

A TEST OF THE EFFECTS OF
ASSESSMENT AND FEEDBACK ON
INDIVIDUALS WITH PANIC ATTACKS

by

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(Abstract)

Treatment outcome studies investigating potential treatments for panic disorder invariably begin with a lengthy assessment designed to determine whether a potential subject meets criteria for the disorder. Through the process of assessment, subject are usually given some form of feedback about their condition, if only to tell them they meet criteria to enter the study. Assessment and feedback are thought to have therapeutic effects and empirical evidence is beginning to document this (Bien, Miller, & Tonigan, 1993; Finn & Tonsager, 1992). To date, there have been no studies that investigate the effects of assessment plus feedback or assessment alone on individuals with panic attacks. This study investigated whether assessment or assessment plus feedback produced any differential effects on panic attack sufferers.

Seventy participants were randomly assigned to one of four groups: 1) assessment with mailed feedback (n=17); 2) assessment with face-to-face feedback (n=14); 3) assessment with no feedback (n=19); and 4) no assessment or feedback (n=20). Assessment consisted of completing a composite self-report instrument that asks about frequency of panic attacks and panic-related symptomatology. Feedback was standardized and computer generated but individualized based on scores on the assessment measure. All groups completed the outcome measures and between group differences were examined. No statistically significant differences were found between these four groups on any dependent measure. However, for a smaller subset

of participants (N=35) who had at least one full panic attack at pre-assessment, a significant reduction in frequency of combined (full plus limited-symptom) panic attacks was seen pre to post, $F(1,32)=7.47$, $p<.01$, with a marginally significant two-way interaction of Time and Condition, $F(2,32)=3.12$, $p<.06$. Basically, both feedback groups showed a reduction in panic attacks while the assessment only condition remained the same.

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Recent research has demonstrated that psychological assessment and feedback can have a therapeutic effect on clients (Finn & Tonsager, 1992). This runs counter to the long-held belief that assessment information should be kept from clients as it could be potentially damaging (Berg, 1985; Butcher, 1992). Finn and Tonsager (1992) demonstrated that a brief assessment and feedback procedure involving the MMPI-2 produced benefits to clients which persisted over time and enacted change in typically resistant areas such as self-esteem. This is the first such controlled study of its kind that demonstrated a therapeutic effect from accurate personality feedback.

Feedback is becoming more prevalent in testing situations, a fact supported by inclusion of a section on the disclosure of test findings in the Ethical Principles of Psychologists (APA, 1990). However, there are numerous reasons why the feedback process has been ignored and avoided in psychological testing. Typically, assessment has been undertaken with the goal of discovering some particular aspect of the patient who submits to the scrutinization of the expert who then delivers a pronouncement (Berg, 1985). Additionally, “in traditional models of psychological testing ... diagnosis and treatment are regarded as separate processes, with feedback a netherworld in between” (Berg, 1985, p.54). Thus, feedback is seen as a courtesy to the patient, at best, and rarely viewed as the collaborative, and potentially beneficial process that it could be. In fact, it has long been held that disclosing diagnostic conclusions could be harmful to the patient and produce potentially unmanageable anxiety (Berg, 1985). Therefore, when feedback was indicated, it was to be superficial or it was recommended that only positive aspects of findings should be disclosed so that the patient leaves feeling pleased and satisfied (Klopper, Ainsworth, Klopper, & Holt, 1954).

Contrary to this view is the notion that the feedback process can aid in both diagnosis and treatment, that feedback can provide a springboard from which therapy is launched, and that feedback during and at the conclusion of therapy can satisfy patient curiosity, alleviate anxiety, and fulfill ethical requirements (Berg, 1985). Berg

(1985) recommends a number of important considerations in conducting feedback. First, the language of the feedback should match that which the patient is apt to comprehend and that which utilizes the patient's own vocabulary as opposed to clinical language which may serve to alienate the patient. Second, the feedback should move from the familiar to the less familiar. In other words, it is best to provide insights or information that is in accord with patients' views of themselves. This provides a "point of entry" (Berg, 1985, p. 60) whereby the assessor can then provide previously unfamiliar information that will be better received given the initial verification of previously known information.

Finn and Butcher (1991) also believed in the potential benefits to clients of a feedback session. They postulated that clients would experience an increase in self-esteem, hope, motivation to seek help, self-awareness, and understanding following feedback. Likewise, they would experience a reduction in symptomatology and feelings of isolation. Despite these observations, there have been few empirical studies that examine whether feedback does, in fact, result in positive gains for patients.

Personality Testing and Feedback

Finn and Tonsager (1992) demonstrated a therapeutic effect from collaborative feedback and they hypothesized possible explanations for how this process may work. In their study, subjects were college students awaiting counseling at the university counseling center who were randomly assigned to receive feedback or to receive examiner attention. Thirty-two subjects completed the MMPI-2 and received feedback according to a collaborative model of feedback developed by Finn (1990) specifically for the MMPI-2. Twenty-nine subjects received only examiner attention in the place of feedback sessions and did not complete the MMPI-2, but did complete the same outcome measures as the feedback group. They examined subjects at three points in time and looked at self-esteem, symptomatic psychological distress, private and public

self-consciousness, and client's subjective impressions of test feedback (or experience with the therapist for the control condition).

They hypothesized that the feedback group, as compared to the attention-only controls, would report significantly less distress and significant increases in self-esteem. While there was no significant difference between the two groups at the initial interview (Time 1) or following the feedback or attention-only sessions (Time 2), a significant decrease in symptomatic distress was evident at the 2-week follow-up (Time 3). Likewise, there was no difference in self-esteem between the two groups at the initial interview. However, immediately following feedback and at 2-week follow-up, the feedback group reported significantly higher levels of self-esteem as predicted. Finn and Tonsager (1992) also looked at hope as part of their assessment of the client's view of the assessment and feedback process and discovered that subjects in the feedback condition had higher ratings of hopefulness than did non-feedback subjects. They also had predicted that clients high in private self-consciousness would be more likely to benefit from an assessment. Indeed, they found that private self-consciousness was strongly related to a change in symptomatic distress from Time 2 to Time 3.

Finn and Tonsager (1992) note that their findings refute the assertion of traditional assessors that receiving veridical feedback about test results will be frightening or unsettling. However, they also qualify this by noting that their particular method of feedback emphasized the client's participation and collaborative discussion of the results as opposed to a delivery of feedback without the client's opportunity to participate. Perhaps this collaborative approach is one of the reasons that subjects report generally benefiting from the feedback session, despite being told what would be considered "bad" things about themselves such as that they are depressed, angry, thought disordered, or obsessional (Finn & Tonsager, 1992).

Why Feedback Works

While the above study demonstrates therapeutic effects from assessment and feedback, it does not provide a rationale for why feedback works or what components of feedback are responsible for this improvement. Finn and Tonsager (1992) provide several possible explanations from social and self psychology. Swann's theory of self-verification provides one explanation for why feedback, even negative feedback, can be therapeutic (Swann, Stein-Seroussi, & Geisler, 1992). This theory suggests that people seek feedback that verifies or fits with their own conceptions of themselves. This is in sharp contrast to the theory of self-enhancement that suggests that individuals want to be viewed favorably (Jones & Pittman, 1982; Swann, Hixon, Stein-Seroussi, & Gilbert, 1990). Perhaps clinicians of the traditional assessment method subscribed to the notion that individuals were primarily concerned with self-enhancement and that is why they thought negative feedback would be detrimental. However, research in social psychology has demonstrated that oftentimes individuals' desire to self-verify, even if it means accepting negative self-information, outweighs their desire for enhancing or positive feedback (Swann et al., 1990). In fact, Finn and Bunner (1993) document a patient's comment that supports this view: "It is relieving to know that most of the criticism and positive aspects of myself were reflected on the test. It tells me that most of how I view myself is legitimate and not fabrications...I also got some new understandings of myself" (p. 3). This anecdotal evidence suggests a self-verifying aspect at work in that there is an acceptance of feedback specific to both positive and negative aspects of the self and that this verifying information may be desired by the patient.

However, Finn and Tonsager (1992) believe that their feedback procedure works because it combines aspects of self-enhancement and self-verification. Not only does their feedback provide confirmation of clients' self-schemata, a seemingly powerful component of the feedback process, but it also provides self-enhancing feedback of some variety to all clients. This could take the form of some direct praise,

if only to comment on their cooperativeness and truthfulness, or could be positive in the sense of reframing an extant self-concept. They give as an example a client who sees herself as lazy because she had trouble arising in the morning and they “reframed” this by explaining that this was not laziness, but a manifestation of depression. This reframing, then allows for self-enhancement in the context of self-verification. This also provides a conceptual framework for one of the problems Swann et al. (1990) address regarding individuals with negative self-views. Positive feedback to someone with a negative self-view is not verifying and this contradicts the notion that feedback works because it is self-verifying. Using Finn’s (1990) method, a “positive emotional tone” (Finn & Tonsager, 1990; p.285) is created in which self-confirming negative feedback can be given, while the positive aspects serve as an enhancing and potentially therapeutic mechanism for clients.

While Finn and Tonsager (1992) postulate that these two complementary processes most likely contribute to the effects seen in their feedback study, they believe that there is a further effect that is the result of going beyond the verifying information with new yet non-conflictual information. For example, test results could be used to predict the kinds of situations that are likely to cause a client difficulties and then confirmation could be sought from the client. Finn and Tonsager (1992) further concede that this can help lead to predictions concerning the direction behavior needs to take to produce a decrease in the identified problem and more importantly, that the “‘naming’ and ‘explaining’ of clients’ experiences is one of the major therapeutic elements in giving test feedback, in that it helps to organize a personal identity” (p.285). Therefore, the feedback is not only informative, but serves a prescriptive purpose. Mosak and Gushurst (1972) also support this idea that, especially when a client agrees with the findings presented in feedback, the client will have a “very concrete place to begin--some problems on which to focus his attention and energy” (p.542) for therapy.

While Finn and Tonsager (1992) suggest that it is self-verification that accounts for the therapeutic effect of feedback, the possibility that it is simply the receiving of diagnostic information about the self that is responsible (Schroeder, Hawn, Finn & Swann, 1993), or some combination of both has also been suggested. In the Schroeder et al. (1993) study, subjects were given veridical (consistent with actual traits) personality feedback that was either verifying (feedback congruent with self view), non-verifying yet diagnostic (feedback that was highly discrepant from the self view) or somewhat verifying and somewhat diagnostic (feedback that was mildly discrepant from self-view). Subjects completed a short version of a personality questionnaire which yielded scores on five personality traits and rated themselves relative to other students on five characteristics closely related to the above five traits resulting in a self discrepancy score. Feedback was categorized as congruent, highly discrepant or mildly discrepant for each of five traits based on a priori demarcations in the distribution of discrepancy scores. Subjects were given extensive feedback on two randomly selected traits then completed measures of mood, reactions to feedback, and self-esteem immediately following feedback and at two week follow-up. Results indicated that mildly discrepant feedback was more impactful than congruent or highly discrepant feedback. Additionally, those receiving mildly discrepant feedback felt they learned more about themselves, found the feedback more self-confirming, found the session more impactful, and had more positive affect. Thus the authors conclude that feedback which combines both aspects, verifying and new diagnostic information, is more effective than feedback which is exclusively one or the other. Also lending evidence to the notion that self-verification is in effect is the finding that subjects were unreceptive to feedback that boldly challenged their self views.

This suggests that the best feedback provides some support for a client's sense of self, but also gives the client new diagnostic insights. In fact, Berg (1985) recommends this very approach commenting that "if the examiner presents inferences too far removed from the patient's customary view of himself, the patient generally

will greet them with anxious and angry disbelief or polite forbearance” (p.60). He, therefore, recommends avoiding that particular impasse by first broaching issues that are part of patients’ experience of themselves (self-verification) which will provide a launching point to then provide previously unavailable insights.

Whereas, the above have to do with how feedback impacts the self, another possible explanation for the efficacy of feedback could be from the clients’ discovery of the universality of their problems (Yalom, 1995). That is, through the feedback process, clients realizes that not only does the therapist understand their problem, but that understanding is facilitated by the fact that their problem is not unique and they are not alone in suffering its symptoms.

Feedback as Brief Intervention

While there are no other studies that directly examine assessment and subsequent feedback as, in essence, a treatment, there is evidence from the drinking literature that suggests feedback can have a therapeutic effect. One particular type of assessment and feedback is the Drinker’s Check-Up (Miller & Sovereign, 1989) which involves a 2-hour assessment and a subsequent feedback session. The assessment is a battery of measures sensitive to alcohol’s early effects on health and behavior. The feedback session is designed to give objective information about findings without being confrontational and is conducted in a ‘motivational interviewing’ (Miller, Sovereign, & Krege, 1988) style with an emphasis on the client’s concerns and reactions. Using this checkup, Miller et al. (1988) documented a significant reduction in drinking among 28 problem drinkers as compared to 14 problem drinkers waiting for assessment. These drinking reductions maintained throughout 18 months of follow-up. Further replication (Miller, Benefield & Tonigan, 1993) with the Drinker’s Check-up yielded similar results.

Other brief interventions discussed in the drinking literature also demonstrate more effect than no intervention, an impact similar to more extensive intervention, and enhancement of subsequent treatment (Bien et al., 1993). What is common to these

brief interventions is that rather than providing skill training as might be seen in a standard cognitive-behavioral treatment, they have focused on raising problem awareness and advising change. They accomplish this through a number of common elements one of which is described as feedback (Miller & Sovereign, 1989). This feedback typically consists of implicit or explicit feedback of the results of the systematic assessment of drinking and problem status. However, the remaining elements of the brief intervention described by Miller and Sovereign (1989) could also be considered components of feedback. These elements - personal responsibility, advice, alternatives, empathy and the promotion of client self-efficacy - could easily be considered feedback, as they also derive from information gleaned from the assessment and suggest a direction for future efforts.

Not only has the Drinker's Check-up proven successful on its own as a therapeutic intervention, but this feedback session has also been found to enhance participation in subsequent therapy. In one study looking at the Drinker's Check-up being administered prior to outpatient treatment, it substantially improved outcome (Bien, Miller, & Boroughs, in press). Likewise, it enhanced participation for inpatient treatment as well (Brown & Miller, in press). Thus assessment and feedback can be seen as therapeutic treatments on their own with beneficial outcomes, as well as a precursor and enhancer for subsequent treatment.

Assessment Reactivity

In all treatment outcome studies that begin with an assessment, the issue of whether the assessment alters the phenomenon being measured, or assessment reactivity, needs to be addressed. This becomes an even more complicated issue when the actual assessment and subsequent feedback are actually considered the treatment. Having the assessment and feedback alter the phenomenon being measured has even graver implications when assessment following feedback is of a similar nature to the original assessment. Bray, Maxwell, and Howard (1984) have documented that the internal standards of subjects change from pretest to posttest especially when the

treatment alters subjects' understanding of the variable being measured (Robinson & Doueck, 1994). This makes the interpretation of the two sets of scores more difficult and effects can, in fact, be suppressed due to this response shift bias. Bien et al. (1993) point out the usefulness of unevaluated controls in a Solomon four-group design to address this reactivity.

Unfortunately, Finn and Tonsager (1992) did not attempt to tease out the effects of feedback from assessment alone. In fact, their control group did not complete the very assessment instrument upon which the experimental group received feedback. Perhaps, taking the MMPI-2 alone would have resulted in increases in self-esteem and a decrease in symptoms without feedback. To better answer the question of whether the assessment and feedback or the assessment alone was responsible for this finding, an additional control group would have been useful.

Summary

To summarize, feedback of personality assessment and drinking behavior has impacted subjects in beneficial ways. Those who took the MMPI-2 and received collaborative feedback were higher in self-esteem, had less symptomatology and were more hopeful as compared to unassessed controls (Finn & Tonsager, 1992). Likewise, subjects given a brief intervention that involved feedback specific to their assessment drank less (Bien et al., 1993). While assessment most always occurs in anxiety treatment-outcome research, there are no studies to date that attempt to examine the impact of assessment alone, or assessment and feedback, on subjects with panic attacks.

Research on panic attacks has demonstrated that psychological treatments, particularly cognitive behavioral treatments, are successful in ameliorating panic symptoms (Barlow & Cerny, 1988; Barlow, Craske, Cerny, & Klosko, 1989; Borden, Clum & Salmon, 1991; Craske & Barlow, 1986; Ost, 1988;) and that few differences exist between treatments. Recent evidence has even shown that limited therapist intervention (Côté, Gauthier, Laberge, Cormier & Plamondon, 1994) and a self-help

treatment with limited therapist contact (Gould & Clum, 1995; Gould, Clum & Shapiro, 1993; Lidren, Watkins, Gould, Clum, Asterino, & Tulloch, 1994) are also effective and demonstrate effects equal to those of lengthier, more therapist involved treatments. One thing these studies have in common is an initial assessment session that involves therapist contact and some degree of feedback, if only to inform the subject of inclusion in the study. Extrapolating from the few studies that examined assessment and subsequent feedback, it is possible that assessment and feedback may be responsible for some of the observed treatment gains. For this reason the present study attempts to isolate assessment and feedback in a controlled way with a sample panic attacks.

Several investigators (Berg, 1985; Bien et al., 1993; Finn & Tonsager, 1992) indicate the importance of therapist empathy in the feedback process. However, because this study was undertaken in the context of a larger project that examined self-help treatment for panic attacks in as pure a state as possible, this first phase of the project also investigated the effects of assessment and feedback within a self-help framework, and was, therefore, conducted through the U.S. mail. In this way, the effects of a standard assessment and feedback package without direct therapist contact (except in the face-to-face feedback condition) was explored. This also helped control for therapist variables which have also been implicated in the amount of observable change in drinkers receiving the Drinker's Check-Up (Miller & Sovereign, 1989).

In treatment studies on panic disorder, improvements are typically seen in frequency of panic attacks, as well as in general anxiety, panic-related cognitions, depression, and phobic avoidance (Margraf, Barlow, Clark, & Telch, 1993). While the present study attempted to investigate the potential therapeutic effects of assessment and feedback, it was not anticipated that a curative effect (the elimination of panic attacks) would be seen using such a limited intervention. Rather, it was postulated that the therapeutic effects seen would be in elements that may be essential for the above mentioned changes to occur. Namely, it was hypothesized that use of coping

strategies, efficacy for use of coping, stage of change, outcome expectancies, efficacy for understanding the problem, and self-esteem were variables likely to demonstrate improvement since they may be precursors to treatment gains seen in psychological treatments for panic.

Coping strategies utilized is one dimension of the assessment and feedback that was thought to be most helpful to subjects. As has been pointed out (Mosak & Gushurst, 1972), feedback may have its effect by pointing to areas for change. Assessing subjects coping strategies not only allows them to consider the strategies they presently employ, it also exposes them to alternative strategies they may not have considered previously. Due to the importance of coping strategy usage in the amelioration of panic attacks (Clum & Borden, 1989), assessment and feedback that specifies different types of strategies and subjects' current usage of those strategies may, in effect, point to a treatment direction that encourages increased use of extant and novel coping strategies.

With regards to panic attacks, self-efficacy has also been demonstrated to be instrumental in predicting improvements for anxiety treatments (Borden et al., 1991; Williams, Kinney, & Falbo, 1989). Self efficacy refers to Bandura's (1977) notion of perceived control. Research with phobias have indicated that perceptions of self-efficacy and changes in phobic behavior produce a consistently strong relationship (Bandura, 1988). Additionally, changes in self-efficacy have been shown to produce improvements in panic severity (Borden et al., 1991; Côté et al., 1994; Gould et al., 1993). While this evidence indicates that self-efficacy is involved in observed improvements, it is not clear when improvements in self-efficacy emerge.

In Williams et al. (1989), subjects were agoraphobics who were treated for some of their phobias while other phobias remained untreated. They found that perceived self-efficacy was the most accurate predictor of therapeutic behavior change for both treated and untreated phobias. Additionally, they found that self-efficacy accurately predicted outcome while holding perceived danger, anticipated anxiety, or anticipated

panic constant. For the present study, then, it was thought possible that self-efficacy for coping would improve for those groups receiving feedback due to the effect of providing the subjects with specific feedback concerning their present ability to cope with their panic attacks.

Related to self-efficacy is the concept of outcome expectancy. Whereas an efficacy expectancy usually refers to the belief or confidence one has in one's ability to successfully perform a specific behavior, outcome expectancy has to do with the belief one has about the consequences following successful performance of those specific behaviors (Solomon & Annis, 1989). The distinction between these two expectancies has important implications for therapy because there is a difference between clients not believing themselves capable of performing a certain behavior and the belief that that behavior will have some desired outcome. For example, individuals with panic attacks may learn and, subsequently, feel confident that they can use a distraction strategy to cope with panic attacks. However, that does not necessarily mean they believe the use of that strategy will lead to the desirable outcome of feeling more in control or being panic free. While feedback provided to participants in this study does not specify likely outcomes, it is possible that the process of receiving feedback about present abilities and limitations may influence participants' expected outcomes.

While never directly applied to panic attacks, the literature on addictions, including alcohol or smoking, indicates that individuals trying to change problem behaviors go through what has been termed stages of change (Prochaska & DiClemente, 1982). These are viewed as distinct stages an individual goes through in the process of changing behavior. Although originally utilized in addictions research, evidence shows that patients seeking therapy for other disorders also go through the stages of precontemplation, contemplation, action and maintenance (McConaughy, DiClemente, Prochaska, & Velicer, 1989). Perhaps, assessment and feedback have an effect on the stage of change an individual is in and thereby exert their influence.

Prochaska and DiClemente (1982) have documented the strong effects from a feedback session and have provided empirical evidence that those who go through the assessment and feedback session exhibit less drinking behavior. Therefore, it is entirely plausible that the feedback session itself helps move the individual to a new stage of change. Likewise, it was thought that a feedback session concerning pertinent aspects related to panic attacks that additionally point to areas in need of improvement for change to occur could also impact subjects by moving them to a more action-oriented stage of change.

Finn and Tonsager (1992) demonstrated an increase in self-esteem among clients receiving a feedback session following the administration of the MMPI-2. Compared to subjects who did not receive feedback, these subjects reported self-esteem scores commensurate with non-client college students by the 2-week follow-up. This finding raises the question of how the feedback session is able to accomplish its therapeutic effect. While it is not entirely clear, it suggests the possibility that learning self-relevant, self-verifying information by a supportive person can create such an effect. Therefore, it was thought possible that such changes in self-esteem would also be seen among subjects receiving feedback concerning their panic symptoms and perhaps, even more so, for those receiving feedback in the face-to-face format.

Hypotheses

Given the short period of time (approximately 4 weeks) that elapsed between initial assessment, feedback, and subsequent assessment, it was proposed that there would not be any significant reduction in number of panic attacks for any group. Additionally, it was not predicted that there would be any change in symptoms or cognitions, anticipatory fear, or avoidance. However, it was predicted that the groups receiving feedback from their assessment would demonstrate improvement relative to the non-feedback groups on measures of coping strategies used, efficacy for use of coping, stages of change, outcome expectancies, efficacy for understanding the problem, and self-esteem.

Method

Participants

Participant Recruitment

Participants were recruited from the community at large through a combination of paid advertising (Appendix A), news stories (Appendix B), radio PSAs, and TV news coverage. Advertisements and news stories instructed interested persons to call or write our research office for further details. Participants were given information about the entire project and briefly screened on the telephone by one of the project staff (Appendix C). A toll-free number was established to further facilitate this process as most of our participants would otherwise be required to make a long-distance phone call. Over nine months of recruiting, we received 380 calls or letters requesting further information. Of those 380, 233 (61%) requested the first packet that included consent forms and an assessment (except for No Assessment/No Feedback group). Of those, 101 elected to send in their consent forms initiating participation in Phase 1. Of those 101, 70 participants met criteria for inclusion in the self-help project.

Participant Criteria

Participants had to be at least 18 years of age and suffering from panic attacks. However, they were not required to be suffering from panic disorder. Participants were excluded if they reported having been diagnosed by a physician with any of the following: seizure disorder, kidney disease, stroke, schizophrenia, organic brain syndrome, emphysema, or myocardial infarction. Participants with chronic hypertension had to indicate that they were under a physician's care before they were considered eligible. Participants were further excluded if they had drug dependence or any type of psychotic disorder. Presence of any of these exclusionary criteria was assessed by a short questionnaire included within the informed consent form which instructed participants not to complete study materials if they had any of these conditions. Participants who were currently taking medication for anxiety or

depression were allowed to participate if they had been stabilized on the medication for at least four weeks and continued to have panic attacks. Participants who were in currently in therapy for their panic attacks, or for any another reason, were excluded. Finally, participants who did not indicate at least one limited-symptom or full panic attack on the first assessment measure they completed were excluded.

Thirty-one participants were excluded from the final data analysis as follows. Six participants either were in therapy from the beginning of Phase 1 or began therapy during Phase 1. One subject's medications changed during Phase 1. Two participants already owned the book used in Phase 2 and were, therefore, deemed ineligible. Seven participants dropped out. Two of those realized upon receiving study materials that they were not really appropriate candidates as they were not panicking regularly. Five failed to complete post-assessment measures for various reasons including illness and a loss of desire to participate. Seven participants did not have either a full or limited-symptom panic attack as evidenced on the first assessment measure they completed. Seven participants had recently entered the study and had not yet been sent or had not yet returned their post-assessment at the time of data analysis. One participant was randomly assigned to face-to-face feedback but lived too far from any project staff. She was given mailed feedback instead, but was not included in the data analyses.

Original study criteria indicated that participants needed to have at least one full panic attack at the time of their first assessment completion. However, this criteria was expanded to include participants having at least one full or one limited-symptom panic attack. Since the group that experienced at least one full panic attack was presumed to be more severe, this subgroup was also analyzed in this study. For this subset analysis, two participants were found to be more than four standard deviations above the mean on number of panic attacks experienced. As a result, these participants were treated as extreme outliers and were removed from further analysis resulting in a subsample of 50 participants.

Participant Characteristics

Participants were mostly married (75%), mostly Caucasian (99%), almost three quarters female (73%) and largely taking medications (57%) (see Table 1).

Additionally, the average age of the sample was 44.7 years but ranged from 20 to 70 years of age. They were a fairly well-educated sample with a mean of 13.7 years of education. They also had had, on average, 78 continuous months (6.5 years) of panic although this ranged from 1 month to 625 months (52 years) (see Table 2).

Assessment Measures

The Comprehensive Panic Profile (CPP; Appendix D) is a composite measure created to evaluate seven aspects related to symptoms and outcome for panic. The CPP, a self-report measure, is the assessment instrument upon which feedback was generated. The CPP was also given at post-assessment and several measures from it were used as dependent measures. The CPP is composed of seven distinct measures described separately below:

1. Frequency of Panic Attacks: Frequency of panic attacks assessed retrospectively is a standard dependent measure in treatment outcome studies (Barlow et al., 1989; Gould et al., 1993). This questionnaire asks participants to quantify the number of full and limited-symptom panic attacks occurring in the past two weeks. It specifies the criteria for a full blown attack stating that “you must have experienced a sudden unexpected increase in anxiety with at least four of the following symptoms occurring at the same time” and lists the thirteen symptoms. Participants are then asked to quantify the number of these attacks in the past week. It also asks participants to quantify the number of limited symptoms attacks which are defined as above with only a requisite one to three symptoms present.
2. Panic Attack Symptoms Questionnaire (PASQ): This 36-item questionnaire assesses the severity of symptoms during a typical recent panic attack. Participants are asked to rate each of 36 symptoms on a 0 to 4 scale where 0 indicates this symptom is not experienced during a typical attack, 1 indicates that this symptom is experienced

fleetingly (1 to 60 seconds), 2 indicates that it is experienced briefly (1 to 10 minutes), 3 indicates moderate duration (10 to 60 minutes) and 4 indicates that it is experienced persistently (1 to 24 hours). A total score is obtained by summing the 36 item scores. Research has demonstrated that duration of panic symptoms is a valid measure of severity (Clum, Broyles, Borden & Watkins, 1990). The PASQ has good internal consistency as calculated by the Cronbach alpha (.88) and is shown to differentiate between anxiety disordered individuals with and without panic attacks (Clum et al., 1990). Additionally, discriminant function analyses have demonstrated that the PASQ contributes uniquely to the differentiation of anxious participants who panic from anxious participants who do not panic (Clum et al., 1990).

3. Panic Attack Cognition Questionnaire (PACQ). The PACQ assesses the degree of preoccupation with 25 typical cognitions that occur during a panic attack. Participants are asked to rate each thought on a 4-point scale indicating their level of preoccupation with that thought from 0 = not at all to 3 = totally dominates my thoughts. A total PACQ score is the sum of the 25 item scores. This scale was composed from items generated from the DSM-III-R description of panic attacks, from ideation reported in the anxiety literature, and from interviews with participants. The PACQ has good internal consistency as calculated by the Cronbach alpha (.88). It has also been shown to be a valid measure with discriminant function analyses indicating the PACQ's unique contribution in differentiating individuals with and without panic attacks (Clum et al., 1990).

4. Fear of Having a Panic Attack (FHPA). The FHPA asks participants to rate the level of anticipatory fear associated with 15 commonly experienced symptoms or thoughts such as "having my heart race", "thinking I'm about to lose control", or "having difficulty breathing". Participants are instructed to rate how much they are afraid of each item when they are not currently experiencing a panic attack. This scale was adapted from the Anxiety Sensitivity Index (ASI, Reiss, Peterson, Gursky & McNally, 1986), however both the item wording, scale, and instructions have been

modified to better reflect the concept of fear of fear (Chambless, Caputo, Gallagher, & Bright, 1984). This scale is based on the construct of anxiety sensitivity which suggests that anxious individuals are particularly sensitive to anxiety or fear because of beliefs they have that this anxiety causes illness, embarrassment or additional anxiety (Reiss, Peterson, Gursky & McNally, 1986). The ASI was found to have adequate test/retest reliability (Pearson product-moment correlations of .75 for a sample of 127 college participants). Additionally, 13 of the 16 items of the ASI loaded on one factor indicating that the items are interrelated and that the ASI reliably measures a coherent factor. Reliability estimates for the FHPA were obtained during this study since the measure was modified from an existing measure. The FHPA was found to have good internal consistency as measured by the Cronbach alpha (.85).

5. Avoidance Questionnaire (AQ). This is a 22-item inventory designed to determine the level of avoidance of 22 places and situations such as “elevators”, “eating in restaurant” and “being at home alone”. It has a five point scale ranging from 0 (never avoid or escape) to 4 (always avoid or escape) and asks respondents to describe the degree to which they avoid or escape the situation. This inventory is adapted from the Mobility Inventory for Agoraphobia (MI, Chambless, Caputo, Jasin, Gracely, & Williams, 1985) which is a 27-item inventory that assesses avoidance of certain places and situations when participants are alone or accompanied by another person. The MI has been found to be stable, internally consistent, sensitive to change with treatment, and possesses concurrent and construct validity (Chambless et al., 1985). The AQ has been adapted to better reflect the situations and places people with panic attacks report avoiding the most. Nine items from the MI have been dropped and 5 items added in addition to rewording some of the existing items to better reflect the current word usage (e.g., department stores has been changed to shopping malls). Specific reliability estimates for the adapted scale were also obtained for this scale and high internal consistency was found (Cronbach alpha = .94).

6. Coping Strategies Questionnaire (CSQ). The CSQ is a 27-item inventory that measures the frequency of use of coping strategies such as “relaxing your muscles”, “getting some fresh air”, and “thinking or relaxing images” on a 5 point scale from 0 = do not use to 4 = always use. A total score is comprised of the addition of the 27 item scores. The CSQ has been adapted from the Coping Questionnaire (CQ, Borden, Clum, Broyles, & Watkins, 1988) which included both positive and negative coping strategies. The CSQ, as part of the CPP which serves as the assessment procedure, is intended to help participants gain a better understanding of possible coping strategies that they themselves might employ. As such, the negative coping strategies (e.g. inflict pain/injure myself, drink alcohol/take street drugs) of the CQ were dropped so that participants would not learn of potentially effective, yet detrimental coping strategies for their panic attacks. The CQ has been shown to have adequate internal consistency with a Cronbach alpha of .77 and a Spearman-Brown of .78.

Additionally, previous validation has demonstrated that the CQ reliably differentiates panic and anxious, but nonpanic participants (Borden et al., 1988). Again reliability estimates for the adapted scale were obtained and the CSQ was found to have high internal consistency (Cronbach alpha = .90).

7. Panic Self-Efficacy Questionnaire (PSEQ). The PSEQ (Clum, 1990) is a 10-item questionnaire adapted from the original PSEQ that asks for the degree of confidence in the personal ability to cope on a 9-point Likert-like scale where 1 = not at all confident, 5 = moderately confident, and 9 = totally confident. This scale has been shown to be sensitive to changes in panic-disordered participants that take place during treatment (Borden et al., 1991) with differences being evident between treated participants and wait-list controls at midtreatment for a four week treatment period. Internal consistency on this scale was also found to be adequate (Cronbach alpha = .87).

Feedback

Feedback (Appendix E) was given to participants based on their responses to several scales of the CPP. Specifically, they were given feedback on their panic symptoms (PASQ), panic cognitions (PACQ), coping strategies (CSQ), anticipatory fear (FHPA), avoidance (AQ), and their confidence in coping (PSEQ). For each scale of the CPP, an introductory paragraph introduced the type of feedback that was to follow including how that feedback might be utilized by the subject. Feedback statements were automatically generated by software that scored the CPP data and indicated each subject's relative standing on a number of factors within each scale. The feedback statements for each scale were strung together in paragraph form so as to make it appear more individualized and not as though it was mechanically generated.

For panic symptoms, participants were provided a list of panic symptoms with the explanation that symptoms can change but that the following will reflect the symptoms that characterize "your attacks". Participants received statements concerning their symptoms on each of seven factors based on the factor structure of the PASQ (Clum, Broyles, Borden, Watkins, Caddel, & Gould, 1991). These factors have been labeled stomach distress, parasthesias, respiratory distress, general weakness/cardiovascular distress, disorientation and confusion, chest distress, and fainting distress. For each factor, a statement was generated based on how the subject's score compared to normative data collected on people with panic attacks. For each factor there were five possible levels: low, below-average, average, above-average, and high. For example, if a subject scored in what is considered the average range for stomach distress the following statement was generated: "Your symptoms of stomach distress such as butterflies in your stomach and nausea are present at levels typical of most people with panic attacks". Likewise, for disorientation and confusion, a subject with a high score on this factor would read: "Your symptoms of disorientation and confusion, such as feeling you or those around you are unreal or

having trouble thinking, tend to last much longer than in other people with panic attacks”.

Participants likewise received feedback on their panic cognitions based on their scores on the PACQ. There are six factors based on the factor structure of the PACQ (Clum et al., 1991) used for generating feedback statements. These factors are fear of insanity, fear of social embarrassment, fear of losing consciousness, fear of losing control, fear of suffocation, and fear of physical disorder. Feedback statements were generated in the same manner as for the PASQ. For example, participants with low scores on the fear of social embarrassment factor would have the following statement on their report: “Compared to other people with panic attacks, thoughts during panic attacks that you will act foolish or that other people will think negatively about you are low”. Likewise, an above-average score on fear of losing control would yield: “Compared to other people with panic attacks, your thoughts during panic attacks that you will lose control or that something terrible will happen is above average”.

Feedback statements for coping strategies were preceded by a paragraph describing the usefulness of employing a variety and number of coping strategies. Four factors delineate the CSQ (Borden et al., 1988) including relaxation strategies, challenging panic-producing thoughts, distraction with activities, and seeking social support. Examples of coping feedback statements are: “You tend to use relaxation strategies such as muscle relaxation, imagery, and controlled breathing somewhat less frequently than other panic sufferers as a way of preparing for and reducing anxiety attacks” for the relaxation strategies and “You tend to seek social support, such as telling others of your problem, talking to friends or seeking professional help much more frequently than other panic sufferers as a way of gaining mastery over your anxiety attacks” for the seeking social support factor. Additionally one statement was generated to indicate comparative levels of confidence in coping as measured by the PSEQ, avoidance as measured by the AQ, and fear of having an attack as measured by the FHPA.

Face-to-Face Feedback was administered according to a standard protocol by three individuals (Appendix F). In each case, the feedback report was read verbatim with few exceptions. In order to make the reading seem more conversational, feedback readers were permitted to add insignificant words. For example, if a participant's report indicated subscale elevations that were "typical of most people with panic attacks" on several subscales in a row, the reader might add the word "again" to make the reading flow better. Other than insertions such as the one described above, readers did not deviate in their delivery of the report. The issue of consistency across face-to-face feedback reporting sessions had more to do with extra conversation that may have taken place before or after the reading of the report. Despite the standard protocol employed in each session, participants' direct questions could not be completely prevented. However, responses were supposed to be brief, if at all.

To ensure that feedback sessions that were conducted face-to-face were equivalent in content to feedback reports sent through the mail, all feedback sessions were audiotaped and coders rated tapes on a number of criteria (Appendix G). Of the 14 face-to-face feedback sessions conducted, three of the sessions were taped, but due to poor sound quality, were not coded. One other session was accidentally taped over and one session was cut off before all interaction between feedback reader and participant had ceased. The remaining nine sessions were coded by two individuals who were naive to the study's design. They rated each tape on 18 items by either agreeing or disagreeing that the item occurred. Of particular concern was whether any therapeutic comments were made or instructions given. Two independent coders achieved a reliability of 98% on 9 participant feedback sessions. All feedback sessions were found to have been conducted in an equivalent manner to mailed feedback with no additional therapeutic elements being present.

Dependent Measures

1. Coping Strategies Questionnaire (CSQ, Borden et al., 1988): The CSQ from the CPP described above was also used as a dependent measure.
2. Panic Self-Efficacy Questionnaire (PSEQ, Clum, 1990) The PSEQ described above as part of the CPP was used as a dependent measure of self-efficacy for coping.
3. Stage of Change Questionnaire (SCQ): The SCQ (Appendix H) is an adaptation of an existing measure of stages of change, the URICA Change Assessment Scale (McConaughy, Prochaska, & Velicer, 1983) which has been shown to be a reliable method of measuring stages of change in psychotherapy. The SCQ is a 32-item measure with four scales of 8 items each that correspond to the four theoretical stages of change (Precontemplation, Contemplation, Action, and Maintenance). Items are rated using a 5-point Likert scale where 1 = strong disagreement and 5 = strong agreement. Two samples of participants have been used for reliability and validity with the original measure, the URICA, demonstrating similar results. The original sample consisted of clients (N=155) from a mental health center said to serve higher functioning clients as compared to the second sample which consisted of lower functioning clients (N=327) from a state psychiatric facility. Internal consistency for the four scales yielded coefficient alphas as follows with the initial sample alphas followed by the replication sample alphas: Precontemplation, .88, .79; Contemplation, .88, .84; Action, .89, .84; and Maintenance, .88, .82. Thus, for the psychiatric sample from a state facility, the reliability coefficients were slightly lower, but comparable to the initial sample. Principle component analyses in both samples demonstrated a clear 4-component solution corresponding to the four stages of change.

The SCQ was slightly modified from the URICA to reflect the specific problem of panic attacks. The original questionnaire instructs respondents to write in a problem that is the focus of treatment. For the SCQ all questions are worded to indicate that the problem in question is the panic attacks. So, for example, the original “I am doing something about the problems that had been bothering me” is changed on the SCQ to

“I am doing something about my panic attack problem that had been bothering me”.

Overall reliability estimates for this revised questionnaire showed moderate internal consistency (Cronbach alpha = .74). For the revised questionnaire, alphas for each scale were slightly lower than the original and replication samples above. They are as follows: precontemplation, .71, contemplation, .81, action, .84, and maintenance, .78.

4. Self-Efficacy This 5-item scale was devised specifically for this study as an additional measure of self-efficacy (Appendix I). It is similar in style and format to the PSEQ but whereas the PSEQ asks about self-efficacy for coping, the Self-Efficacy questionnaire asks about self-efficacy for respondents capacity to understand and identify symptoms, cognitions, anticipatory fear, avoidance, and coping. For example, participants are asked how confident they are that they will “understand what my problem consists of” and “identify strategies to use to help cope with panic.”

Reliability estimates obtained through this study demonstrated a Cronbach alpha of .85 indicating decent internal consistency.

5. Panic Attack Outcome Expectancy (PAOE): The PAOE (Appendix J) is a 15 item scale developed specifically for this study. While there are scales (Solomon & Annis, 1989) that assess outcome expectancy in the drinking literature, they are not readily adaptable to panic attack sufferers because they are specific to the outcomes, both negative and positive, drinkers have about the consequences of drinking cessation. Whereas, there are few, if any, identified negative consequences from the reduction or elimination of panic attacks, negative outcomes identified for drinkers include the expectation of feeling lonely, being bored, being expected to drink, or being left out. Since there were no existing measures specifically designed for anxiety or panic attack treatment for outcome expectancy, the PAOE was developed. Items are rated using a 5-point Likert scale where 1 = strong disagreement and 5 = strong agreement. Sample items include “I expect that I will be able to enter previously avoided situations” and “I expect to feel more in control”. The PAOE was found to have good internal consistency as measured by the Cronbach alpha (.94).

6. Self-Esteem Questionnaire. The Rosenberg Self-Esteem Scale (Rosenberg, 1979) (Appendix K) was used to assess participants' self-esteem. This 10-item questionnaire asks participants whether they strongly agree, agree, disagree, or strongly disagree with a number of statements about themselves. For example, "On the whole, I am satisfied with myself" and "I wish I could have more respect for myself". Five of the items are worded in the negative direction and are thus reverse-scored to yield a total possible score of 40. Reliability estimates using this scoring system were obtained from this study (Cronbach alpha = .91).

Assessment of Feedback

An additional measure was given to all participants following feedback to assess their reactions to the assessment and feedback process. This measure was given to all participants following feedback to assess subject satisfaction with the assessment and feedback given in this study. This 12-item questionnaire (Appendix L) was devised specifically for our study to assess whether participants found the assessment and feedback process to be helpful. Questions were devised to tap some of the hypothesized reasons for the efficacy of feedback such as universality, self-verification, pointing to a treatment direction, and increased hope. Participants were asked to respond to various statements based on whether they strongly disagreed, disagreed, were undecided, agreed, or strongly agreed. Three of the items were worded in the negative direction and were, therefore, reverse scored. A total AOF score is computed by summing the 12 items. Reliability estimates using this scoring system were obtained from this study (Cronbach alpha = .43) suggesting that this instrument is not reliably measuring a unitary construct.

Procedure

Callers who indicated interest in participation and met the inclusion criteria were randomized into one of four groups: 1) assessment with mailed feedback (A/MF); 2) assessment with face-to-face feedback (A/FF) 3) assessment with no feedback (A/NF) and; 4) no assessment and no feedback (NA/NF).

1. Assessment with mailed feedback (A/MF). Participants in this group were sent a packet that included an informed consent form (Appendix M), a CPP, and a self-addressed stamped envelope (SASE). They were asked to complete all forms and return them as soon as possible. Instructions indicated that feedback would be mailed to them three days following the receipt of their informed consent and CPP. The computerized feedback was sent accordingly with further indication that they would be sent another CPP, the outcome measures, and a SASE approximately two weeks following their receipt of feedback. Participants who did not return the forms after approximately one week were phoned and asked if they received the forms and if they were still interested in participating. Participants needing additional forms were sent them and participants were encouraged to return forms immediately.
2. Assessment with face-to-face feedback (A/FF). Participants in this group followed an identical procedure to the one for mailed feedback with the following exceptions:
 - 1) following receipt of the first CPP, participants were telephoned and scheduled for a feedback session;
 - 2) feedback was given by one of the project staff by directly reading the subject's feedback report with as little additional information or dialogue as possible; and
 - 3) participants were told in person that they would receive the next packet of questionnaires in approximately two weeks. Participants in this group were then treated as above.
3. Assessment with no feedback (A/NF). Participants in this group were sent a packet that included an informed consent form, a CPP, and a SASE. They were asked to complete both forms and return them as soon as possible. They were informed that they would be sent another packet of questionnaires containing a CPP, outcome measures, and SASE approximately 3 weeks after their first forms were received. Accordingly, approximately 3 weeks after the receipt of their first CPP, participants in this group were sent the second packet.
4. No assessment and no feedback (NA/NF). Participants in this group were sent an information sheet, an informed consent form, and a SASE. They were informed that

they would be sent some questionnaires in approximately three weeks, but to return the informed consent at this time. Accordingly, approximately three weeks following the receipt of their informed consent, participants in this group were sent the outcome measures and a SASE.

All participants in the non-feedback groups were sent feedback upon completion of the study. All participants were then eligible for participation in a bibliotherapy treatment study and subsequent follow-up for relapse prevention. As part of the entire assessment and treatment package being offered, participants were asked to pay a nominal fee, \$35, for the materials at the outset of the study. Participants who withdrew from the study were refunded their money for the materials they did not receive. Additionally, seven participants who demonstrated a compelling need (i.e., fixed income, or on disability) had their fee waived or were able to pay on a payment plan over the course of several weeks.

Results

The proposed inclusion criteria for this study required participants to have at least one full panic attack in the two week period prior to first assessment. Rather than eliminate a number of individuals with significant panic problems who did not meet this criteria, the criteria were expanded to include individuals who indicated at least one limited-symptom attack in the two-week period prior to their first assessment. For each analysis conducted, results will be reported for individuals with at least one full or one limited-symptom panic attack and for those who have at least one full panic attack. The entire group of participants consisted of 70 individuals and the subgroup of full panickers consisted of 50 participants. All analyses were performed using SPSS for Windows, Release 6.1.

Participants with at Least One Full or One Limited-Symptom Panic Attack

Equivalency of Conditions

Univariate analyses of variance (ANOVAs) and chi-square analyses revealed that participants in the four conditions did not differ on sex, age, continuous months of

panic, or level of education (see Table 3). Analyses of variance indicated that the three conditions with pre-assessment data were not different on the CPP variables of Frequency of Full Panic Attacks, Frequency of Limited-Symptom Panic Attacks, symptoms, cognitions, avoidance, anticipatory anxiety, coping, and efficacy for coping (see Table 4). Thus it appears as though random assignment resulted in four conditions of equivalent status on demographic variables. It also appears as if the three conditions with pre-assessment data were equivalent with respect to the CPP variables although it is not possible to determine if the NA/NF condition was similarly equivalent at pre-assessment.

Medication

Fifty-seven percent of the sample indicated current medication usage. Chi-square analysis revealed no significant differences between groups on medication usage, $\chi^2 = 3.69$, $p=.30$. A closer look at this variable reveals that 70% of NA/NF participants indicated medication usage as compared to only 41% of A/MF participants (A/FF, 50%; A/NF, 37%). Exploratory oneway ANOVAs indicated that medication users had significantly more panic symptoms, $F(1,49)=4.62$, $p<.05$, and used significantly more coping strategies, $F(1,49)=5.83$, $p<.05$, than non-medication users at pre-assessment. At post-assessment, medication users were still endorsing more symptoms than non-medication users, $F(1,69)=5.15$, $p<.05$, and using more coping strategies, $F(1,69)=7.18$, $p<.01$. Additionally, medication users had more full plus limited-symptom attacks than non-medication users, $F(1,69)=3.97$, $p<.05$.

Promptness of return

A number of participants were slow in returning their post-assessment data. To determine if participants differed in promptness of return by condition, a oneway ANOVA was conducted indicating that there was a difference between conditions on days to return post (Dayspost), $F(3, 66)$, $p<.05$. Post hoc analyses using Tukey's Honestly Significant Difference (HSD) indicated that the time for the A/FF to return post was significantly greater than both of the non-feedback groups. Since there was a

difference in Dayspost between groups, tests were conducted to determine if participants returning post-assessment data late differed from participants who returned data in a more timely manner. Participants were divided into two groups based on their return of data before or after 30 days. T-tests indicated that late returners (n=11) differed from early returners (n=59) on only one variable of the CPP, Frequency of Full Panic Attacks $t(65.27)=3.61, p<.001$ with respective means of .9 and 4.7. Since the Frequency of Full Panic Attacks was not one of the variables hypothesized to exhibit change and since all other variables were not significantly different, the decision was made to keep these participants in the analyses.

Hypotheses

Of 12 dependent variables collected at post-assessment, only six were hypothesized to show differences between groups. Those six variables were coping strategies (CSQ), self-efficacy for coping (PSEQ), stage of change (SCQ), outcome expectancy (PAOE), self-efficacy for understanding and identification of problem (SEFF), and self-esteem (SEQ). Given the probability that dependent measures were correlated, a multivariate analysis of variance (MANOVA) using Wilks Lambda criterion was used. The overall MANOVA was not significant indicating no between groups differences on these six variables. Because differences between conditions were hypothesized, oneway ANOVAs were performed on all variables to see if condition differences existed for any one variable. No significant differences were found on any variable.

Exploratory Analyses

To determine whether condition was related to change at post-assessment on any of the other CPP outcome variables, oneway ANOVAs with condition as the between subjects factor were conducted. No statistically significant differences were found. Analyses of covariance (ANCOVAs) were also conducted on the three conditions that received pre-assessment on the eight CPP variables using the initial

value of each dependent measure as the covariate. Again, no statistically significant differences were found on any dependent variable (see Table 4).

To determine whether there was differential change for condition over time on the CPP variables, a 3 (Condition: A/MF, A/FF, A/NF) X 2 (Time: pre, post), mixed model factorial design with Condition being the between subjects factor and Time being the within subjects factor was conducted. There was a significant main effect for Time for coping strategies, $F(1,47)=6.30$, $p<.05$ (see Table 5) with the use of coping strategies increasing significantly from pre to post-assessment. No other analyses were significant.

Assessment of Feedback

To determine whether differences existed between the two feedback conditions on participants' Assessment of Feedback questionnaire (AOF), a t-test was conducted. A significant difference, $t(29) = 2.53$, $p<.05$, was found with the A/MF condition yielding a higher total score as compared to A/FF. The above should be viewed cautiously because the AOF questionnaire has low reliability suggesting that it is not measuring a unitary phenomenon.

The two conditions that did not receive feedback before their post-assessment did receive feedback after their post-assessment yielding a total of 61 individuals who had completed the AOF questionnaire at the time of data analysis. Since the measure as a whole does not provide an index of feedback satisfaction, per se, individual items were examined to better understand participants' assessment of the feedback they received (see Table 6). Approximately 89% of the participants agreed or strongly agreed that feedback demonstrated that they were not alone in suffering with this problem. Seventy-seven percent indicated that feedback verified what they already knew while only 49% indicated that it provided new insights into their problems. This was about equal to the number (47%) who disagreed with the statement "It did not really tell me anything new". Only 24% indicated that feedback provided information that they were worse off than they thought leaving 20% undecided and 57%

disagreeing or strongly disagreeing. Thirty-four percent of participants could not decide if feedback “showed me I was not as bad off as I thought” while approximately equal numbers agreed (34%) and disagreed (31%) with this statement. Seventy-seven percent agreed or strongly agreed that feedback gave them hope that they might find ways to improve the problem while only 3% indicated disagreement and 20% remained undecided. The majority (78%) disagreed with the statement “It made me feel like I was under a microscope”. Lastly, 54% said feedback made them think more about themselves while 28% remained undecided and 18% disagreed.

Change on Process Measures

To examine the relationship between change on process variables and factors related to panic attacks, partial correlations were conducted. For the process measures of coping and efficacy for coping, change scores were computed by subtracting pre-assessment level from post-assessment level. Partial correlations were then obtained between each of these change scores and the post-assessment level of each of the outcome variables of the CPP while controlling for initial level. Results indicated that increases in coping were related to more symptoms ($r=.31$, $p<.05$), more avoidance ($r=.40$, $p<.01$), and more anticipatory anxiety ($r=.34$, $p<.05$) at post-assessment. Increases in efficacy for coping were significantly related to more avoidance ($r=.29$, $p<.05$) at post assessment (see Table 7).

Participants with at Least One Full Panic Attack

A total of 52 participants reported at least one full panic attack on their first assessment. However, a boxplot indicated that two of these participants were more than four standard deviations above the mean. As a result, these participants were treated as extreme outliers and were removed from further analyses resulting in a subsample of 50 participants.

ANOVAs and chi-square analyses revealed that participants in the four conditions did not differ on sex, age, continuous months of panic, level of education, or use of medication (see Table 8). Oneway ANOVAs indicated that the three

conditions did not differ with regard to any of the CPP variables at pre-assessment (see Table 9). However there were some trends in this pre-assessment data that suggest that randomization may not have resulted in equivalent groups. Namely, there are systematic trends for condition differences on full plus limited-symptom panic attacks, $F(2,34)=2.93$, $p=.07$, symptoms, $F(2,34)=2.68$, $p=.08$, and coping strategies, $F(2,34)=2.72$, $p=.08$ (see Table 9). While these values are not statistically significant, they do suggest the importance of taking these trends into consideration in further analyses.

Hypotheses

The six variables hypothesized to show change were again examined using a 4 (Condition: A/MF, A/FF, A/NF, NA/NF) X 1 (Time: post-assessment) MANOVA using Wilks Lambda criterion. The overall MANOVA was not significant indicating no differences on these six variables between groups. Because differences between conditions were hypothesized, oneway ANOVAs were performed on all variables to see if condition differences existed for any one variable. There was a significant difference between conditions on coping strategies, $F(3, 46)=4.27$, $p<.01$. Post-hoc comparisons using Tukey's HSD indicated that A/FF participants used significantly less coping strategies than either A/MF or A/NF. However, this result should be viewed cautiously given the near significant difference between the three conditions at pre-assessment on coping strategies.

Exploratory Analyses

To determine whether condition was related to change on any of the other CPP outcome variables, oneway ANOVAs with condition as the between subjects factor were conducted indicating a marginally significant difference in mean Frequency of Full Panic Attacks, $F(3, 46)=2.4$, $p=.08$. However, because the variances were not equivalent across conditions, a square root transformation was performed on this variable and ANOVA yielded a significant difference $F(3, 46)=3.33$, $p<.05$. Post hoc comparison using Tukey's HSD revealed that the A/FF condition had significantly less

panic attacks than the NA/NF. No other dependent measure was significantly different at post-assessment (see Table 9). To further explore the possibility that medication use might be related to this difference in Frequency of Panic Attacks at post-assessment, an ANCOVA was conducted using participants' medication status as the covariate. However, this did not significantly alter the results cited above indicating that medication use was not responsible for the differences between groups on panic attacks at post-assessment.

Analysis of covariance was also conducted on the three conditions that received pre-assessment on the eight CPP variables using the initial value of each dependent measure as the covariate. Again, no measure reached the .05 level of significance, but several trends were seen on Frequency of Full Panic Attacks, $F(2,34)=2.55$, $p=.09$, full plus limited-symptoms panic attacks, $F(2,34)=2.85$, $p=.08$, and coping strategies used, $F(2,34)=2.79$, $p=.08$.

To determine whether there was differential change for condition over time on the CPP variables, a 3 (Condition: A/MF, A/FF, A/NF) X 2 (Time: pre, post), mixed model design with Condition being the between subjects factor and Time being the within subjects factor was conducted. There was a main effect for Time for Frequency of Full Panic Attacks, $F(1,32)=4.25$, $p<.05$, and a marginally significant two-way interaction of Condition and Time, $F(2,32)=2.86$, $p<.08$ (see Table 10). There was also a main effect for Time for full plus limited-symptom attacks, $F(1,32)=7.47$, $p<.01$, and a marginally significant two-way interaction, $F(2,32)=3.12$, $p<.06$ (see Table 11). Additionally, there was a marginally significant main effect for Time for coping strategies, $F(1,32)= 2.90$, $p<.10$ (see Table 12).

Discussion

The purpose of this study was to investigate possible effects of assessment and feedback on individuals with panic attacks. Our findings suggest that assessment and feedback did not have the types of peripheral effects on individuals with panic attacks that were expected. However, assessment and feedback did seem to impact

individuals' actual number of panic attacks and use of coping strategies. These findings will be discussed in light of the methodological limitations of this study.

Assessment and feedback was not expected to be a sufficiently powerful treatment to produce a reduction in panic attacks. It was hypothesized that process factors theoretically linked to improvements in panic attacks would be impacted by the minimal treatment of assessment and feedback. Specifically, it was predicted that participants would increase their stage of change, outcome expectancy, efficacy for understanding and identification of the problem, self-esteem, use of coping strategies and efficacy for coping. Except for coping strategies, none of these variables resulted in between group differences.

For stage of change, participants scored almost identically at post-assessment on each of the four subscales of precontemplation, contemplation, action, and maintenance. This measure was included because it was predicted that the assessment and feedback might help move participants into a more action-orientated stage of change. However, examination of the data reveals that a ceiling effect may have occurred. For example, on the contemplation subscale participants could score a maximum of 40 points and all four conditions had means that ranged from 36 to 37 suggesting that all participants were extremely high on this measure making it unlikely that any detectable differences between groups could exist.

This measure does not clearly classify individuals as being in a discreet stage of change, but rather yields scores across all four subscales that produce a pattern. As the means across conditions were very similar, so too was the pattern of results across condition. Namely, subjects were highest on contemplation, next highest on action with maintenance being slightly lower, and lowest on precontemplation. What the data suggest was that everyone participating in this study is strongly contemplating change. By definition, the contemplation stage is when individuals are aware of their distressing situation and want to discover whether the problems are resolvable and “whether therapy could be helpful to them” (McConaughy et al., 1989, p. 494). This

is not surprising since all participants took the initiative to call the project office to find out more about the study and all participants committed to try the self-help treatment by signing the consent form and paying the fee to begin. That subjects are lowest on precontemplation is also not surprising since the precontemplation stage is marked by a lack of acceptance of a problem (McConaughy et al., 1989, p. 494). Clearly, all participants self-identified as having a problem with panic attacks and made an action oriented step to obtain help.

Participants' scores on the outcome expectancy measure at post-assessment also indicated nearly identical scores across treatment conditions. This measure was included because it was predicted that self-efficacy alone is not responsible for good outcomes. Participants also need to have positive expectancies about the performance of certain coping behaviors. Given the finding of no difference across conditions for efficacy for coping, it is, perhaps, not surprising that there is also no difference across conditions for outcome expectancies.

Self-efficacy for understanding and identifying the problem also produced no between group differences. It was hoped that this questionnaire would tap participants' efficacy for being able to identify and understand the panic problem better and that feedback would facilitate this awareness. Again, this prediction was not supported. This measure was devised to tap a number of skills that were thought to be important precursors to successful treatment and that identified specific behaviors that participants were supposed to develop in response to receiving feedback. For instance, participants were asked how confident they were that they could differentiate between symptoms and cognitions, identify feared situations, and identify coping strategies. It is possible that simply filling out the assessment instrument that was divided into these categories provided indirect feedback to participants. However, the fact that the NA/NF condition scored equivalently to the other assessment conditions does not lend support to this explanation.

Self-esteem was evaluated in this study because a previous study (Finn & Tonsager, 1992) indicated that feedback facilitated increased self-esteem. Again, this hypothesis was unsupported in the current study. In the Finn and Tonsager (1992) study, participants in the feedback condition received a collaborative discussion of the results of their assessment with a therapist who solicited their active participation. These elements of collaboration and participation were absent from the self-help feedback in this study and may have been instrumental in increasing participants self-esteem in the personality feedback study.

An examination of the differences between condition for the full panic attack subsample, revealed that individuals in the A/FF condition had significantly less coping than the A/MF or A/NF groups at post-assessment. Further examination revealed that the A/FF condition also had the least amount of coping at pre-assessment, a factor that could likely account for the post-assessment differences. In fact, when ANCOVA was performed to control for pre-assessment levels, this significant finding between groups was no longer in evidence. There was, however, a significant main effect for Time on coping strategies from pre to post-assessment for the three groups receiving pre-assessment. Taken together, this suggests that coping strategy use does increase from pre to post-assessment for the three groups receiving pre-assessment, but the finding of between group differences at post-assessment is not supported under closer examination. One possible explanation for why there was an effect for Time but not for Condition is that the assessment itself acted as feedback for participants by providing them with a comprehensive list of coping strategies which allowed them to identify strategies they currently use and to view additional strategies they may not have used or even considered. If this is correct, then the actual feedback may not have added anything more than that provided by the assessment instrument which would account for the finding of a main effect for Time, but not for Condition.

No between groups differences were found on efficacy for coping. Since the differences between groups at post-assessment for coping strategies used did not hold

up, it is not surprising that efficacy for coping also showed no differential change across conditions. However, since there was an effect for Time for use of coping strategies, such an effect might be predicted for efficacy for coping. This was not found. Given the short period of time that elapsed between pre and post-assessment (approximately four weeks) it is possible that participants had sufficient time to begin employing more coping strategies, but did not have ample time to develop their efficacy for the use of those strategies.

Since coping strategies are being used more at post-assessment, it raises the question of whether change in use of coping strategies might predict improvement on factors associated with panic attacks. Partial correlations suggested that increases in coping from pre to post-assessment were correlated with higher symptoms, avoidance, and anticipatory anxiety at post-assessment while partialling out initial levels of these variables. This suggests that as individuals begin to use more coping strategies they experience more symptoms, avoidance and anticipatory anxiety. This is a difficult finding to explain in light of predicted theoretical relationships between coping and outcome. It was thought that increases in coping would result in less panic symptoms, thoughts, avoidance, and anxiety thereby resulting in less panic attacks. Clearly these results suggest the reverse is occurring although the reasons for this finding are less clear.

Given the above discussion of virtually no differential findings across conditions and only a small effect for Time for coping strategies, it was remarkable that there was a significant between groups difference found for Frequency of Full Panic Attacks at post-assessment for the full panic attack subsample. Again, this finding needs to be viewed in light of the fact that participants were marginally significantly different at pre-assessment. Nonetheless, using ANCOVA to control for pre-assessment levels of panic attacks still resulted in nearly significant differences with both feedback groups exhibiting less panic attacks than the assessment only condition. This was further supported by the two-way ANOVA looking at Time and

Condition which indicated a significant effect for Time and a marginally significant effect for the interaction. Closer examination of the data reveals that the A/NF condition actually increases slightly while both feedback conditions exhibit a reduction in panic attacks.

Why should participants who showed no differences on any process or outcome measure thought to be theoretically linked to panic attacks, still show differences on panic attacks? This finding is further puzzling in light of the fact that no other variable related to panic attacks, namely symptoms, cognitions, avoidance, and anticipatory anxiety, showed decreases across time. In fact, it was shown that increases in coping were correlated with higher symptoms, avoidance and anticipatory anxiety at post-assessment when partialling out the pre-assessment values. Since the assessment only condition did not evidence a similar reduction in panic, it suggests that feedback is impacting individuals in some way that was not measured in this study or that feedback somehow directly impacts panic attack frequency. While coping strategy use has previously been found to increase with a decrease in panic attack frequency (Gould & Clum, 1995), results in this study do not indicate that the two feedback groups are using more coping strategies at post-assessment than the assessment only group.

Another possible explanation for the finding of reduced panic attacks in the feedback groups is demand characteristics. Perhaps participants who received feedback were responding to participating in a study where they were repeatedly asked to enumerate their panic attacks and rate their panic-related symptoms, thoughts, avoidance, and fear. However, if demand characteristics were responsible for this reduction in panic attacks, it is also likely that the groups that received assessment without feedback would have displayed a similar response to having been twice assessed. Likewise, if demand characteristics were responsible for the findings, participants receiving feedback might have shown a reduction in other panic-related measures which was not the case. Thus demand characteristics are probably not

responsible for this puzzling finding. Perhaps an examination of the feedback given in this study as well as a review of why feedback is thought to have therapeutic value might help to explain this conundrum.

The feedback provided in this study was in written format and either mailed to the participant or read in person in a limited way in which no real interaction between feedback reader and participant occurred. In fact, feedback session audiotapes indicated that virtually no empathic statements were made to participants. Contrasting this method with the methods described in both the personality feedback (Finn & Tonsager, 1992) and Drinker's Check-Up (Miller, Sovereign, & Krege, 1988) interventions yields substantial discrepancies. Both of these feedback modalities involved collaboration between subject and therapist in an effort to help the subject better understand the problem. Clients had the opportunity to have their questions answered and discrepancies in their beliefs and actions revealed. Finn and Tonsager (1992) note their belief that feedback works by being both self-enhancing and self-verifying. Additionally, it has been found that feedback is most effective when it both verifies an individual's conceptions of him/herself while providing new insights (Berg, 1985) or by providing information that is slightly discrepant from an individual's own views (Finn & Brunner, 1993).

Several questions on the Assessment of Feedback (AOF) tap into this notion of self-verification and the offering of new insight which suggests that these aspects are being covered to some extent by the feedback given in this study. However, how well feedback satisfied these requirements was variable. While a majority (77%) of participants found feedback to verify what they already knew, there were still some (24%) who agreed that "it did not really tell me anything new".

Miller and Sovereign (1989) discuss the elements of their brief intervention for alcohol users as including advice, alternatives, empathy, and the promotion of self-efficacy. Not only do these elements provide the subject with information, but they help to suggest a direction for future efforts. Again, there were several elements on

the AOF that asked about participant's views on what feedback provided to them. Only slightly more than half (57%) of participants thought that feedback pointed "to possible directions I could take to help myself" suggesting that feedback was not wholly successful in providing participants with helpful advice despite being designed to do so. However, most (77%) participants did indicate that feedback gave them hope that there might be a way to improve their problem. Finally, it also seemed as if Yalom's (1995) notion of the benefits of universality were experienced by most (89%) participants who indicated that feedback "demonstrated that I was not the only person suffering" from panic attacks. Thus it does seem as though the feedback provided in this study did, at least minimally, provide participants with some of the same elements found in other feedback studies. Determining, what particular elements of the feedback might have accounted for the feedback groups' improvement with respect to panic attacks is more difficult.

Additionally, it is not clear why there was an apparent difference in the A/FF group's assessment of the feedback as evidenced on their AOF total score. Unfortunately, it is not entirely clear what the total sum of the 12 items on this scale indicate and therefore, it is not obvious what conclusion to make concerning the finding that A/FF scored significantly lower on this measure than the three other conditions who received their feedback through the mail. Two possibilities might account for this difference. One is that the feedback that was provided in person was less satisfying and participants therefore felt less positive about the information they received resulting in a lower total score. This could be due to the simple fact that these participants took time and effort to meet with a project staff member to receive feedback, but were disappointed that the session consisted of their feedback report being read to them. Another possibility is that this group of individuals was somehow different from the other participants. Although they did not differ with respect to any of the demographic variables, they did, in fact, take longer to return their post-assessment with 5 of the 14 participants taking longer than 30 days to do so. They

also had nearly statistically significant less panic attacks and less coping at pre-assessment. Perhaps this condition's status as a less severe group accounted for the difference in how they perceived feedback. These are, of course, just possibilities that would require further investigation for confirmation.

Limitations

As indicated in the results, there may have been a problem with random assignment that created possible selection factors that may have resulted in non-equivalent groups. There were no statistically significant pre-assessment differences found between groups. However there were apparent differences as evidenced in the trends for symptoms, coping, and panic attacks in the full panic attack subsample. Participants in this study were randomized into groups before they had actually consented to be in the study. Therefore, 213 people were randomized, while only 70 of the 101 people who returned their consent form were actually eligible to participate. Although it is difficult to ascertain exactly how this might have made the groups different, it is possible that a participation bias occurred based upon the materials received by participants of different conditions.

Second, is the issue of sample exclusion criteria. Only individuals who reported having at least one full or one limited-symptom panic attack in the two week period prior to their first assessment were included. Individuals who were panic disordered may have been excluded if they did not have an attack in this period. Additionally, there was no provision for identifying participants at pre-assessment in the NA/NF condition who should be excluded from analysis based on this requirement. Therefore, individuals in this condition were excluded based on their post-assessment rating of full and limited-symptom panic attacks. This could have led to exclusion of individuals who had no panic at post, but may have had panic attacks at pre-assessment were they to have been evaluated at this time. This could have artificially elevated this group's post-assessment scores on Frequency of Full Panic Attacks.

While self-help research is not entirely new, self-help research that involves no or almost no therapist contact is a unique study design with many inherent limitations. One of these is that the limited nature of the interactions does not provide for adequate diagnoses. It is possible that the participants in this study have inaccurately defined their experiences as panic attacks. The feedback designed to increase their coping skills and self-efficacy for coping with panic attacks may, therefore, have been inappropriately applied. In addition, the participants in this study, while experiencing panic, may be doing so as a co-morbid expression of another primary anxiety disorder, such as social phobia. Diagnostic data on study participants is not available at the present time making it impossible to clarify the above issue. This data will be available in the future when the treatment phase of the self-help project is completed and will hopefully shed light on the issue of heterogeneity of the participants in our sample.

The above issues are, of course, directly related to the design of the current study. Limited screening does not allow for as much control over the population as is typical in most treatment outcome studies. It does, however, serve the purpose of the study to investigate self-help without intervention of a therapist or researcher. Another limitation of the design is in the inclusion of a control group that does not receive pre-assessment. This condition was included to control for the effects of assessment alone on participants and, while it did accomplish this, the lack of pre-assessment data has presented other problems. There was no way to ascertain whether this condition was really similar to the other three conditions at pre-assessment. For example, this condition had significantly more panic attacks at post-assessment when examining the full panic attack subsample. However, this difference could have existed at pre-assessment and the lack of pre-assessment data prevented the examination of this possibility. Of course, if this group was equivalent to the other conditions at pre-assessment, then their higher frequency of panic attacks ($M=5.67$) at post-assessment could be a direct result of being a control participant who did not receive anything

(assessment, feedback, or any other contact) from the project for three to four weeks following return of their consent forms. Again, there is no way to directly test this possibility.

Conclusion and Future Directions

While conducting research in a self-help format does increase limitations on one's control over the sample, future studies that seek to investigate self-help with limited therapist contact should attempt to produce a more adequately randomized sample. Perhaps participants should not be randomized until they have returned consent forms. In this study, that would have required additional mailings which would have added cost to this project. The systematic investigation of the effects of more traditional, in person, assessment and feedback procedures should be performed to better answer the questions posed in this study about possible therapeutic effects that may result from personal feedback about one's panic problem. Particularly, the feedback session should include more of the aspects thought to be therapeutic in the few existing studies that viewed feedback as treatment. Likewise, future studies examining assessment and feedback for panic attack sufferers might attempt a more interactional feedback delivery while maintaining a mailed self-report assessment instrument to ascertain if such a treatment produces more effects than those found in this study.

References

- American Psychological Association. (1990). Ethical principles of psychologists. American Psychologist, *45*, 390-395.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. Psychological Review, *84*, 191-215.
- Bandura, A. (1988). Self-efficacy conception of anxiety. Anxiety Research, *1*, 77-98.
- Barlow, D.H. & Cerny, J.A. (1988). Psychological treatment of panic. New York: Guilford Press.
- Barlow, D.H., Craske, M.G., Cerny, J.A. & Kolsko, J.S. (1989). Behavioral treatment of panic disorder. Behavior Therapy, *20*, 261-282.
- Berg, M. (1985). The feedback process in diagnostic psychological testing. Bulletin of the Menninger Clinic, *49*, 52-69.
- Bien, T.H., Miller, W.R., Boroughs, J.M. (in press). Motivational interviewing with alcohol outpatients. Behavioural Psychotherapy.
- Bien, T.H., Miller, W.R., & Tonigan, J.S. (1993). Brief interventions for alcohol problems: A review. Addictions, *88*, 315-336.
- Borden, J.W., Clum, G.A. & Salmon, P.G. (1991). Mechanisms of change in the treatment of panic. Cognitive Therapy and Research, *15*, 257-272.
- Borden, J.W., Clum, G.A., Broyles, S. & Watkins, P.L. (1988). Coping strategies and panic. Journal of Anxiety Disorders, *2*, 339-352.
- Bray, J.H., Maxwell, S.E., & Howard, G.S. (1984). Methods of analysis with response-shift bias. Educational and Psychological Measurement, *44*, 781-804.
- Brown, J.M. & Miller, W.R. (in press). Impact of motivational interviewing on participation and outcome in residential alcoholism treatment. Psychology of Addictive Behaviors.
- Butcher, J. N. (1992). Introduction to the special section: Providing psychological test feedback to clients. Psychological Assessment, *4*, 267.
- Chambless, D.L., Caputo, G.C., Gallagher, R., & Bright, P. (1984). Assessment of fear of fear in agoraphobia: The body sensations questionnaire and agoraphobic cognitions questionnaire. Journal of Consulting and Clinical Psychology, *52*, 1090-1097.

- Chambless, D.L., Caputo, G.C., Jasin, S.E., Gracely, E.J., & Williams, C. (1985). The mobility inventory for agoraphobia. Behavior Research and Therapy, *23*, 35-44.
- Clum, G.A. (1990). Coping with Panic. Pacific Grove, CA: Brooks/Cole Publishing.
- Clum, G.A. & Borden, J.W. (1989). Etiology and treatment of panic disorders. . In M.Hersen, R.M. Eisler, & P.M. Miller (Eds.), Progress in Behavioral Medicine (pp. 192 -222). Newbury Park, CA: Sage Pub., Inc.
- Clum, G.A., Broyles, S., Borden, J. & Watkins, P.L. (1990). Validity and reliability of the panic attack symptoms and cognitions questionnaires. Journal of Psychopathology and Behavioral Assessment, *12*, 233-245.
- Clum, G.A., Broyles, S., Borden, J. Watkins, P.L., Caddel, J., & Gould, R. (1991). Factor analyses and stability estimates for the Panic Attack Symptoms and Cognitions Questionnaires. Unpublished manuscript.
- Côté, G., Gauthier, J.G., Laberge, B., Cormier, H.J., & Plamondon, J. (1994). Reduced therapist contact in the cognitive behavioral treatment of panic disorder. Behavior Therapy, *25*, 123-145.
- Craske, M. & Barlow, D. (1986). Psychological treatments for panic disorders. Paper presented at the annual American Psychological Association Convention, August, Washington, DC.
- Finn, S.E. (1990). A model for providing test feedback with the MMPI or MMPI-2. Paper presented at the 25th annual symposium on recent developments in the use of the MMPI (MMPI-2). Minneapolis, MN.
- Finn, S.E. & Butcher, J.N. (1991). Clinical objective personality assessment. In M.Hersen, A.E. Kazdin, & A.S. Bellack (Eds.), The Clinical Psychology Handbook (2nd ed., pp.362-373). New York: Pergamon Press.
- Finn, S.E. & Bunner, M.R. (1993). Impact of test feedback on psychiatric inpatients' satisfaction with assessment. Paper presented at the 28th annual symposium on recent developments in the use of MMPI, St. Petersburg Beach, FL.
- Finn, S.E. & Tonsager, M.E. (1992). Therapeutic effects of providing MMPI-2 test feedback to college students awaiting therapy. Psychological Assessment, *4*, 278-287.
- Gould, R.A., & Clum, G.A., & Shapiro, D. (1993). The use of bibliotherapy in the treatment of panic: A preliminary investigation. Behavior Therapy, *24*, 241-252.

- Gould, R.A. & Clum, G.A. (1995). Self-help plus minimal therapist contact in the treatment of panic disorder: A replication and extension. Behavior Therapy, 26, 533-546.
- Jones, E.E., & Pittman, T.S. (1982). Toward a general theory of strategic self-presentation. In J. Suls (Ed.), Psychological perspectives on the self. Hillsdale, NJ: Erlbaum. (pp.231-262).
- Klopfer, B. Ainsworth, M., Klopfer, W., & Holt, R. (1954). Developments in the Rorschach technique: Vol. 1. Technique and Theory. Yonkers-on-Hudson, NY: World Book.
- Lidren, D.M., Watkins, P.L., Gould, R.A., Clum, G.A., Asterino, M. & Tulloch, H.L. (1994). A comparison of bibliotherapy and group therapy in the treatment of panic disorder. Journal of Consulting and Clinical Psychology, 62, 865-869.
- Margraf, J., Barlow, D.H., Clark, D.M., & Telch, M.J. (1993). Psychological treatment of panic: Work in progress on outcome, active ingredients, and follow-up. Behaviour Research and Therapy, 31, 1-8.
- McConaughy, E.E., Prochaska, J.O., & Velicer, W.F. (1983). Stages of change in psychotherapy: Measurement and sample profiles. Psychotherapy: Theory, Research, and Practice, 20, 368-375.
- McConaughy, E.E., DiClemente, C.C., Prochaska, J.O., & Velicer, W.F. (1989). Stages of change in psychotherapy: A follow-up report. Psychotherapy, 26, 494-503.
- Miller, W.R., Benefield, G.S. & Tonigan, J.S. (1993). Enhancing motivation for change in problem drinking: A controlled comparison of two therapist styles. Journal of Consulting and Clinical Psychology, 61, 455-461.
- Miller, W.R. & Sovereign, R.G. (1989) The check-up: A model for early intervention in addictive behaviors. In T. Loberg, W.R. Miller, P.E. Nathan and G.A. Marlatt (Eds.). Addictive Behaviors: Prevention and Early Intervention, (pp. 219-311). Amsterdam: Swets & Zeitlinger.
- Miller, W.R., Sovereign, R.G. & Krege, B. (1988). Motivational interviewing with problem drinkers: II. The Drinker's Check-up as a preventive intervention. Behavioral Psychotherapy, 16, 251-268.
- Mosak, H.H. & Gushurst, R.S. (1972). Some therapeutic uses of psychological testing. American Journal of Psychotherapy, 26, 539- 546.

- Prochaska, J.O. & DiClemente, C.C. (1982). Transtheoretical therapy: Toward a more integrative model of change. Psychotherapy: Theory Research and Practice, *20*, 161-173.
- Reiss, S., Peterson, R.A., Gursky, D.M., & McNally, R.J. (1986). Anxiety sensitivity, anxiety frequency and the prediction of fearfulness. Behaviour Research and Therapy, *24*, 1-8.
- Robinson, E.A.R & Doueck, H.J. (1994). Implications of the pre/post/then design for evaluating social group work. Research on Social Work Practice, *4*, 224-239.
- Rosenberg, M. (1979). Conceiving the self. Basic Books, Inc.: New York.
- Schroeder, D.G., Hahn, E.D., Finn, S.E., & Swann, Jr., W.B. (1993). Personality feedback has more impact when mildly discrepant from self views. Paper presented at the Fifth Annual Convention of the American Psychological Society, Chicago, IL.
- Solomon, K.E. & Annis, H.M. (1989). Development of a scale to measure outcome expectancy in alcoholics. Cognitive Therapy and Research, *13*, 409-421.
- Swann, W.B., Jr., Stein-Seroussi, A., & Geisler, R.B. (1992). Why people self-verify. Journal of Personality and Social Psychology, *62*, 392-401.
- Swann, W.B., Jr., Hixon, J.G., Stein-Seroussi, A. & Gilbert, D.T. (1990). The fleeting gleam of praise: Cognitive processes underlying behavioral reactions to self-relevant feedback. Journal of Personality and Social Psychology, *59*, 17-26.
- Williams, S.L., Kinney, P.J., Falbo, J. (1989). Generalization of therapeutic changes in agoraphobia: The role of perceived self-efficacy. Journal of Consulting and Clinical Psychology, *57*, 436-442.
- Yalom, I.D. (1995). The theory and practice of group psychotherapy. New York: Basic Books.

Table 1

Summary of Demographic Variables:

Participants with at Least a Full or Limited-Symptom Panic Attack (n=70)

Marital Status	Married 75%	Divorced 17%	Single 8%
Race	White 99%	Black 1%	
Sex	Female 73%	Male 27%	
Other Treatment	None 43%	Medication 57%	

Table 2

Summary of Demographic Variables:

Participants with at Least a Full or Limited-Symptom Panic Attack (n=70)

Variable	Mean	SD	Range
Age (years)	44.70	11.80	20 - 70
Continuous Months of Panic	78.46	114.56	1 - 624
Education (years)	13.70	2.30	8 - 17

Table 3

Comparison of Demographics of Four Conditions:
Participants with at Least a Full or Limited-Symptom Panic Attack (n=70)

	Assessment/ Mailed Feedback (n=17)	Assessment/ Face. Feedback (n=14)	Assessment/ No Feedback (n=19)	No Assessment/ No Feedback (n=20)
Sex - M/F	5/12	4/10	6/13	4/16
Age	43.88 (10.97)	47.43 (11.26)	46.10 (13.99)	42.10 (10.97)
Mths of Panic	93.80 (112.2)	58.29 (76.77)	63.47 (102.61)	95.30 (148.28)
Education	13.47 (2.60)	13.64 (2.02)	14.42 (2.41)	13.2 (1.94)
Meds/No Meds	7/10	7/7	12/7	14/6
Dayspost*	20.65 (14.72)	27.86 (22.41)	13.84 (10.84)	13.10 (10.42)

* p<.05

Table 4

Means for Pre-Assessment and Post-Assessment Dependent Measures:
Participants with at Least a Full or Limited-Symptom Panic Attack (n=70)

Dependent Measure	Treatment Condition	Pre-Assessment		Post-Assessment	
		M	SD	M	SD
Frequency - Full Attacks	A/MF	3.79 _a	3.62	2.94 _a	3.62
	A/FF	1.92 _a	2.23	3.89 _a	10.51
	A/NF	2.42 _a	2.17	3.16 _a	2.99
	NA/NF			6.35 _a	9.80
Frequency - Limited-Symp. Attacks	A/MF	5.41 _a	4.87	3.94 _a	4.78
	A/FF	4.64 _a	5.98	3.89 _a	5.02
	A/NF	4.60 _a	2.73	4.34 _a	3.94
	NA/NF			5.50 _a	4.81
Symptoms	A/MF	67.06 _a	33.58	57.53 _a	28.68
	A/FF	48.79 _a	21.86	50.43 _a	19.68
	A/NF	50.42 _a	23.03	52.68 _a	26.38
	NA/NF			60.50 _a	27.91
Cognitions	A/MF	36.53 _a	15.23	36.53 _a	16.40
	A/FF	29.00 _a	11.98	26.00 _a	12.97
	A/NF	29.52 _a	12.89	29.37 _a	14.02
	NA/NF			34.65 _a	13.39
Fear of Panic	A/MF	34.82 _a	13.20	31.94 _a	13.79
	A/FF	26.35 _a	10.48	26.21 _a	10.43
	A/NF	29.00 _a	12.06	28.00 _a	11.95
	NA/NF			33.70 _a	10.51
Avoidance	A/MF	38.00 _a	21.23	34.94 _a	19.25
	A/FF	30.29 _a	16.07	28.86 _a	18.45
	A/NF	29.68 _a	23.13	31.42 _a	21.79
	NA/NF			38.65 _a	21.96
Coping	A/MF	53.94 _a	16.27	57.76 _a	17.90
	A/FF	47.07 _a	19.94	52.29 _a	18.21
	A/NF	57.63 _a	22.81	61.16 _a	20.54
	NA/NF			51.45 _a	14.91
Self-Efficacy for Coping	A/MF	32.35 _a	18.99	33.71 _a	19.01
	A/FF	34.14 _a	10.03	34.93 _a	8.08
	A/NF	29.84 _a	14.68	29.74 _a	13.31
	NA/NF			32.60 _a	14.06

A/MF=Assess. w/Mailed Feedback; A/FF=Assess. w/Face-to-Face Feedback; A/NF=Assess w/no Feedback; NA/NF=No Assess and no Feedback. Means in the same column for each dependent measure that do not share subscripts differ at $p < .05$ in the Tukey's Honestly Significant Difference Test

Table 4 (continued)

Means for Pre-Assessment and Post-Assessment Dependent Measures
Participants with at Least a Full or Limited-Symptom Panic Attack (n=70)

Dependent Measure	Treatment Condition	Post-Assessment	
		M	SD
Panic Attack Outcome Expectancy	A/MF	54.53 _a	6.98
	A/FF	54.79 _a	8.97
	A/NF	54.21 _a	10.14
	NA/NF	54.20 _a	8.48
Self-Efficacy for Understanding Problem	A/MF	29.64 _a	8.85
	A/FF	28.57 _a	8.53
	A/NF	31.53 _a	7.85
	NA/NF	30.90 _a	9.37
Self-Esteem	A/MF	24.12 _a	6.47
	A/FF	27.71 _a	3.20
	A/NF	28.32 _a	6.97
	NA/NF	26.90 _a	6.07
Stage of Change - Precontemplation	A/MF	16.65 _a	4.40
	A/FF	15.86 _a	5.33
	A/NF	15.74 _a	3.60
	NA/NF	15.60 _a	4.55
Stage of Change - Contemplation	A/MF	35.94 _a	3.53
	A/FF	36.50 _a	3.08
	A/NF	36.21 _a	3.08
	NA/NF	37.35 _a	2.70
Stage of Change - Action	A/MF	30.65 _a	4.40
	A/FF	32.07 _a	5.21
	A/NF	32.53 _a	4.36
	NA/NF	30.85 _a	5.06
Stage of Change - Maintenance	A/MF	29.00 _a	6.07
	A/FF	30.43 _a	4.67
	A/NF	32.10 _a	4.41
	NA/NF	29.55 _a	4.44

A/MF=Assess. w/Mailed Feedback, A/FF=Assess. w/Face-to-Face Feedback, A/NF=Assess w/no Feedback, NA/NF=No Assess and no Feedback. Means in the same column for each dependent measure that do not share subscripts differ at $p < .05$ in the Tukey's Honestly Significant Difference Test.

Table 5

Means for Pre-Assessment and Post-Assessment Coping (CSQ)
Participants with at Least a Full or Limited-Symptom Panic Attack (n=50)

	Assessment/ Mailed Feedback	Condition Assessment/ Face. Feedback	Assessment/ No Feedback
Time			
Pre	53.9 (16.3)	47.1 (20.0)	57.6 (22.8)
Post	57.7 (17.9)	52.3 (18.2)	61.2 (20.5)

Table 6

Assessment of Feedback Results (n=61)

	Percent endorsing each level*				
	1	2	3	4	5
1. It demonstrated that I was not the only person suffering from this problem.	4.9	3.3	3.3	44.3	44.3
2. It verified what I already knew.	0.0	6.6	16.4	59.0	18.0
3. It showed me that I had a long way to go to overcome my problem.	1.6	14.8	23.0	42.6	18.0
4. It provided new insights into my problem.	1.6	11.5	37.7	44.3	4.9
5. It showed me I was not as bad off as I thought.	3.3	27.9	34.4	31.1	3.3
6. It pointed to possible directions I could take to help myself.	1.6	11.5	29.5	52.5	4.9
7. It provided information that my problems were worse than I thought.	6.6	50.8	19.7	21.3	1.6
8. It did not really tell me anything new.	8.2	39.3	27.9	21.3	3.3
9. It showed me that I already do things that make my problem better.	1.6	6.6	27.9	57.4	6.6
10. It gave me hope that I might find a way to make my problem better.	1.6	1.6	19.7	60.7	16.4
11. It made me feel like I was under a microscope.	31.1	47.5	13.1	6.6	1.6
12. It made me think more about myself.	0.0	18.0	27.9	44.3	9.8

*1 = strongly disagreed

2 = disagreed

3 = undecided

4 = agree

5 = strongly agree

Table 7

Partial Correlations of Change on Process Measures from Pre to Post with Post-Assessment Outcome Variables Partialling Out Pre-Assessment on Outcome Variables:
Participants with at Least a Full or Limited-Symptom Panic Attack (n=50)

Change Score	Full PA	L-S PA	Full+ LS	PASQ	PACQ	AQ	FHPA	CSQ	PSEQ
Coping (CSQ)	-.08	-.20	-.15	.31*	.20	.40* *	.34*	---	-.01
Efficacy for Coping (PSEQ)	.03	.03	-.02	.26	.06	.29*	.14	.05	---

PA = Panic Attack; L-S = Limited-Symptom; PASQ = Panic Attack Symptom Questionnaire; PACQ = Panic Attack Cognitions Questionnaire; AQ = Avoidance Questionnaire; FHPA = Fear of Having a Panic Attack Questionnaire; CSQ = Coping Strategies Questionnaire; PSEQ = Panic Self-Efficacy Questionnaire; * = $p < .05$; ** = $p < .01$

Table 8

Comparison of Demographics of Four Conditions:
Participants with at Least a Full Panic Attack (n=50)

	Assessment/ Mailed Feed. n=14	Assessment/ Face. Feedback n=8	Assessment No Feedback n=13	No Assessment No Feedback n=15
Sex - M/F	3/11	3/5	3/10	4/11
Age	43.88 (11.73)	48.75 (12.30)	47.15 (14.58)	41.87 (9.66)
Mths of Panic	101.58 (122.96)	39.00 (46.65)	73.38 (122.82)	119.07 (165.15)
Education	13.14 (2.68)	12.87 (1.46)	14.46 (2.33)	13.0 (1.89)
Meds/No Meds	7/7	3/5	9/4	10/5

Table 9

Means for Pre-Assessment and Post-Assessment Dependent Measures:
Participants with at Least a Full Panic Attack (n=50)

Dependent Measure	Treatment Condition	Pre-Assessment		Post-Assessment	
		M	SD	M	SD
Frequency - Full Attacks	A/MF	4.61 _a	3.48	2.82 _a	3.70
	A/FF	2.63 _a	1.92	1.44 _a	2.03
	A/NF	3.54 _a	1.66	3.92 _a	3.01
	NA/NF			5.67 _a	5.26
Frequency - Limited-Symp. Attacks	A/MF	6.29 _a	4.95	4.46 _a	5.04
	A/FF	3.50 _a	3.89	2.94 _a	1.74
	A/NF	5.58 _a	2.73	5.19 _a	3.83
	NA/NF			5.80 _a	4.78
Symptoms	A/MF	74.50 _a	32.38	62.93 _a	28.83
	A/FF	52.25 _a	23.78	50.88 _a	24.71
	A/NF	54.46 _a	19.22	57.46 _a	26.37
	NA/NF			65.60 _a	28.07
Cognitions	A/MF	37.93 _a	16.34	38.21 _a	17.58
	A/FF	29.25 _a	12.79	27.00 _a	15.10
	A/NF	34.23 _a	11.29	34.77 _a	13.52
	NA/NF			38.73 _a	11.73
Fear of Panic	A/MF	36.93 _a	13.67	34.00 _a	14.12
	A/FF	26.75 _a	11.37	24.75 _a	11.18
	A/NF	34.23 _a	8.47	33.31 _a	9.52
	NA/NF			34.80 _a	10.70
Avoidance	A/MF	41.64 _a	20.97	36.79 _a	19.87
	A/FF	30.50 _a	14.04	28.63 _a	20.93
	A/NF	35.85 _a	23.12	36.77 _a	21.22
	NA/NF			42.40 _a	20.93
Coping	A/MF	56.86 _a	16.50	62.36 _b	15.40
	A/FF	40.62 _a	18.92	42.25 _a	12.86
	A/NF	60.08 _a	22.10	62.92 _b	16.19
	NA/NF			51.27 _{ab}	15.88
Self-Efficacy for Coping	A/MF	34.36 _a	20.40	36.57 _a	19.55
	A/FF	33.38 _a	11.13	37.50 _a	9.09
	A/NF	29.31 _a	15.66	30.31 _a	15.41
	NA/NF			30.60 _a	13.66

A/MF=Assess. w/Mailed Feedback, A/FF=Assess. w/Face-to-Face Feedback, A/NF=Assess w/no Feedback, NA/NF=No Assess and no Feedback. Means in the same column for each dependent measure that do not share subscripts differ at $p < .05$ in the Tukey's Honestly Significant Difference Test

Table 9 (continued)

Means for Pre-Assessment and Post-Assessment Dependent Measures:
Participants with at Least a Full Panic Attack (n=50)

Dependent Measure	Treatment Condition	Post-Assessment	
		M	SD
Panic Attack	A/MF	54.07 _a	7.64
Outcome Expectancy	A/FF	53.25 _a	8.38
	A/NF	53.62 _a	11.64
	NA/NF	54.07 _a	8.78
Self-Efficacy for Study	A/MF	28.64 _a	9.05
	A/FF	24.88 _a	7.12
	A/NF	32.23 _a	8.03
	NA/NF	28.93 _a	9.27
Self-Esteem	A/MF	24.07 _a	6.91
	A/FF	27.38 _a	4.14
	A/NF	26.08 _a	7.03
	NA/NF	25.93 _a	5.71
Stage of Change - Precontemplation	A/MF	16.36 _a	4.81
	A/FF	17.88 _a	6.01
	A/NF	15.54 _a	4.01
	NA/NF	16.07 _a	5.15
Stage of Change - Contemplation	A/MF	35.57 _a	3.78
	A/FF	35.38 _a	2.86
	A/NF	36.69 _a	2.46
	NA/NF	37.40 _a	2.82
Stage of Change - Action	A/MF	31.50 _a	3.82
	A/FF	30.00 _a	5.50
	A/NF	33.23 _a	4.32
	NA/NF	31.40 _a	4.24
Stage of Change - Maintenance	A/MF	29.86 _a	5.36
	A/FF	29.63 _a	5.53
	A/NF	32.69 _a	4.39
	NA/NF	29.27 _a	4.64

A/MF=Assess. w/Mailed Feedback, A/FF=Assess. w/Face-to-Face Feedback, A/NF=Assess w/no Feedback, NA/NF=No Assess and no Feedback. Means in the same column for each dependent measure that do not share subscripts differ at $p < .05$ in the Tukey's Honestly Significant Difference Test

Table 10

Means for Pre-Assessment and Post-Assessment Frequency of Full Panic Attacks:
Participants with at Least a Full or Limited-Symptom Panic Attack (n=35)

	Assessment/ Mailed Feedback	Condition Assessment/ Face Feedback	Assessment/ No Feedback
Time			
Pre	4.6 (3.5)	2.6 (1.9)	3.5 (1.7)
Post	2.8 (3.7)	1.4 (2.0)	3.9 (3.0)

Table 11

Means for Pre-Assessment and Post-Assessment Frequency of Combined (Full plus Limited-Symptom) Panic Attacks:
Participants with at Least a Full or Limited-Symptom Panic Attack (n=35)

	Mailed Feedback	Condition Face-to-Face Feedback	Assessment Only
Time			
Pre	10.9 (5.0)	6.1 (4.5)	9.1 (3.6)
Post	7.3 (6.4)	4.4 (3.1)	9.1 (6.0)

Table 12

Means for Pre-Assessment and Post-Assessment Coping Strategies (CSQ):
Participants with at Least a Full or Limited-Symptom Panic Attack (n=35)

		Condition		
		Assessment/ Mailed Feedback	Assessment/ Face Feedback	Assessment/ No Feedback
Time				
	Pre	56.9 (16.5)	40.6 (18.9)	60.1 (22.1)
	Post	62.4 (15.4)	42.3 (12.9)	62.9 (16.2)

Appendix A

HELP FOR YOUR PANIC ATTACKS

The Department of Psychology at Virginia Tech is offering a drug-free self-help treatment program for individuals suffering from panic attacks. Work on your panic problem at your own pace in your own home using our proven self-help treatment as a participant in a confidential research study. Please call (540) 231-3235 or 1-800-733-1129 at any time and ask about the panic study or write to Dr. George Clum at: Department of Psychology, Virginia Tech, Blacksburg, VA 24061-0436.

0000 Your Confidentiality Will Be Maintained <<<<

Appendix A (continued)

Self-Help Treatment for Panic Attacks

Suddenly you feel intensely afraid. Your heart beats rapidly. You feel faint, dizzy, and short of breath. Your full attention turns to your body as you feel progressively more out of control. You are overwhelmed with a feeling of impending doom and feel disconnected from your environment. Your hands are tingling and you are aware that something is very wrong.

This description may sound like that of someone encountering something frightening like an audience full of people or a snake ready to strike or it may sound like someone about to have a heart attack. However, these are also the descriptions people give of their experience while having a panic attack. According to the National Institute of Mental Health, panic attacks are characterized by “brief episodes of intense fear accompanied by multiple physical symptoms... that occur repeatedly and unexpectedly in the absence of any external threat”. Other symptoms of panic attacks can also include nausea, choking sensations, shaking or trembling, chest pain and sweating. The onset of these symptoms occurs very quickly and they can last for several minutes or several hours.

The Psychological Services Center at Virginia Tech is offering a self-help treatment program for people experiencing panic attacks. This study allows you to work on your panic problem at your own pace in your own home using our proven self-help treatment as a participant in a confidential research study.

If you are interested in learning more about the self-help treatment study please call our office at (540) 231-3235 or (540)231-6914 and ask about the panic study. Or, if you prefer, fill in your name and phone numbers below and mail this form to Dr. George Clum, Psychology Department, Virginia Tech, Blacksburg, VA 24061-0436.

Name: _____

Home phone _____ Best times to call _____

Work phone _____ Best times to call _____

Appendix B

Appendix B is a copy of a newspaper article from the Roanoke Times dated Tuesday, September 19, 1995. Due to copyright laws, this article is not being reproduced here.

Appendix C

Panic Self-Help Study Information Sheet

What we are offering is a three phase research project. The first phase is a short assessment and feedback phase. The assessment consists of completing a questionnaire we send you that asks about different aspects of your panic attacks such as your thoughts, symptoms, strategies you presently use to cope with your panic attacks, your fear about having attacks, your avoidance related to having attacks, and how confident you feel in handling your attacks. From this information we will give you written feedback which will provide you with a better understanding of your panic as well as provide you with information about how these different aspects of your panic attacks compare with other people who are having panic attacks.

Everyone participating will receive assessment and feedback, but since this is also part of a research study, some people may have to wait a short time before receiving either their assessment or feedback.

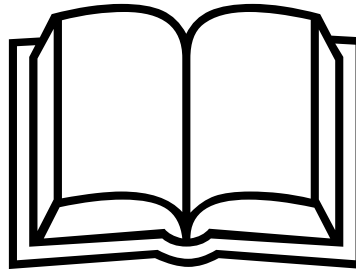
The second phase is the treatment phase. The treatment consists of a self-help book that is a step by step guide to overcoming and coping with panic attacks. This book is a drug-free approach that has been tested by our research group and by researchers nationwide and has been found to be very effective and comparable to other more intensive, time consuming treatments requiring multiple therapy sessions. We have also developed a workbook to use along with the book. Again, everyone participating will receive this book and workbook, but some may receive them after a waiting period.

The final phase is a maintenance program. Even people who are successfully treated need to continue working on maintaining their treatment success. Many people find that after completing treatment they are panic free, but without continued work their panic attacks return. For this reason, a maintenance program will be offered that will provide individuals with a workbook and occasional phone contact to aid them in maintaining their treatment success. Maintenance programs have been shown to be successful in helping people maintain their success in coping with their panic attacks.

Throughout the course of this study we will be sending you several forms to complete. This is a confidential research study which means that your forms will only be identified by a number. No one will have access to this material except for the immediate project staff. In order to participate in this project, you need to be at least 18 years and currently having panic attacks. Due to the self-help nature of this study, almost all aspects of participation are handled through the mail. The only exception is a brief in person interview following the treatment phase. For people who find it difficult to come to our office, other more convenient arrangements can be made. There is also a small group of people who may be asked to come in during the assessment phase and those people will be notified by telephone.

There is a small fee of \$35 to participate in this study. This fee covers the cost of the assessment, feedback, self-help book, and self-help workbooks, as well as the cost to mail these materials.

Self-Help Project



Comprehensive Panic Profile

Identifying Information

For research purposes only. All information will be kept strictly confidential.

Disclaimer: This panic assessment questionnaire is not intended to be a substitute for a formal diagnostic interview or for a formal consultation with your physician. Users of this program assume all risks for the interpretations provided and for the uses made of the interpretations.

1. Name: _____
2. Social Security Number ____-____-_____
3. Address: _____

4. Date form completed ____ / ____ / ____
5. Age: ____
6. Daytime Phone: () ____ - _____
7. Evening Phone: () ____ - _____
8. Marital Status (Circle one)
1 Single 2 Married 3 Divorced 4 Separated 5 Never Married
9. Race
1 Caucasian 2 African American 3 Hispanic 4 Oriental 5 Pacific Islander 6 Other
10. Sex
1 Male 2 Female
11. Please circle highest number of years of education completed at present (for GED circle 12)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
16 >16 (highest degree _____)
12. What is your current occupation:

(if retired, what was your occupation)
13. Number of continuous months in which you have had at least one panic attack or have been worried about having a panic attack: ____
14. Are you currently receiving treatment for your panic attacks? Yes No
If yes, are you receiving: psychotherapy medication other (please specify) _____
How many times have you been seen? _____
If you are taking medication for your panic attacks, what is it called _____
Dose: _____ How often: _____ How long have you been taking it at this dose: _____
15. Have you ever received any other treatment for your panic attacks other than what you are doing currently? Yes No
If yes, were you receiving: psychotherapy medication other (please specify) _____
How many times were you seen? _____
If you were taking medication for your panic attacks, what was it called _____
Dose: _____ How often: _____ How long were you been taking it: _____

Section 1 - Frequency of Panic Attacks

The first section of this questionnaire deals with the frequency of full-blown panic attacks and partial panic you have experienced in the past two weeks. To qualify as a full panic attack, you must have experienced a sudden unexpected increase in anxiety with at least four of the following symptoms occurring at the same time:

- shortness of breath or smothering sensation
- dizziness, unsteady feeling or faintness
- palpitations or accelerated heart rate
- trembling or shaking
- sweating
- choking
- nausea or abdominal distress
- feeling like you or the world around you is unreal (in a cloud or fog)
- numbness or tingling sensations in your body
- hot flashes or chills
- chest pain or discomfort
- fear of dying
- fear of going crazy or doing something uncontrolled

1. How many full (four or more symptoms occurring at the same time) panic attacks have you had in the last two weeks? ____
2. How many partial (one to three symptoms occurring at the same time) panic attacks have you had in the last two weeks? ____

Section 2 - Duration of Symptoms

Directions: Rate the duration of symptoms experienced during a typical recent panic attack. Remember that a panic attack is one that comes on suddenly or unexpectedly. Using the scale below, blacken the square corresponding to the length or time each symptom below was experienced during a typical attack.

- 0 = do not experience this
- 1 = fleetingly (1 to 60 seconds)
- 2 = briefly (1 to 10 minutes)
- 3 = moderately (10 to 60 minutes)
- 4 = persistently (1 to 24 hours)

0 1 2 3 4

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. heart beating rapidly |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. pain in chest |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. heart pounding in chest |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. difficulty swallowing (lump in throat) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. feeling of suffocation |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. choking sensation |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. tingling in hands or feet |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. face feels hot |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. sweating |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. trembling or shaking inside |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. hands or body trembling or shaking |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. numbness in hands or feet |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. feeling you are not really you or are disconnected from your body |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. feeling things around you are unreal, as if in a dream |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. vomiting (not induced) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 16. nausea |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 17. breathing rapidly (as if unable to catch your breath) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 18. cold hands or feet |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 19. dry mouth |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 20. sinking feeling in stomach |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 21. nerves feeling "wired" |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 22. feeling physically immobilized |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 23. blurred or distorted vision |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 24. pressure in chest |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 25. numbness in body (other than in hands or feet) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 26. shortness of breath |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 27. dizziness |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 28. feeling faint |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 29. butterflies in stomach |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 30. stomach knotted |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 31. tightness in chest |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 32. legs feeling wobbly or rubbery |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 33. feeling disoriented or confused |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 34. cold clamminess |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 35. sensitivity to loud noises |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 36. ears ringing |

Section 3 - Severity of Thoughts

Directions: Rate the severity of thoughts you experience during a typical panic attack. Using the scale below, blacken the square corresponding to the severity of each thought experienced during a typical panic attack.

- 0 = not at all
- 1 = some but not much
- 2 = quite a lot
- 3 = totally dominates my thoughts

0 1 2 3

- | | |
|---|---|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 1. I am going to die. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 2. I am going insane. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 3. I am losing control. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 4. This will never end. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 5. I am really scared. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 6. I am having a heart attack. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 7. I am going to pass out. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 8. I don't know what people will think. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 9. I won't be able to get out of here. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 10. I don't understand what is happening to me. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 11. People will think I am crazy. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 12. I will always be this way. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 13. I am going to throw up. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 14. I must have a brain tumor. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 15. I will choke to death. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 16. I am going to act foolish. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 17. I am going blind. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 18. I will hurt someone. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 19. I am going to have a stroke. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 20. I am going to scream. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 21. I am going to babble or talk funny. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 22. I will be paralyzed by fear. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 23. Something is really physically wrong with me. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 24. I will not be able to breathe. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 25. Something terrible will happen. |

Section 4 - Fear of Having a Panic Attack

Directions: Rate the extent to which you fear having the following symptoms or thoughts of panic even when you are not having an attack. Using the scale below, blacken the square corresponding to the degree to which you anticipate or are afraid of the symptoms or thoughts experienced during a panic attack.

0 = am not afraid
1 = slightly afraid
2 = moderately afraid
3 = considerably afraid
4 = extremely afraid

- | 0 | 1 | 2 | 3 | 4 | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. having my heart race |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. thinking I'm about to lose control |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. having others notice my symptoms |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. having difficulty breathing |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. thinking I am severely ill |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. having to avoid a situation where I feel trapped |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. feeling dizzy or faint |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. passing out in front of people |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. feeling like the world or my own body is not real |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. thinking this will never end |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. having other people know I have this problem |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. the thought I might be going crazy |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. trembling or shaking for no reason |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. feeling nauseous or as though I'm about to vomit |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. being unable to think clearly |

Section 5 - Avoidance

Directions: Rate how often you avoid or escape places or situations you consider uncomfortable or where you think you may have a panic attack. Using the scale below, blacken the space corresponding to the degree you avoid or escape the situations below when you are alone.

0 = never avoid or escape

1 = rarely avoid or escape

2 = avoid or escape about as often as enter

3 = usually avoid or escape

4 = always avoid or escape

0 1 2 3 4

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. riding in a car or bus |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. grocery stores |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. shopping malls |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. crowded places |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. airplanes |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. driving on interstate highways |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. waiting in line |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. walking outside |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. elevators |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. sitting in theaters |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. eating in restaurants |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. being at home alone |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. driving through tunnels |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. sitting in auditoriums |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. strange cities |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 16. barber or beautician shops |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 17. sitting in church |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 18. parties or social gatherings |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 19. sitting in a dentist chair |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 20. driving on bridges |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 21. taking long trips |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 22. being alone at night |

Section 6- Coping Strategies

Directions: Rate what strategies you use to cope with panic attacks. Using the scale below, blacken the square corresponding to the frequency you use the technique to help reduce or control the symptoms or thoughts of a panic attack.

- 0 = do not use
- 1 = rarely use
- 2 = sometimes use
- 3 = often use
- 4 = always use

0	1	2	3	4	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. practicing relaxing your muscles
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. telling your anxiety-producing thoughts to stop
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. distracting yourself with a hobby or something fun
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. taking deep, relaxing breaths
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. reassuring yourself that the anxiety will pass
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6. breathing from your diaphragm
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. practicing dealing with your irrational thoughts before entering a feared situation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. reassuring yourself that your fears are groundless
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. telling someone about your problem
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. slowing down your thinking when you feel panicky
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11. letting the attack happen
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12. distracting yourself by watching television
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13. challenging yourself by entering previously avoided situations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14. getting some fresh air
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15. talking to a professional about your problem
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. distracting yourself mentally
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17. practicing your relaxation before entering a feared situation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18. reasoning out why you're feeling anxious
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	19. distracting yourself with work
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	20. preparing yourself before entering a feared situation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	21. letting the symptoms happen
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22. slowing yourself down when in anxiety-producing situations
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	23. practicing breathing while experiencing anxiety
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	24. practicing dealing with your irrational thoughts while experiencing anxiety
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	25. distracting yourself by taking a bath or shower
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	26. challenging your irrational thoughts
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27. preventing yourself from rushing through situations where you have panic attacks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	28. thinking of relaxing images

Section 7 - Confidence in Coping Strategies

Directions: Rate the confidence you have that you could cope with the situations below by employing the coping strategies you currently use. Using the scale below, blacken the square that corresponds to your level of confidence that you could use your coping strategies in the situations below.

1	2	3	4	5	6	7	8	9
not at all confident				moderately confident				totally confident

- | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. being in a situation where you've had a panic attack |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. first noticing the symptoms of an attack |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. having thoughts come into your mind as you experience symptoms, such as thinking you are having a heart attack, dying, and so forth. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. experiencing intense symptoms that continue to worsen and intensify |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. having scary and intense thoughts that continue to occupy your mind |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. experiencing symptoms as strong as you have ever felt |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. having a full-fledged attack that lasts 15 minutes |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. having a full-fledged attack that lasts 30 minutes |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. having a full-fledged attack that lasts several hours |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. having a full-fledged attack that lasts all day and seems as though it will not subside |

We appreciate you taking the time to complete this form.

Please check to be sure that you have completed
all questions before returning it.

Thank you again for your cooperation.

Self-Help Project  Comprehensive Panic Profile Feedback Report

Study Number 089

This report was prepared to help you understand more about your panic attacks and how you cope with them. The feedback this report provides was generated using the Comprehensive Panic Profile that you recently completed and returned. It compares you with other sufferers of panic attacks on: 1) characteristics of your panic attacks; 2) problems of anticipatory anxiety and avoidance often associated with panic attacks; and 3) the types of coping strategies you use and your level of confidence in being able to use these strategies.

Symptoms

Symptoms that characterize panic attacks tend to be consistent over time. If the type of symptoms that characterize your panic attacks change, do not be alarmed. As you can see from the list of symptom clusters below, many different types of symptoms are typical during panic attacks.

Symptom Clusters in Panic Attacks

- Stomach or gastrointestinal distress
- Numbness and tingling in your body
- Breathing distress
- Cardiac (heart) distress
- Disorientation and confusion
- Chest distress
- Fainting distress

The following comments are related to the types of symptoms that have characterized your panic attacks. Your symptoms of stomach distress such as butterflies in your stomach and nausea tend to last much longer than in other people with panic attacks. Your symptoms of numbness and tingling in your body are present and tend to last much longer than in other people with panic attacks. Your symptoms of breathing distress, such as feelings of suffocation and difficulty getting a breath, are present at levels typical of most people with panic attacks. Your symptoms of cardiac distress, such as your heart beating rapidly and your heart pounding in your chest, are present and tend to last much longer than in other people with panic attacks. Your symptoms of disorientation and confusion, such as feeling you or those around you are unreal or having trouble thinking, are present and tend to last much longer than in other people with panic attacks. Your symptoms of chest distress, such as pain or tightness in your chest, are present and tend to last longer than in other people with panic attacks. Your symptoms of fainting distress, such as sweating or feeling dizzy or faint, are present and tend to last much longer than in other people with panic attacks.

Thoughts

A number of thoughts commonly occur while people are experiencing a panic attack. In fact, some of the thoughts people have can increase panic. For example, if your heart starts to beat rapidly, which is a symptom, and you think to yourself “I am having a heart attack”, which is a thought, you may panic more. Understanding the difference between your panic symptoms described above and your thoughts that occur just before and during a panic attack is an important step in coping with your panic attacks because recognizing these thoughts gives you the opportunity to challenge them. There are several clusters of thoughts that characterize panic attacks as follows:

Thought Clusters in Panic Attacks

- Fear of insanity
- Fear of social embarrassment
- Fear of losing consciousness
- Fear of losing control
- Fear of suffocation
- Fear of a physical disorder

The following comments are related to the types of thoughts that have characterized your panic attacks. Compared to other people with panic attacks, thoughts during panic attacks that you may go insane or stay this way forever are high. Thoughts during panic attacks that you will act foolish or that other people will think negatively about you are high compared to other people with panic attacks. Compared to other people with panic attacks, thoughts during panic attacks that you will pass out, have a heart attack, or die are high. Thoughts during panic attacks that you will lose control or that something terrible will happen is high compared to other people with panic attacks. Compared to other people with panic attacks, thoughts during panic attacks that you will choke, scream, or be unable to breathe is high. Compared to other people with panic attacks, thoughts during panic attacks of such things as throwing up, having a stroke or brain tumor, or having something physically wrong with you is high.

Coping Strategies

A variety of coping strategies exist which, if employed consistently, can lead to mastery of one’s panic symptoms and cognitions, anticipatory anxiety, and the reduction of avoidance behavior. In general, the more strategies you are able to use, the greater your mastery of your panic problem will be. Panic sufferers discover a number of strategies on their own or are introduced to them in a variety of ways. We have combined these strategies into groups on the basis of how they tend to be used by panic sufferers.

Coping Strategy Clusters in Panic Attacks

- Relaxation strategies
- Challenging panic-producing thoughts
- Distraction with activities
- Seeking social support

The following comments are related to the types of coping strategies that you have been using to cope with your panic attacks. You tend to use relaxation strategies such as muscle relaxation, imagery, and controlled breathing somewhat less frequently than other panic sufferers as a way of preparing for and reducing panic attacks. Compared to other panic sufferers, you tend to use strategies such as reassuring yourself, questioning the accuracy of your panic producing thoughts or simply telling such thoughts to stop, much less frequently as a means of gaining mastery over your anxiety attacks. You tend to use distraction strategies such as getting some fresh air or getting involved with a hobby or work somewhat more frequently than other panic sufferers as a way of gaining mastery over your anxiety attacks. You tend to seek social support, such as telling others of your problem, talking to friends or seeking professional help about as frequently as other panic sufferers as a way of gaining mastery over your anxiety attacks.

Confidence in Coping

In addition to using the above strategies to gain mastery over your panic attacks, the confidence you have in your ability to use such strategies under conditions when you are experiencing panic symptoms or full-blown panic attacks will determine whether you are able to develop mastery over your attacks. Compared to other panic sufferers, your level of confidence in your ability to use coping strategies when in feared situations or while having panic symptoms or thoughts is low.

Fear of Having a Panic Attack

Individuals with panic attacks often fear having symptoms or thoughts associated with a panic attack even when they are not having an attack. Such concerns are an important treatment target. Compared to other people with panic attacks, your fear of panic symptoms is high.

Avoidance Behavior

It is common for people with panic attacks to avoid or escape from situations in which they fear experiencing anxiety or panic symptoms. This escape and avoidance behavior is an

important treatment target. Compared to other people with panic attacks, your level of escape and/or avoidance behavior is above average.

Using this Report

This report can be used to help you to better understand your panic problem. It has identified the types of symptoms that are typical of your panic attacks and the types of thoughts you get during panic attacks. These thoughts are your interpretations of what your symptoms mean. Those symptoms and thoughts that are low or below average might be ignored in putting together your treatment plan. Those symptoms and thoughts that are in the average, above average, or high range should, on the other hand, be targeted for change in your treatment program.

In addition to the symptoms and thoughts experienced during panic attacks, panic sufferers also come to fear the symptoms of panic themselves and become avoidant when they anticipate having panic symptoms. Both the anticipatory fear and avoidance of feared situations must be systematically targeted for change if treatment is to succeed.

Examination of the coping strategies you use and your confidence in using them during panic attacks or in feared situations will help you target which strategies you need to develop to help you master your panic. The more coping strategies you are able to employ the better.

Therefore, coping strategies that you use that are in the average, below average or low range need to be employed more frequently. Likewise, strategies that you use that are in the above average range or high range should continue to be employed to further develop your confidence in using them. Coping strategies that you use but have little confidence in need to be employed systematically in situations in which you panic or avoided situations to ensure that you develop confidence in your ability to use them as well as confidence in their effectiveness.

Appendix F

Instructions for Face-to-Face Feedback.

Say hello and introduce yourself. Thank the person for coming in.

Tell them:

The main reason we wanted you to come in today was to give you some feedback based on the questionnaire that you filled out and returned to us. This will just take about 10 minutes or so. I would like to tape (audio) the session. This is just for me so that I can know that all of the feedback sessions were done similarly. Is that okay - all right then we will get started.

TURN ON Tape Recorder

Give them the single sheet with the symptom, thought, and coping clusters and say:

You can follow along on this sheet as I am going over your feedback.

Begin reading the feedback report.

It should be read as closely as possible. However, minor changes can be made. For example, in the section on symptoms, after you have said “compared to other people with panic attacks” a few times, you might just say “compared to others” or “compared to other panickers”. Also, if they are average on every single scale you might say the word “again” somewhere like “are again present at levels typical of others with panic”.

Also, since you have given them a sheet with the clusters for symptoms, thoughts, and cognitions, you can just say “as you can see from the list of symptoms on your sheet, there are many types of symptoms that are typical during panic attacks”. You do not need to read them.

Also, you may want to put a transition in when you are going from section to section like “this next section has to do with avoidance behavior”.

After you have finished with the report it is best to say (as fast as you can):

Thanks for coming in. That is all we needed to do. Here is a copy of your report that you can keep and refer back to. In about two weeks we will be sending you another packet of questionnaires to fill out and as soon as we receive those back you will be in the treatment phase. Thanks again.

It is important to try to say this immediately to deter any questions. If the person wants to talk a bit, that is okay, but try to discourage any questions concerning their feedback. Listen politely if they want to tell you about the history of their panic attacks. If they do ask questions try to answer them if they do not seem therapeutic - in other words, we don't want to be having any therapeutic interactions if we can help it. If they ask specific questions about the study, tell them they can call me and/or we would be happy to discuss it following the end of treatment.

Appendix G

Panic Attack Feedback Scoring Criteria

Study Number: _____ Start time: _____ End time: _____

- | | | | |
|-----|----|-----|--|
| Yes | No | 1. | Reader gave feedback on symptoms. |
| Yes | No | 2. | Reader gave feedback on thoughts. |
| Yes | No | 3. | Reader gave feedback on coping. |
| Yes | No | 4. | Reader gave feedback on avoidance. |
| Yes | No | 5. | Reader gave feedback on fear of panic (anticipatory anxiety). |
| Yes | No | 6. | Reader gave feedback on confidence in coping. |
| Yes | No | 7. | Reader described what would happen following feedback session (that they would receive questionnaires in the mail). |
| Yes | No | 8. | Subject asked questions during report reading. |
| Yes | No | 9. | Subject asked questions after report reading. |
| Yes | No | 10. | Details of treatment phase of the study given. |
| Yes | No | 11. | Reader provided specific information about coping strategies (aside from that given in the report). |
| Yes | No | 12. | Reassurance given to subject that treatment would be effective. |
| Yes | No | 13. | Subject gave information about themselves and their panic problem. |
| Yes | No | 14. | Description of what to expect from self-help intervention was given. |
| Yes | No | 15. | Reader provided specific information about the causes of panic attacks. |
| Yes | No | 16. | Reader provided clearly identifiable empathetic statements following subject disclosure of panic problem (i.e. "I know how you feel" or "that must be difficult"). |
| Yes | No | 17. | Reader instructed subject to try coping strategies or exposure techniques. |
| Yes | No | 18. | Reader made explicit statement that subject's problem was indeed panic and not some other physical problem. |

Appendix H

Change Assessment Scale - Revised - Page 1

Directions: Each statement below describes how a person might feel when starting therapy or approaching problems in their lives. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel right now, not what you have felt in the past or would like to feel.

- 1 = strongly disagree
- 2 = disagree
- 3 = undecided
- 4 = agree
- 5 = strongly agree

- | 1 | 2 | 3 | 4 | 5 | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. As far as I'm concerned, I don't have any anxiety problems that need changing. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. I think I might be ready for some self-improvement. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. I am doing something about my panic attack problem that had been bothering me. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. It might be worthwhile to work on my panic attack problem. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. There's nothing I can do about my panic attack problem. It doesn't make sense for me to be trying to change anything. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. It worries me that I might slip back on the progress I've already made with my panic attacks, so I am going to seek help. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. I am finally doing some work on my panic attack problem. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. I've been thinking that I might want to change something about myself. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. I have been successful in working on my panic attack problem but I'm not sure I can keep up the effort on my own. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. At times my panic attack problem is difficult, but I'm working on it. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. Trying to work on my panic attack problem is pretty much of a waste of time for me because the panic attacks are not something I can do anything about. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. I'm hoping this program will help me to better understand myself. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. I guess I have faults, but there's nothing that I really need to change. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. I am really working hard to change. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. I have a problem with panic attacks and I really think I should work on it. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 16. I'm not following through with what I had already changed about my panic attacks as well as I had hoped, and I'm hoping this program can help prevent a relapse of the problem. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 17. Even though I'm not always successful in changing, I am at least working on my panic attacks. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 18. I thought once I had resolved my problem with panic attacks I would be free of it, but sometimes I still find myself struggling with it. |

Change Assessment Scale - Revised - Page 2

Directions: Each statement below describes how a person might feel when starting therapy or approaching problems in their lives. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, make your choice in terms of how you feel right now, not what you have felt in the past or would like to feel.

- 1 = strongly disagree
- 2 = disagree
- 3 = undecided
- 4 = agree
- 5 = strongly agree

1 2 3 4 5

- | | |
|--|---|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 19. I wish I had more ideas on how to solve my panic attack problem. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 20. I have started working on my panic attack problem but I would like help. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 21. Maybe this program will be able to help me. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 22. I may need a boost right now to help me maintain the changes I've already made. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 23. I may be doing something to contribute to my panic attacks, but I don't really think I am. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 24. I hope that someone in this program will have some good advice for me. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 25. Anyone can talk about changing; I'm actually doing something about it. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 26. All this talk about psychology is boring. Why can't people just forget about their problems? |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 27. I'm in this program to prevent myself from having a relapse of my panic attacks. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 28. It is frustrating, but I feel I might be having a recurrence of my panic attack problem I thought I had resolved. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 29. I have worries but so does the next person. Why spend time thinking about them? |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 30. I am actively working on my panic attacks. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 31. I would rather cope with my faults than try to change them. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 32. After all I had done to try to change my panic attack problem, every now and again it comes back to haunt me. |

Appendix I

Self-Efficacy

Directions: Rate the confidence you have in your ability to do the following. Using the scale below, blacken the square that corresponds to your level of confidence that you could:

1	2	3	4	5	6	7	8	9	
not at all confident						moderately confident			totally confident
1	2	3	4	5	6	7	8	9	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. understand what your problem consists of
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. distinguish between your symptoms and your thoughts related to your panic attacks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. identify the symptoms and thoughts that you anticipate or are most afraid of during a panic attack.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. identify the situations or places in which you are most uncomfortable in or which you try to avoid or escape
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. identify strategies to use to help cope with panic

Appendix J

Panic Attack Outcome Expectancy

Directions: Listed below are a number of situations which people report occur once they have begun working on eliminating panic attacks. Indicate whether you agree or disagree that each of the following situations will happen to you.

1 = strongly disagree

2 = disagree

3 = undecided

4 = agree

5 = strongly agree

- | 1 | 2 | 3 | 4 | 5 | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. I expect that I will be panic free at the end of treatment. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. I expect that I will be able to enter previously avoided situations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. I expect that I will not have feelings of anxiety in previously feared situations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. I expect that I will not need another person to accompany me when entering feared situations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. I expect my future to look good. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. I expect to be more relaxed and confident with others. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. I expect that I will be less depressed in the future. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. I expect not to fear having a panic attack. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. I expect to feel good about myself. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. I expect that I will be less inclined to escape from feared situations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 11. I expect that I will be able to control negative thoughts. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 12. I expect to feel more in control. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 13. I expect not to fear having the symptoms of a panic attack. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 14. I expect that I will be enjoying life more fully. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 15. I expect that I will feel generally less anxious and fearful. |

Appendix K

Self-Esteem Questionnaire

Directions: Listed below are a number of statements. Indicate whether you agree or disagree with each statement.

1 = strongly disagree

2 = disagree

3 = agree

4 = strongly agree

1 2 3 4

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|-----|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. | On the whole, I am satisfied with myself. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. | At times I think I am no good at all. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3. | I feel that I have a number of good qualities. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4. | I am able to do things as well as most other people. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5. | I feel I do not have much to be proud of. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. | I certainly feel useless at times. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. | I feel that I'm a person of worth, at least on an equal plane with others. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. | I wish I could have more respect for myself.. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. | All in all, I am inclined to feel that I am a failure. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. | I take a positive attitude toward myself. |

Appendix L

Assessment of Feedback

Directions: Below are some statements concerning the assessment and feedback you have received. Please indicate the extent to which you tend to agree or disagree with each statement.

1 = strongly disagree

2 = disagree

3 = undecided

4 = agree

5 = strongly agree

1 2 3 4 5

- | | |
|--|--|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 1. It demonstrated that I was not the only person suffering from this problem. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 2. It verified what I already knew. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 3. It showed me that I had a long way to go to overcome my problem. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 4. It provided new insights into my problem. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 5. It showed me I was not as bad off as I thought.. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 6. It pointed to possible directions I could take to help myself. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 7. It provided information that my problems were worse then I thought. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 8. It did not really tell me anything new. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 9. It showed me that I already do things that make my problem better. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 10. It gave me hope that I might find a way to make my problem better. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 11. It made me feel like I was under a microscope. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 12. It made me think more about myself. |

Appendix M

Subject's ID Number: _____

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Informed Consent for Participants of Investigative Projects:

Title of Experiment: Assessment of Panic Attacks

1. PURPOSE OF EXPERIMENT

The purpose of this study is to investigate the effects of assessment and feedback on panic attack sufferers. As part of participation in this study you will receive a comprehensive assessment of your panic attacks. You will also receive feedback based on this assessment. You may be asked to complete this assessment immediately or you may not receive the assessment for approximately three weeks. You may receive feedback in approximately one week or you may receive it in approximately three weeks. This study is Phase 1 of a three phase assessment/feedback, treatment and relapse prevention study. Participation in this 1st phase will allow you to participate in Phase 2 of the study which involves a self-help treatment package for panic attacks. Participation in Phase 2 of the study will allow you to participate in Phase 3 of the study which involves relapse prevention which is designed to assist people in maintaining their treatment gains.

2. PROCEDURE TO BE FOLLOWED IN THE STUDY

To accomplish the goals of the study, I will be asked to do the following:

1. I understand that participation in this study on panic attacks consists of answering the following questions:

a. Have you ever been diagnosed by a physician with any of the following?:

seizure disorder, kidney disease, stroke, schizophrenia, organic brain syndrome, emphysema, heart attack, drug dependence, or alcohol dependence YES or NO

If I answer "YES" to the above question, I understand that I cannot participate in this study. I understand that I may call the researchers to discuss this or receive a referral for treatment. If I answer "NO" to the above question, I am able to participate in this study.

B. Have you ever been diagnosed by a physician with chronic hypertension? YES or NO

If I answer YES, I understand that I must meet the following two conditions to participate:

1. I must be currently under a doctor's care for my chronic hypertension, and
2. I must seek medical attention if I am having chest pain.

Please sign here to indicate that you agree to these conditions:

- I understand that if I cannot agree to the above conditions regarding my chronic hypertension, than I may not participate in this study, but can call the researchers to discuss this.
2. I understand that participation in this study on panic attacks consists of receiving forms in the mail that will ask me questions related to my panic attacks. I will be sent these questionnaires either two or three times as part of Phase 1 and will be supplied a self-addressed stamped envelope in which to return them.
 3. I understand that participation in this study on panic attacks consists of receiving written feedback in the mail or verbal feedback in person based on my responses to the questionnaires I complete. If I am to receive verbal feedback, I may be asked to come to Virginia Tech for a short meeting to receive this feedback. I understand that these sessions will be audiotaped in order for the researchers to verify that feedback is being given in a consistent manner. I further understand that I will not be identified by name on this tape and that it will be erased immediately after it is rated. Rating will be conducted by a graduate student who is working on the self-help panic assessment and treatment study.
 4. I understand that participation in this study on panic attacks consists of being able to receive treatment for my panic attacks in Phase 2 of the study upon completion of the 1st Phase of the study. I also understand that my participation in Phase 1 does not mean that I have to participate in any further studies. I also understand that I will be given a separate consent form for subsequent phases of the study.
 5. I understand that I can withdraw from this study at any time. I also understand that I can receive a referral for treatment of my panic attacks.

3. CONFIDENTIALITY OF RESULTS

The results of this study will be kept strictly confidential. At no time will the researchers release my results to anyone without my written consent. The information I provide will have my name removed and only a subject number will identify me during analyses and any write-up of the research.

4. DISCOMFORTS AND RISKS FROM PARTICIPATING IN THE STUDY

Participation in this study may involve some discomfort due to filling out questionnaires that ask about my panic attacks or from receiving feedback about my panic. There are no other risks in participating in this study.

5. EXPECTED BENEFITS

The benefits of participation may include gaining a better understanding of my panic attacks and receiving treatment for my panic attacks. My participation may also provide the investigators the opportunity to contribute to the understanding of panic attacks.

6. FREEDOM TO WITHDRAW

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

7. FINANCIAL RESPONSIBILITY

I understand that I will be required to pay a fee of \$35 for study materials and that these materials will be mine to keep. I understand that this fee covers the materials for all three phases of the study and that if I choose to discontinue participation, I will be refunded the fee for materials not received. These materials include assessment and feedback materials, a self-help book, a self-help workbook, and follow-up materials.

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 reproduced in professional journals or books, or used for any other purpose that Virginia Tech’s Department of Psychology considers proper in the interest of education, knowledge, or research.

9. APPROVAL OF RESEARCH

This research project has been approved by the Department of Psychology Human Subjects Research Committee and by the Institutional Review Board of Virginia Tech.

10. SUBJECT PERMISSION

I have read the above statements and I have called the investigator (540-231-3235 or 1-800-733-1129) if I have had any questions. I have received an additional a copy of this consent form to keep for my own records. I am 18 years of age or older. I hereby acknowledge the above and give my voluntary consent for participation in this study.

I further understand that if I participate I may withdraw at any time without penalty. I understand that if I am in need of treatment for my panic attacks, I can call the investigator who will make an appropriate referral for me. I also understand that participation in this study also makes me eligible for participation in Phase 2 of the study which involves treatment and for Phase 3 of the study which involves follow-up subsequent to treatment.

I understand that if I should need to speak to someone in an emergency I can call the following numbers:

- 540-231-5701 Dr. George Clum
- 540-231-6914 Psychological Services Center
- 540-231-3235 Panic Self-Help Project Office
- 540-382-1738 The RAFT Crisis Hotline (if after regular business hours or at any time) or if long distance 540-674-1738

I also understand that if I have any questions regarding this research and its conduct, I should contact any of the persons named below.

Primary Researcher:	Allison Roodman	540-231-3235
Faculty Advisor:	George A. Clum, Ph.D.	540-231-5701
Chair, Human Subjects Committee:	Richard Eisler, Ph.D.	540-231-7001
Chair, Internal Review Board:	Ernest Stout	540-231-9359

Subject’s Signature: _____ Date: _____

Vita

Allison Anne Roodman

April, 1996

PERSONAL HISTORY

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EDUCATION

Virginia Tech, Blacksburg, VA. Ph.D. in Clinical Psychology expected: May 1998.
M.S. in Clinical Psychology expected: May, 1996.

Duke University, Durham, NC. BS in Psychology, September, 1988.

Duke in Israel, Summer 1988.

CLINICAL EXPERIENCE

Psychology Trainee, Salem Veterans Administration Medical Center, Fall, 1995
Primary responsibilities: Participated in all aspects of therapeutic community on inpatient posttraumatic stress disorder unit including psychodrama, adventure based learning, and community meetings.

Graduate Clinician, Psychological Services Center, Virginia Tech Sept. 1993 - May 1994, Sept. 1994 - May 1995
Primary responsibilities: Assessment and therapy with variety of adult, family and child clients under faculty supervision.

Psychology Trainee, Durham Veterans Administration Medical Center, Summer, 1994
Primary responsibilities: Co-led posttraumatic stress disorder (PTSD) veterans group and Spouse's of PTSD veteran group, therapy with individual outpatient PTSD veterans, and assessment intakes and report writing.

Psychology Technician, Durham Veterans Administration Medical, 1992 - 1993.
Primary responsibilities: Clinical interviewing, co-therapist for PTSD group, therapist for stress management group, individual biofeedback, and relaxation training for veterans with PTSD.

Research Assistant, Duke University Medical Center, Pain Management Clinic 1988 - 1990. Clinical responsibility: Clinical interviewing with arthritis patients.

Counselor/Coordinator, Durham County Advocates for the Mentally Ill, Threshold Clubhouse, 1987-1988.

Primary responsibilities: Facilitated daily group meetings, case managed for 15 members, facilitated problem solving group and recreation night.

ACCESS Counselor, Duke University 1987-1988.

Primary responsibilities: Peer counselor for telephone hot-line for support and information on problems and questions of sexual orientation.

TEACHING/LEADERSHIP EXPERIENCE

Graduate Assistant, The Women's Center at Virginia Tech, Blacksburg, Virginia 1996.

Primary responsibilities: Supervise service-learning student, grant writing, and facilitate advisory committee meetings.

Teaching Assistant, Virginia Tech, Blacksburg, Virginia 1994 -1995.

Primary responsibilities: Taught the Advanced Social Psychology Laboratory including lesson planning, leading discussions, and assisting students on social psychology research projects.

Teaching Assistant, Virginia Tech, Blacksburg, Virginia 1993 -1994.

Primary responsibilities: Taught two sections of Introductory Psychology Lab including lesson planning, leading discussions, and grading essays and quizzes.

Teacher/Facilitator, Echo Hill Outdoor School, Worton, Maryland 1990.

Primary responsibilities: Facilitated individual and group experiences on high and low initiatives course with special populations including inner city youth, welfare mothers, at-risk high school students, and learning disabled children. Taught variety of experiential based courses on the Chesapeake Bay, swamp and pond life, and survival. Residential responsibilities with elementary school groups throughout their week-long stay.

Ropes Course Co-Director, Project W.I.L.D. (Wilderness Initiatives for Learning at Duke) 1987-1989.

Primary responsibilities: Team-taught university course on experiential education based on the Outward Bound model including weekly classes on group dynamics and hiking trips. Directed operations on a high and low ropes course including training staff, facilitating groups, fund-raising, scheduling, and safety standards.

Tour Leader, Bikecentennial (renamed Adventure Cycling in 1994) Touring Company, Missoula, MT 1991.

Primary responsibilities: Facilitated all aspects of 90 day, 5,000 mile, self-contained, cross-country bicycle trip with 12 international participants.

RESEARCH EXPERIENCE

Psychology Technician, VA Medical Center 1992 - 1993.

Primary responsibilities: Coordinated six clinical research studies which include subject recruitment, diagnostic clinical interviewing, psychophysiological assessment, composition of trauma scripts, collection of patient data, development of data tracking systems, data management, SAS programming and manuscript preparation.

Research Assistant, Duke University Medical Center, Pain Management Unit. 1988-1990.

Primary responsibilities: Coordinated ten research studies including subject recruitment, behavioral coding of videotapes, data collection, creating data files and programming in SAS statistical programming. Psychophysiological assessment and treatment protocols included EMG recordings. Supervised two student assistants.

PUBLICATIONS

Beckham, J.C., Keefe, F.J., Caldwell, D.S., & Roodman, A.A. (1991). Pain coping strategies in rheumatoid arthritis: Relationships to pain, disability, depression and daily hassles. Behavior Therapy, 22, 113-124.

Beckham, J.C., Roodman, A.A., Barefoot, J.C., Haney, T.L., Helms, M.J., Fairbank, J.A., Hertzberg, M.A., & Kudler, H.S. (in press). Hostility and self-reported health among combat veterans with and without posttraumatic stress disorder: A preliminary report. Journal of Traumatic Stress.

Beckham, J.C., Roodman, A.A., Haney, T.L., Barefoot, J.C., Hertzberg, M.A., Cunha, G.H., & Kudler, H.S. (1993) Assessment of interpersonal hostility and health in Vietnam combat veterans with posttraumatic stress disorder. Poster presented at The Ninth Annual Meeting of the International Society for Traumatic Stress Studies.

Beckham, J.C., Roodman, A.A., Shipley, R.H., Hertzberg, M.A., Cunha, G.H., Kudler, H.S., Levin, E.D., Rose, J.E., & Fairbank, J.A. (1995). Smoking in Vietnam combat veterans with posttraumatic stress disorder. Journal of Traumatic Stress, 8, 461-472.

Febbraro, G.A.R., Clum, G.A., Wright, J.H., Roodman, A.A., Graves, M.A., & Campe, D.E. (1995). An investigation of the differential effectiveness of bibliotherapy and self-regulatory components in the treatment of panickers. Paper presented at the Association for Advancement of Behavior Therapy (AABT) 29th Annual Convention.

Roodman, A.A., Clum, G.A., Febbraro, G.A.R., Wright, J.H., Graves, M.A., & Campe, D.E. (1995). A test of the effects of assessment and feedback on process measures for individuals with panic attacks. Paper presented at the Association for Advancement of Behavior Therapy (AABT) 29th Annual Convention.

Vrana, S.R., Roodman, A.A., & Beckham, J.C. (in press). Selective processing of trauma-relevant words in posttraumatic stress disorder. Journal of Anxiety Disorders.

REFERENCES

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