Safety behaviour: A reconsideration

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Abstract

There is ample evidence that the use of safety behaviour can interfere with the progress of therapy, particularly if exposure is involved. As a result, it is widely asserted that safety behaviour is anti-therapeutic. However, an unqualified rejection of safety behaviour should be reconsidered because we now have theoretical justification, experimental evidence and clinical observations showing that the *judicious* use of safety behaviour, especially in the early stages of treatment, can be facilitative. Experiments in which escape behaviour facilitated fear reduction, and others in which the use of safety gear facilitated fear reduction, are reviewed. It also appears that safety behaviour does not necessarily prevent disconfirmatory experiences. We propose that additional investigations of the judicious use of safety behaviour will help to elucidate therapeutic uses of safety behaviour in the treatment of anxious and related types of psychopathology.

Key Words: Safety behaviour; cognitive-behaviour therapy; exposure; anxiety disorders; neutralization; treatment.

Safety behaviour: A reconsideration

It is widely asserted by clinicians and researchers, and recommended in textbooks and treatment manuals, that safety behaviour is counter-therapeutic and should be extinguished. Safety behaviour has been defined as overt or covert avoidance of feared outcomes that is carried out within a specific situation (Salkovskis, 1991); however, the determination of whether or not a specific behaviour is a safety behaviour or a coping behaviour may be somewhat difficult (Thwaites & Freeston, 2005).

It has been accepted that at best, safety behaviour provides temporary relief, but it is a major cause of persisting anxiety and avoidance. Often it is described as *the major cause* of persisting anxiety (Wells et al., 1995). Safety behaviour has been identified across psychological disorders and it is argued that a failure to deal with safety behaviour is likely to undermine the long-term value of treatment (Freeman et al., 2007). Consequently, it has been recommended that all safety behaviour must be inhibited and extinguished, and this advice is given in the early stages of cognitive-behavioural treatment. From a cognitive point of view, the resort to safety behaviour is argued to be anti-therapeutic because it precludes the occurrence of disconfirming experiences (Salkovskis, 1991). The most obvious examples of safety behaviour interfering with disconfirmatory experiences are seen in avoidance behaviour, but more subtle forms of safety behaviour can be equally interfering.

Safety behaviour as a maintaining factor in psychopathology

The main objection to safety behaviour is that it maintains anxiety and associated avoidance. A clear example is seen in the anxiety-reducing effects of washing away frightening contamination. Patients with OCD who engaged in compulsive cleaning were asked to touch a contaminant and then wash their hands without delay. The fear evoked by contact with the contaminant immediately diminished (Hodgson & Rachman, 1972). These

demonstrations illustrated the role of safety behaviour in reinforcing the compulsive cleaning. Compulsive cleaning persists because it works – it produces relief in the short-term. Comparable findings have recently been reported for hypochondriasis/health anxiety (Abramowitz & Moore, 2007), and the (unadaptive) avoidance of anxiety-evoking places or people, as in agoraphobia, provides short-term relief but reinforces avoidance behaviour.

This is consistent with theoretical approaches to understanding the maintaining factors associated with psychopathology and in fact, has become an integral component of several theories/models of anxiety disorders (e.g., Clark & Wells, 1995). In most of these (largely cognitive) models, it is argued that safety behaviour prevents the occurrence of therapeutically essential disconfirmatory experiences. Consistent with this, patients will occasionally report that they felt as if they would die (for example), had it not been for the benzodiazepine in their pocket. Within this context, the safety behaviour of carrying medications in one's pocket to avoid death can be construed as preventing the disconfirmation of this individual's catastrophic beliefs about death. That is, an individual might come to believe that they could not have completed some particular action or actions, without their safety behaviour; more importantly, some will conclude that the safety behaviour itself has saved them from catastrophe.

As this notion has both theoretical and empirical support, clinicians often encourage patients to drop their safety behaviour as soon as possible. The manner in which safety behaviour undermines the treatment of anxiety disorders is explained to patients and they are advised to recognise and inhibit it. As stated above, this advice is well grounded in experimental demonstrations of the anxiety-reducing effects of using safety behaviour (e.g., Hodgson & Rachman, 1972, 1977; Rachman et al., 1996).

Evidence for this perspective

It is widely assumed by clinicians that there is strong empirical evidence that safety behaviour maintains psychopathology. Although this notion is central to cognitive theories, and treatments that include the reduction of safety behaviours have empirical support (e.g., Clark et al., 2006), there have been relatively few direct tests of this important hypothesis.

Questionnaire/observation studies

A range of questionnaire studies have shown that patients engage in more safety behaviours than do non-clinical controls. In the first of these studies (Salkovskis et al., 1996), 147 patients with panic disorder reported a range of safety behaviours, and 75 out of the 80 predicted associations indicated that the safety behaviour was meaningfully related to the perceived threat. A study of 25 people with persecutory delusions found the presence of safety behaviours (most commonly avoidance) and an association between the use of such behaviour and anxiety (Freeman et al., 2001). Mirror gazing is suggested as one of the main forms of safety behaviour used by people with BDD and has been shown to be more common in patients than healthy controls (Veale & Riley, 2001). Comparable studies for people high in social anxiety (McManus, Sacadura & Clark, in press), insomnia (Harvey, 2002) and health anxiety (Tang et al., 2007) confirm that patients do indeed report more safety behaviour than non-clinical controls.

Experimental data

There have been several demonstrations which show the superiority of exposure-based treatments over exposure treatments that include safety behaviour. In one of the earliest studies, a single session of exposure treatment plus instructions to drop safety behaviour in patients with social phobia (with an appropriate, cognitive rationale) was found to be more effective than exposure treatment (with an exposure rationale) without a change in

safety behaviour (Wells, 1995). In a small randomised controlled trial, 30 people with social phobia were randomly assigned to standard group CBT with or without the instructions to drop safety behaviour (Morgan & Raffle, 1999). Both groups made significant improvements, but those instructed to drop their safety behaviour improved more. Although, it should be noted that most of the participants who were instructed to drop their safety behaviour indicated that they did not fully comply. The extent to which this study provides support for the cognitive hypothesis has been debated (Battersby, 2000; Morgan, 2000). The finding that anxious participants have difficulty in dropping their safety behaviour upon instruction has been replicated and the use of safety behaviour shown to be associated with increased anxiety, worse performance and increased belief in their negative cognitions (McManus et al., in press).

In one of the most dramatic investigations, 18 patients with panic disorder with agoraphobia were asked to drop or maintain their safety behaviour during a 15 minute exposure session. Those who dropped their safety behaviour were significantly better than those who did not on a variety of measures, including a behavioural test (Salkovskis et al., 1999). (Interestingly, although the elimination of safety behaviour in this study did result in more robust decreases in panic symptomatology, it did not result in reduced catastrophic interpretations or negative beliefs. This is not entirely consistent with the hypothesis that the use of safety behaviour prevents the disconfirmation of maladaptive beliefs.) The results of an extension of this study, conducted on 16 patients who had a longer exposure session, confirmed the superiority of CBT incorporating the dropping of safety behaviour over pure exposure (Salkovskis, Hackmann, Wells, Gelder & Clark, 2006).

Telch and colleagues have conducted a series of sophisticated investigations of safety behaviour. In one of their earliest studies of 46 students with claustrophobia, participants who utilised safety behaviour during exposure had a less satisfactory outcome than those who

did not. In a later study comparing the reduction of claustrophobia by exposure alone versus exposure plus the use of safety behaviour (e.g., access to fresh air, unlocking the door of the experimental claustrophobia chamber), the exposure-alone condition produced large and stable reductions in fear, and improved end-state functioning, as predicted (Powers, Smits & Telch, 2004). So did the exposure-plus-safety behaviour condition.

In this condition too, the reductions of fear were significant and stable, but on most measures only half as large as the improvements attained by exposure alone. On the Claustrophobia Questionnaire (CLQ), the differences between the groups at follow-up were not large. In the exposure-alone group, the pre-treatment CLQ mean of 54.06 dropped to 20.24 at follow-up, and in the exposure-plus-safety group, the CLQ score decreased from a pre-treatment mean of 46.44 to 26.64 (the means for the waitlist group were 49.27 at pre-test and 41.60 at post-test). The reductions in peak fear (BAT 2) "were significantly greater among participants that received exposure (with or without safety behaviors) compared with participants who received placebo" treatment (Powers, Smits & Telch, 2004, p.451). "The differences in relapse rates between groups were not statistically significant", (Powers, Smits & Telch, 2004, p.452). In this study, as in many others, most of the improvements produced by exposure treatment were superior to those produced by exposure-plus-safety-behaviour. However, the reductions in fear that were produced even when using safety behaviour should not be overlooked. They were substantial, significant and stable.

Interestingly, participants who were told about access to safety but not encouraged to use safety behaviour showed as much fear reduction as those who were encouraged to use the described safety behaviour when they wished to do so. Mere knowledge of the availability of safety was followed by fear reduction.

Kim's study (2005) of patients with social phobia predictably found that instructions to drop safety behaviour enhanced the effects of exposure (particularly with a cognitive rationale). However, all groups felt significantly less anxious after exposure, with or without the use of safety behaviour.

The need for reconsideration

There has been little reason to contradict the well-established account of the adverse consequences of using safety behaviour in attempting to overcome unadaptive anxiety. However, this account is unqualified – a qualified interpretation would be timely and enable therapists to improve their techniques. Accordingly, we feel that it is justifiable and constructive to examine whether or not there might be times when the judicious use of safety behaviour might facilitate rather than interfere with treatment. This is consistent with calls to reconsider the definition of safety behaviour, and to explore its influence on cognitive-behavioural treatments (Thwaites & Freeston, 2005).

If the cognitive analysis of anxiety disorders is pressed to a fresh limit, the role and effects of safety behaviour are opened to a reconsideration. If promoting changes in maladaptive cognitions is the primary aim of cognitive behaviour therapy, for example by changing a panic patient's catastrophic misinterpretation(s) of certain bodily sensations (Clark, 1986), dwelling on the reduction of safety behaviour in treatment might be helpful but not necessary. The panic disorder can be overcome by the provision of corrective information and re-interpretation of the catastrophic cognitions, even without regard to safety behaviour.

Safety behaviour occurs in the face of a perceived threat (e.g., escape, reassurance-seeking), tends to produce temporary relief but is self-defeating in the long run. In the face of a perceived threat, safety behaviour can occasionally facilitate exposure and contribute to the

reduction of fear. Investigations of the circumstances in which facilitation takes place are in their early stages, and warrant careful examination. (Therapeutic) safety behaviour can be acquired in anticipation of a threat, and facilitate effective coping (e.g., practice in cognitive re-appraisals of threat, training in effective social behaviour). Bandura and Adams (1977) advocated the therapeutic use of training for self-efficacy, and in a largely overlooked experiment by Bandura, Jeffrey and Wright (1974), the use of 'response aids' was shown to be highly effective in overcoming snake phobias. Details of their work are worth re-examining in the light of the present proposals for converting certain types of safety behaviour from impediments into facilitators, and these are provided below.

Consistent with this way of thinking, the use of safety behaviour can promote lasting change in both symptoms and underlying beliefs or appraisals. To take a recent example, in the study by Powers, Smits and Telch (2004), claustrophobia was reduced in the condition in which safety behaviours were used, and it remained low at follow-up. It was not explicitly assessed but presumably the threat appraisals of these participants were disconfirmed. From a cognitive point of view, it is difficult to see how their fears could have decreased if their threat appraisals were unchanged.

As in other experiments on snake phobia (see below), it appears that the deployment of safety behaviour did not preclude the occurrence of disconfirmatory experiences. In the investigation of claustrophobia, the reductions of fear observed after using safety behaviour were stable, and there was no evidence that their use strengthened the participants' avoidance behaviour, which is "the most common class of safety behaviors" (Powers, Smits & Telch, 2004, p.448).

The *unqualified* rejection of safety behaviour is worth reconsidering for theoretical reasons, and because the strategic use of safety behaviour tactics, especially in the early

stages of demanding treatments, may facilitate treatment and also reduce the unacceptably high levels of refusers and drop-outs.

Evidence supporting the judicious use of safety behaviour

One of the "golden rules" for treating agoraphobia is that the patient should never leave the frightening situation until the fear declines: "The golden rule is to try never to leave a situation until the fear is going *down.*" (original emphasis; Mathews, Gelder & Johnston, 1981, p.182). It was asserted that if patients left the situation when they were experiencing high anxiety - if they escaped to a safer place - their fear and avoidance would be reinforced. This was considered to be anti-therapeutic and the therapist would urge them to remain exposed until the anxiety declined. "It is essential that patients remain in one situation…until anxiety is declining before entering a new situation" (Emmelkamp, 1982, p.287), and "it is extremely important to confront the patient with distressing stimuli continuously, without escape or avoidance" (Emmelkamp, 1982, p.287).

Following their theoretical analysis, de Silva and Rachman (1984) undertook a test of the validity of the golden rule, and specifically examined what would happen if patients were 'allowed' to leave the agoraphobic situation (e.g., supermarkets) when their anxiety reached a high level. They were advised to feel free to leave the situation if their anxiety rose to 75% or more (the escape group). In the comparison condition, patients were told to follow the golden rule – endure the anxiety and do not leave the situation until the anxiety declines appreciably. They were encouraged to remain exposed until their anxiety decreased to at least half of the highest level of anxiety reached in the particular trial (the 'endurance' condition). Participants were given eight, weekly sessions of *in vivo* exposure to situations that evoked agoraphobic reactions. The three main measures administered pre- and post-treatment were a behavioural test, subjective ratings of anxiety and independent assessors' ratings of anxiety. Both of the treatment groups showed large and significant reductions on

all of these measures, but there were no changes in the waitlist control group. The degree of improvement was substantial and similar in both of the treated groups. There were no signs of a strengthening of avoidance behaviour or of the emergence of new avoidance. Rather, as treatment continued, the 'escape' patients showed progressively more approach behaviour.

In order to deal with the limitations of this preliminary experiment, notably an absence of follow-up data, a replication was conducted with a 3-month follow-up (Rachman, Craske, Tallman & Solyom, 1986). In this replication, both groups of patients showed significant and substantial improvements on all measures (behavioural, psychometric, and subjective) and these changes were still evident three months later. Notably, escapes were not followed by increases in avoidance or fear (Rachman et al., 1986). The main point is that engaging in this particular safety behaviour did not increase avoidance, nor did it prevent symptom change. It is also important to note that patients in the 'escape' group *did* have disconfirmatory experiences; there were no catastrophes, and their fears of a dangerous event diminished, as did those in the "golden rule" group. The judicious use of safety behaviour did not prevent disconfirmatory experiences. The escape tactic appears to have promoted disconfirmations of the beliefs, interpretations and negative expectancies. It is not clear whether it was the exposures alone that generated the disconfirmations; probably not, but for present purposes the important point is that *the use of safety behaviour did not preclude disconfirmatory experiences* (Rachman et al., 1986).

Interestingly, few of those patients who were advised that they were free to leave the phobic situations when their fear reached high levels actually did so. The number of 'escapes' was low, but the patients in the escape group showed as much improvement as did those in the golden rule group. This result is similar to that reported in the experiment by Powers et al. (2004) who found that claustrophobic participants who were informed about the

availability of safety showed a reduction in fear. It is possible that the availability of safety is sufficient to reduce the sense of feeling trapped, and hence reduces fear.

Bandura, Jeffrey and Wright (1974) investigated the effects of providing 'response aids' during the participant modelling treatment of 36 people with a phobia of snakes. To begin, the therapist modelled approach behaviour to the snake, and the participants were then encouraged to follow the behaviour. In addition to the standard modelling procedure, participants were also provided with response aids. For example the therapist would hold the snake firmly and keep its mouth tightly shut as the participant began to model the approach behaviour. As the participants made progress the response aids were faded out. Bandura et al. compared the fear-reducing effects of three levels of response aids (minimal to medium to maximal) to the effects of unaided participant modelling. "Marked changes in behavior and attitude were rapidly induced when a wide array of performance aids were available" and the advances were consolidated by self-directed practice "to extinguish residual fears and to reinforce personal mastery" (p.56). The participants who were given aids showed improvements that were superior to those observed among the participants who received modelling alone. Most of the participants were able to handle the snake within 81 minutes, and the approach behaviour generalized to other snakes. A comparably positive finding was obtained by Ritter (1969) who used supportive aids in treating acrophobics. The aids included physical support when appropriate.

More recently, an experiment was carried out to directly test the hypothesis that the use of safety behaviour (in this case, safety gear) would not interfere with the outcome of exposure therapy (Milosevic and Radomsky, 2007). Participants were asked to approach a fearful stimulus (a snake) either with, or without the use of safety gear. Pilot work on this research (Rachman, Hammond & Radomsky, 2000), in which students who reported fears of snakes were randomly assigned to undergo *in vivo* therapist-aided exposure therapy, either

wearing safety gear (in this case, hockey equipment that included thick gloves) or without wearing safety gear revealed that:

1. Participants wearing safety gear tolerated longer exposure times
2. Participants' perceptions of the dangerousness of the snake diminished (in both conditions) by mid-session
3. Participants in the safety gear condition showed comparable fear reduction to those in the conventional exposure condition.

Again it is noteworthy that the use of safety behaviour did not preclude disconfirmatory experiences (e.g., disconfirmation of their beliefs about the dangerousness of the snake). It may well have facilitated such experiences because the safety equipment allowed them to closely observe the feared snake, and hence to disconfirm their original view that the snake was dangerous. This pilot work did not include a full complement of measures, and was used as a basis for subsequent experiments.

This study on the effects of wearing safety gear was carried out on 62 highly fearful snake fearful participants (Milosevic, 2006; Milosevic & Radomsky, 2007). After completing a battery of pre-treatment measures and a behavioural approach test (BAT), treatment was conducted along a pre-set hierarchy (step one involved "standing just outside the room that the snake is in, with the door closed" and step thirty-three involved "holding the snake"). Participants were randomly assigned to one of two treatment conditions. In the safety gear group, participants were shown 12 different safety items, many of them used by beekeepers (e.g., protective head cover, safety jacket, safety goggles, safety gloves, lower leg protectors, etc.). These items were described as "protective gear commonly used by people who handle snakes" and participants were asked to "select any, all, or none of them" to use during an upcoming exposure session. Idiosyncratic safety gear selection was chosen so that participants could select the safety gear that was appropriate to their specific fears (e.g.,

someone who was afraid of being bitten on the hand could choose gloves, whereas someone who was afraid of the snake getting caught in their hair could choose protective head cover.) In fact, most participants chose very few items ($\overline{X}$ = 2.87, SD = 1.26; Milosevic, 2006; Milosevic & Radomsky, 2007).

Following the 45 minute *in vivo* exposure session, post-treatment measures including a second BAT were taken from all participants (by an assessor who was blind to group assignment) *in the absence of any safety gear*. Results indicated that although participants in the safety gear group were able to approach the snake significantly more closely *during* treatment than those who were exposed without wearing safety gear (particularly in the early stages of treatment), there were no differences in subjective reports of anxiety. Additionally, *post-treatment* BATs (conducted in the absence of safety gear) showed nearly identical distances of closest approach. Furthermore, fearful cognitions about the snake (along with all other outcome measures) declined significantly and equally in both groups of participants (Milosevic, 2006; Milosevic & Radomsky, 2007). Our evaluation of the results of this study is that the use of safety gear allowed participants to obtain disconfirming information about the snake and thus allowed comparable gains to those obtained in the standard exposure condition. In other words, the reduction of fear was facilitated by the use of safety equipment.

Specific Conclusions

- Safety behaviour can facilitate therapeutic progress
- Safety behaviour is especially useful during the early stages of treatment
- The therapeutic effects of safety behaviour are best consolidated by self-directed practice
- Recognition that one has access to safety, even if the appropriate safety behaviour is never deployed, can facilitate therapeutic progress

Theoretical and Practical Issues

There are concerns about the rationale for the total elimination of safety behaviour. It is assumed that there is strong empirical evidence to show that safety behaviour maintains psychopathology by preventing patients from disconfirming their beliefs. It follows that safety behaviour must always be eliminated in order for patients to achieve a full and lasting recovery. It remains to be demonstrated that safety behaviour always, or almost always, strengthens avoidance behaviour. Similarly there is no evidence that safety behaviour necessarily prevents disconfirmatory experiences.

Safety behaviour may operate to maintain psychopathology in other ways. Sloan and Telch (2002) suggested that safety behaviour redirects attention away from the threat, preventing access to and processing of potentially therapeutic information. In this way, safety behaviour is suggested to be a distraction, although not all distraction is anti-therapeutic (see Rodriguez & Craske, 1993). Furthermore, early work suggested that safety signals may be helpful and facilitate disconfirmatory experiences by allowing exposure to feared situations (Rachman, 1984; Sartory, Master & Rachman, 1989).

Safety behaviour is incorporated in clinical applications on a regular basis. Phobic people are asked to view safe pictures of snakes, spiders and dogs before viewing live ones; anxious people are advised to go to parties and meetings with friends before going alone; patients with anorexia nervosa are advised to wear loose fitting clothing during the weight-regaining stage of treatment. One of the most prominent examples of the use of safety behaviour during effective treatment is that of panic disorder with agoraphobia. Many, if not most hierarchies for these patients include completing various exercises with friends, with the therapist, for short and then longer durations of time, etc.

Many patients resist advice to discard their safety behaviour. For example, in the study of Morgan and Raffle (1999), those instructed to drop their safety behaviour did not do so any more than the comparison group who were instructed to maintain them. This was also true for people high in social anxiety (McManus et al., in press). This is one more reason for considering the judicious use of safety behaviour, especially in the early stages of treatment. In the Milosevic and Radomsky (2007) study, safety behaviour was particularly and significantly helpful (in terms of BAT distances) during the first third (15 minutes) of the session, somewhat (marginally) helpful during the middle third of the session and least helpful at the end of the session. That is, safety behaviour enabled participants to approach the snake more closely, notably during the early phase of the treatment. These results are comfortably consistent with the findings reported by Bandura, Jeffrey and Wright (1974).

Judicious Use

Judicious use means the careful use of safety behaviour, with an emphasis on the early stages of treatment. It is not incompatible with cognitive-behaviour therapy, but can be used as an interlocking component, especially for patients who are exceptionally frightened or disturbed. We also use the adjective ‘judicious’ in view of the empirical support suggesting that reduction in safety behaviour is therapeutic but not essential. Attempts to deliberately use safety behaviour as an adjunct of treatment are at the exploratory stage of development and a premature introduction of this component is not recommended.

Safety behaviour can facilitate treatment in a number of ways. It can help to reduce the unacceptably high rate of refusals, as in exposure therapy (see Foa et al., 2005) by making the treatment less demanding and less threatening. It also offers patients an importantly increased sense of control. They will not be ‘enclosed’ in a demanding treatment over which they have little control; they will not feel trapped. It is understandable that many are unwilling to commit themselves to (or to continue with) a frightening and unpredictable

treatment in which they will have few means of controlling the exposures and/or their anticipated distress. Patients drop out of treatment for a variety of reasons, but repeated and prolonged exposures can become intolerable and are often reported by patients as the primary cause for the discontinuation of exposure-based interventions. Treatment can be made more controllable and more tolerable by the judicious use of safety behaviour, as illustrated in clinical observations and experiments. The prospect of using their own or the therapist's recommended safety tactics can help to provide that sense of control and increased predictability. The treatment is more acceptable because it seems, and is, less frightening and distressing.

It is worth noticing that we all use safety behaviour on a daily basis. We use safety belts in vehicles, avoid high crime areas, dispose of food that has reached the 'best before' date, drive with care, wash our hands after using herbicides, re-read and revise documents and manuscripts, rehearse/practice and/or polish a presentation for an important meeting, etc. When we perceive a potential danger or threat, we engage in safety behaviour. Curiously, in the behavioural exposure treatment of agoraphobia we train patients to walk away from safety (e.g., Craske & Barlow, 1991). We could as easily train them to walk *towards* safety rather than away from it. For example, in the early stages of treatment, instead of encouraging them to go from home to the supermarket, the patients could go from the supermarket towards the safety of their home.

Training people to cope with dangerous situations involves the use of safety gear and safety behaviour. Research on the training of military bomb-disposal operators showed that a combination of safety equipment and instruction about safe behaviour in dangerous situations reduced anxiety to low levels (Rachman, 1990). This work provides ideas for helping patients cope with fear.

Clinical and Research Questions

Before addressing how and when safety behaviour can be used judiciously and effectively, three questions about the qualities of safety behaviour need to be identified:

1. Under what conditions does the judicious use of safety behaviour produce significant and stable reductions of fear?
2. Does the use of safety behaviour, however judicious, generate or strengthen unadaptive avoidance behaviour?
3. Does the judicious use of safety behaviour preclude the disconfirmation of irrational, unadaptive fearful beliefs and expectations?

Proceeding on the assumption that the judicious use of safety behaviour can produce significant and stable reductions in fear, contribute to the disconfirmation of irrational beliefs and expectations, and achieve these effects without generating unadaptive avoidance behaviour, it is possible to turn to some practical implications.

A sense of safety can be achieved by:

- The provision of corrective information
- Observing others engage in or enter the dangerous situation without incurring injury or distress
- The provision of safety aids
- Wearing protective gear and/or using safety behaviour during repeated exposures to the perceived danger
- Specific preparatory training for coping with potentially disturbing/dangerous situations
- Repeated exposures to the perceived danger without incurring injury or distress

- An adaptive re-interpretation of the probability and seriousness of the perceived danger (e.g., your pounding heart is attributable to an unaccustomed sudden effort -- not to an imminent heart attack)
- The removal or reduction of the source of perceived danger
- An improved ability to deal with unwanted intrusive thoughts and images

There are a number of *potential advantages* to be derived from the use of safety behaviour:

1. It increases the acceptability and tolerability of the treatment – there should be fewer refusers and drop-outs
2. It provides patients with an enhanced sense of control
3. It increases patient cooperation with the treatment
4. The treatment can be better paced
5. In exposure treatments the duration of the exposures can be extended with ease
6. The sense of safety enables the patient to absorb corrective information about the threat (e.g., the threat quality of the snake)
7. The judicious use of safety behaviour does not preclude disconfirmatory experiences

Each of these 7 statements can be framed as *formal testable hypotheses*, plus the following:

a. Therapy in which safety behaviour is used is significantly more acceptable to patients
b. The use of safety behaviour is significantly more effective than conventional therapy in treating patients with high intensity/severe fears
c. The use of safety behaviour, especially in the early stages of treatment, will reduce the number of dropouts

d. The therapeutic plan to use safety behaviour, as described to potential patients, will reduce the number of refusers
e. The use of safety behaviour in therapy does not prevent the reduction of fear
f. The use of safety behaviour in therapy does not preclude the disconfirmation of inflated appraisals of threat
g. The positive effects of using safety behaviour in therapy will be enhanced when followed by self-directed practice

The Judicious Use of Safety Behaviour and a Caution

It is well established that in many circumstances patients engage in unadaptive safety behaviour, and this can impede treatment or even lead to an exacerbation of the original problem, notably extensive avoidance and escape. How can therapists avoid this trap? What exactly is the "judicious use" of safety behaviour? Firstly, it should be used in a limited manner and only for a limited period, especially in the early stages of treatment. The advantage of early use is that it will reduce the numbers of refusers and dropouts – because it is gradual, controllable and relatively undemanding. The early stages of treatment, often the most upsetting, are more easily tolerated and enhance the patient's sense of control, confidence and cooperation. Once the patient is thus engaged, the pace of the treatment can be raised, and the safety behaviour and safety gear can be (gradually) dispensed with. In our clinical experience, it is most often the patients themselves who take the initiative in tapering off the use of the safety gear and/or procedures.

Safety behaviour can also be helpful if an obstacle is encountered later in the course of treatment. The tactical use of safety behaviour can remove the barrier and then be tapered off. When problems are encountered in transferring the reduction of fear from the clinic to the patient's home, generalization can be facilitated by the use of safety behaviour. For

example, a patient might be encouraged to hyperventilate at home (for the purposes of interoceptive exposure to provide information about catastrophic misinterpretations of bodily sensations in panic disorder), with their medications at hand, if it helps them to complete the exercise on their own. Broadly, the early and limited use of safety behaviour can facilitate the proper exercise of homework assignments. When patients report that they find the homework assignments, say a behavioural experiment, too difficult to carry out, the problem can be overcome by devising appropriate safety behaviour that will help them to overcome the barrier.

Taking into account the importance of promoting disconfirmatory experiences, and the collection of disconfirmatory evidence, behavioural experiments that incorporate some safety procedures are very likely to prove facilitative. Of course, this is an empirical issue, and we are reasonably confident that future investigations will elucidate the *benefits* as well as the disadvantages of the practical application of safety behaviour to cognitive-behaviour therapy.

The potential advantages of the judicious use of safety are that it will make demanding treatments more tolerable, reduce the number of refusers and drop-outs, help to overcome specific obstacles that are encountered in the course of treatment, and facilitate homework exercises and behavioural experiments. It will also open the way for fresh analyses of the processes involved in treatment.

It will not pass un-noticed that the present construal of safety behaviour is a shift from a primarily behavioural standpoint to a more cognitive one. That is, although there are cognitive considerations underlying common instructions to eliminate safety behaviour from treatment altogether, much of the justification for this comes from extinction/habituation-based approaches. A newer cognitive formulation based on the idea that safety behaviour can *facilitate* disconfirmatory experiences, rather than prevent them, is provided here. Given that

the primary aim of cognitive behaviour therapy is to change the maladaptive interpretations of threatening events, dwelling on safety behaviour may not always be required. Additionally, it appears that in various instances, the knowledge that one has access to safety is capable of reducing fear.

We are currently exploring a range of acceptable safety procedures for treating agoraphobia, OCD and social phobia. Additional projects worthy of consideration would be those that attempt to understand the cognitive mechanisms associated with safety behaviour. Also, investigations that address the question of how and when safety behaviour might be best employed in the cognitive-behavioural treatment of anxiety disorders and related pathologies are likely to elucidate the nature of feelings of safety.

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