

**A CRITICAL EXAMINATION OF THE PHENOMENON
OF CLAUSTROPHOBIA: DO SUBTYPES EXIST?**

by

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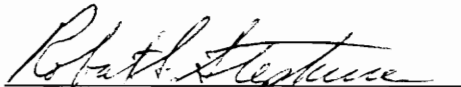
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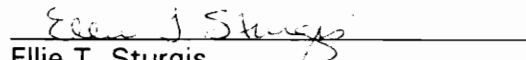
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(ABSTRACT)

Claustrophobia, a fear of enclosed spaces, is thought of as being a unitary phenomenon. However, different subtypes of claustrophobia may exist. Some claustrophobics may be more similar to individuals with Panic Disorder with Agoraphobia in terms of situations feared, cognitions and symptoms whereas others might be similar to simple phobics with a specific fear of enclosed spaces. The purpose of this study was to investigate whether such subtypes exist. The Claustrophobia Situations Questionnaire (CSQ) and the Claustrophobia General Cognitions Questionnaire (CGCQ) were developed and exploratory factor analyses were performed on these scales. Two-factor solutions for both the anxiety and avoidance ratings on the CSQ were obtained accounting for 40.8% and 33.8% of the variance, respectively. Two subscales were created from each two-factor solution. A three-factor solution was obtained for the CGCQ accounting for 53.6% of the variance from which three subscales were created. Differential validity of the scales and their utility in identifying claustrophobic subtypes was assessed. Self-report measures and physiological response to a hyperventilation challenge were used to validate claustrophobic subtypes. A significant main effect for "Avoidance of Crowds" was found when using heart rate change and post-heart rate as dependent measures. Specifically, subjects high on the "Avoidance of Crowds" subscale demonstrated greater heart rate change and post heart rate than subjects low on the "Avoidance of Crowds" subscale. This suggests

subjects avoidant of panic-like situations had a greater physiological reaction to the hyperventilation challenge, a task considered to be problematic for panic disordered individuals. Therefore, the results generally suggest the existence of claustrophobic subtypes. The present study was the first to compare subjects differentiated on the basis of claustrophobic subtypes in terms of their physiological response to a hyperventilation challenge. This study both supported and extended past research by developing questionnaires (the CSQ and CGCQ) capable of identifying different claustrophobic situational and cognitive factors.

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The Diagnostic and Statistical Manual, 3rd edition, (DSM-III-R; APA, 1987) defines simple phobia as a "persistent fear of a circumscribed stimulus...other than fear of having a panic attack...or of humiliation or embarrassment in certain social situations" (p. 244). Thus, simple phobias are not related to panic disorder with or without agoraphobia or social phobia. Furthermore, the diagnostic criteria specify that, at some point, exposure to the specific phobic stimulus provokes an anxiety response and that the object is avoided or endured with intense anxiety. The diagnosis is made when the fear or avoidant behavior significantly interferes with usual functioning, or there is marked distress about having the fear.

Claustrophobia, one of the simple phobias, is defined as a fear of closed spaces. The definition seems to imply that claustrophobia is a unitary phenomenon in that all closed spaces are feared equally and that it is the enclosed space itself that is feared. However, claustrophobia may not be a unitary phenomenon. For example, some claustrophobics may be more similar to individuals with Panic Disorder with Agoraphobia (PDA) in terms of situations feared, cognitions and symptoms whereas others might be similar to simple phobics (i.e. a fear of specific situations) with a specific fear of enclosed spaces (Craske & Sipsas, 1992; Barlow, 1988). If this were the case, one subgroup of claustrophobics would exhibit a fear of enclosed spaces with attendant cognitions (and perhaps symptoms) while another subgroup would more closely resemble PDA individuals with attendant cognitions and symptoms. This study sought to investigate whether such subtypes exist. To this end, the diagnostic category of Simple Phobia will be more fully discussed, paying particular attention to claustrophobia. Evidence will be reviewed which indicates that some claustrophobics may be similar to individuals with PDA while others may be similar to the more traditional definition of claustrophobia. Finally, extant claustrophobia

scales and/or questionnaires which currently exist will be critically examined, especially with regard to their possible factorial composition and relationship to simple phobia or PDA.

The diagnosis of simple phobia is made when the fear of the object or situation significantly interferes with usual functioning. According to Myers, Weissman, Tischler, Holzer, Anthony, Boyd, Burke, Kramer and Stoltzman (1984), approximately 5% to 10% of the population has a simple phobia based on the criteria of anxiety and interference. These data replicate the earlier findings of Agras, Sylvester, and Oliveau (1969) who reported the prevalence of simple phobia to be approximately 7% of the population. Simple phobics commonly cluster into general types such as animal/insect, blood/injury, dental and claustrophobia (Agras et al., 1969; Landy & Gaupp, 1971; Ost, 1987).

In a recent reanalysis of the Epidemiological Catchment Area Study data, Curtis, Hill, and Lewis (1990) in Craske and Sipsas (1992) identified three main clusters of phobias: an agoraphobia cluster, consisting of fear of being alone, going out of the house alone, crowds and claustrophobia; a cluster of fears that typically originate in childhood, including fear of animals, storms, and being in water; and a third, less inter-related set of phobias, including fears of tunnels or bridges, and public transportation. The inclusion of claustrophobia in the agoraphobia cluster is evidence of its link with agoraphobia and for distinguishing it from other specific phobias. Height phobia was a fourth category separated from the three clusters. Therefore, as shown by Curtis et al. (1990) in their reanalysis of the Epidemiological Catchment Area Study data, claustrophobia clusters with agoraphobia while simple phobias cluster separately.

Evidence linking claustrophobia to agoraphobia may be found by examining age of onset and mode of acquisition of claustrophobia, simple phobia and

agoraphobia. In a comprehensive study of simple phobias, Ost (1987) investigated the age of onset of different phobic disorders. Ost found that animal phobias develop earliest (mean age around 7 years), followed by blood phobias (mean age around 9 years) and dental phobias (mean age around 12 years). Claustrophobia develops much later (mean age around 20 years). The mean age of onset of claustrophobia is much closer to the mean age of onset of agoraphobia, which develops in the 20s (Ost, 1987; Thyer, Parrish, et al., 1985). Ost (1987) and Klein (1981) suggest that claustrophobia may well be descriptively and functionally the equivalent of agoraphobia, with a slightly more constricted range of avoidance. The differences in age of onset among the simple phobias suggest the heterogeneity of this diagnostic group. A second piece of evidence linking claustrophobia and agoraphobia and separating both from the simple phobia diagnostic group is the modes of acquisition of these disorders. These modes include conditioning experiences, modeling, and informational transmission (Rachman, 1990). Agoraphobia is most frequently acquired (81% of the time) via classical conditioning experiences (Ost, 1985). Similarly, claustrophobics in Ost's (1985) study acquired their fear of closed spaces 69% of the time through conditioning experiences. In contrast, conditioning was the most frequent mode of acquisition among 48% of animal phobics, 58% of social phobics and 45% of blood phobics. Dental phobics were more similar to claustrophobics in that conditioning was the primary mode of acquisition in 68% of the cases (Ost, 1985) but it is possible that at least some dental phobics fear this situation because of the experience of being "trapped" in the dentist's chair.

Additional evidence of the similarity between claustrophobia and PDA comes from comparing situations, cognitions and symptoms of the two diagnostic groups. Claustrophobia is more likely to co-occur with uncued/unexpected panic

attacks than other types of simple phobias (Curtis et al., 1990 in Craske and Sipsas, 1992). It shares more features in common with PDA than do other simple phobias. For example, claustrophobia involves more symptoms from the DSM-III-R panic checklist, more worry about becoming anxious and panicky, more fear of the bodily symptoms of arousal (i.e. "fear of fear"), and more unpredictability of the fear response when in claustrophobic situations, all of which are features of PDA (Craske, Zarate, Burton, & Barlow, 1993). In contrast, simple phobics do not fear the symptoms of anxiety themselves or their unpredictability. Rather, they respond fearfully whenever the phobic stimulus is present.

In contrast to the above pattern of consistent similarity between claustrophobia and PDA, some data indicate patterns of both similarity and dissimilarity between these two disorders. Johnston, Johnston, Wilkes, Burns, & Thorpe (1984) in a principal components analysis of fear and avoidance scales of 559 agoraphobics found agoraphobic and claustrophobic factors. Thus, it is interesting to note that some type of claustrophobic component was discovered among the agoraphobic sample indicating the distinction between both diagnostic groups. The fear and avoidance scales will be further discussed later in this paper. Rachman, Levitt and Lopatka (1987, 1988) found individuals with claustrophobia were frequently concerned about panicking and losing control (cognitions typical of PDA) when exposed to claustrophobic situations. Claustrophobics endorsed a higher percentage of panic symptoms and an equivalent number of occasions on which panic occurred unexpectedly during behavioral exposure to fear-relevant stimuli. In addition, Rachman et al. (1987) found that when claustrophobics panicked, they reported bodily symptoms of dizziness, choking and shortness of breath in association with the cognition of suffocation. However, among the panic disorder subjects in the Rachman et al.

(1987) study, the great majority of no-panic episodes were marked by an absence of fearful cognitions. In contrast, two-thirds of the no-panic episodes reported by claustrophobic subjects when exposed to the phobic stimulus were accompanied by at least one cognition. In terms of cognitions, claustrophobia is dissimilar to panic disorder during no panic episodes. Because of the pattern of thoughts and sensations that are typically reported by claustrophobics, Barlow (1988) has commented that some cases of claustrophobia may be a special case of panic disorder, but with more limited avoidance.

The studies discussed above compared claustrophobia to PDA but did not include a simple phobic comparison group. Craske and Sipsas (1992), however, investigated the heterogeneity among simple phobias, specifically animal phobias and claustrophobias, by comparing them on fear relevant stimuli and a hyperventilation challenge which has fearful properties for individuals with PDA but not for individuals with simple phobia. Nonclinical subjects were used in this study. The animal phobics consisted of snake/spider phobics. A control group of nonphobics was included as well. Subjects from the three groups were exposed on two separate occasions to a live tarantula or python, a small closet, and a hyperventilation challenge. Three principal conclusions were drawn from this study. First, claustrophobics, in comparison to the snake/spider and nonphobic groups, reported considerably more physical symptomatology overall, especially in relation to the fear-relevant stimulus (i.e. the closet condition). These physical symptoms are identical to those in the DSM-III-R panic checklist (APA, 1987). Second, the claustrophobia group reported more cognitive fears such as fear of losing control, going crazy, or dying than did either of the other groups. However, unlike their report of intense physical symptomatology across all conditions, the cognitive symptoms emerged only with respect to the closet condition, and only

significantly so in the first trial of exposure. Third, claustrophobic subjects were more fearful of hyperventilation challenges and reported more fear of bodily symptoms than did snake/spider phobic subjects. Finally, subjects with claustrophobia were as fearful of hyperventilation as they were of their fear-relevant stimulus while this was not the case for subjects with snake/spider phobias. Persons with fears of claustrophobic situations were more fearful of interoceptive cues than persons with fears of snakes/spiders. The results of this study provide further evidence of a linkage between claustrophobia and PDA. However, it should be noted that the sample size of claustrophobics (N=9) was small. In addition, a possible confound in the study was that subjects were informed immediately prior to performing the hyperventilation task that they might experience symptoms such as dizziness, lightheadedness, or shortness of breath, and that these symptoms are normally experienced and not dangerous.

Results from the Ost (1985, 1987), Curtis et al. (1990), Rachman et al. (1987, 1988) and Craske and Sipsas (1992) studies provide evidence of a linkage between claustrophobia and PDA. As mentioned earlier in this paper, some claustrophobics may be more similar to individuals with PDA in terms of situations feared, cognitions and symptoms, while others may be more similar to simple phobics. However, no data to date bear on the answer to this latter possibility. The above studies have examined the question of the diagnostic category to which claustrophobia belongs by examining the situation, cognition and symptom patterns that characterize claustrophobic responses. The question of how claustrophobia has been assessed and the possible bearing this assessment may have as to where claustrophobia should be grouped diagnostically will now be reviewed.

Psychological Assessment of Claustrophobia

In reviewing the literature, only 3 published questionnaires were found which were specifically designed to assess claustrophobia: 1) the University of British Columbia Fear of Enclosed Spaces Questionnaire (FOESQ; Rachman, 1985); 2) the University of British Columbia Enclosed Spaces Cognitions Questionnaire (Rachman, 1985); and 3) the Claustrophobia Scale (CS; Ost, Johansson, & Jerremalm, 1981c).

The structure of the FOESQ is based on the Agoraphobia Questionnaire (AQ) developed by Chambless, Caputo, Jasin, Gracely, and Williams (1985). It consists of three parts: 1) a list of 12 claustrophobic situations; 2) a toleration rating of the most fearful claustrophobic situation; and 3) an anxiety rating of the most fearful claustrophobic situation. In addition, subjects are asked on the questionnaire to rate their level of anxiety for the most fearful situation on a 10 cm line, with 0 being "not anxious at all" and 10 being "extremely anxious". There are some limitations to this questionnaire. First it regards claustrophobia as a unitary phenomenon. There is no differentiation between the different types of situations. Situations which are representative of tightly enclosed spaces (e.g. caves, small enclosed dark rooms without windows) are treated as equivalent to situations which are more agoraphobic in nature (e.g. crowded department stores, crowded restaurants). Second, cognitions are not specifically targeted in this questionnaire. Finally, there is no published reliability or validity data on this instrument.

In contrast to the FOESQ, the UBC Enclosed Spaces Cognitions Questionnaire (Rachman, 1985) focuses on cognitions as opposed to feared situations. Subjects are asked how often, while in an enclosed space, he or she would have each of the ideas or thoughts listed such as "I am going to pass out" or "I am going to lose control of myself". There is not any published reliability and validity data on

this instrument.

In a screening questionnaire, Rachman (1988b, in preparation) has combined sections of the FOESQ with sections of the Enclosed Spaces Cognitions Questionnaire and has added a symptom section based upon an adaptation of the Body Sensations Questionnaire (Chambless, Caputo, Bright, & Gallagher, 1984). The first section of this questionnaire is comprised of 19 claustrophobic situations, some of which are identical to those on the FOESQ. Subjects are asked to rate the degree to which they avoid and feel anxious in the situations both when alone and when accompanied by a trusted companion. In the second section of the questionnaire, subjects are asked to recall the most frightening experience they have had in an enclosed space within the last 5 years and to check any thoughts they may have had in that space. Finally, in the last section subjects are asked to check any bodily sensations they have had during their most frightening experience. This questionnaire is limited because subjects are asked to rate cognitions and bodily sensations experienced in only one claustrophobic situation. In addition, there is once again no differentiation of claustrophobic situations as in the FOESQ, 1985 version. Situations are regarded as being representative of a unitary phenomena.

The Claustrophobia Scale also measures responses to specific situations thought to be associated with claustrophobia (CS; Ost, et al., 1981c). It consists of two subscales, anxiety and avoidance. Each situation is rated for anxiety and avoidance. The first subscale of the CS consists of 20 claustrophobic situations, which subjects rate on a 5-point (0 = no anxiety whatsoever to 4 = very much) scale for degree of anxiety currently experienced in the claustrophobic situations. The second subscale consists of 18 of the original 20 claustrophobic situations. Subjects rate these situations on a 3-point (0 = no avoidance whatsoever to 2 =

always avoids) scale according to the subject's tendency to avoid the claustrophobic situation. The cut-off scores for the anxiety and avoidance subscales are 30 and 10, respectively. There is no published reliability and validity data for this instrument. However, Ost has stated that such data exist (Ost, September, 1992, personal communication). Cognitions and bodily sensations are not assessed in this questionnaire. In addition, claustrophobic situations are treated as being unitary in nature. This questionnaire, like the FOESQ, contains items which relate specifically to physical enclosure (e.g. to remain in a small windowless room, to go through a narrow passage, to enter a windowless toilet closing the door behind you) and items which would be anxiety-provoking to individuals with PDA (e.g. to sit in the middle of a crowded cinema or theater, to sit by the window in the middle of an airplane). No differentiation is made between these types of situations as they may pertain to different types of claustrophobics.

One other scale exists in the literature which, though primarily a measure of agoraphobia, contains a claustrophobia subscale. The Fear and Avoidance Scales (FAS; Johnston, Johnston, Wilkes, Burns, & Thorpe, 1984) were derived through a principal components analysis of fear and avoidance scales of 559 agoraphobics. This principal components analysis yielded agoraphobic and claustrophobic factors. Items representing these factors were used to construct two valid Guttman scales, the fear and avoidance scales which comprise the FAS. The FAS was developed on a British sample. A second study, using a principal components factor analysis replicated the agoraphobia and claustrophobia factors in a United States sample (Margraf, Ehlers, Taylor, Arnow, & Roth, 1990).

The FAS is an 11-item questionnaire, with 6 items loading on the agoraphobia subscale and 5 items loading on the claustrophobia subscale. Subjects are asked

to rate each item in terms of fear and/or avoidance on a three-point scale where 0 = virtually no fear/avoidance, 1 = some fear/sometimes avoid, and 2 = extreme fear/always avoid. The Claustrophobia subscale is not appropriately named. Four of the items refer to travelling. Margraf et al. (1990) suggest that a more appropriate name may be the "travelling scale" (i.e. travelling by train, travelling by bus by yourself for 15 minutes).

Valentiner, Telch, Petruzzi and Bolte (1992, unpublished) have developed the Claustrophobic Cognitions Questionnaire (CCQ) which has not been published as of yet. Valentiner et al. (1992, unpublished) have also developed two unpublished surveys: the Chamber Prediction Survey and the Chamber Reaction Survey.

The CCQ is a 13-item questionnaire which contains items regarding subjects' expected level of fear, confidence and concerns after briefly viewing an experimental chamber. Item 1 is rated on a 0 (No Fear) to 100 (Extreme Fear (Panic)) scale. Items 2-5 are rated on a 0 (Not Confident at all) to 100 (Extremely Confident) scale. Finally, items 6-13 are rated on a 0 (No Concern) to 100 (Extreme Concern) scale. Items 6-13 reflect common concerns about being in enclosed spaces. The subject is asked how concerned he or she would be by the listed statements if he or she were to enter a chamber.

Three subscales were derived from a confirmatory factor analysis: Escape Concerns (Cronbach alpha = .93; items 6, 8, 10, and 12); Breathing Concerns (Cronbach alpha = .91; items 7, 9, 11, and 13); and Coping Self-Efficacy (Cronbach alpha = .92; items 2-5). These constructs showed close associations, with correlations ranging in absolute value from 0.37 to 0.60. The proposed factor structure provided a good fit to item set (gfi = 0.91) suggesting that these expectancies are reasonably discrete constructs (Valentiner et al., 1992, unpublished). It is interesting to note that all three subscales showed high internal

consistencies despite the fact that they are comprised of a relatively small number of items. The CCQ is the only questionnaire to date that indicates more than one claustrophobia factor. Escape concerns, breathing concerns and coping self-efficacy are all cognitive factors.

The Chamber Prediction Survey (Valentiner et al., 1992, unpublished) asks subjects to rate their confidence and fear levels prior to entering a chamber. This survey consists of 9-items, 4 of which are coping and self-efficacy items. Subjects are asked to rate their responses on items 2-9.

Finally, the Chamber Reaction Survey (Valentiner et al., 1992, unpublished) asks subjects to rate their reaction upon exiting a chamber. This survey consists of 3 items. Item 1 assesses fear levels and consists of five questions. Item 2 asks subjects whether they have experienced a panic attack while in the chamber. Finally, item 3 assesses the severity of 20 symptoms subjects may have experienced while in the chamber on a 0 (Absent) to 3 (Severe) scale.

The two prominent cognitions which claustrophobics report cluster into thoughts of entrapment and suffocation (Telch, September 11, 1992, personal communication). Booth and Rachman (1992) also comment on the importance of entrapment and Rachman (1988a) has commented on the importance of suffocation. In addition, Shafran, Booth and Rachman (1993) conceptualize claustrophobia as comprising a number of cognitions centered on key thoughts of trappedness, suffocation and loss of control. Shafran et al. (1993) investigated the relationships between cognitive variables and the "reduction" of claustrophobia. In their analyses of data from Booth and Rachman (1992) in which three different interventions (cognitive intervention, repeated exposures and interoceptive retraining) were compared in treating claustrophobia, Shafran et al. (1993) found that removal of belief in cognitions of trappedness, suffocation

and/or loss of control was associated with removal of belief in all other cognitions and a significant reduction in claustrophobia.

It does not seem from the literature, however, that an extensive analysis of the relationships between specific cognitions, claustrophobic situations and symptoms has been done. If different cognitions are linked with different situations, a circumstance that occurs when one analyzes relationships between panic symptoms and cognitions (Clum, December, 1992, personal communication), then the existence of two separate claustrophobic cognition factors may reflect the existence of two or more claustrophobic situation factors. These situation factors, in turn, may be differentially related to characteristics of simple vs. agoraphobic groups.

In reviewing the literature, it does not appear that the formal investigation as to the existence of claustrophobic subtypes has ever been done. Specifically, questionnaires with the capability of differentiating claustrophobic subtypes have not been created. In the proposed study, claustrophobia questionnaires were developed using an a priori set of situations and cognitions presumed to identify the universe of claustrophobic situations and cognitions. In addition, the differentiation of claustrophobic subtypes through the use of questionnaires has not been validated by using response to a hyperventilation challenge. It was expected that Ss whose pattern of responding to phobic situations and whose cognitions were similar to panic disordered Ss would respond with more extensive autonomic symptomatology than Ss with a claustrophobic response pattern more similar to simple phobia.

Therefore, the present study proposed to differentiate claustrophobic subtypes through the use of self-report and physiological measures. To this end, various analyses were performed in order to investigate the existence of claustrophobic

subtypes. First, exploratory factor analyses of claustrophobia situations and cognitions questionnaires were performed and subscales created. Second, one-way analyses of variance (ANOVAs) were used to compare Ss high and low on each subscale on self-report measures administered both before and after the hyperventilation challenge. Next, a series of two-way ANOVAs and two-way analyses of covariance (ANCOVAs) were used to compare Ss high and low on each subscale using physiological measures as dependent measures. The expectation was that Ss scoring high on subscales descriptive of agoraphobia would respond more to a hyperventilation challenge than would Ss scoring high on subscales descriptive of claustrophobia. Specifically, the following were expected:

- 1) Ss scoring high on subscales descriptive of agoraphobia would report more pre- and post-task anxiety, panic symptoms and panic cognitions than Ss scoring high on subscales descriptive of claustrophobia.
- 2) Ss scoring high on subscales descriptive of agoraphobia would demonstrate greater physiological reactivity than Ss scoring high on subscales descriptive of claustrophobia.

Method

Subjects

Subjects were adults (age 18 and older) recruited from the Virginia Polytechnic Institute and State University undergraduate psychology population and the university and community populations at large. Subjects were recruited during spring, summer and fall terms. Subjects from the undergraduate psychology population were given between 1 and 3 extra-credit points for their participation. Subjects from the university and community populations at large were recruited through the use of newspaper advertisements and flyers posted across campus (Appendix A) and were provided with free assessment and referrals. Subjects were excluded if they were not at least moderately fearful and sometimes avoidant of small enclosed places or reported cardiovascular problems, emphysema or a seizure disorder. A total of 388 subjects attended the first assessment session: 242 during the Spring of 1993; 104 during the Summer of 1993; and 42 during the Fall of 1993. From this, 130 subjects met the initial screening criteria and were invited to participate in the second assessment session. Of the 130 subjects attending the second assessment session, 20 subjects were excluded due to their not meeting the specified criteria and 9 subjects failed to show for their scheduled appointment and could not be reached to be rescheduled. Thus, this resulted in a sample of 101 subjects.

All 101 subjects were assessed for the presence of anxiety disorders by using the Anxiety Disorders Interview Schedule--Revised (ADIS-R; DiNardo & Barlow, 1988). Inter-rater reliability was assessed by having raters listen to audio tapes of the clinical interview. For a sample of 30 subjects, out of a total of 101 subjects, kappa coefficients of agreement (Cohen, 1960), the measure of agreement above that expected by chance, were obtained for the following specific diagnostic

categories: 1) 1.0 for panic disorder with and without agoraphobia; 2) .74 for generalized anxiety disorder; 3) .71 for post-traumatic stress disorder; 4) 1.0 for agoraphobia without panic; 5) .87 for simple phobia; 6) .79 for social phobia; and 7) 1.0 for obsessive compulsive disorder.

The demographics of the sample are presented in Table 1.

Insert Table 1 about here

In regards to diagnoses, 68.3% of the sample had at least one DSM-III-R diagnosis. The most prevalent diagnosis was simple phobia (46.5%; N = 47) with the most prevalent type of simple phobia being Claustrophobia (31 out of 47 subjects). The composition of the sample in terms of diagnoses is presented in Table 2.

Insert Table 2 about here

Procedure

This study was factor analytic in nature. Subjects consisted of 101 individuals with claustrophobic symptoms and were assessed in two sessions. In the first assessment session, potential subjects first signed an informed consent form (Appendix B). Potential subjects were then screened using an adapted version of the Fear Survey Schedule (FSS; Appendix C). Potential claustrophobic subjects were those who rated themselves as at least moderately fearful (a rating of 2 or higher) and sometimes avoidant of (a rating of 2 or higher) enclosed spaces on the adapted version of the FSS. A total of 258 subjects did not meet these initial criteria resulting, therefore, in only 130 subjects being invited back for

the second assessment.

In the second assessment session, potential subjects were administered the anxiety disorder sections of the Anxiety Disorders Interview Schedule-Revised (ADIS-R; Appendix D) by advanced graduate clinicians. Subjects must have been at least moderately fearful (a rating of 2 or higher) and sometimes avoidant of (a rating of 2 or higher) small enclosed places as rated on the ADIS-R. Twenty subjects did not meet these criteria and, therefore, were excluded. In addition, 9 subjects failed to show for their scheduled appointment and could not be reached to be rescheduled. The final sample consisted of 101 eligible subjects who met all criteria.

If subjects met the above ADIS-R research criteria, they then completed the Claustrophobia Situations Questionnaire (CSQ; Appendix E) and the Claustrophobia General Cognitions Questionnaire (CGCQ; Appendix F).

After completion of the CSQ and CGCQ, subjects were asked to perform a hyperventilation challenge. This task was identical to the hyperventilation challenge used in Craske and Sipsas (1992) and similar to the task used in Shapiro and Clum (1991). In the hyperventilation challenge in the present study, subjects were asked to breathe fast and deeply at a rate of 30 breaths per minute, for one minute, while in a standing position (Appendix G). The task used in this study was milder than the task used in Shapiro and Clum (1991) in that subjects took a deep, fast breath once every 2 seconds as opposed to once every second. The experimenter first modelled the correct breathing rate and remained a few feet behind the Ss during the task. The experimenter provided corrective feedback where necessary to ensure that all Ss hyperventilated at the rate of 30 breaths per minute. Ss were instructed to engage in the task until they were informed by the experimenter that the task was over. Ss had the option of stopping at any point

in the assessment.

Upon completion of the hyperventilation challenge, subjects were not allowed to leave until regaining a normal breathing pattern. If necessary, diaphragmatic breathing was used to aid subjects in achieving a normal and comfortable breathing pattern. Diaphragmatic breathing is a relaxation technique which reduces an individual's breathing rate so as to prevent or stop any further hyperventilation and relax one's body. The instructions for the diaphragmatic breathing exercise were adapted from Clum (1990) (Appendix N). At the end of the experiment, subjects were given a debriefing statement which explained the purpose of the study and also contained referral information (Appendix O).

Materials

Screening and Diagnostic Instruments

Fear Survey Schedule (FSS; Rachman, unpublished): This screening questionnaire contains 10 items which individuals may be fearful of, including an enclosed spaces item. Items are rated on a 1 (I am not at all fearful) to 5 (I am terrified of) scale. This questionnaire has been successfully used as a screening questionnaire in many fear studies at the University of British Columbia (Lopatka, October 23, 1992, personal communication; Appendix C). No reliability and validity data exist for the FSS. The FSS is simply used as a gross screening measure.

Anxiety Disorders Interview Schedule-Revised (ADIS-R; DiNardo & Barlow, 1988): The ADIS-R is a structured interview designed to permit differential diagnosis among the anxiety disorders according to DSM-III-R criteria and to provide detailed functional analyses for the anxiety disorders. Adequate inter-rater reliability has been demonstrated. A kappa coefficient of .62 has been obtained for simple phobia (DiNardo, Moras, Barlow, & Rapee, in press in Craske et al.,

1993). The ADIS-R also contains sections regarding psychosis, substance abuse and major affective disorders. In this study, only the anxiety disorder sections of the interview were administered. The ADIS-R was used to identify individuals with a certain degree of fear and avoidance of claustrophobic situations (Appendix D).

Self-report Measures

Claustrophobia Situations Questionnaire (CSQ): The CSQ asks respondents to rate their anxiety and avoidance to 42 claustrophobic situations. Anxiety is rated on a 1 (Not anxious) to 5 (Extremely anxious) scale. Avoidance is rated on a 1 (Never avoid) to 5 (Always avoid) scale. The CSQ was developed for this study. The CSQ contains items from already existent claustrophobia questionnaires as well as novel items generated by the experimenter (Appendix E). Subjects were invited to name situations not defined by the CSQ. However, very few subjects generated items different from those already defined.

Claustrophobia General Cognitions Questionnaire (CGCQ): The CGCQ asks respondents to rate how likely they would be to have certain cognitions if they were to enter the claustrophobic situation(s) they are fearful of. The CGCQ contains 26 items. Cognition likelihood is rated on a 1 (Not likely) to 5 (Very likely) scale (Appendix F). The CGCQ was developed for this study. The CGCQ contains various items from already existent claustrophobia questionnaires as well as novel items generated by the experimenter. Subjects were invited to name cognitions not defined by the CGCQ. However, very few subjects generated items different from those already defined.

Panic Attack Cognitions Questionnaire (PACQ; Clum, Broyles, Borden, & Watkins, 1990): The PACQ is a 25-item inventory of cognitions associated with panic attacks. Each cognition is rated twice according to the degree to which the

cognition was experienced during and after a panic attack. Items are rated on a 1 (not at all) to 4 (totally dominated your thoughts) scale (Appendix L). The total score is computed by summing the ratings across questionnaire items.

Cronbach's alpha for the PACQ is 0.88 and the PACQ has been shown to validly differentiate panic disordered Ss from Ss with other anxiety disorders (Clum et al., 1990). Instructions were adapted in that subjects were asked to rate each cognition as to the degree it occurred during the hyperventilation challenge.

Body Sensations Questionnaire (BSQ; Chambless, Caputo, Bright, & Gallagher, (1984): The BSQ is a 17-item scale comprised of items concerning sensations associated with autonomic arousal. Each item is rated on a 5-point scale, ranging from not frightened or worried by this sensation (1) to extremely frightened by this sensation (5) (Appendix M). The total score is derived by averaging the individual item ratings. The BSQ has high internal consistency (Cronbach alpha = .87) and moderately good reliability ($r = .67$) (Chambless et al., 1984). Instructions were adapted in that subjects were asked to rate the degree to which they were frightened by each sensation during the hyperventilation challenge.

Hyperventilation Challenge Measures

The hyperventilation challenge dependent variables were measured in the following ways:

1) After task description and before attempting the task, Ss rated the level of expected maximum anxiety during the task using a 0 (no anxiety at all) to 8 (extreme anxiety) scale (Appendix H).

2) After completing the task, Ss rated the level of maximum anxiety experienced on a 0 (no anxiety at all) to 8 (extreme anxiety) scale (Appendix I).

3) After completing the task, Ss indicated whether a panic attack occurred (yes/no). A panic attack was defined for subjects as "a sudden rush of intense fear, accompanied by symptoms such as dizziness, palpitations, racing heart, sweating, shaking, hot and cold flashes, and fears of losing control" in order to minimize unreliability across Ss in their panic definitions (Appendix J).

4) If a panic attack occurred, the timing of the attack was classified as one of the following: before beginning the task, immediately upon beginning the task, sometime during the task, or after completion of the task (Appendix J).

5) Systolic and diastolic blood pressure and pulse rate readings were recorded for a 3-minute baseline period prior to provision of task instructions, a 1-minute assessment period after provision of partial task instructions and a 3-minute assessment period upon completing the task (Appendix K). A blood pressure/pulse rate unit, Norelco Model B, was used to record systolic and diastolic blood pressure and pulse rate readings. This instrument provided a digital display of systolic, diastolic and pulse rate readings. This model has been shown to have adequate reliability (Harrison & Kelly, 1987).

6) After completing the task, Ss completed adapted versions of the PACQ and the BSQ.

Results

Various analyses were based upon different N sizes due to missing data. All of the missing data was due to inconclusive physiological readings except for one instance in which a subject refused to perform the hyperventilation challenge. Therefore, exploratory factor analyses were based upon the entire sample (N = 101). Furthermore, analyses involving pre- and post-task self-report measures were based upon an N of 100. Finally, analyses involving physiological measures were based upon Ns of 89 for pre-task physiological measures and 88 for post-task physiological measures.

Exploratory factor analyses were performed on the CSQ (N = 101) and CGCQ (N = 101). Principal Components Analysis and SPSS-PC+ were the type of exploratory procedure and computer software used, respectively. The best decision on the number of factors to retain was based on a subjective assessment of the SCREE plot, a plot of eigenvalues by factors. The convention of retaining factors with eigenvalues greater than 1.00 was not applied because this method has been shown to be based on faulty logic (Cliff, 1988). In the SCREE method, factors which account for the greatest amount of variance, those that have large eigenvalues, are retained. For interpretation, the varimax rotation technique was used.

Anxiety and avoidance ratings on the CSQ were factor analyzed separately resulting in a two-factor solution for each type of rating. The two-factor solution for the anxiety ratings accounted for 40.8% of the variance with Factors 1 and 2 accounting for 33.7% and 7.1% of the variance, respectively. The two-factor solution for the avoidance ratings accounted for 33.8% of the variance with Factors 1 and 2 accounting for 26.6% and 7.2% of the variance, respectively. The factors that emerged from the anxiety ratings were labeled "Fear of

Entrapment" (Factor 1) and "Fear of Physical Confinement" (Factor 2). Based on factor analysis of the anxiety ratings, those items with a factor loading of .40 and above were used in creating the following subscales: 1) "Fear of Entrapment" (19 items, $M = 50.76$, $SD = 15.84$), generally containing items regarding being closed in small/tight places and crowded places (e.g., being in a windowless bathroom with the lock jammed, a crowded restaurant); and 2) "Fear of Physical Confinement" (17 items, $M = 39.13$, $SD = 10.87$), generally containing items regarding being closed in small or tight places (e.g., being in a neck brace; being in a small, tight shower with the curtain closed). Items constituting both subscales, subscale means, factor loadings, item means, standard deviations, Cronbach alpha reliabilities and corrected item-total correlations are presented in Table 3.

Insert Table 3 about here

The factors that emerged from the avoidance ratings were labeled "Avoidance of Crowds" (Factor 1) and "Avoidance of Physical Confinement" (Factor 2). Based on the results of the factor analysis of the avoidance ratings, items with a factor loading of .40 and above were used in creating the following subscales: 1) "Avoidance of Crowds" (16 items, $M = 35.29$, $SD = 12.43$), generally containing items regarding being in crowds of one type or another (e.g., a crowded restaurant, a crowded bar); and 2) "Avoidance of Physical Confinement" (15 items, $M = 50.30$, $SD = 11.96$), generally containing items regarding being closed in small or tight places (e.g., being in a neck brace, being in a small, tight shower with the curtain closed). Items constituting both avoidance subscales, subscale means, factor loadings, item means, standard deviations, Cronbach alpha

reliabilities and corrected item-total correlations are presented in Table 4.

Insert Table 4 about here

Cognition likelihood ratings on the CGCQ were factor analyzed resulting in a three-factor solution accounting for 53.6% of the variance. Factors 1, 2, and 3 accounted for 33.5%, 11.7% and 8.4% of the variance, respectively. The three factors which emerged were labeled "Loss of Control" (Factor 1), "Suffocation" (Factor 2) and "Escape" (Factor 3). Based on the factor analysis of the likelihood ratings, those items with a factor loading of .40 and above were used in creating the following subscales: 1) "Loss of Control" (10 items, $M = 19.16$, $SD = 8.01$), generally containing items related to loss of control (e.g., I might lose control; I might act foolishly); 2) "Suffocation" (9 items, $M = 24.24$, $SD = 7.75$), generally containing items related to difficulty in breathing (I might not be able to get enough air, I might have difficulty breathing); and 3) "Escape" (7 items, $M = 24.81$, $SD = 6.22$), generally containing items involving not being able to escape or feeling trapped (e.g., I might not be able to escape if I had to, I might be trapped). Items constituting each subscale, subscale means, item means, factor loadings, standard deviations, Cronbach alpha reliabilities and corrected item-total correlations are presented in Table 5.

Insert Table 5 about here

Subscale scores were used in performing certain subsequent analyses. Subscale scores were calculated by summing a subject's scores on the raw data items that define that subscale. For example, a subject's score on the "Fear of

Entrapment" subscale was a total based on the subject's responses to all the items that constitute that subscale.

To assess for possible differences between types of subjects (i.e., undergraduate psychology students vs. those responding to advertisements) and periods of time (e.g., Spring, Summer, Fall), multivariate analyses of variance (MANOVAS) using Wilk's lamda criterion were performed on pre- and post-anxiety ratings, physiological measures, CSQ and CGCQ subscales. To further assess for possible differences, one-way ANOVAS on PACQ total scores and mean BSQ scores were performed. This resulted in a comparison between four groups on all measures: 1) undergraduate psychology students in the Spring (N = 42); 2) undergraduate psychology students in the Summer (N = 34); 3) undergraduate psychology students in the Fall (N = 18); and 4) subjects responding to advertisements (N = 7). Certain analyses were based upon slightly different N sizes for each group due to missing data as explained previously. No significant differences were found between groups on pre- and post-anxiety ratings [Wilks lamda = .887, Approximate F(6,190) = 1.95, $p < .075$], physiological measures [Wilks lamda = .632, Approximate F(22,222.60), $p < .097$], CSQ and CGCQ subscales [Wilks lamda = .746, Approximate F(21,261.85) = 1.34, $p < .150$], PACQ total scores [F(3,96) = .67, $p < .572$] and mean BSQ scores [F(3,96) = .59, $p < .622$]. Therefore, all subsequent analyses were performed on the entire sample.

The CSQ and CGCQ subscales were all significantly inter-correlated with correlations ranging from .19 to .86. There was no differential relationship between situation and cognition subscales. Correlations between CSQ, CGCQ scales and other self-report and physiological measures are presented in Tables 6a-6c.

Insert Tables 6a-6c about here

To test whether Ss scoring high on subscales descriptive of agoraphobia would report more pre- and post-task anxiety, panic cognitions and panic symptoms than Ss scoring high on subscales descriptive of claustrophobia, median splits were first performed on the CSQ and CGCQ subscale scores to differentiate high and low groups. The median splits were then used in performing one-way ANOVAS on the hyperventilation challenge dependent measures. Thus, for each analysis subjects were divided into high and low groups on each CSQ and CGCQ subscale. The hyperventilation challenge dependent measures used were pre- and post-anxiety ratings, the PACQ total score and the mean BSQ score.

Regarding pre-anxiety ratings, subjects high on the "Loss of Control", "Suffocation", "Fear of Entrapment", "Fear of Physical Confinement", "Avoidance of Crowds" and "Avoidance of Physical Confinement" subscales, experienced significantly more pre-anxiety. In terms of post-anxiety ratings, subjects high on the "Fear of Entrapment" and "Fear of Physical Confinement" subscales experienced significantly more post-anxiety. There were no other significant results. Significant results are presented in Table 7.

Insert Table 7 about here

In regards to symptom ratings on the BSQ, subjects high on the "Loss of Control", "Suffocation", "Fear of Entrapment", "Fear of Physical Confinement", "Avoidance of Crowds" and "Avoidance of Physical Confinement" subscales experienced significantly more panic-like symptoms. There were no other

significant results. Significant results are presented in Table 8.

Insert Table 8 about here

In terms of cognition scores on the PACQ, subjects high on the "Loss of Control", "Suffocation", "Escape", "Fear of Entrapment", "Fear of Physical Confinement", "Avoidance of Crowds" and "Avoidance of Physical Confinement" subscales experienced significantly more panic-like cognitions. Significant results are presented in Table 9.

Insert Table 9 about here

To test whether Ss scoring high on subscales descriptive of agoraphobia would demonstrate greater physiological reactivity than Ss scoring high on subscales descriptive of claustrophobia, two-way ANOVAS of CSQ subscale scores using systolic blood pressure and heart rate change scores as dependent measures were performed. Systolic and heart rate change scores were first calculated in the following manner: 1) initial pre-systolic mean subtracted from post-systolic mean; and 2) initial pre-heart rate mean subtracted from post-heart rate mean. A median split on the "Fear of Entrapment", "Fear of Physical Confinement", "Avoidance of Crowds" and "Avoidance of Physical Confinement" subscale scores was then performed resulting in high and low groups for all four subscales. Two-way ANOVAS were then performed comparing: 1) subjects high and low on "Fear of Entrapment" and subjects high and low on "Fear of Physical Confinement"; and 2) subjects high and low on "Avoidance of Crowds" and subjects high and low on "Avoidance of Physical Confinement". In terms of heart

rate change, there was a significant main effect for "Avoidance of Crowds" [$F(1,84) = 8.69, p < .004$]. Specifically, subjects high on "Avoidance of Crowds" demonstrated greater heart rate change ($N = 42, M = 9.64 \text{ bpm}, SD = 6.58$) than subjects low on "Avoidance of Crowds" ($N = 46, M = 5.57 \text{ bpm}, SD = 7.40$). There was no interaction effect. There were no significant results when performing two-way ANOVAS comparing subjects high and low on "Fear of Entrapment" and subjects high and low on "Fear of Physical Confinement". Means and standard deviations for each subscale group are presented in Table 10.

Insert Table 10 about here

To control for initial pre-systolic blood pressure and initial pre-heart rate, two-way analyses of covariance (ANCOVAS) of CSQ subscale scores using post-systolic blood pressure and post-heart rate as dependent measures were performed. A median split on the "Fear of Entrapment", "Fear of Physical Confinement", "Avoidance of Crowds" and "Avoidance of Physical Confinement" subscale scores was first performed resulting in high and low groups on each subscale. Two-way ANCOVAS were then performed comparing: 1) subjects high and low on "Fear of Entrapment" and subjects high and low on "Fear of Physical Confinement"; and 2) subjects high and low on "Avoidance of Crowds" and subjects high and low on "Avoidance of Physical Confinement". When controlling for pre-heart rate, there was a significant main effect for "Avoidance of Crowds" [$F(1,83) = 6.90, p < .01$] regardless of the effect for "Avoidance of Physical Confinement" [$F(1,83) = 1.08, p < .302$]. Specifically, subjects high on "Avoidance of Crowds" experienced greater post heart rate ($N = 42, \text{ Adjusted } M = 83.84 \text{ bpm}$) than subjects low on "Avoidance of Crowds" ($N = 46, \text{ Adjusted } M = 78.12 \text{ bpm}$).

M = 80.29 bpm). There was no interaction effect. There were no significant results when performing the two-way ANCOVA comparing subjects high and low on "Fear of Entrapment" and subjects high and low on "Fear of Physical Confinement".

Differential response to the hyperventilation challenge on the basis of diagnostic groups within the sample was assessed by a 3 (Diagnostic Group) X 3 (Time) mixed ANOVA using physiological measures as the dependent measures. The diagnostic groups consisted of subjects with: 1) Panic Disorder (with or without Agoraphobia) or Social Phobia, but no Claustrophobia (Group 1; N=19); 2) Claustrophobia with or without other diagnoses except Panic Disorder or Social Phobia (Group 2; N=16); and 3) No diagnosis (Group 3; N=32). Time consisted of three levels: 1) pre1; 2) pre2; and 3) post. Due to missing data, Groups 1, 2 and 3 consisted of 15, 15 and 29 subjects, respectively. Regarding systolic measures, there was a significant main effect for time [$F(2,112) = 3.08, p < .05$]. Specifically, systolic blood pressure increased across pre1 (M = 120.08, SD = 10.17) and pre2 (M = 121.20, SD = 12.48), but decreased at post (M = 117.73, SD = 10.82). For the diastolic measures, there was a significant main effect for time [$F(2,112) = 4.81, p < .01$]. Specifically, there was an increase in diastolic blood pressure across pre1 (M = 80.05, SD = 7.61), pre2 (M = 82.15, SD = 10.29) and post (M = 84.31, SD = 9.62). Finally, for heart rate measures, there was also a significant main effect for time [$F(2,112) = 27.16, p < .000$]. Specifically, there was an increase in heart rate across pre1 (M = 73.75, SD = 12.11), pre2 (M = 76.58, SD = 13.16) and post (M = 80.88, SD = 11.73). There were no main effects for diagnostic group nor were there any interaction effects.

Discussion

The results obtained in the present study generally suggest the existence of claustrophobic subtypes. The present study was the first to compare subjects differentiated on the basis of claustrophobic subtypes in terms of their physiological response to a hyperventilation challenge. The existence of claustrophobic subtypes was investigated by various means. The CSQ and CGCQ were developed with the intention of being capable of differentiating claustrophobic subtypes. The CSQ is the first questionnaire to date in which different situational factors have been identified within a claustrophobic population. Exploratory factor analyses of the CSQ yielded the following situation factors: 1) "Fear of Entrapment"; 2) "Fear of Physical Confinement"; 3) "Avoidance of Crowds"; and 4) "Avoidance of Physical Confinement". Subscales of the same name were constructed from each of the above factors. These subscales suggest that the diagnostic category of claustrophobia in terms of situations is not a unitary phenomenon. The "Avoidance of Crowds" subscale generally consists of situations which are problematic for individuals with panic disorder with agoraphobia (PDA). Therefore, this suggests that some claustrophobic-like individuals are similar to individuals with PDA in terms of situations feared. In contrast, the "Fear of Physical Confinement" and "Avoidance of Physical Confinement" subscales generally consist of situations which are traditionally problematic for individuals with claustrophobia suggesting that some claustrophobic-like individuals are similar to simple phobics (i.e. fear of specific situations) with a specific fear of enclosed spaces. Of the four situational subscales, the "Fear of Entrapment" subscale is the most heterogenous in terms of its item content. Specifically, the "Fear of Entrapment" subscale consists of situations which reflect a fear of crowds and a fear of specific situations of

entrapment.

The results from this study also support and extend what has been previously found in regards to the key claustrophobic cognitions of suffocation, entrapment (Booth & Rachman, 1992; Rachman et al., 1987; Rachman, 1988a; Shafran et al., 1993; Valentiner et al., 1992, unpublished) and loss of control (Rachman et al., 1987, 1988; Shafran et al., 1993). Exploratory factor analysis of the CGCQ identified cognition factors of "Suffocation", "Escape" and "Loss of Control" from which subscales of the same name were constructed. Like the CCQ (Valentiner et al., 1992, unpublished), the CGCQ is the only questionnaire to date that has indicated more than one claustrophobia cognition factor. Unlike the CCQ, however, exploratory factor analysis of the CGCQ identified a "Loss of Control" subscale in addition to the "Suffocation" (Breathing Concerns subscale on the CCQ) and "Escape" (Escape Concerns subscale on the CCQ) subscales. Thus, the CGCQ is the only scale to date to indicate the three key claustrophobic cognitions identified by Shafran et al. (1993).

To determine whether subjects differentiated by their scores on the CSQ and CGCQ subscales responded differently to the hyperventilation challenge, one-way ANOVAS were used to compare subjects high and low on each of the CSQ and CGCQ subscales on all the hyperventilation task dependent measures with the exception of physiological measures. Subjects high on the "Fear of Entrapment", "Fear of Physical Confinement", "Avoidance of Crowds", "Avoidance of Physical Confinement", "Suffocation" and "Loss of Control" subscales experienced more preanxiety, physical symptoms and panic cognitions. Subjects high on the "Escape" subscale experienced only more panic cognitions. In regards to post-anxiety, only subjects high on the "Fear of Entrapment" and "Fear of Physical Confinement" subscales experienced more post-anxiety. When performing these

analyses, it was expected that only subjects scoring high on situation and cognition subscales descriptive of panic or agoraphobia would demonstrate greater reactivity to the hyperventilation challenge. Although some results were in the indicated direction, others were mixed.

To further clarify the above results and attempt to validate the existence of claustrophobic subtypes, the CSQ and response to a hyperventilation challenge were used. The hyperventilation challenge used in this study was identical to the task used in Craske and Sipsas (1992). A key finding in Craske and Sipsas (1992) was that claustrophobic subjects were more fearful of the hyperventilation challenge and reported more fear of bodily symptoms than did the snake/spider phobic subjects. Therefore, claustrophobic subjects demonstrated a more panic- or agoraphobic-like reaction to the hyperventilation challenge than snake/spider phobic subjects. In this study, a significant main effect for "Avoidance of Crowds" when using heart rate change and post heart rate as dependent measures was found. Specifically, subjects high on the "Avoidance of Crowds" subscale experienced greater heart rate change and post heart rate than subjects low on the "Avoidance of Crowds" subscale. Thus, this tends to suggest that Ss whose pattern of response to phobic situations was similar to PDA individuals responded with more extensive autonomic symptomatology as indicated by heart rate change and post heart rate. The finding of a main effect for "Avoidance of Crowds" is generally consistent with Craske and Sipsas' (1992) findings and also extends their study by identifying a different response pattern within a subsample of claustrophobic-like individuals.

Since differential physiological responding to the hyperventilation challenge was only indicated by the "Avoidance of Crowds" subscale, the results from the 2-way ANOVAS and 2-way ANCOVAS were not unitary in nature. Perhaps

situational avoidance is a better indicator of possible claustrophobic subtypes as opposed to situational anxiety or fear. If this were the case, it would be consistent with what others have hypothesized the relationship to be between claustrophobia and panic disorder/agoraphobia. Specifically, Ost (1987) and Klein (1981) have suggested that claustrophobia may well be descriptively and functionally the equivalent of agoraphobia, with a slightly more constricted range of avoidance. In addition, because of the pattern of thoughts and sensations typically reported by claustrophobics, Barlow (1988) has commented that some cases of claustrophobia may be a special case of PDA, but with more limited avoidance. Finally, although both the "Avoidance of Crowds" and "Fear of Entrapment" subscales contain items reflective of an agoraphobic component, the "Avoidance of Crowds" subscale is more clearly homogenous for such items. Thus, at this point the "Avoidance of Crowds" subscale may be better tapping an agoraphobic component than the "Fear of Entrapment" subscale.

When assessing differential response to the hyperventilation challenge on the basis of diagnostic groups within the sample, only a main effect for time for systolic, diastolic and heart rate measures was found. It was expected that the Panic Disorder or Social Phobia (but no Claustrophobia) group would demonstrate greater reactivity to the hyperventilation challenge compared to the two other diagnostic groups. This result may not have been obtained for several reasons. First, there were only 4 Panic Disorder subjects in the Panic Disorder group. More Panic Disorder subjects may have been needed for an effect to occur. Second, the Panic Disorder and the Claustrophobia groups also contained subjects with other anxiety diagnoses due to the sample's high comorbidity. In addition, subjects in all 3 groups were at least moderately fearful and sometimes avoidant of claustrophobic situations. Therefore, all subjects had an underlying

commonality. This underlying commonality may have been greater than their distinctions.

Since Ss high on the CSQ and CGCQ subscales generally experienced a more panic-like reaction to the hyperventilation challenge, a task thought to be anxiety-provoking for panic-like individuals, it was expected that some subjects would have experienced some panic attacks. However, this was not the case. Furthermore, no subject in this study experienced a panic attack either before, during or after the hyperventilation challenge. The hyperventilation challenge may not have been sufficiently anxiety-provoking as suggested by the mean pre- and post-anxiety task ratings of 2.35 and 3.59 (on 0 to 8 scales), respectively. Perhaps the hyperventilation task would have been more anxiety-provoking if subjects would have been required to take fast, deep breaths at the rate of 1 breath/second instead of the rate of 1 breaths/2 seconds. In addition, the sample may not have been sufficiently severe enough. Specifically, the sample had a mean fear and avoidance rating of 2.7 and 2.9, respectively, on the ADIS-R.

There are several limitations to this study. First, there was no control group. Second, there was no other phobic group absent of claustrophobic symptoms. This latter group could have been used in further differentiating claustrophobic response patterns from other phobic response patterns. Finally, subjects performed the hyperventilation challenge in a windowless room approximately 11.4 ft. (L) X 7.5 ft. (W) X 7.7 ft. (H). The possibility that performance of the task in this particular room could have caused some subjects to become further anxious was not assessed. However, subjects were generally in the room for 45 min. to 1 hour before being asked to perform the hyperventilation challenge and, therefore, may have habituated to the room. In addition, no subject ever asked to leave the room due to anxiety of being in the room at any point in the

assessment. Finally, all subjects performed the hyperventilation challenge under the same conditions. Future studies need to better develop and validate the subscales created in this study in order to more clearly determine the existence of claustrophobic subtypes.

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Table 1

Sample Demographics (N = 101)

	Mean	SD
Age	20.9	5.9
Education (in years)	15.1	1.9
Anxiety rating on ADIS-R	2.7	.7
Avoidance rating on ADIS-R	2.9	.7
	Percent	
<u>Sex</u>		
Male	30.7	
Female	69.3	
<u>Race</u>		
Caucasian	89.1	
African-American	2.97	
Asian	7.9	
<u>Marital Status</u>		
Single	98.0	
Married	2.0	

Table 2

Frequency of Diagnoses Represented Within the Sample (N = 101)

<u>Diagnosis</u>	<u>N</u>	<u>Percent of Sample with the Following Diagnoses</u>
Panic Disorder w/Agoraphobia	3	2.97
Panic Disorder w/o Agoraphobia	2	1.98
Generalized Anxiety Disorder	21	20.8
Post Traumatic Stress Disorder	11	10.9
Agoraphobia w/o Panic	0	0.0
Simple Phobia	47	46.5
Simple Phobia (Claustrophobia)	31	30.7
Social Phobia	29	28.7
Obsessive-Compulsive Disorder	3	2.97
No Diagnosis	32	31.7
 <u>Sample Comorbidity</u>		
1 diagnosis	41	40.6
2 diagnoses	14	13.9
3 diagnoses	10	9.90
4 diagnoses	3	2.97
5 diagnoses	1	.99

Table 3

Subscales Based on Two-Factor Solution for CSQ Anxiety Ratings (N = 101)

1) Fear of Entrapment

<u>Item # and Item</u>	<u>Corrected Item- Total Correlation</u>	<u>Fac. Ld.*</u>
1 Being in a cave.	.44	.52
2 Being held down by several people.	.49	.43
4 Being in a closet.	.51	.43
5 Being in a tunnel.	.53	.497
7 Being in a crowd where you cannot move.	.71	.72
9 Being in the middle of a crowded church.	.66	.66
11 Being in a crowded restaurant.	.62	.57
13 Being in the middle of a crowded bar.	.82	.57
14 Being in the middle of a crowded subway.	.85	.87
15 Being on a crowded train.	.82	.88
16 Being in the middle section at a crowded concert.	.71	.72
18 Being in a crowded bus that stops at a traffic light.	.75	.77
22 Being in a small, windowless attic.	.68	.57
24 Being in a small, underground cellar.	.58	.52
26 Being on a crowded elevator.	.71	.76
27 Being in a windowless bathroom with the lock jammed.	.68	.65
29 Being in a tunnel with cars on both sides.	.59	.58
30 Being in a crowded shopping mall.	.65	.65
33 Being in the back of a crowded bus.	.78	.80

Item Means = 2.67

Subscale Mean = 50.76

SD = 15.84

Cronbach alpha = .94

*Fac.Ld. = Factor loading

Table 3 (cont.)

2) Fear of Physical Confinement

<u>Item# and Item</u>	<u>Corrected Item- Total Correlation</u>	<u>Fac. Ld.*</u>
3 Trying on clothes in a small fitting-room with the door closed.	.55	.53
8 Being covered in sand up to your neck.	.36	.42
10 Being in a dark, windowless chamber with the door closed.	.57	.52
17 Being in a small, locked room.	.56	.46
19 Being in a well-lit, windowless room with the door closed.	.55	.50
20 Wearing a tight jacket.	.497	.59
21 Being in a body cast.	.47	.53
23 Being in a small, tight shower with the curtain closed.	.65	.60
25 Lying in bed under covers.	.40	.48
28 Being in a small elevator alone.	.45	.40
34 Being in a barber's/hairdresser's chair.	.35	.53
37 Trying on clothes with a tight neck.	.60	.68
38 Being in a neck brace.	.61	.69
39 Putting your head underwater.	.40	.42
40 Being in a dark, windowless room with the door closed.	.62	.55
41 Being in a small, compact car alone.	.52	.67
42 Being in the back of a small, two-door car with a person on either side of you.	.50	.49

Item Means = 2.30

Subscale Mean = 39.13

SD = 10.87

Cronbach alpha = .87

*Fac.Ld. = Factor Loading

Table 4

Subscales Based on Two-Factor Solution for CSQ Avoidance Ratings (N = 101)

1) Avoidance of Crowds

<u>Item# and Item</u>	<u>Corrected Item- Total Correlation</u>	<u>Fac. Ld. *</u>
3 Trying on clothes in a small fitting-room with the door closed.	.37	.46
5 Being in a tunnel.	.43	.42
7 Being in a crowd where you cannot move.	.63	.54
9 Being in the middle of a crowded church.	.66	.64
11 Being in a crowded restaurant.	.64	.68
13 Being in the middle of a crowded bar.	.78	.78
14 Being in the middle of a crowded subway.	.79	.72
15 Being on a crowded train.	.81	.79
16 Being in the middle section at a crowded concert.	.62	.55
18 Being on a crowded bus that stops at a traffic light.	.62	.61
26 Being on a crowded elevator.	.71	.77
28 Being on a small elevator alone.	.398	.44
29 Being in a tunnel with cars on both sides.	.47	.52
30 Being in a crowded shopping mall.	.52	.64
31 Being in the middle of a line at a supermarket.	.34	.48
33 Being in the back of a crowded bus.	.62	.62

Item Means = 2.21

Subscale Mean = 35.29

SD = 12.43

Cronbach Alpha = .91

*Fac.Ld. = Factor Loading

Table 4 (cont.)

2) Avoidance of Physical Confinement

<u>Item# and Item</u>	<u>Corrected Item- Total Correlation</u>	<u>Fac. Ld.*</u>
2 Being held down by several people.	.58	.63
4 Being in a closet.	.49	.49
6 Being in handcuffs.	.54	.53
8 Being covered in sand up to your neck.	.44	.55
10 Being in a dark, windowless chamber with the door closed.	.69	.72
12 Being under a car.	.49	.58
17 Being in a small, locked room.	.59	.67
19 Being in a well-lit, windowless room with the door closed.	.51	.55
21 Being in body cast.	.495	.59
22 Being in a small, windowless attic.	.67	.72
23 Being in a small, tight shower with the curtain closed.	.48	.47
24 Being in a small, underground cellar.	.55	.596
27 Being in a windowless bathroom with the lock jammed.	.51	.51
38 Being in a neck brace.	.47	.489
40 Being in a dark, windowless room with the door closed.	.51	.56

Item Means = 3.35

Subscale Mean = 50.30

SD = 11.96

Cronbach Alpha = .88

*Fac.Ld. = Factor Loading

Table 5

Subscales Based on Three-Factor Solution for the CGCQ (N = 101)

1) Loss of Control

<u>Item# and Item</u>	<u>Corrected Item- Total Correlation</u>	<u>Fac. Ld.*</u>
2 I might lose control.	.52	.495
12 I might lose control of my senses.	.55	.53
14 Something might be hiding in there.	.47	.55
15 I won't be able to see what's in there.	.49	.53
17 People will think I'm crazy.	.69	.73
20 People will wonder what's wrong with me.	.75	.83
21 I might act foolishly.	.67	.75
22 People will think I'm strange.	.68	.80
25 I might hurt myself.	.60	.65
26 I might go crazy.	.55	.53

Item Means = 1.92
 Subscale Mean = 19.16
 SD = 8.01
 Cronbach Alpha = .87
 *Fac.Ld. = Factor Loading

2) Suffocation

<u>Item# and Item</u>	<u>Corrected Item- Total Correlation</u>	<u>Fac. Ld.*</u>
3 I might scream.	.29	.44
7 I might run out of air.	.66	.699
8 I might get dizzy.	.46	.52
9 I might be paralyzed by fear.	.53	.48
10 I might not be able to get enough air.	.74	.75
11 I might start to choke.	.60	.69
13 I might panic.	.59	.56
16 I might pass out.	.50	.53
23 I might have difficulty breathing.	.73	.74

Item Means = 2.69
 Subscale Mean = 24.24
 SD = 7.75
 Cronbach Alpha = .85
 *Fac.Ld. = Factor Loading
 Table 5 (cont.)

3) Escape

<u>Item# and Item</u>	<u>Corrected Item- Total Correlation</u>	<u>Fac. Ld.*</u>
1 I might not be able to leave.	.66	.77
4 I might die.	.51	.62
5 I might suffocate.	.51	.55
6 I might not be able to escape if I had to.	.74	.795
18 I might not be able to move.	.498	.47
19 I might be trapped.	.75	.73
24 I might not be able to get out.	.796	.85

Item Means = 3.54

Subscale Mean = 24.81

SD = 6.22

Cronbach alpha = .86

*Fac.Ld. = Factor Loading

Table 6a

Correlations Between CSQ, CGCQ Subscales and Other Self-Report Measures (N = 101 for correlations between CSQ and CGCQ Subscales; N = 100 for correlations involving other self-report measures)

<u>Measures</u>	<u>FENTRP</u>	<u>FPCF</u>	<u>AVCRD</u>	<u>AVPCF</u>	<u>LCON</u>	<u>SUF</u>	<u>ESC</u>	<u>PREANX</u>	<u>POSTANX</u>	<u>BSQ</u>	<u>PACQ</u>
<u>FENTRP</u>	---										
<u>FPCF</u>	.67**	---									
<u>AVCRD</u>	.86**	.52**	---								
<u>AVPCF</u>	.66**	.78**	.59**	---							
<u>LCON</u>	.30**	.41**	.24**	.31**	---						
<u>SUF</u>	.44**	.41**	.31**	.40**	.49**	---					
<u>ESC</u>	.298**	.29**	.19*	.35**	.45**	.59**	---				
<u>PREANX</u>	.36**	.33**	.32**	.29**	.21*	.23*	.06	---			
<u>POSTANX</u>	.39**	.35**	.28**	.28**	.09	.16	.15	.60**	---		
<u>BSQ</u>	.48**	.49**	.39**	.40**	.36**	.29**	.18*	.44**	.48**	---	
<u>PACQ</u>	.51**	.55**	.46**	.42**	.499**	.32**	.30**	.40**	.44**	.72**	---
Mean	50.76	39.13	35.29	50.30	19.16	24.24	24.81	2.35	3.59	1.79	32.13
SD	15.84	10.87	12.43	11.96	8.01	7.75	6.22	1.56	1.94	.73	7.40

FENTRP=Fear of Entrapment; FPCF=Fear of Physical Confinement; AVCRD=Avoidance of Crowds; AVPCF=Avoidance of Physical Confinement; LCON=Loss of Control; SUF=Suffocation; ESC=Escape; PREANX=Preanxiety; POSTANX=Postanxiety; BSQ=Body Sensations Questionnaire mean score; PACQ=Panic Attack Cognitions Questionnaire total score;

**p < .01; *p < .05.

Table 6b

Correlations Between Hyperventilation Challenge Physiological Measures (N = 89 for correlations involving pre-task measures; N = 88 for correlations involving post-task measures)

<u>Measures</u>	<u>SYS1</u>	<u>DIA1</u>	<u>HR1</u>	<u>SYS2</u>	<u>DIA2</u>	<u>HR2</u>	<u>PSYS</u>	<u>PDIA</u>	<u>PHR</u>
<u>SYS1</u>	---								
<u>DIA1</u>	.41**	---							
<u>HR1</u>	-.22*	.07	---						
<u>SYS2</u>	.78**	.40**	-.23*	---					
<u>DIA2</u>	.44**	.51**	.08	.46**	---				
<u>HR2</u>	-.14	.11	.83**	-.14	.16	---			
<u>PSYS</u>	.64**	.499**	-.24*	.696**	.34**	-.18	---		
<u>PDIA</u>	.41**	.62**	.04	.49**	.45**	.14	.65**	---	
<u>PHR</u>	-.15	.03	.82	-.19*	.14	.80**	-.24*	.10	---
Mean	119.94	81.12	74.48	121.21	82.39	76.79	117.55	83.58	82.05
SD	9.40	7.47	11.91	12.62	10.26	12.69	11.87	9.49	12.04

SYS1=Pre-systolic, 1st baseline; DIA1=Pre-diastolic, 1st baseline; HR1=Pre-heart rate, 1st baseline; SYS2=Pre-systolic, partial instructions; DIA2=Pre-diastolic, partial instructions; HR2=Pre-heart rate, partial instructions; PSYS=Post-systolic; PDIA=Post-diastolic; PHR=Post-heart rate; **p < .01; *p < .05.

Table 6c

Correlations Between CSQ and CGCQ Subscales, Other Self-Report Measures and Physiological Measures (N = 89 for correlations involving pre-task physiological measures; N = 88 for correlations involving post-task physiological measures)

<u>Measures</u>	<u>SYS1</u>	<u>DIA1</u>	<u>HR1</u>	<u>SYS2</u>	<u>DIA2</u>	<u>HR2</u>	<u>PSYS</u>	<u>PDIA</u>	<u>PHR</u>
<u>FENTRP</u>	-.02	-.05	-.01	-.07	-.03	.0001	-.01	-.001	.095
<u>FPCF</u>	.05	.06	.02	.04	.03	.03	.07	-.01	.03
<u>AVCRD</u>	-.02	-.08	-.11	-.01	-.05	-.06	-.002	-.095	.03
<u>AVPCF</u>	.02	-.03	.05	-.01	.002	.04	-.03	-.05	.04
<u>LCON</u>	.08	.02	-.10	-.05	.08	-.05	-.10	-.099	-.10
<u>SUF</u>	.16	-.08	-.11	-.17	-.03	-.01	-.19*	-.13	-.11
<u>ESC</u>	.02	-.04	-.08	-.02	-.01	-.07	-.12	-.03	-.11
<u>PACQ</u>	.05	-.0002	.07	-.04	-.008	.12	-.03	.06	.16
<u>BSQ</u>	.02	.05	.002	-.04	.07	.18*	-.08	.18*	.198*
<u>PREANX</u>	.16	-.03	.02	.11	.16	.08	-.02	.11	.12
<u>POSTANX</u>	.29**	.18*	.096	.23*	.24*	.21*	.19*	.38*	.24*

FENTRP=Fear of Entrapment; FPCF=Fear of Physical Confinement; AVCRD=Avoidance of Crowds; AVPCF=Avoidance of Physical Confinement; LCON=Loss of Control; SUF=Suffocation; ESC=Escape; PACQ=Panic Attack Cognitions Questionnaire total score; BSQ=Body Sensations Questionnaire mean score; PREANX=Pre-anxiety; POSTANX=Post-anxiety; SYS1=Pre-systolic, 1st baseline; DIA1=Pre-diastolic, 1st baseline; HR1=Pre-heart rate, 1st baseline; SYS2=Pre-systolic, partial instructions; DIA2=Pre-diastolic, partial instructions; HR2=Pre-heart rate, partial instructions; PSYS=Post-systolic; PDIA=Post-diastolic; PHR=Post-heart rate; **p < .01; *p < .05.

Table 7

Comparisons of High and Low Subscale Groups on Pre- and Post-anxiety Ratings

Dependent Measure	Subscale	Mean & SD	N	F	df
Pre-anxiety	Low LOC	2.02 (SD = 1.53)	50	4.64*	1,98
	High LOC	2.68 (SD = 2.68)	50		
Pre-anxiety	Low SUF	1.89 (SD = 1.28)	48	8.42**	1,98
	High SUF	2.77 (SD = 1.69)	52		
Pre-anxiety	Low Fear of Entrapment	1.90 (SD = 1.90)	50	9.00**	1,98
	High Fear of Entrapment	2.80 (SD = 2.80)	50		
Pre-anxiety	Low Fear of PhysCon	1.85 (SD = 1.46)	48	10.199**	1,98
	High Fear of PhysCon	2.81 (SD = 1.52)	52		
Pre-anxiety	Low Avoidance of Crowds	1.94 (SD = 1.65)	50	7.36**	1,98
	High Avoidance of Crowds	2.76 (SD = 1.36)	50		
Pre-anxiety	Low Avoidance of PhysCon	2.04 (SD = 1.59)	50	4.07*	1,98
	High Avoidance of PhysCon	2.66 (SD = 1.47)	50		
Post-anxiety	Low Fear of Entrapment	3.00 (SD = 1.795)	50	10.11**	1,98
	High Fear of Entrapment	4.18 (SD = 1.91)	50		
Post-anxiety	Low Fear of PhysCon	3.00 (SD = 1.69)	48	9.26**	1,98
	High Fear of PhysCon	4.13 (SD = 2.01)	52		

LOC = Loss of Control; SUF = Suffocation; Fear of PhysCon = Fear of Physical Confinement; Avoidance of PhysCon = Avoidance of Physical Confinement;
 ** $p < .01$; * $p < .05$.

Table 8

Comparisons of High and Low Subscale Groups on Symptom Ratings

Dependent Measure	Subscale	Mean & SD	N	F	df
BSQ	Low LCON	1.59 (SD = .66)	50	8.10**	1,98
	High LCON	1.99 (SD = .74)	50		
BSQ	Low SUF	1.53 (SD = .41)	48	13.35**	1,98
	High SUF	2.03 (SD = .87)	52		
BSQ	Low Fear of Entrapment	1.52 (SD = .43)	50	15.86****	1,98
	High Fear of Entrapment	2.06 (SD = .86)	50		
BSQ	Low Fear of PhysCon*	1.52 (SD = .46)	48	14.60***	1,98
	High Fear of PhysCon*	2.04 (SD = .84)	52		
BSQ	Low Avoidance of Crowds	1.61 (SD = .55)	50	6.599*	1,98
	High Avoidance of Crowds	1.97 (SD = .83)	50		
BSQ	Low Avoidance of PhysCon	1.56 (SD = .48)	50	11.68***	1,98
	High Avoidance of PhysCon	2.03 (SD = .85)	50		

BSQ = Body Sensations Questionnaire; LCON = Loss of Control; SUF = Suffocation; Fear of PhysCon = Fear of Physical Confinement; Avoidance of PhysCon = Avoidance of Physical Confinement; **** $p < .0001$; *** $p < .001$; ** $p < .01$; * $p < .05$.

Table 9

Comparisons of High and Low Subscale Groups on Panic Cognitions

Dependent Measure	Subscale	Mean & SD	N	F	df
PACQ	Low LCON	29.54(SD = 4.03)	50	13.83**	1,98
	High LCON	34.72(SD = 8.99)	50		
PACQ	Low SUF	29.63(SD = 3.75)	48	11.71**	1,98
	High SUF	34.44(SD = 9.06)	52		
PACQ	Low ESC	30.04(SD = 5.06)	45	6.88*	1,98
	High ESC	33.84(SD = 8.55)	55		
PACQ	Low Fear of Entrapment	29.20(SD = 3.56)	50	18.42***	1,98
	High Fear of Entrapment	35.06(SD = 8.97)	50		
PACQ	Low Fear of PhysCon	28.94(SD = 3.50)	48	20.56***	1,98
	High Fear of PhysCon	35.08(SD = 8.75)	52		
PACQ	Low Avoidance of Crowds	29.86(SD = 3.99)	50	10.28*	1,98
	High Avoidance of Crowds	34.40(SD = 9.18)	50		
PACQ	Low Avoidance of PhysCon	29.48(SD = 3.72)	50	14.57**	1,98
	High Avoidance of PhysCon	34.78(SD = 9.08)	50		

*PACQ = Panic Attack Cognitions Questionnaire; LCON = Loss of Control; SUF = Suffocation; ESC = Escape; Fear of PhysCon = Fear of Physical Confinement; Avoidance of PhysCon = Avoidance of Physical Confinement; *** $p < .0001$; ** $p < .001$; * $p < .01$.

Table 10

Systolic Blood Pressure and Heart Rate Change Scores for High and Low Subscale Groups

Subscale	Variable	N	Mean & SD
High Fear of Crowds	Syschang	43	-2.26 (9.53)
	Hrchang	43	8.14 (7.64)
Low Fear of Crowds	Syschang	45	-2.67 (9.17)
	Hrchang	45	6.91 (6.94)
High Fear of PhysCon	Syschang	44	-1.98 (11.20)
	Hrchang	44	7.57 (7.06)
Low Fear of PhysCon	Syschang	44	-2.95 (6.99)
	Hrchang	44	7.45 (7.57)
High Avoidance of Crowds	Syschang	42	-1.83 (7.33)
	Hrchang	42	9.64 (6.58)*
Low Avoidance of Crowds	Syschang	46	-3.04 (10.84)
	Hrchang	46	5.57 (7.40)*
High Fear of PhysCon	Syschang	42	-2.76 (10.55)
	Hrchang	42	7.33 (7.15)
Low Avoidance of PhysCon	Syschang	46	-2.20 (8.09)
	Hrchang	46	7.67 (7.47)

Syschang = Systolic change (in mm Hg); Hrchang = Heart rate change (in beats per minute); PhysCon = Physical Confinement; *significant main effect for Avoidance of Crowds at $p < .004$ with the high Avoidance of Crowds group demonstrating greater heart rate change than the low Avoidance of Crowds group

Appendix A

The Department of Psychology at Virginia Tech is

interested in talking with people who have a Fear of Enclosed Spaces.

If you are interested in participating in this study and receiving a free

evaluation in the process, please call 231-6914.

Appendix B

Informed Consent Form

TITLE OF EXPERIMENT: Assessment of Anxiety Symptoms

Experiment #: 2055-93

1. PURPOSE OF EXPERIMENT:

The purpose of this study is to assess various symptoms of anxiety.

2. PROCEDURE TO BE FOLLOWED IN THE STUDY:

I understand that participation in this study on anxiety symptoms consists of:

1. An initial general screening to indicate whether I meet broad general guidelines for inclusion in the study.

2. A second assessment session at Derring Hall. This session will consist of an initial 30 minute to 1 hour structured interview with a graduate clinician. The interview assesses general anxiety. The graduate clinician is trained by, and is under the supervision of George A. Clum, Ph.D. If, on the basis of this interview, it is determined that I am not eligible for the study, a suitable referral for treatment will be made if so desired and extra credit points awarded.

3. If I am eligible for the study, I will be asked to complete two questionnaires after the interview and asked to contribute any possible items which may have been overlooked. These questionnaires further assess anxiety. These should take approximately 20 minutes to complete.

4. The last part of the assessment involves performing a rapid breathing task (breathing deeply and rapidly through my mouth) for one minute and evaluating my response to this task. Performing the rapid breathing task may produce some temporary discomfort, but could help me in understanding my anxiety symptoms. I understand that I may discontinue the rapid breathing task at any stage.

5. Upon completion of the rapid breathing task, I will complete two brief questionnaires and answer some brief questions.

6. Prior to task instructions, after task instructions and upon completion of the rapid breathing task, I will have my blood pressure and pulse rate monitored for 3-minute, 1-minute, and 3-minute periods, respectively.

3. ANONYMITY OF SUBJECTS AND CONFIDENTIALITY OF THE RESULTS:

The results of this study will be kept strictly confidential. At no time will the researchers release the results of the study to anyone other than individuals working on the project without your written consent. The information you provide will have your name removed and only a subject number will identify you during analyses and any write-up of the research.

I give permission to be audiotaped during the interviews for research purposes. Dr. Clum and/or other graduate students on the project supervised by Dr. Clum will listen to these tapes. The tapes will be erased within two weeks of the interview.

Appendix B (cont.)

4. DISCOMFORTS AND RISKS FROM PARTICIPATING IN THE STUDY:

Participation in the study may involve some discomfort in the form of anxiety. It is my responsibility to inform the researchers of any medical problems that might arise in the course of the study. Please complete the medical screening below:

Have you ever been diagnosed by a physician as having: (Yes/No)

- a) a seizure disorder? _____ b) a stroke? _____
c) emphysema? _____ d) a heart attack? _____
e) chronic hypertension? _____

If you responded Yes to e), but your blood pressure is currently being controlled by medication, you are still eligible for the study. If so, please state the type of medication and the dosage

_____.

I have completed the above medical screening as honestly as possible and have not been diagnosed by a physician as having any of the above disorders. If I have been diagnosed as having chronic hypertension, it is currently under control with medication as stated above.

5. EXPECTED BENEFITS:

The benefits of participation may include gaining a better understanding of my anxiety symptoms and receiving treatment referrals. Participation also provides the investigators the opportunity to contribute to the understanding of anxiety.

6. FREEDOM OF WITHDRAWAL:

I understand that I may abstain from participation in any part of this study or withdraw from the study at any time without penalty.

7. EXTRA CREDIT:

For participation in this study, I will receive 1 extra credit point for participating in the first session and, if eligible, will receive 2 extra credit points for participation in the second session. Treatment referral information will also be provided if so desired.

8. USE OF RESEARCH DATA

The information from this research may be used for scientific or educational purposes. It may be presented at scientific meetings and/or published and republished in professional journals or books, or used for any other purpose which Virginia Tech's Department of Psychology considers proper in the interest of education, knowledge or research. I understand that my confidentiality will be protected in any publication or presentation.

Appendix B (cont.)

9. APPROVAL OF RESEARCH:

I have read the above statements and have had opportunity to ask questions. I am 18 years of age or older. I understand that this research project has been approved by the Department of Psychology Human Subjects Research Committee, by a Departmental Research Committee and by an Institutional Review Board.

10. SUBJECTS' PERMISSION:

1. I have read and understand the above description of the study. I have had an opportunity to ask questions and have had them all answered. I hereby acknowledge the above and give my voluntary consent for participation in the study.

2. I also understand that if I participate I may withdraw at any time without penalty.

3. I understand that should I have any questions about this research and its conduct, I should contact any of the following:

Primary Researcher: Greg A. Febraro phone: 951-4981

Faculty Advisor: George A. Clum, Ph.D. phone: 231-5701

Chair, Human Subjects Committee: Joseph J. Franchina, Ph.D.
phone: 231-5664

Chair, Institutional Review Board: Janet Johnson, Ph.D.
phone: 231-6077

Printed Name : _____

Subject's Signature: _____

Date: _____

Subject's ID #: _____

Appendix C

Adaptation of the Fear Survey Schedule

Name: _____

Phone number and best time to call: _____

Please indicate the appropriate level of fear and avoidance for each item by using the following scale:

0 = No fear/never avoids

1 = Mild fear/rarely avoids

2 = Moderate fear/sometimes avoids

3 = Severe fear/often avoids

4 = Very severe fear/always avoids

	<u>Fear</u>	<u>Avoidance</u>
1. Snakes	_____	_____
2. Cats	_____	_____
3. Birds	_____	_____
4. Spiders	_____	_____
5. Worms	_____	_____
6. Dogs	_____	_____
7. Insects	_____	_____
8. Horses	_____	_____
9. Heights	_____	_____
10. Enclosed Spaces	_____	_____

Appendix D

Abbreviated Version of the Anxiety Disorders Interview

Schedule--Revised (ADIS-R)

Name: _____

Address: _____

Phone: (home) _____

(work) _____

Date of Birth: _____

Sex: M F

Marital Status:

___ Married _____ Date

___ Single

___ Cohabiting _____ Date

___ Separated _____ Date

___ Divorced _____ Date

___ Widowed _____ Date

___ Other

Occupation History:

Patient: _____ (present/date)

_____ (previous/date)

Spouse: _____ (present/date)

_____ (previous/date)

Date of Interview: _____

Interviewer: _____

Family Income: _____

Number of Dependents: _____

Fee for Interview: _____

Previous Marriages:

Yes No

Dates: _____

Children

<u>Age</u>	<u>Sex</u>	<u>At Home</u>	<u>When Left</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Education

Patient: _____

Spouse: _____

Religion: _____

The interview should begin with a brief introduction and explanation of the purpose of the interview and obtain a brief description of the presenting complaint.

In this section, a preliminary determination of the presence of phobic anxiety, panic attacks, and chronic tension/ anxiety should be made.

I will be asking you a number of questions about different areas of your life. First, I would like to get a general idea of what sorts of problems you have had recently. What have they been?

Have you had recent changes in or difficulties with:

Family/Relationships _____

Legal Matters/Police _____

Work/School _____

Financial _____

Health _____

AFTER BRIEF INQUIRY:

Now, I want to ask you more questions about some specific kinds of problems which may or may not apply to you. We have already talked about some of them generally, but now I would like to get more details.

PANIC DISORDER

1. a. *Have you had times when you have felt a sudden rush of intense fear or anxiety or feeling of impending doom?*

Yes ___ No ___

If YES, or uncertain, continue inquiry. Otherwise, skip to **GENERALIZED ANXIETY DISORDER** (p. 8)

2. a. *In what situation(s) have you had these feelings?*

- b. *Have you had these feelings come "from out of the blue," or while you are at home alone, or in situations where you did not expect them to occur?*

Yes ___ No ___

If patient indicates that panic symptoms occur only in a specific situation (public speaking, heights, driving, etc.), further inquiry is necessary to determine if symptoms occur immediately upon exposure to the situation.

- c. *When you are faced with (phobic situation), does the anxiety come on as soon as you enter it, or is it sometimes delayed, or unexpected?*

Delayed Yes ___ No ___

If YES to 2b or 2c, or if there is any uncertainty about the existence of panic symptoms, continue inquiry. Otherwise, Skip to **GENERALIZED ANXIETY DISORDER** (p. 8)

3. *How long does it usually take for the rush of anxiety to become intense?*

_____ minutes.

4. *How long does the anxiety usually last at its peak level?*

_____ minutes.

Symptom Ratings

In this section rate symptoms only for anxiety attacks that occur UNEXPECTEDLY, in a variety of situations. Anxiety symptoms that are limited to a single stimulus (enclosed places or heights, social situations, obsessional content, etc.) should be rated in the appropriate section.

In some mixed cases, ratings might be completed in both this section and a later section.

- A. Rate the severity of each symptom which is typical of the most recent attacks, and during the period of most severe attacks. If a symptom is experienced during only some attacks, i.e., it does not typically occur during an attack, enclose the rating in parentheses.

III-R requires at least one attack in which four symptoms were present. If typical attacks do not include 4 symptoms, determine if any attack has included four symptoms.

- B. If the most recent attacks are also the worst attacks, indicate this and enter severity ratings under the "most recent" column only.
- C. Use the following inquiry when rating symptoms:
- 1) *During the most recent period of attacks, did you experience _____ ?
How severe was it? If there is any doubt about whether the symptom is typical, ask: Do you experience this nearly every time you have an attack?*
 - 2) *When the attacks were the most severe, did you experience _____ ?*
- D. If the patient reports 4 or more symptoms per typical panic attack, the interviewer should ask if the patient had attacks in which only one or two symptoms have been present (Question 6). If the patient answers "YES," the interviewer should go back and rate the severity of those symptoms under the column labeled "Limited Symptom Attacks."

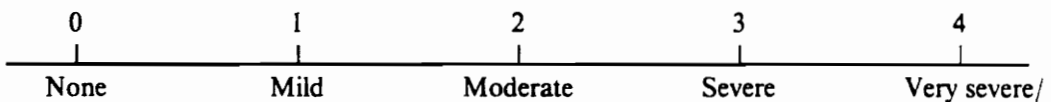
PANIC

5. *When were the attacks the most severe?* FROM _____ TO _____
 a. *How frequent were the attacks during this period?* _____
 b. *What made the attacks the most severe you have had?*

6. *When was your most recent attack?* _____

7. Rate the severity of typical symptoms for each period on the following scale:

Note: Symptoms which are occasionally experienced, but are not typical, should be rated parenthetically.



(Did/do you usually experience _____ during the attacks?)

	<u>Most Recent</u>	<u>Most Severe</u>	<u>Limited Symptom Attack</u>
1. Shortness of breath (dyspnea) or smothering sensations	_____	_____	_____
2. Choking	_____	_____	_____
3. Palpitations or accelerated heart rate (tachycardia)	_____	_____	_____
4. Chest pain or discomfort	_____	_____	_____
5. Sweating	_____	_____	_____
6. Dizziness, unsteady feelings or faintness	_____	_____	_____
7. Nausea or abdominal distress	_____	_____	_____
8. Depersonalization or derealization	_____	_____	_____
9. Numbness or tingling sensations, paresthesias	_____	_____	_____
10. Flashes (hot flashes) or chills	_____	_____	_____
11. Trembling or shaking	_____	_____	_____
12. Fear of dying	_____	_____	_____
13. a) Fear of going crazy or b) doing something uncontrolled	_____	_____	_____

If patient reports 4 or more symptoms per *typical* attack, ask:

8. *Do you have periods (attacks, spells) when you have only one or two of these symptoms?*

If YES, go back and rate severity of symptoms under Limited Symptom column.

NOTE: Diagnosis of Panic Disorder requires presence of 4 symptoms during at least one attack. If typical attacks do not include 4 symptoms, determine if *any* attack has included 4 symptoms.

PANIC

9. If patient reports full panic attacks (4 or more symptoms) and limited attacks, obtain frequencies for both types in a. and b.

a. *How many panics have you had in the last six months?*

_____ full _____ limited

b. *During the past month, how many panics have you had?*

_____ full _____ limited

If less than 4: Have you ever had 4 panics in a month? _____ Yes _____ No
When? _____

c. *Since your first attack, has there been a period of time when you were afraid that you might have more attacks?*

YES _____ NO _____

When was this? FROM _____ TO _____

d. *In the last month, how much have you worried about, or how fearful have you been about having another attack?*

0	1	2	3	4	5	6	7	8
No worry/ no fear	Rarely worried/ mild fear	Occasionally worried/ moderate fear	Frequently worried/ severe fear	Constantly worried/ extreme fear				

10. *Have there been times when you awoke from sleep in a panic?*

YES _____ NO _____

If YES, when did this occur?

FROM _____ TO _____

How often?

_____ per night

_____ per week

PANIC

11. a. *Do you have any specific thoughts before an attack?*

b. *Do you have any specific thoughts during an attack?*

12. History

Tell me about your first panic:

a. *When did it happen?* Month _____ Year _____

b. *Where were you?* _____

c. *Who were you with?* _____

d. *How did it start?* _____

e. *What did you do?* _____

f. *Were you under any type of stress?* YES _____ NO _____

What was happening in your life at the time?

Specify _____

Were you taking any type of drug? (Include alcohol/caffeine)

YES _____ NO _____

TYPE _____ DOSE/AMOUNT _____

Did you have any physical condition such as inner ear problems, hyperthyroidism, mitral valve prolapse, pregnancy, hypoglycemia, temporomandibular joint dysfunction?

YES _____ NO _____

Specify _____

g. *Do you remember having similar feelings (maybe milder) any time before this?*

YES _____ NO _____

If YES, *When?* Month _____ Year _____

1) *What was the feeling?* _____

PANIC

13. *Have you had periods when the panics became less intense or less frequent?*

If YES, continue. If NO, go to Question 12.

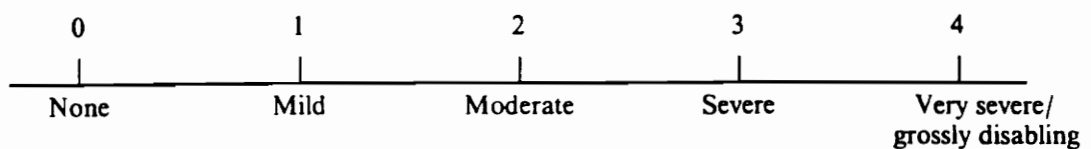
<p><i>When</i> From — To Month and Year</p>	<p><i>What was going on in your life? How did you get over it?</i> i.e., Did stressor let up or did person develop coping strategy?</p>	<p><i>How did they come back?</i> Changes in life circum- stances? Stressor related?</p>

14. *How do you handle the panics now?*

15. Distress/Interference

How much have the panics interfered with your life, job, traveling, activities, etc.?

Rate interference on 0—4 scale _____



GENERALIZED ANXIETY DISORDER

Questions in this section should be used to establish the presence of tension or anxiety with no apparent cause, or anxiety which is related to excessive worrying about family, job performance, finances, etc., and minor matters. This tension or anxiety is NOT part of, or anticipatory to, panics or phobic anxiety.

Ask Questions 1 and 2.

1. a. *What kinds of things do you worry about?* *Do you think you worry excessively?* Excessive/Unrealistic

If patient identifies anxiety or tension which is anticipatory to panics or exposures to phobic situations, e.g., "I worry about having an attack; I worry whenever I know I will have to cross a bridge," as a major source of anxiety:

- 1) *Are there things other than _____ which make you feel tense, anxious, or worried?*

YES _____ NO _____

If YES, *What are they?*

- b. *During the last six months, have you been bothered by these worries more days than not?*

YES _____ NO _____

2. *Are you a worrier? Do you worry excessively about small things such as being late for an appointment, repairs to the house or car, etc.?*

YES _____ NO _____

 If there are 2 areas of excessive worry, or YES to Question 2, continue:
 If NO, go to HAMILTON SCALES (optional) (p. 11) or PTSD (p. 20)

3. *On an average day over the last month, what percent [how much] of the day do you feel tense, anxious, worried?*

_____ %

4. *Last time you experienced an increase in tension, anxiety, or worry, [aside from panics or phobic exposures], what was happening/what were you thinking?*

When _____

Situation _____

Thoughts _____

5. *How long has the tension, anxiety, worry been a problem?*

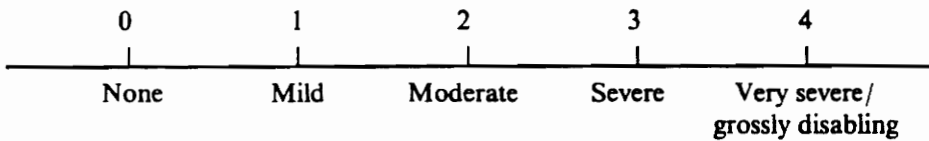
FROM _____ TO _____

Duration in months _____

NOTE: If patient responds "all my life," inquire further, e.g., *Can you remember feeling this way in school? What grade?*

6. *How much does this interfere with your life, work, social activities, family, etc.?*

Rate interference:



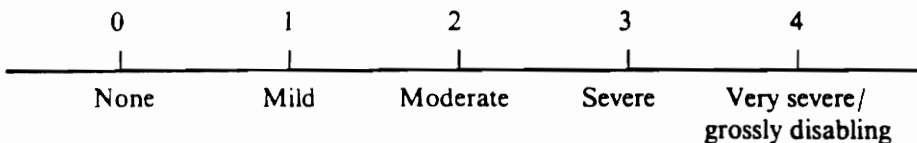
If Hamilton Scales are to be administered, GAD symptom ratings are derived from designated Hamilton Anxiety Scale items
Go to HAMILTONS (p. 11). Otherwise continue

7. Generalized Anxiety Disorder Symptom Rating

Persistent symptoms (continuous for at least 6 months). Do not include symptoms present only during panic.

During the past 6 months, have you often been bothered by _____?

How severe is it?



a. Motor Tension

- _____ 1. Trembling, twitching or feeling shaky
- _____ 2. Muscle tension, aches, or soreness
- _____ 3. Restlessness
- _____ 4. Easy fatigability

b. Autonomic Hyperactivity

- _____ 5. Shortness of breath or smothering sensations
- _____ 6. Palpitations or accelerated heart rate
- _____ 7. Sweating, or cold clammy hands
- _____ 8. Dry mouth
- _____ 9. Dizziness or lightheadedness
- _____ 10. Nausea, diarrhea, or other abdominal distress
- _____ 11. Flashes (hot flashes) or chills
- _____ 12. Frequent urination
- _____ 13. Trouble swallowing or lump in throat

c. Vigilance, Scanning

- _____ 14. Feeling keyed up or on edge
- _____ 15. Exaggerated startle response
- _____ 16. Trouble falling or staying asleep
- _____ 17. Difficulty concentrating or mind going blank because of anxiety
- _____ 18. Irritability

Go to PTSD (p. 20)

POST TRAUMATIC STRESS DISORDER

1. *Do you remember any extremely stressful, life threatening, or traumatic event such as serious physical injury, rape, assault, combat, or seeing someone badly hurt or killed which happened to you prior to your experiencing anxiety or the other problems you're having?*

YES _____ NO _____

If NO, Skip to AGORAPHOBIA (p. 23); if YES, continue

What was the event? _____

When? _____

For each symptom, determine if onset was acute (within 6 months of stressor) or delayed, and duration of symptom.

After it happened, did you experience such things as _____

If YES:

How long after the event did you begin experiencing _____

Are you still experiencing _____ ?

YES _____ NO _____

If NO: Ratings _____

When did this end?

a. Re-experiencing event: *Having recurrent memories or dreams about it? Becoming upset when you see or hear something that resembles the event or that reminds you of it?*

<u>CURRENT</u>	<u>PAST</u>	<u>ONE SYMPTOM REQUIRED FOR DIAGNOSIS</u>
_____	_____	1) Recurrent and intrusive recollections
_____	_____	2) Recurrent dreams
_____	_____	3) Sudden acting or feeling as if event is recurring
_____	_____	4) Psychological distress at events which symbolize or resemble event, including anniversaries.

PTSD

- b. Numbing of responsiveness or persistent avoidance of stimuli associated with trauma: *Feeling numb, detached from people/avoiding things that remind you of the event?*

<u>CURRENT</u>	<u>PAST</u>	<u>THREE SYMPTOMS REQUIRED FOR DIAGNOSIS</u>
_____	_____	1) Deliberate avoidance of thoughts or feelings associated with trauma
_____	_____	2) Deliberate avoidance of activities or situations which arouse recollections of trauma
_____	_____	3) Inability to recall an important aspect of trauma
_____	_____	4) Markedly diminished interest in significant activities
_____	_____	5) Feeling of detachment or estrangement
_____	_____	6) Restricted affect
_____	_____	7) Sense of foreshortened future

- c. Persistent increased arousal (not present before trauma): *Notice changes like:*

<u>CURRENT</u>	<u>PAST</u>	<u>TWO SYMPTOMS REQUIRED FOR DIAGNOSIS</u>
_____	_____	1) Difficulty falling or staying asleep
_____	_____	2) Irritability, angry outbursts
_____	_____	3) Difficulty concentrating
_____	_____	4) Hypervigilance
_____	_____	5) Exaggerated startle response
_____	_____	6) Physiological reactivity (sweating, trembling) on exposure to events which symbolize or resemble aspects of trauma

DIAGNOSIS requires "YES" to Question 1 above plus one symptom from Group a, three from Group b, and 2 symptoms from Group c, for at least one month.

DELAYED = Onset of symptoms at least 6 months after trauma

If patient meets criteria for PTSD, rate anxiety symptoms during recollection of event:

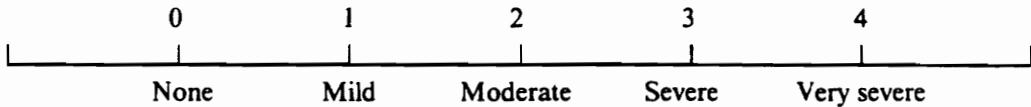
Symptoms

1. Rate severity of symptoms when thinking about, remembering, dreaming about event . . .
2. *Do you experience the fear nearly every time you think about, remember, dream about* _____ ?

YES _____ NO _____

3. *Do you experience the fear nearly every time you think about, remember, dream about* _____ ?

YES _____ NO _____

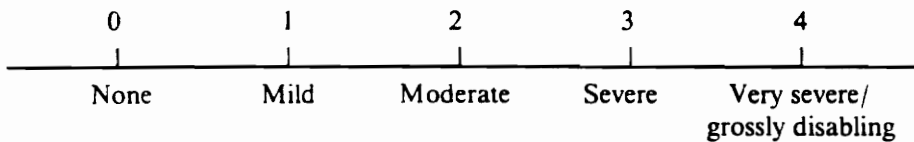


Do you experience _____ *when you think about, remember, dream of* _____ ?

- | | | | |
|---|-------|---|-------|
| 1. Shortness of breath (dyspnea) or smothering sensations | _____ | 8. Depersonalization or derealization | _____ |
| 2. Choking | _____ | 9. Numbness or tingling sensations (paresthesias) | _____ |
| 3. Palpitations or accelerated heart rate (tachycardia) | _____ | 10. Flashes (hot flashes) or chills | _____ |
| 4. Chest pain or discomfort | _____ | 11. Trembling or shaking | _____ |
| 5. Sweating | _____ | 12. Fear of dying | _____ |
| 6. Dizziness, unsteady feeling or faintness | _____ | 13. Fear of going crazy or doing something uncontrolled | _____ |
| 7. Nausea or abdominal distress | _____ | | |

4. *How much do these problems interfere with your life?*

Rate interference _____



AGORAPHOBIA

AGORAPHOBIA

1. a. *Do you feel panicky in any situations, or avoid them because you might be unable to leave in case you feel faint or panicky or ill?*

YES ____ NO ____

If NO, Skip to **SIMPLE PHOBIA** (p. 27)

Specify range of activity, e.g., time spent in situations, how often, distance from home and factors affecting ability to enter or stay. Specify range of activity when alone and when accompanied and write in spaces provided. Use scale below to rate fear and avoidance. Rate fear when unaccompanied.

0	1	2	3	4
No avoidance or escape/ no fear or anxiety	Occasional avoidance or escape/ mild fear	Moderate: may enter alone/ moderate fear	Severe: rarely alone; must be accompanied/ severe fear	Very severe: never enters even with safe person/ very severe fear and panic

- b. *Does having someone with you make a difference?* YES ____ NO ____
Do you have a safe person? YES ____ NO ____ *Who?* _____

- c. *How much fear do you experience in these situations? How often do you avoid such situations?*

	Range of Activity Alone	Range of Activity Accompanied	Rating Fear	Rating Avoid
Driving				
Riding in car	NA			
Grocery stores				
Mall				
Crowds				
Public trans.: Bus				
Plane				

AGORAPHOBIA

	Range of Activity Alone	Range of Activity Accompanied	Rating	
			Fear	Avoid
Waiting in line				
Walking (how far)				
Elevators				
Bridges				
Being at home				
Being far from home				
Public places: Movies, Theaters Auditoriums				
Restaurants				
Church				
Enclosed places: Tunnels Small rooms				
Open spaces: Parks Squares or large open parking lots				
Work				
Other				

 If no evidence of fear and avoidance of any of these situations is obtained,
 Skip to **SIMPLE PHOBIA** (p. 27)

AGORAPHOBIA

2. Note any special conditions, objects, rituals which patient uses to enable himself/herself to enter feared situations: such as carrying a bottle of beer or soda; carrying medication; special objects such as books, printed relaxation instructions, umbrellas, other objects; or avoiding certain foods, drinks.

a. *Are there any sorts of things you carry with you, or things you do just before going out which help you feel comfortable?*

b. *What do you feel will happen to you if you are stuck in a situation that you commonly avoid? Heart attack, stroke, pass out, scream, go crazy, lose control, embarrass self, etc.*

c. *What do you usually do when you have a panic attack or high anxiety? Escape, call for help, stick it out, never go anywhere that might create anxiety, etc.*

d. *Do you have fluctuations in where and how far you can go due to things like: specify and get example — specify if better or worse*

Time of day _____ Sickness/illness _____

Day of week _____ High stress _____

Interpersonal conflict _____

3. History and Course. This information may overlap with information obtained under **PANIC DISORDER**. If it overlaps, note where information may be found.

a. *Do you remember the first time you felt you couldn't go into _____ or had to get out?*

YES _____ NO _____ WHEN _____

b. *Where were you?* _____

c. *Who were you with?* _____

If NO history of Panic, skip to e.

d. If patient has history of panic:

Was this after your first panic?

YES _____ NO _____

If NO, go to e.

If YES, *How long after your first panic did you begin avoiding* _____ ?

_____ months

AGORAPHOBIA

e. *Why did you begin avoiding _____ ?*

f. *Were you experiencing any life stresses at the time?*

g. *Have there been periods in your life since this first time when you could enter these situations without panic or in spite of it? CHECK for remission, exacerbations and precipitants.*

Period	<i>What was going on in life? How did you get over it?</i>	<i>What happened when it came back?</i>

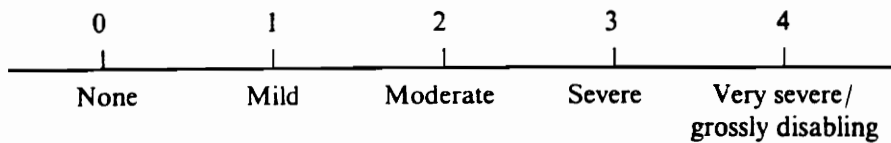
If there have been remissions, precipitant of current episode:

h. *How did the problem get started again?*

i. Distress/Interference

How has the problem interfered with your life, job, family, activities, etc.?

Rate interference _____



SIMPLE PHOBIA

SIMPLE PHOBIA

For each situation, make separate ratings for level of fear, and degree of avoidance using the following scale:

0	1	2	3	4
No fear/ never avoids	Mild fear/ rarely avoids	Moderate fear/ sometimes avoids	Severe fear/ often avoids	Very severe fear/ always avoids

1. ***Do you fear and feel a need to avoid things such as:*** Record extent of avoidance on line next to each.

	<u>FEAR</u>	<u>AVOID</u>
Heights	_____	_____
Air travel	_____	_____
Certain animals	_____	_____
Small enclosed places	_____	_____
Blood and injury: self	_____	_____
others	_____	_____
Driving	_____	_____
Other	_____	_____

If no evidence is found for fear/avoidance,
Skip to **SOCIAL PHOBIA** (p. 30)

For each significant phobia (of at least moderate severity) inquire:

- a. ***What do you think of just before encountering/ while you're in the situation? What do you think might happen?*** _____

- b. ***How often does the situation come up?*** _____
- c. ***How often do you avoid*** _____ ***?*** _____
- d. ***How does the fear interfere with your life?*** _____
Rate interference on 0—4 scale _____

SIMPLE PHOBIA

ETIOLOGY

1. **Do you experience** _____ **when you encounter** _____ ?

Rate severity of symptoms on 0—4 scale:

- | | | | |
|---|-----|---|-----|
| 1. Shortness of breath (dyspnea) or smothering sensations | ___ | 8. Depersonalization or derealization | ___ |
| 2. Choking | ___ | 9. Numbness or tingling sensations (paresthesias) | ___ |
| 3. Palpitations or accelerated heart rate (tachycardia) | ___ | 10. Flushes (hot flashes) or chills | ___ |
| 4. Chest pain or discomfort | ___ | 11. Trembling or shaking | ___ |
| 5. Sweating | ___ | 12. Fear of dying | ___ |
| 6. Dizziness, unsteady feeling or faintness | ___ | 13. Fear of going crazy or doing something uncontrolled | ___ |
| 7. Nausea or abdominal distress | ___ | | |

2. **Do you experience the fear nearly every time you encounter** _____ ?

YES ___ NO ___

3. Inquire if fear occurs immediately upon exposure to phobic situation, or if it is sometimes delayed.

Does the fear occur as soon as you encounter _____ **or as soon as you know you are going to encounter** _____ ?

IMMEDIATE ___ DELAYED ___

4. **When did you first experience this fear?**

If patient answers, "all my life," try to specify general time of onset, e.g., grade school, adolescence, etc.

_____ MONTH _____ YEAR

5. **Did the fear begin after you . . .**

- a) **were frightened by something in the situation, or were hurt in the situation?**

YES ___ NO ___

Specify: _____

- b) **were warned or told unpleasant things about the situation?**

YES ___ NO ___

Specify: _____

- c) **saw someone else experience fear or get hurt in the situation?**

YES ___ NO ___

Specify: _____

SIMPLE PHOBIA

d) *suddenly experienced a rush of intense fear, or feeling of impending doom for no apparent reason in this situation?*

YES _____ NO _____

Specify: _____

e) If patient indicates more than one cause: *which occurred first*, (a, b, c or d)? _____

Which was the most important factor in the development of the fear? _____

f) No clear precipitating event _____ .

6. *Was this your first experience with this situation?*

YES _____ NO _____

If NO:

Were you able to enter this situation, without fear, before this particular experience?

YES _____ NO _____

7. *What distresses you most about this phobia?* Check one:

_____ the sensations of fear

_____ aspects of the object or situation

8. *Since the fear began, has there been a time when you were not bothered by it?*

YES _____ NO _____

If YES: *When?*

FROM _____ TO _____

SOCIAL PHOBIA

SOCIAL PHOBIA

1. a. *In social situations where you might be observed or evaluated by others, do you feel fearful/anxious/nervous?*

YES NO

b. *Are you overly concerned that you may do and/or say something that might embarrass or humiliate yourself in front of others, or that others may think badly of you?*

YES NO

2. *I'm going to describe some situations of this type and ask you how you feel in each situation.*

Rate Fear and Avoidance

0	1	2	3	4
No fear/ never avoids	Mild fear/ rarely avoids	Moderate fear/ sometimes avoids	Severe fear/ often avoids	Very severe fear/ always avoids

	<u>FEAR</u>	<u>AVOID</u>	<u>COMMENTS</u>
a. Parties	—	—	_____
b. Meetings	—	—	_____
c. Eating in public	—	—	_____
d. Using public restrooms	—	—	_____
e. Talking in front of a group/ formal speaking	—	—	_____
f. Writing in public (signing checks, filling out forms)	—	—	_____
g. Dating situations	—	—	_____
h. Talking to persons in authority	—	—	_____
i. Being assertive, e.g.: — Refusing unreasonable requests — Asking others to change their behavior	—	—	_____
j. Initiating a conversation	—	—	_____
k. Maintaining a conversation	—	—	_____
l. Other situations			
1) _____			
2) _____			

For primary situation:

How often does the situation come up? _____

How often do you avoid it? _____

SOCIAL PHOBIA

If no evidence is found for fear/avoidance,
Skip to **OBSESSIVE-COMPULSIVE DISORDER** (p. 34)

3. *What do you anticipate before going into* _____ ?
What do you think will happen before/during _____ ?

4. If patient has a history of unexpected panic attacks which have been rated in the PANIC section, determine if social avoidance is related to fear of panic:
Do you avoid these situations because you are afraid that you will have a panic attack?
YES _____ NO _____

If you had the physical symptoms while you were alone, would you still be frightened?
YES _____ NO _____

5. *In these situations, does it make a difference if the people are* _____: Note which is easier:
MALE _____ FEMALE _____ NO DIFFERENCE _____
OLDER _____ YOUNGER _____ NO DIFFERENCE _____
ATTRACTIVE _____ LESS ATTRACTIVE _____ NO DIFFERENCE _____
MARRIED _____ UNMARRIED _____ NO DIFFERENCE _____
FRIENDS _____ STRANGERS _____ NO DIFFERENCE _____
LARGE GROUP _____ SMALL GROUP _____ NO DIFFERENCE _____
INFORMAL _____ FORMAL _____
(i.e., parties) _____ (e.g., meetings) _____ NO DIFFERENCE _____

6. *Has the fear interfered with your life, work, social activities, family, etc.? / Has your current job or educational attainment been influenced by the fears?*
YES _____ NO _____

If YES, *How?* _____

Rate impairment on 0—4 scale. _____

SOCIAL PHOBIA

ETIOLOGY

1. Do you experience _____ when you encounter _____ ?

Rate severity of symptoms on 0—4 scale:

- 1. Shortness of breath (dyspnea) or smothering sensations
2. Choking
3. Palpitations or accelerated heart rate (tachycardia)
4. Chest pain or discomfort
5. Sweating
6. Dizziness, unsteady feeling or faintness
7. Nausea or abdominal distress
8. Depersonalization or derealization
9. Numbness or tingling sensations (paresthesias)
10. Flashes (hot flashes) or chills
11. Trembling or shaking
12. Fear of dying
13. Fear of going crazy or doing something uncontrolled

2. Do you experience the fear nearly every time you encounter _____ ? YES _____ NO _____

3. Inquire if fear occurs immediately upon exposure to phobic situation, or if it is sometimes delayed.

Does the fear occur as soon as you encounter _____ or as soon as you know you are going to encounter _____ ? IMMEDIATE _____ DELAYED _____

4. When did you first experience this fear?

If patient answers, "all my life," try to specify general time of onset, e.g., grade school, adolescence, etc.

_____ MONTH _____ YEAR

5. Did the fear begin after you . . .

a) were frightened by something in the situation, or were hurt in the situation? YES _____ NO _____

Specify: _____

b) were warned or told unpleasant things about the situation? YES _____ NO _____

Specify: _____

c) saw someone else experience fear or get hurt in the situation? YES _____ NO _____

Specify: _____

SOCIAL PHOBIA

d) *suddenly experienced a rush of intense fear, or feeling of impending doom for no apparent reason in this situation?*

YES _____ NO _____

Specify: _____

e) If patient indicates more than one cause: *which occurred first*, (a, b, c or d)? _____

Which was the most important factor in the development of the fear? _____

f) No clear precipitating event _____ .

6. *Was this your first experience with this situation?*

YES _____ NO _____

If NO:

Were you able to enter this situation without fear, before this particular experience?

YES _____ NO _____

7. *What distresses you most about this phobia?* Check one:

_____ the sensations of fear

_____ aspects of the object or situation

8. *Since the fear began, has there been a time when you were not bothered by it?*

YES _____ NO _____

If YES: *When?*

FROM _____ TO _____

OBSESSIVE-COMPULSIVE DISORDER

1. a. *Are you bothered by thoughts or images that keep recurring to you that are unreasonable or nonsensical that you can't stop from coming into your mind? This is not the same as worrying about things that might happen. I mean things like repetitive thoughts about hurting or poisoning someone, or shouting obscenities in public, or horrible images such as your family being involved in a car accident.*

YES _____ NO _____

If NO, Skip to 2a.

Content: Thought _____ Image _____ Urge _____

How often do you experience _____ ? _____ per day

How long does the _____ last? _____ minutes

While you are being bothered by the _____, how strongly do you believe that it is true, e.g., you have actually hit someone while driving, you will actually carry out the act, you have really given someone incorrect information which will harm them?

0 (Not at all) _____ 100 (Completely) _____

At times when the _____ is not intruding, (perhaps now) how strongly do you believe that it is true?

0 (Not at all) _____ 100 (Completely) _____

How does the _____ come into your mind? Check for beliefs about thought insertion, externally imposed urges.

Resistance *Do you try to get rid of the _____, or tell yourself things or use certain images in order to neutralize the _____?*

YES _____ NO _____

If YES, specify: _____

Avoidance *Do you avoid certain situations or objects because they might trigger the _____?*

YES _____ NO _____

If YES, specify: _____

Do you have other people do things for you so that you won't have to be in contact with certain situations or objects?

YES _____ NO _____

If YES, specify: _____

Distress/Social Problems, Work Problems *How much are you bothered by these thoughts/how do they affect your life?*

OBSESSIVE-COMPULSIVE

2. a. *Have you had to repeat some act over and over again that doesn't seem to make sense and that you don't want to do? e.g., washing something over and over again, or counting things, or checking something repeatedly such as locked doors, important papers, or retracing driving routes? Do you take an excessively long time to do things?*

YES _____ NO _____

Content: _____

If No to 1a. and 2a.,
Skip to MAJOR DEPRESSIVE EPISODE (p. 38)

How often do you do this _____ ? _____ times per day

How much time do you spend? _____ minutes per day

Resistance *Do you try to resist doing it or did you resist initially?*

YES _____ NO _____

If YES: *How often/how much do you resist?* _____

Avoidance *Do you avoid certain situations or objects because they might make you feel that you have to do _____ ?*

YES _____ NO _____

If YES, specify: _____

Do you have other people do things for you so that you won't have to be in contact with these situations or objects?

YES _____ NO _____

How anxious do you feel if you can't or don't carry out these acts?

What do you think might happen if you don't carry out these acts?

Distress/Social Problems, Work Problems *How much are you bothered/what problems does this create at work, home, socially?*

OBSESSIVE-COMPULSIVE

Diagnosis of Obsessive-Compulsive Disorder requires obsessions be recurrent, persistent ideas, thoughts or images that are egodystonic, that the person tries to suppress. Compulsions are repetitive behaviors designed to produce or prevent a future event or situation. The person feels compelled to perform the act but also must desire to resist it at least initially. The obsessions or compulsions must cause significant distress or interfere with social or role functioning.

If patient does not meet criteria,
Skip to **MAJOR DEPRESSIVE EPISODE** (p. 38)

3. *When did you first notice these problems?*

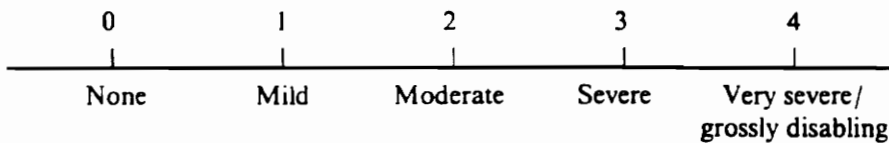
a. *What was going on in your life at that time? / Did they begin at a time when you were feeling depressed?*

b. *Has there been a period of time, since this first started that you were not troubled by these problems?*

c. *Do you have fluctuations in how much you are troubled by these?*

d. *How much do these problems interfere with your life?*

Rate interference _____



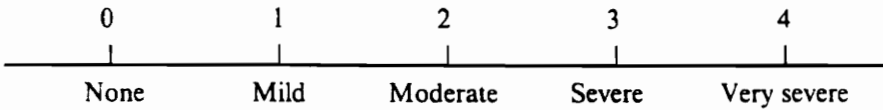
OBSESSIVE-COMPULSIVE

Symptoms

1. *When do these (thoughts/acts) make you feel most anxious?*

- When having thought, image, urge _____
- When resisting thought, image or urge _____
- While carrying out compulsive act _____
- While resisting compulsive act _____

2. Rate severity of symptoms at point of greatest anxiety.



When you are (having /resisting) these (thoughts/acts), do you experience _____ ?

- | | |
|---|---|
| 1. Shortness of breath (dyspnea) or smothering sensations _____ | 8. Depersonalization or derealization _____ |
| 2. Choking _____ | 9. Numbness or tingling sensations (paresthesias) _____ |
| 3. Palpitations or accelerated heart rate (tachycardia) _____ | 10. Flushes (hot flashes) or chills _____ |
| 4. Chest pain or discomfort _____ | 11. Trembling or shaking _____ |
| 5. Sweating _____ | 12. Fear of dying _____ |
| 6. Dizziness, unsteady feeling or faintness _____ | 13. Fear of going crazy or doing something uncontrolled _____ |
| 7. Nausea or abdominal distress _____ | |

3. *Do you experience the fear nearly every time you (have/resist) the (thought/act)?*

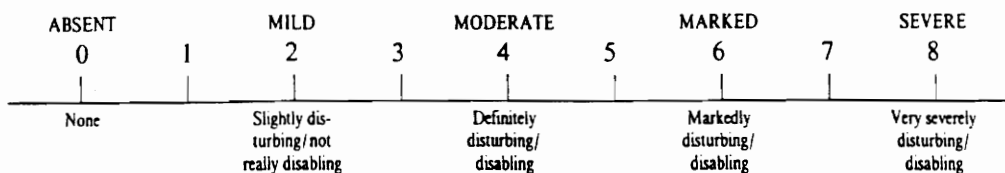
YES _____ NO _____

Do you feel the fear as soon as you (have/resist) the (thought/act)?

YES _____ NO _____

CLINICIAN'S RATINGS AND DIAGNOSES

In some cases, multiple primary diagnoses may be assigned.



DSM-III-R DIAGNOSIS

	<u>PRIMARY DIAGNOSIS</u>	<u>SEVERITY RATING</u>	<u>ADDITIONAL DIAGNOSES</u>	<u>SEVERITY RATING</u>
AXIS I	_____	_____	_____	_____
	_____	_____	_____	_____
AXIS II	_____	_____	_____	_____
AXIS III	_____	_____		
AXIS IV	Acute (_____)	Enduring (_____)		
AXIS V	Present (_____)	Last Year (_____)		
	<u>PAST EPISODES</u>	<u>SEVERITY RATING</u>		
	_____	_____		
	_____	_____		
	_____	_____		

Hamilton Anxiety Rating Scale: _____

Hamilton Depression Rating Scale: _____

Time: Start _____ Stop _____

Diagnostic confidence rating (0-100) _____

If rating is below 70, please comment:

Appendix E

Claustrophobia Situations Questionnaire

Please indicate the degree to which you would feel anxious in and avoid being in the situations below. Use the following scale:

- 1 = not anxious/never avoid
- 2 = slightly anxious/rarely avoid
- 3 = moderately anxious/avoid about half the time
- 4 = very anxious/avoid most of the time
- 5 = extremely anxious/always avoid

	Anxiety rating	Avoidance rating
1. Being in a cave.	_____	_____
2. Being held down by several people.	_____	_____
3. Trying on clothes in a small fitting-room with the door closed.	_____	_____
4. Being in a closet.	_____	_____
5. Being in a tunnel.	_____	_____
6. Being in handcuffs.	_____	_____
7. Being in a crowd where you cannot move.	_____	_____
8. Being covered in sand up to your neck.	_____	_____
9. Being in the middle of a crowded church.	_____	_____
10. Being in a dark, windowless chamber with the door closed.	_____	_____
11. Being in a crowded restaurant.	_____	_____
12. Being under a car.	_____	_____
13. Being in the middle of a crowded bar.	_____	_____

Appendix E (continued)

- 1 = not anxious/never avoid
2 = slightly anxious/rarely avoid
3 = moderately anxious/avoid about half the time
4 = very anxious/avoid most of the time
5 = extremely anxious/always avoid

	Anxiety rating	Avoidance rating
14. Being in the middle of a crowded subway.	_____	_____
15. Being on a crowded train.	_____	_____
16. Being in the middle section at a crowded concert.	_____	_____
17. Being in a small, locked room.	_____	_____
18. Being on a crowded bus that stops at a traffic light.	_____	_____
19. Being in a well-lit, windowless room with the door closed.	_____	_____
20. Wearing a tight jacket.	_____	_____
21. Being in a body cast.	_____	_____
22. Being in a small, windowless attic.	_____	_____
23. Being in a small, tight shower with the curtain closed.	_____	_____
24. Being in a small, underground cellar.	_____	_____
25. Lying in bed under covers.	_____	_____
26. Being on a crowded elevator.	_____	_____

Appendix E (continued)

- 1 = not anxious/never avoid
- 2 = slightly anxious/rarely avoid
- 3 = moderately anxious/avoid about half the time
- 4 = very anxious/avoid most of the time
- 5 = extremely anxious/always avoid

	Anxiety rating	Avoidance rating
27. Being in a windowless bathroom with the lock jammed.	_____	_____
28. Being on a small elevator alone.	_____	_____
29. Being in a tunnel with cars on both sides.	_____	_____
30. Being in a crowded shopping mall.	_____	_____
31. Being in the middle of a line at a supermarket.	_____	_____
32. Going through a narrow passage.	_____	_____
33. Being in the back of a crowded bus.	_____	_____
34. Being in a barber's/hairdresser's chair.	_____	_____
35. Being in a dentist's chair.	_____	_____
36. Sitting by the window in the middle of an airplane.	_____	_____
37. Trying on clothes with a tight neck.	_____	_____
38. Being in a neck brace.	_____	_____
39. Putting your head underwater.	_____	_____
40. Being in a dark, windowless room with the door closed.	_____	_____
41. Being in a small, compact car alone.	_____	_____

Appendix E (continued)

- 1 = not anxious/never avoid
- 2 = slightly anxious/rarely avoid
- 3 = moderately anxious/avoid about half the time
- 4 = very anxious/avoid most of the time
- 5 = extremely anxious/always avoid

Anxiety	Avoidance
rating	rating

42. Being in the back of a small two-door car

with a person on either side of you.

What other situations would you feel anxious in ? _____

Appendix F

Claustrophobia General Cognitions Questionnaire

Listed below are some thoughts that people might have when they are in a claustrophobic situation(s). What are situations in which you would feel claustrophobic? Please list some: _____.

If you were to enter these situations, how likely would you be to have each of the thoughts below? Rate the likelihood of having each thought by using the following scale:

_____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Not likely Somewhat likely Very likely

Likelihood rating

1. I might not be able to leave. _____
2. I might lose control. _____
3. I might scream. _____
4. I might die. _____
5. I might suffocate. _____
6. I might not be able to escape if I had to. _____
7. I might run out of air. _____
8. I might get dizzy. _____
9. I might be paralyzed by fear. _____
10. I might not be able to get enough air. _____
11. I might start to choke. _____
12. I might lose control of my senses. _____
13. I might panic. _____
14. Something might be hiding in there. _____

Appendix F (continued)

_____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
Not likely Somewhat likely Very likely

Likelihood rating

- 15. I won't be able to see what's in there. _____
- 16. I might pass out. _____
- 17. People will think I'm crazy. _____
- 18. I might not be able to move. _____
- 19. I might be trapped. _____
- 20. People will wonder what's wrong with me. _____
- 21. I might act foolishly. _____
- 22. People will think I'm strange. _____
- 23. I might have difficulty breathing. _____
- 24. I might not be able to get out. _____
- 25. I might hurt myself. _____
- 26. I might go crazy. _____

What other thoughts might you have when in that situation(s) ? _____

Appendix G

Hyperventilation Task Instructions

I would like you to perform a breathing exercise. In performing this exercise, it is important that you take fast, deep breaths at the rate of 30 breaths per minute. Let me first show you how to do it (experimenter models proper breathing procedure to subject). Do you understand how to perform the exercise? (Wait for subject's response. If subject does not fully understand, explain the procedure once again or answer any questions.) Please perform the breathing exercise until I tell you that you can stop. Please begin.

Appendix H

Pre-Task Anxiety Rating

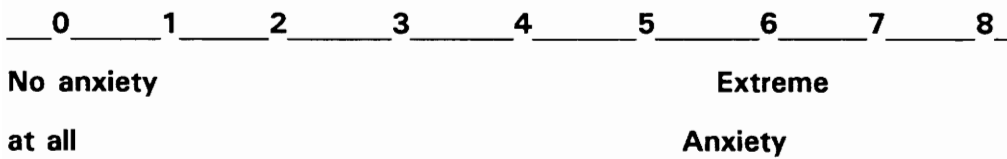
Please circle the maximum level of anxiety you expect to experience during this task using the following scale:

 0 1 2 3 4 5 6 7 8
No anxiety **Extreme**
at all **Anxiety**

Appendix I

Post-Task Anxiety Rating

Please circle the maximum level of anxiety you experienced during this task using the following scale:



Appendix J

Behavioral Rating Sheet

1. Occurrence of a panic attack:

Yes _____

No _____

If yes, then:

2. Timing of panic attack:

before beginning the task _____

immediately upon beginning the task _____

sometime during the task _____

after completion of the task _____

Appendix K

Physiological Readings for Hyperventilation Task

Baseline (Pre-task):

<u>Min.</u>	<u>Systolic</u>	<u>Diastolic</u>	<u>Pulse Rate</u>
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____

Assessment 1 (Pre-task, Partial instructions):

<u>Min.</u>	<u>Systolic</u>	<u>Diastolic</u>	<u>Pulse Rate</u>
1	_____	_____	_____

Assessment 2 (Post-task):

<u>Min.</u>	<u>Systolic</u>	<u>Diastolic</u>	<u>Pulse Rate</u>
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____

Appendix L

Adaptation of Panic Attack Cognitions Questionnaire

Using the scale below, rate each of the following thoughts according to the degree to which you thought it during the breathing exercise:

1 = not at all

2 = some, but not much

3 = quite a lot

4 = totally dominated my thoughts

1. I am going to die. _____
2. I am going insane. _____
3. I am losing control. _____
4. This will never end. _____
5. I am really scared. _____
6. I am having a heart attack. _____
7. I am going to pass out. _____
8. I don't know what people will think. _____
9. I won't be able to get out of here. _____
10. I don't understand what is happening
to me. _____
11. People will think I am crazy. _____
12. I will always be this way. _____
13. I am going to throw up. _____
14. I must have a brain tumor. _____
15. I will choke to death. _____
16. I am going to act foolish. _____

Appendix L (continued)

1 = not at all

2 = some, but not much

3 = quite a lot

4 = totally dominated my thoughts

17. I am going blind. _____
18. I will hurt someone. _____
19. I am going to have a stroke. _____
20. I am going to scream. _____
21. I am going to babble or talk funny. _____
22. I will be paralyzed by fear. _____
23. Something is physically wrong with me. _____
24. I will not be able to breathe. _____
25. Something terrible will happen. _____

Appendix M

Adaptation of the Body Sensations Questionnaire

Below is a list of specific body sensations that may occur when you are nervous or in a feared situation. Please mark down how afraid you were of these feelings when performing the breathing exercise using the following scale:

1 = Not frightened or worried by this sensation.

2 = Somewhat frightened by this sensation.

3 = Moderately frightened by this sensation.

4 = Very frightened by this sensation.

5 = Extremely frightened by this sensation.

1. Heart palpitations _____
2. Pressure or a heavy feeling in chest _____
3. Numbness in arms or legs _____
4. Tingling in the fingertips _____
5. Numbness in another part of your body _____
6. Feeling short of breath _____
7. Dizziness _____
8. Blurred or distorted vision _____
9. Nausea _____
10. Having "butterflies" in your stomach _____
11. Feeling a knot in your stomach _____
12. Having a lump in your throat _____
13. Wobbly or rubber legs _____
14. Sweating _____
15. A dry throat _____

Appendix M (continued)

16. Feeling disoriented and confused _____

17. Feeling disconnected from your body: _____

Only partly present

18. Other _____

Please describe _____

Appendix N

Diaphragmatic Breathing Instructions

I would like you to do a breathing relaxation exercise. This is an exercise that really relaxes people. In this exercise, you are going to breathe through your nose and not your mouth. Try to keep your mouth closed. Place your hand over your abdomen. I would now like you to take slow and easy deep breaths. Your abdomen should rise first and your upper chest second. Try and relax while doing the exercise. There's nothing to worry about. I'll do this exercise with you so you can watch me.

Appendix O

Debriefing Statement

The purpose of this study is to investigate whether different types of people with a fear of enclosed spaces exist. This was done by assessing symptoms of anxiety which people with a fear of enclosed spaces may have. Anxiety symptoms were assessed by the administration of an interview, completion of questionnaires and the performance of a rapid breathing task. If you are concerned about your fear of enclosed spaces and would like to receive treatment, possible sources of treatment could be the University Counseling Center (231-6557) and the Psychological Services Center (231-6914). Treatment at the University Counseling Center is free to all Virginia Tech students.

VITA

Gregorio A. R. Febbraro
1300 University City Blvd., Apt. 1413
Blacksburg, VA 24060
(703) 951-4981 (home)
(703) 231-3235 (office)

DATE OF BIRTH October 13, 1966 in Pittsburgh, PA

EDUCATION Master of Science, December, 1993
Clinical Psychology
Virginia Polytechnic Institute and State University

Bachelor of Science, April, 1988
Major: Psychology
Minors: Biology and History
Graduated Summa Cum Laude

Undergraduate Academic Honors
Dean's Honor List every term
Partial University Academic Scholarship for 1987-1988
University Scholar in March, 1987 and March, 1988
Member of Golden Key National Honor Society

EXPERIENCE

Research December, 1993-Present
Continued research in anxiety disorders and examination of relationship between assessment and treatment

August, 1992-Present
Assessor on an NIMH funded research project examining suicidality in 18-24 aged population.

Supervisor: George A. Clum, Ph.D.

May, 1986-May, 1987
Completed an independent study for 9 credit hours under the supervision of Francis C. Harris, Ph.D. at Western Psychiatric Institute and Clinic. These 9 credit hours included performing behavioral observations in a controlled classroom setting, analysis and graphing of observational data, data entry, scoring various self-report instruments, supervision of the Token Economy system on the Adolescent/Young Adult Unit and assisting in the construction of a coding system used to rate mood changes in bulimic women.

Clinical

Graduate Clinician--September, 1993--May, 1994

Veteran Administration Medical Center
Salem, Virginia

Supervisors: Jerry Gilmore, Ph.D.
M.K. Johnson, Ph.D.
Kim Ragsdale, Ph.D.
Stephen Lash, Ph.D.

Duties include inpatient and outpatient counseling, psychological testing, physiological assessment of sex offenders by the use of a plethysmograph and individual supervision

Graduate Clinician--August, 1991--May, 1993

Psychological Services Center
Virginia Polytechnic Institute and State University
3110 Prices Fork Road
Blacksburg, VA 24060
(703) 231-6914

Supervisors: Robert S. Stephens, Ph.D.
1992-1993 Jack W. Finney, Ph.D.

Supervisors: George A. Clum, Ph.D.
1991-1992 Jack W. Finney, Ph.D.

Duties included outpatient counseling and assessment, psychological testing, participation on a practicum team, and weekly individual supervision.

Work

Research Associate-March, 1990-July, 1991

Western Psychiatric Institute and Clinic
3811 O'Hara Street
Pittsburgh, PA 15213

Supervisors: Samuel M. Turner, Ph.D.
Deborah C. Beidel, Ph.D.

Worked on 3 NIMH funded grants entitled Treatment of Social Phobia, Children at Risk for Anxiety Disorders and Reactivity, Cognition and Childhood Anxiety Disorders. Responsibilities included conduction of psychophysiological assessments with adults and children and participation in flooding therapy sessions. Additionally, involved in management of Social Phobia data through the use of university mainframe computer system. Administered the Wechsler Intelligence Scale for Children, Revised and Wide

Range Achievement Test. Also aided in the computer entry of self-report batteries, assessment and treatment data. Conducted library research and assisted in supervision of students and volunteers. Aided in subject recruitment.

Research Associate--August, 1989-March, 1990

Western Psychiatric Institute and Clinic
3811 O'Hara Street
Pittsburgh, PA 15213

Supervisor: Karen Marchione, M.S.

Responsibilities included conducting an average of 12 behavioral interviews per week of parents and children (the interview used was the Diagnostic Interview Schedule for Children, the DISC), referring parents and children to counseling and/or support services, and data entry.

Child Care Worker--December, 1988-August, 1989

The Bradley Center
Saxonburg Blvd.
Pittsburgh, PA 15238

Supervisors: Edward Burke, B.A.
Chris LeFeau

Responsibilities included direct care of children ranging in ages from 6 to 17 and the development and implementation of individual behavioral service plans for each child.

Research Assistant--June, 1988-August, 1988

Western Psychiatric Institute and Clinic
3811 O'Hara Street
Pittsburgh, PA 15213

Supervisors: William E. Pelham, Ph.D.
Karen Greenslade, B.A., M.B.A.

Responsibilities included the administration of various psychological measures, data collection and data entry.

Teaching

Computer Teaching Assistant--August, 1992-April, 1993;
August, 1993--December, 1993

Virginia Polytechnic Institute and State University

Supervisor: Robert Schulman, Ph.D.

Responsibilities include aiding students in the use of SAS on mainframe computer and personal computer systems.

Introductory Psychology Lab Instructor--August, 1991-May, 1992

Virginia Polytechnic Institute and State University

Supervisor: Michael Casey, M.S.

Responsibilities included teaching 2 lab sections during the Fall, 1991 semester and teaching 3 lab sections during the Spring, 1992 semester.

PUBLICATIONS

Clum, G. A. & Febraro, G. A. Stress, Social Support and Problem-solving Skills: Prediction of Suicide Severity Within a College Sample. Submitted for publication.

Febraro, G. A. & Clum, G. A. A Critical Examination of the Phenomenon of Claustrophobia: Do Subtypes Exist? Unpublished manuscript.

PRESENTATIONS

Clum, G.A., Priester, M., Weaver, T., Putnam, D., Picket, C., Gould, R., Yang, B., Weise, K., Curtin, L., Febraro, G., & Wright, J. Group problem-solving and group support treatments for chronic suicide ideation. Paper presented at the annual convention of the Southeastern Psychological Association in Atlanta, Georgia in March, 1993

PROFESSIONAL ORGANIZATION MEMBERSHIPS

American Psychological Association (APA)
Association for Advancement of Behavior Therapy (AABT)

REFERENCES

Available upon request

Gregorio A. R. Febraro