, subtle avoidance behaviours*) as one factor that maintains the socially anxious person's perception of social threat and anxiety (e.g., McManus, Sacadura, & Clark, 2008). Consequently, reducing or eliminating such behaviours is considered an integral part of overcoming SAD (e.g., Clark, 1999; Clark & Wells, 1995; Rapee & Heimberg, 1997). Clinical descriptions indicate that people with SAD display a variety of safety strategies, ranging from subtle avoidance to feigned expressions of friendliness (e.g., Clark et al., 1995; Schlenker & Leary, 1982). Virtually no research has examined the functional implications of different types of safety-seeking strategies. Doing so has the potential to inform cognitive models of SAD and to provide insights into how cognitive behavioural interventions might be tailored to overcome safety behaviours and enhance treatment effectiveness. Accordingly, we conducted two studies to empirically examine whether individuals with SAD display qualitatively different types of safety-seeking strategies and if so, whether variations in safety behaviours differentially affect the factors hypothesised to maintain SAD.

Safety behaviours in SAD

Safety behaviours are defined as overt or covert acts intended to manage or avert a perceived threat and increase the person's sense of safety (Salkovskis, 1991). Although behaviours used to increase safety may be adaptive if the fear is based on a realistic threat, such behaviour is unnecessary if the feared situation does not pose actual danger – as is often the case in anxiety disorders (Salkovskis, Clark, & Gelder, 1996). Safety behaviours are thought to interfere with the processing of evidence that the situation is not really dangerous, thus impeding disconfirmation of overly-negative beliefs and extinction of fear (e.g., Wells et al., 1995). There are several hypotheses as to how these behaviours impede corrective learning. Salkovskis (1991) suggested that anxiety disordered individuals misattribute the absence of the feared outcome to their use of safety behaviours and therefore fail to recognise that the outcome would not have happened in any case. For example, a person may believe that by not talking much, others will be less likely to notice and criticise them. Safety behaviours have also been hypothesised to maintain self-focused attention, thereby increasing the salience of internal anxiety sensations and perceived threat (e.g., Clark & Wells, 1995; Kim 2005). For example, a person who works to control signs of anxiety may engage in careful self-monitoring. In addition, some safety behaviours may actually increase the likelihood that feared social outcomes will occur. For example, gripping a glass tightly to disguise trembling may result in spills and increase scrutiny by others.

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A small body of studies supports cognitive formulations in the context of SAD. Situations that increase perceived social threat, such as those involving ambiguity or potential evaluation, increase reliance on safety behaviours (Alden & Bieling, 1998; Depaulo, Epstein, & LeMay, 1990). Furthermore, eliminating safety behaviours during exposure to feared social events has been shown to reduce threat-related beliefs and anxiety. Wells et al. (1995) provided 8 SAD patients with one session of exposure with safety behaviour fading and one session of exposure alone in a counterbalanced design. The researchers found greater change in negative social beliefs in the combined condition than with exposure alone. Kim (2005) also found that exposure combined with elimination of safety behaviours produced greater anxiety reduction for people with SAD than exposure alone, particularly when presented with a belief disconfirmation rationale. In a similar vein, Taylor and Alden (2010) demonstrated that eliminating safety behaviours reduced negative cognitive biases in patients with SAD.

Variability in safety behaviours

Clinical writers suggest that people with SAD use a variety of safety (*subtle avoidance*) behaviours to minimise threat while allowing the person to remain within the anxiety-provoking situation (e.g., Clark et al., 1995; Rapee & Heimberg, 1997; Thwaites & Freeston, 2005). Some actions, such as minimising talking, avoiding eye contact, and low self-disclosure, involve *hiding* one's self. Other safety strategies involve attempts to present a positive image through excessive self-monitoring and control (i.e., rigidly observing and censoring behaviour and speech), over-preparation (e.g., rehearsing what the person is going to say before and during social interactions; relying on prepared scripts; Clark et al., 1995), and *innocuous sociability*, (e.g., feigned expressions of interest and inauthentic displays of nodding and smiling; Schlenker & Leary, 1982). These behaviours are strikingly similar to the adaptive social behaviours used by most people to present themselves favourably and facilitate social interactions. In the case of the socially anxious person, however, the actions are thought to be adopted because the individual believes they are necessary to avoid rejection, rather than because the person is genuinely engaged in the interaction. These strategies appear to be used to present an "artificial self" that the socially anxious person believes will be less likely to evoke rejection.

Extant studies have examined the use of only a single safety behaviour or have involved indiscriminate removal of idiosyncratic safety behaviours. Virtually no research has examined the effects of safety behaviour variations. The sole exception is a study by Hirsch et al., who rationally grouped SAD-related safety behaviours, as measured by the Social Behaviour Questionnaire (Clark et al., 1995), into avoidance (e.g., avoiding eye contact) and impression-management (e.g., excessive self-monitoring and rehearsal) subtypes (Hirsch, Meynen, & Clark, 2004). They found that avoidance behaviours were associated with negative perceptions by observers whereas impression-management behaviours were not. If, as suggested by this study, fundamental differences exist between the effects of various types of safety behaviours, elucidating these differences may help us understand the mechanisms through which safety behaviours maintain anxiety and thereby allow us to tailor cognitive treatment strategies to address the critical effects of different safety strategies. For example, directing patients' attention to the link between avoidance behaviours and negative social outcomes may be of potential treatment benefit to patients who habitually rely on these behaviours as a safety strategy.

The observation that impression-management strategies were not associated with negative perceptions by other people is intriguing and may have treatment implications. Some writers suggest that safety behaviours can be useful in treatment to increase patient tolerance for exposure to feared situations and objects (c.f., Parrish, Radomsky, & Dugas, 2008). If safety strategies such as rehearsal, controlling visible signs of anxiety, and inauthentic displays of friendly behaviour have no negative effects, therapists might choose to accept or even to build on these behaviours rather than try to eliminate them. To our knowledge, this issue has not been addressed in the context of SAD. Even if these safety behaviours are maladaptive, because they are similar in appearance to adaptive prosocial behaviours, they may be more difficult for therapists to detect and for patients to recognise as potentially problematic. Therefore, it is of potential theoretical and clinical relevance to determine the social effects of impression-management behaviours in people with SAD.

Current research

To address these issues, we conducted two studies. Study 1 assessed global safety behaviour patterns in a large analogue sample. Study 2 assessed safety behaviours in a social interaction task in a clinical sample of patients with SAD and then examined how different safety strategies affected the factors believed to maintain SAD.

Study 1

Our goal in Study 1 was to determine whether safety behaviours associated with SAD could be grouped into qualitatively distinct categories. To maintain consistency with extant research, we began with the SBQ (Clark et al., 1995), the measure used in previous research studies. We modified the measure somewhat to be suitable to the social task used in Study 2 and then examined safety behaviour subtypes.

We predicted that: 1) consistent with Hirsch et al. (2004), there would be at least two categories of safety behaviours, namely avoidance and impression management; 2) In support of convergent and discriminant validity, we predicted that both types would show significantly stronger associations with social anxiety than with symptoms of worry, depression, or other phobias.

Method

Participants

Participants were 230 (68 M; 162 W) undergraduate students who agreed to participate in exchange for extra course credit. Participants ranged in age from 18 to 47 years with a mean age of 20.51 ($SD = 3.11$). The ethnic background of the sample was predominantly Asian–Canadian (45.2%) or Caucasian/European–Canadian (39.6%). To be included, participants were required to speak English as a first language or have lived in North America (US/Canada) for at least 15 years.

Measures

Social behaviour questionnaire (modified). The original SBQ (Clark et al., 1995)[1] is a 28-item measure of specific strategies used by socially anxious people in an attempt to prevent feared social outcomes. The SBQ has been shown to have adequate internal consistency, Cronbach's $\alpha = .80$ and, in support of convergent validity, to correlate with SAD symptom severity (Clark et al., 1995). Here, we adapted the measure in preparation for the social

[1] The authors thank David M. Clark for providing the SBQ and instructions for the safety behaviour identification procedure. Copies of the SBQ and factor loadings can be obtained by emailing him at: david.clark@kcl.ac.uk.