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Assessment: Assessment of Strategies to Manage or Avoid Perceived Threats Among Panic Disorder Patients: The Texas Safety Maneuver Scale (TSMS)

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Safety maneuvers are defined as strategies people use to manage or avoid their perceived threats. The present study presents the development of the Texas Safety Maneuver Scale (TSMS), an instrument that assesses the pattern and extent of use of safety maneuvers in formerly treated panic patients. Ex-patients ($N = 105$), who had completed cognitive behavioral treatment at the Anxiety Disorders Laboratory of the University of Texas retrospectively rated their use of safety maneuvers at the time of their intake evaluation. Scores on measures of anxiety, fear of fear, agoraphobic avoidance and depression from intake records were used to examine the reliability and validity of the TSMS. Exploratory factor analysis and alpha reliability analyses indicated high internal consistency, and revealed meaningful subscales. The pattern of correlations between the TSMS and the selected self-report measures supported its convergent and discriminant validity. Use of safety maneuvers is negatively associated with perceived ability to cope with panic attacks, supporting the proposed detrimental nature of use of safety maneuvers. Patients with mild agoraphobic avoidance frequently rely on more subtle forms of within-situation avoidance behaviors that need to be addressed in treatment.

INTRODUCTION

Panic patients employ a variety of defensive strategies to cope with the perceived threats associated with panic attacks. Classic agoraphobic avoidance describes avoidance of situational cues but fails to capture the full range of defensive behaviors utilized by panic patients. The complete range of defensive behaviors will be referred to here as 'safety maneuvers'. Safety maneuvers then, are defined as strategies people use to manage or avoid perceived threats associated with panic or anxiety. Common safety maneuvers are trying to stay busy,

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avoiding conflict, sitting close to exits in public places, scanning the environment for safety signals, or other ritualistic behaviors such as carrying around tokens that are believed to 'magically' prevent anxiety. This study examines the concept of safety maneuvers in the context of panic disorder, but clinical experience suggests that safety-seeking behaviors are prevalent in other anxiety disorders as well (e.g. social phobia, obsessive compulsive disorder, specific phobia).

Safety maneuvers are theoretically similar to the notion of safety signals (Rachman, 1983, 1984; Himadi, 1987; Sartory *et al*., 1989). Safety signals are discriminative stimuli that signal to the patient that one is out of danger. Safety maneuvers include (use of) safety signals but also subsume a whole class of other more subtle avoidance behaviors; e.g. avoiding conflict, avoiding certain foods. Rachman (1983) has argued that safety signals can be used in therapy to facilitate the patient in approaching threatening situations. According to Rachman, patients should be trained to approach the situations they fear, knowing that their spouse or therapist (or other salient safety signal) will be waiting there for them. The results of a preliminary test of this treatment innovation (Sartory *et al*., 1989) were encouraging but inconclusive because of small sample size and the absence of a control group.

Spontaneous (i.e. self-guided) safety-seeking behavior however, is more frequently intended to avoid or manage perceived threats associated with panic attacks than to aid in approach behaviors. Salkovskis (1991) suggested that treatment response is impeded when patients fail to relinquish needless defensive behaviors. Use of safety maneuvers may serve to maintain anxiety through maintenance of faulty threat- and attributional appraisal. First, safety seeking behavior signals to the patient that one has to protect oneself, thus strengthening the perception of threat. Second, their use also serves to prevent threat disconfirmation (Salkovskis, 1991; Telch, 1991; Kamphuis, 1997). Salkovskis *et al*. (1996) emphasized how within-situation avoidance behaviors hinder internal attribution of (therapy) gains, as the patient may attribute her absence of anxiety or panic to the safety strategies ('it doesn't count, because I was distracting myself'). In a similar vein, safety strategies may undermine the patient's sense of self-efficacy in dealing with threatening situations. Finally, safety maneuvers are no cure; they provide the patient with a false and fallible sense of protection at the price of a constricted lifestyle. In sum, several mechanisms may account for the observations that suggest that failure to effectively fade safety maneuvers during treatment increases risk of relapse.

Preliminary support for the deleterious effects of safety-behavior utilization on fear reduction during exposure comes from two studies (Wells *et al*., 1995; Salkovskis *et al*., 1998). In the first study (Wells *et al*., 1995), significantly greater anxiety reduction and cognitive change were observed among eight social phobics instructed to *refrain* from using safety behaviors during exposure. Salkovskis *et al*. (1998) randomly assigned 18 patients with panic disorder with agoraphobia to either 15 min of situational exposure with safety-behavior fading plus a disconfirmation rationale (experimental condition), or situational exposure without safety-behavior fading (exposure control). Compared to patients receiving 15 min of exposure, patients who were instructed to withdraw their safety behaviors during exposure reported significantly greater reduction in subjective fear. These data support the hypothesis that exposure can be more effective when in-situation safety-seeking behaviors are identified and eliminated.

This article reports on the development and psychometric evaluation of the Texas Safety Maneuver Scale (TSMS). Data are presented on the factor structure and internal consistency of the TSMS, and its convergent and discriminant validity is examined.

METHOD

Participants

Patients who had completed cognitive behavioral treatment at the Laboratory for the Study of Anxiety Disorders Laboratory at the University of Texas between 1989–1993 ($N = 212$) were sent a letter requesting participation in the present study. At intake, all patients had met DSM-III-R criteria for panic disorder as their principle Axis I condition. Some patients ($N = 32$) had changed address and could not be contacted. Of the participants 108 returned their questionnaires (response rate of 49.5%). Participants averaged 35.3 years in age, and ranged from 18 to 58 years old. The mean duration of illness was 9.2 years (SD = 8.9). Specific details about the participants, intake examination, and the group-administered CBT are described in Telch *et al*. (1993).

Procedure

Participants were instructed to retrospectively rate the frequency of their use of 50 listed safety maneuvers. They were also requested to list additional safety maneuvers not identified in the questionnaire.

Assessment Measures

Safety Maneuvers: Texas Safety Maneuver Scale (TSMS)

The TSMS is a 50-item scale that assesses respondents' use of a wide range of safety maneuvers (Kamphuis, 1994). The items were inductively generated by the authors and other laboratory staff. Items were generated with the following intuitively derived domains as a conceptual guide: (a) use of companions, (b) use of distraction, (c) use of checking and scanning, (e) avoidance of stress and emotions, (f) avoidance of activities, (g) focus on escape. Each item is rated on a 5-point Likert scale ranging from 'never' to 'always'.

General Anxiety: Beck Anxiety Inventory (BAI)

The 21-item Beck Anxiety Inventory was used to assess participants' level of general anxiety. Substantial data support its reliability and validity (Beck *et al*., 1988a; Fydrich *et al*., 1992).

Panic-related Cognitions

Fear of Fear: Anxiety Sensitivity Index (ASI)

The ASI (Reiss *et al*., 1986, 1988) is a widely used 16-item questionnaire that measures fear of anxiety and its bodily sensations. Each item expresses a concern about a possible aversive consequence of symptoms associated with anxiety (e.g. 'When I notice that my heart is beating rapidly, I worry that I might have a heart attack'). Items are rated on a 5-point Likert scale, with total scores ranging from 0 to 64. Research on the psychometric properties has yielded favourable results (Peterson and Heilbronner, 1987; Telch *et al*., 1989).

Bodily Sensation Questionnaire (BSQ)

The BSQ is a 17-item scale that assesses fears associated with common sensations of autonomic arousal (e.g. heart palpitations, lump in throat). Each item is rated on a 5-point Likert scale ranging from 'not frightened or worried by the sensation' to 'extremely frightened or worried by the sensation'. The scale has high internal consistency and adequate test–retest reliability (Chambless *et al*., 1984).

Panic Appraisal Inventory (PAI)

The PAI (Telch, 1987) consists of three separate scales for assessing the cognitive appraisal patterns of panic patients. These three dimensions include: (a) PAI–panic likelihood, (b) PAI–panic perceived consequences, (c) PAI–panic coping. For PAI–panic likelihood, respondents are presented with 15 situations (e.g. 'shopping alone in a large department store'; 'waiting in long lines', etc.) and asked to rate the likelihood of having a panic attack if unaccompanied and without medication. Ratings were made on a 0—'no chance of panic occurrence' to 100—'definite panic occurrence' scale. The panic likelihood scale has demonstrated high test–retest reliability ($r = 0.89$ over a 3-week interval), and high internal consistency ($\alpha = 0.94$). Principal component factor analysis has yielded a unitary factor structure.

The PAI–panic perceived consequences subscale consists of 15 statements involving perceived consequences of panic occurrence. The scale is divided into three factor-analytically derived subscales having three items each. The subscales include: (a) physical concerns (e.g. 'I may have a stroke'; 'I may die, I may have a heart attack'), (b) social concerns (e.g. 'people may stare at me'; 'people may think I'm weird') and (c) loss of control concerns (e.g. 'I may scream'; 'I may go insane'). Each item is rated on a 0—'not at all troubling' to 10—'extremely troubling' scale. Ratings are summed to yield scores for each of the three subscales and a total perceived consequences scale. The panic consequences scale has high test–retest reliability ($r = 0.86$) and high internal consistency ($\alpha = 0.91$). Alpha coefficients for the physical, social, and loss of control subscales were 0.85, 0.92, and 0.86 respectively.

The PAI–panic coping subscale consists of 15 items asking participants to rate their confidence in executing panic-coping behaviors (e.g. 'maintain control of your actions'; 'control your breathing', etc.). Each item is rated on a 0—'not confident at all' to 100—'completely confident' scale. This scale has adequate test–retest reliability ($r = 0.81$) and high internal consistency ($\alpha = 0.88$).

Agoraphobia

Agoraphobic Avoidance: Mobility Inventory (MI)

This questionnaire requires respondents to rate separately their avoidance, when both alone and accompanied, of 27 situations and places due to discomfort or anxiety. The scale ranges from 1—'never avoid' to 5—'always avoid'. This scale has adequate psychometric properties (Chambless *et al*., 1985).

Fear Questionnaire (FQ-Ago)

The FQ-Ago, a 5-item subscale from the Marks and Matthews Fear Questionnaire quantifies patients' fearfulness of typical agoraphobic fear situations: travelling alone, walking alone, going into crowded shops, etc. Each item is rated on an 8-point Likert scale and the ratings are summed to yield a subscale score. The FQ-Ago is the most widely cited index of agoraphobia and substantial data support its reliability and validity (Marks and Matthews, 1979; Chambless *et al*., 1984; Oei *et al*., 1991).

Depression

Beck Depression Inventory (BDI)

The 21-item Beck Depression Inventory was used to assess participants' level of depressed mood. The BDI has established itself as the most widely used self-report measure of depression, and has demonstrated favorable psychometric properties over more than 25 years of research (Beck *et al*., 1961, 1988).

Analytical Overview

The analytical strategy can be summarized as follows. To derive subscales, an exploratory factor analysis with VARIMAX rotation was followed up with (alpha) reliability analyses. In order to examine the construct validity, correlational analyses were performed between the TSMS subscales and the participants' intake measures of general anxiety, agoraphobic avoidance, panic-related cognitions and depression. Finally, use of safety maneuvers was compared between patients with extensive versus minimal agoraphobic avoidance.

The following specific predictions were tested: (a) safety maneuvers can be reliably grouped into meaningful categories; (b) use of safety maneuvers will be positively associated with measures of agoraphobic avoidance, anxiety, and panic-related cognitions (convergent validity); (c) safety maneuvers are distinct from agoraphobic avoidance (discriminant validity), and (d) use of safety maneuvers will be negatively associated with perceived ability to cope with panic attacks.

RESULTS

The dimensions underlying the items of the TSMS were investigated using an exploratory factor analysis with VARIMAX rotation. Twelve factors emerged from the 50 items, with a combined communality estimate of 36.79, which is equivalent to an explained variance of 74%. Factor 2 was interpreted as representing classic agoraphobic avoidance (e.g. avoiding crowded stores, public transportation), factor 3 as representing (use of) relaxation techniques (e.g. meditation, muscle relaxation), factor 4 as representing avoidance of stressful events (e.g. fights, arguments), factor 5 as representing avoidance of somatic perturbation (e.g. avoiding rigorous exercise, drugs), and factor 7 as representing distraction techniques (e.g. staying busy, listening to music). Factor 1 appeared to be a mixed factor, while factor 6 and the factors 8–12 were uninterpretable. This factor structure served as the basis for the subsequent alpha reliability analyses, which determined final subscale derivation. The escape oriented behaviors subscale was added as a result.

To assess for internal consistency, Cronbach alphas were computed for the TSMS and its six derived subscales. As can be seen in Table 1, coefficient alphas ranged from 0.77 for the somatic perturbation scale to 0.93 for the TSMS total scale.

Table 2 shows the means and standard deviations on measures of anxiety, panic-related cognitions, agoraphobic avoidance and depression from the patients' intake records. Table 3 shows the correlations matrix between the TSMS (sub-)scales and selected measures of anxiety, panic-related cognitions, agoraphobic avoidance and depression.

Anxiety and Panic-related Cognitions

The TSMS was significantly correlated with general levels of anxiety ($r = 0.34$; $p < 0.05$), as measured by the BAI. With regard to fear of fear (sensations), the TSMS score was positively related to both the ASI and BSQ ($r = 0.43$; $p < 0.01$); as were the agoraphobic avoidance, stress avoidance, somatic

Table 1. Means, standard deviations and reliability coefficients of the TSMS and its subscales

Subscale	*N*	Mean	SD	Alpha
AGORA	103	18.28	11.46	0.90
RELAX	105	4.60	4.37	0.88
STRESS	101	12.10	6.10	0.87
SOMATIC	100	10.71	6.66	0.77
DISTRACT	104	6.14	4.28	0.82
ESCAPE	104	8.38	5.72	0.79
TOTAL	101	78.43	33.95	0.93

AGO, agoraphobic avoidance; RELAX, use of relaxation techniques; STRESS, psychological stress avoidance; SOMATIC, somatic arousal avoidance; DISTRICT, use of distraction techniques; ESCAPE, escape behavior; TOTAL, TSMS total score.

Table 2. Means and standard deviations of selected measures of anxiety, panic-related cognitions, agoraphobic avoidance and depression

Domain	*N*	Mean	SD
General anxiety			
BAI	56[1]	23.98	10.70
Panic cognitions			
ASI	87	33.86	11.96
BSQ	88	2.69	0.82
PAI–like	87	43.78	20.59
PAI–phy	87	166.07	149.72
PAI–soc	86	154.48	160.73
PAI–loss	86	118.99	137.07
PAI–cope	86	30.39	17.82
Agoraphobia			
FQ-Ago	87	12.97	9.12
MI-alone	88	2.51	0.96
Depression			
BDI	88	13.67	8.28

BAI, Beck Anxiety Inventory; ASI, Anxiety Sensitivity Index; BSQ, Body Sensations Questionnaire; PAI–like, Panic Appraisal Inventory panic likelihood; PAI–phy, PAI–panic physical concerns; PAI–soc, PAI–panic social concerns; PAI–loss, PAI–panic loss of control; PAI–cope, PAI–panic coping; FQ-Ago, Fear Questionnaire—Agoraphobia; MI-alone, Mobility Inventory—ratings when alone; BDI, Beck Depression Inventory.
[1]Intake records were incomplete for some subjects.

perturbation, and distraction subscales. TSMS total scores were also positively related to the perceived likelihood of experiencing a panic in a diversity of contexts ($r = 0.51$; $p < 0.001$). As expected, use of safety maneuvers was negatively related to perceived ability to cope with panic attacks. Moreover, the somatic avoidance scale of the TSMS was highly correlated with the PAI physical concerns subscale ($r = 0.41$; $p < 0.001$) and the agoraphobic avoidance subscale was associated with the social concerns PAI subscale ($r = 0.24$; $p < 0.05$).

Agoraphobia

As expected, the TSMS was significantly associated with traditional measures of agoraphobic avoidance ($r = 0.58$ with FQ-Ago, $r = 0.59$ with MI–alone; $p < 0.001$). The TSMS agoraphobic avoidance, escape and stress avoidance subscales were most strongly associated with the measures of agoraphobic avoidance while the other subscales yielded modest positive correlations (all < 0.3).

Depression

The TSMS was positively associated with the BDI ($r = 0.37$; $p < 0.01$). On subscale level, the agoraphobic avoidance, somatic avoidance, and stress avoidance subscales were positively associated with depression, while (use of) relaxation techniques, distraction or escape was not significantly associated with depression.

Table 4 lists the top 10 safety maneuvers for panic patients with moderate to severe agoraphobic avoidance versus panic patients with minimal to mild agoraphobic avoidance. The latter group resorted to more subtle within-situation avoidance

Table 3. Intercorrelation matrix: TSMS subscales with selected measures of anxiety, panic-related cognitions, agoraphobic avoidance and depression

Domain	Agora	Relax	Stress	Somatic	Distract	Escape	Total
General anxiety							
BAI	0.34[1]	0.15	0.19	0.23	0.11	0.10	0.34[1]
Panic							
Cognitions							
ASI	0.35[2]	0.17	0.35[2]	0.26[1]	0.26[1]	0.18	0.43[2]
BSQ	0.33[2]	0.01	0.28[2]	0.32[2]	0.30[2]	0.20	0.43[2]
PAI–like	0.48[3]	0.11	0.33[2]	0.36[2]	0.40[3]	0.32[2]	0.51[3]
PAI–phy	0.03	0.07	0.07	0.41[3]	0.03	−0.11	0.20
PAI–soc	0.24[1]	−0.01	0.11	0.12	−0.05	0.19	0.24[1]
PAI–loss	0.19	0.04	0.12	0.09	0.00	0.02	0.20
PAI–cope	−0.40[3]	−0.17	−0.33[2]	−0.34[2]	−0.11	−0.37[3]	−0.46[3]
Agoraphobia							
FQ-Ago	0.67[3]	0.12	0.34[2]	0.12[1]	0.14	0.42[3]	0.59[3]
MI-alone	0.71[3]	0.04	0.34[2]	0.27[1]	0.03	0.38[3]	0.58[3]
Depression							
BDI	0.30[2]	0.05	0.35[2]	0.34[2]	0.07	0.11	0.37[3]

[1]$p < 0.05$; [2]$p < 0.01$; [3]$p < 0.001$.

Table 4. Pattern of most frequently used safety maneuvers for (a) panic patients with mild or minimal agoraphobic avoidance, versus (b) panic patients with moderate to severe agoraphobic avoidance

Mild agoraphobia	Moderate/severe agoraphobia
Avoiding public transportation	Avoiding stressful encounters
Avoiding stressful encounters	Staying busy
Avoiding crowded stores	Avoiding marijuana/drugs
Carrying alcohol/medication in car	Avoiding anger-producing situations
Checking for exits	Avoiding stress at work or school
Relying on company for social events	Avoiding caffeine drinks
Avoiding busy freeways	Conversing
Avoiding parties/social gatherings	Checking pulse/blood pressure
Avoiding long lines	Travel alone
Avoiding being far away from home	Using mental distraction

behaviors, such as avoiding stress and anger, avoiding physiological arousal, and use of distraction techniques, where the former group relied mostly on traditional agoraphobic avoidance.

DISCUSSION

Main Findings

The aim of the present study was to develop an instrument that would assess the pattern and extent of safety maneuver use. The results support the clinical impression that panic patients make extensive use of idiosyncratic safety maneuvers to manage or avoid their perceived threats. Examples of frequently endorsed items include 'avoiding stressful encounters', 'avoiding caffeine drinks', and 'staying busy'. Clearly, these behaviors fall outside the range of traditional agoraphobic measures but serve an important defensive function. The findings suggest that these strategies can be meaningfully classified in the following categories: classic agoraphobic avoidance (e.g. avoiding crowded stores, public transportation), avoidance of stressful events (e.g. fights, arguments), avoidance of somatic perturbation (e.g. avoiding rigorous exercise, drugs), use of relaxation techniques (e.g. meditation, muscle relaxation), use of distraction techniques (staying busy, listening to music), and escape-oriented behaviors (checking for exits, driving right lane). Table 5 specifies the item numbers of each of the TSMS subscales. A copy of the TSMS is added at the end of this assessment.

The present results indicate that the TSMS is psychometrically valid and reliable among a sample of formerly treated panic disorder patients. First, the analyses show that the TSMS and its subscales have high internal consistency. In addition, there is preliminary evidence for its construct validity. Safety maneuvers were positively associated with agoraphobic avoidance, anxiety, and panic-related cognitions. Although overall the TSMS was associated with traditional agoraphobic avoidance, evidence from several of its subscales suggests that the TSMS taps an overlapping but distinct construct from traditional agoraphobic avoidance.

Inspection of strategies most frequently employed by panic patients with mild agoraphobia reveals that other, more subtle defensive behaviors are quite common. In sum, inspection of the pattern of correlations of the TSMS with the selected anxiety and avoidance measures, as well as the comparison of panic patients with and without agoraphobic avoidance supported both the convergent and discriminant validity of the TSMS with this sample of patients.

In addition, and consistent with the purported detrimental effects of use of safety maneuvers, perceived coping ability and use of safety maneuvers were negatively related. Evidently, safety maneuvers do not add to the patient's sense of self-efficacy but, instead, seem to emerge from the sense of its absence. Of interest is the question about the temporal dynamics between use of safety maneuvers and perceived (lack of) coping ability. What comes first: does a perceived inability to cope

Table 5. Description of TSMS subscales

Subscales and items nos
Agoraphobic avoidance: 6, 7, 8, 9, 35, 36, 37, 39, 40, 42
Relaxation techniques: 47, 48, 49, 50
Stress avoidance: 22, 23, 24, 25, 26
Somatic avoidance: 28, 29, 31, 32, 33, 34
Distraction techniques: 10, 11, 12, 13, 14, 15
Escape: 19, 34, 44, 45, 46

lead to use of safety maneuvers and/or does use of safety maneuvers lead to lower perceived coping ability? A longitudinal design is needed to address this question.

The current derivation of subscales is based on alpha reliability analyses subsequent to an exploratory factor analysis on a relatively small sample. Therefore, cross-validation is necessary to substantiate current preliminary findings. Another limitation of the present study concerns the retrospective nature of the ratings of use of safety maneuvers. Currently, our laboratory is collecting additional prospective data on the TSMS.

Clinical Applications of the TSMS

The findings indicate that the TSMS measures several distinct classes of strategies panic patients use to cope with the perceived threats associated with their anxiety and panic. As such, safety maneuvers represent an important target for panic treatment. How can the TSMS assist in reaching this target?

First, the TSMS can serve as a tool to identify and monitor the patient's idiosyncratic pattern of use of safety maneuvers. Many patients report difficulty identifying safety behaviors perhaps because the patient's avoidant strategies have become so ingrained. Upon presentation of the TSMS, many patients experience a mix of embarrassment (about being 'caught' , and being unaware of the extent of their reliance on safety-seeking behaviors) and relief (that they are not alone in their avoidant lifestyle), and they generally produce additional idiosyncratic behaviors like rituals, and self-talk to manage their anxiety and panic.

For the clinician, the TSMS provides a convenient measure for assessing subtle avoidance behaviors of the patient. It can be used as a benchmark against which the progress of treatment can be assessed. Moreover, the TSMS can serve as an important aid in pinpointing the specific core threat underlying the patient's panic disorder. For example, a patient who prepares excuses for social situations, plans to travel alone and sits close to exits, may have core concerns around social embarrassment, while a patient who frequently assesses blood pressure, checks for the availability of hospitals, and avoids vigorous exercise and caffeine drinks is likely preoccupied with cardiac concerns.

Throughout treatment, panic patients can (weekly) self-administer the TSMS and monitor their own progress. An hierarchical approach may be helpful: the patient ranks his avoidant strategies from easiest to dispense with to most difficult to dispense with and travels down this hierarchy over the course of treatment. Weekly specific targets should be set for fading the use of safety maneuvers. If the patient, near the end of treatment, continues to rely on certain safety procedures, s/he should be instructed to continue to work on fading these behaviors. For the clinician, this is a warning sign: threat disconfirmation has not been complete. Ideally, treatment is not terminated until reliable threat reappraisal has occurred and, consequently, the reliance on defensive behaviors is relinquished.

REFERENCES

Beck, A. T., Epstein, N., Brown, G. and Steer, R. A. (1988a). An inventory for measuring clinical anxiety: The Beck Anxiety Inventory. *Journal of Consulting and Clinical Psychology*, **56**, 893–897.

Beck, A. T., Steer, R. A. and Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Tewnty-five years of evaluation. *Clinical Psychology Review*, **8**, 77–100.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J. and Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, **4**, 561–571.

Chambless, D. L., Caputo, G. C., Bright, P. and Gallagher, R. (1984). Assessment of fear of fear in agoraphobics: The Body Sensations Questionnaire and the Agoraphobic Cognitions Questionnaire. *Journal of Consulting and Clinical Psychology*, **52**, 1090–1097.

Chambless, D. L., Caputo, G. C., Jasin, S. E., Gracely, E. J. and Williams, C. (1985). The Mobility Inventory for agoraphobia. *Behaviour Research and Therapy*, **23**, 35–44.

Fydrich, T., Dowdall, D. and Chambless, D. L. (1992). Reliability and Validity of the Beck Anxiety Inventory. *Journal of Anxiety Disorders*, **6**, 55–61.

Himadi, W. G. (1987). Safety signals and agoraphobia. *Journal of Anxiety Disorders*, **1**(4), 345–360.

Kamphuis, J. H. (1994). The development of a scale for assessing safety strategies among panic patients: The Texas Safety maneuver Scale. Unpublished masters thesis, University of Texas, at Austin.

Kamphuis, J. H. (1997). Guided threat re-appraisal and disconfirmation during exposure to phobic stimuli: An experimental investigation of mechanisms of fear reduction. Unpublished dissertation, University of Texas at Austin.

Marks, I. M. and Matthews, A. M. (1979). Brief standard self-rating for phobic patients. *Behaviour Research and Therapy*, **17**, 263–267.

Oei, T. P. S., Moylan, A. and Evans, L. (1991). Validity and clinical utility of the Fear Questionnaire for anxiety-disorder patients. *Psychological Assessment*, **3**, 391–397.

Peterson, R. A. and Heilbronner, R. L. (1987). The Anxiety Sensitivity Index: Construct validity and factor analytic structure. *Journal of Anxiety Disorders*, **1**, 117–121.

Rachman, S. (1983). The modification of agoraphobic avoidance behaviour: Some fresh possibilities. *Behaviour Research and Therapy*, **21**, 567–574.

Rachman, S. (1984). Agoraphobia: A safety signal perspective. *Behaviour Research and Therapy*, **22**, 59–70.

Reiss, S., Peterson, R. A., Gursky, D. M. and McNally, R. J. (1986). Anxiety sensitivity, anxiety frequency, and the prediction of fearfulness. *Behaviour Research and Therapy*, **24**, 1–8.

Reiss, S., Peterson, R. A. and Gursky, D. M. (1988). Anxiety sensitivity, injury sensitivity and individual differences in fearfulness. *Behaviour Research and Therapy*, **26**, 341–345.

Salkovskis, P. M. (1991). The importance of behaviour in the maintenance of anxiety and panic: A cognitive account. *Behavioural Psychotherapy*, **19**, 6–19.

Salkovskis, P. M., Clark, D. M. and Gelder, M. G. (1996). Cognition–behavior links in the persistence of panic. *Behaviour Research and Therapy*, **34**, 453–458.

Salkovskis, P. M., Clark, D. M., Hackman, A., Wells, A. and Gelder, M. G. (1998). An experimental investigation of the role of safety behaviours in the maintenance of panic disorder with agoraphobia. *Journal of Abnormal Psychology*, in press.

Sartory, G., Master, D. and Rachman, S. (1989). Safety-signal therapy in agoraphobics: A preliminary test. *Behaviour Research and Therapy*, **27**, 205–209.

Telch, M. J. (1987). The Panic Appraisal Inventory. Unpublished scale, University of Texas at Austin.

Telch, M. J. (1991). Beyond sterile debate: A reply to Middleton. *Journal of Psychopharmacology*, **5**, 296–298.

Telch, M. J., Lucas, J. A., Schmidt, N. B., Hanna, H. H., Jaimez, T. L. and Lucas, R. A. (1993). Group cognitive-behavioral treatment of panic disorder. *Behaviour Research and Therapy*, **31**, 279–287.

Telch, M. J., Shermis, M. D. and Lucas, J. A. (1989). Anxiety sensitivity: Unitary personality trait or domain-specific appraisals? *Journal of Anxiety Disorders*, **3**, 25–32.

Wells, A., Clark, D. M., Salkovskis, P. M., Ludgate, J., Hackman, A. and Gelder, M. G. (1995). Social phobia: the role of in-situation safety behaviors in maintaining anxiety and negative beliefs. *Behavior Therapy*, **26**, 153–161.

NAME _____ DATE _____

TSMQ

Developed by Jan Kamphuis and Michael J. Telch, PhD

INSTRUCTIONS: Listed below are behaviors that people sometimes use to manage or avoid panic or anxiety. Read each item carefully and rate how often you use each behavior to manage panic or anxiety. For example, if you use a car phone for business but *never* use it to manage or avoid panic or anxiety, place a ✓ in the first column (YES, BUT NOT TO MANAGE ANXIETY). However, if you *usually* use your car phone to manage or avoid panic or anxiety, place a ✓ in the column labeled 'USUALLY TO MANAGE ANXIETY OR PANIC'.

		YES, BUT NOT to manage anxiety or panic	NEVER to manage anxiety or panic	RARELY to manage anxiety or panic	SOMETIMES to manage anxiety or panic	USUALLY to manage anxiety or panic	ALWAYS to manage anxiety or panic
1.	Carrying food in car or on your person						
2.	Carrying water in car or on your person						
3.	Carrying alcohol or medications in car or on your person						
4.	Carrying vital telephone nos in car or on your person						
5.	Having a phone or CB radio in your car						
6.	Relying on a companion for travel						
7.	Relying on a companion for shopping						
8.	Relying on a companion for attending social gatherings						
9.	Relying on a companion to eat in restaurants						
10.	Listening to music						
13.	Reading						
14.	Watching television						
15.	Using mental distraction (e.g. using thoughts or images)						
16.	Staying busy						
17.	Conversing with others						
18.	Using relaxation, meditation, yoga, or breathing techniques						
19.	Checking the presence/location of phones						
20.	Checking the presence/location of bathrooms						
21.	Checking the presence/location of exists						
22.	Checking the presence/location of hospitals or clinics						
23.	Checking pulse, breathing, blood pressure						
24.	Avoiding stressful encounters						
25.	Avoiding anger-provoking situations						

26.	Avoiding emotionally-arousing events (e.g. concerts, sporting events)						
27.	Avoiding emotionally-arousing films						
28.	Avoiding stress at work or school						
29.	Avoiding saunas, jacuzzis, hot showers						
30.	Avoiding drinks containing caffeine						
31.	Avoiding vigorous exercise						
32.	Avoiding tight-fitting clothes						
33.	Avoiding specific foods or getting too full						
34.	Avoiding merry-go-rounds or other amusement park rides that might made you dizzy						
35.	Avoiding alcohol						
36.	Avoiding marijuana or other drugs						
37.	Avoiding crowded stores						
38.	Avoiding driving on busy freeways						
39.	Avoiding using public transportation (e.g. buses, trains, or planes)						
40.	Avoiding parties or other social activities						
41.	Avoiding long lines (e.g. bank, post-office)						
42.	Avoiding sit-down meals at formal restaurants						
43.	Avoiding staying home alone						
44.	Avoiding being far from home						
45.	Having to sit close to an exit						
46.	Taking one's own car to avoid travelling with another person						
47.	Having to drive in the right-hand lane on the freeway						
48.	Thinking of excuses that you can use to leave a social situation early						
49.	Using muscle relaxation exercises						
50.	Using meditation or yoga						
51.	Deep breathing exercises						
52.	Listening to stress/anxiety reduction tapes						
53.	Other (list):						
54.	Other (list):						
55.	Other (list):						
56.	Other (list):						