THE CONTRIBUTION OF PANIC ATTACK CONTROL TRAINING TO PANIC AND ANXIETY REDUCTION IN AGORAPHOBICS

John Skow, Ph. D.
Private Practice - Family Centered Counseling
Boynton Beach, Florida

Statement of the Problem

There has been little research on the non-medical treatment of panic attacks suffered by agoraphobics even though approximately 12,000,000 people in the United States suffer from agoraphobia. This study will look at a very short term panic attack treatment program for agoraphobics (Skow, 1986).

The DSM III (APA, 1980) describes agoraphobia as "the most severe and pervasive form" (p. 225) of the phobic disorders. In a study by Robins (1984) it was found that agoraphobia is one of the most prevalent psychiatric disorders affecting just less than six percent of the population. Drug abuse and alcohol dependence were ranked fourth along with agoraphobia. Although phobias are the most common of the psychiatric disorders, they have for years been either misdiagnosed or not diagnosed at all (DuPont, 1984). Thus, agoraphobia is a problem of major significance.

The agoraphobic syndrome is generally preceded by a panic attack (also called an anxiety attack). Panic attacks are characterized by some of the following symptoms: tachycardia, shortness of breath, chest pain, dizziness, depersonalization, derealization, sweating, fear of going crazy or doing something uncontrolled, and fear of dying (DSM III-R, APA, 1987). The panic attack is the most distressing phenomena experienced by the agoraphobic (Marks, 1969). It is the most crucial and dreaded experience from which the agoraphobic seeks relief.

The use of psychoanalytic and traditional "talking" therapies have not been very successful with agoraphobics or the panic attack (Weiss 1964, in Zitrin, Kline, & Woerner, 1979).

A variety of behavioral treatment approaches have attempted to control
the panic attack in agoraphobics. Often these attempts have been indirect, such as in vivo flooding, in which the individual is encouraged to face phobic situations until his anxiety or panic is decreased. In these situations the patient may be given suggestions on how to manage anxiety, such as Michenbaum's (1977) "Stress Innocation Training" (verbal coping procedures), but there is seldom a specific "how to" in dealing with panic.

The most direct approach to treating panic attack has been in the pharmacological therapies. The tricyclic antidepressants seem to be the most promising and "safest" pharmacological approach to controlling panic attacks. Unfortunately, the drugs available to date have their drawbacks, dangers, and problems (Goldstein, 1984). In addition, since these medications are relatively new, their long term effects are not fully known.

Some programs treating agoraphobia suggest general rules for dealing with the panic attack, but do not suggest systematic step by step procedures for controlling them when they occur. Little clinical research has been done to investigate the effectiveness of very short term, non-medical, panic attack control training for agoraphobics.

The Research Questions

The purpose of this study is to investigate empirically whether a systematic panic attack control technique can be developed and employed successfully to treat panic attacks suffered by agoraphobics. Specifically, it attempts to demonstrate that agoraphobics with panic attacks, aided by systematic Panic Attack Control Training (PACT), can learn to reduce the intensity of the attacks as a means of gaining self-control over their acute panic attacks and to reduce the frequency and intensity of their attacks.

The following formal hypotheses were tested:

Hypothesis 1: There will be a difference between treatment group and control group in reducing the frequency of panic attacks.

Hypothesis 2: There will be a difference between treatment group and control group in reducing the intensity and duration of panic attacks.
Hypothesis 3: There will be a difference between treatment group and control group in reducing phobic (anticipatory) anxiety.

Methodology

Thirty-four volunteer subjects with agoraphobia and panic attacks were recruited from the general community. Subjects were evaluated and assigned to one of two study centers depending upon where they lived and randomly assigned to a treatment or control group at each center. In order to obtain the greatest number of subjects, the study was replicated a second time. Thus, there were two study periods (phases), Fall and Winter, with a total of four treatment and four control groups. The data from each study period was then pooled.

A Randomized Control-Group Pretest-Posttest design was used. Data was collected at pretest (two weeks before treatment period) and at posttests two weeks, one month, and three months following treatment. Because of time constraints, posttest at three months used N of 21 from Fall Phase of study. Analysis of data was done using t-tests for unpaired (independent) groups. To assess the comparative effectiveness of the treatment, the dependent variables were measured using a variety of self-report rating scales, questionnaires, and a daily log. These included Frequency of Panic Attacks (FPA) (Watson & Marks, 1971); Daily Activity Sheet (DAS) (Skow, 1986); Phobic Anxiety (PA) of the Brief Symptom Inventory (Derogatis, 1975); Fear Questionnaire (FQ) (Marks & Mathews, 1978); The Adult Self Expression Scale (ASES) (Gay, Hollandsworth, & Glassi, 1975); Panic Attack Control Training Program Evaluation (TPE) (Skow, 1986); Feelings of Self Control (Foa in Levine, 1981).

The treatment group involved Panic Attack Control Training (PACT). This training was divided into three phases: (a) An introduction and educational phase, during which subjects received didactic education about agoraphobia and the panic attack, its trigger mechanisms, physiology, and the cognitive behavioral systems which perpetuate the attacks. It also included the therapeutic rationale for the Eight Step Panic Attack Guide (PAG) (Skow, 1986) which is the core of the PACT. The PAG is a step by step procedure which subjects would memorize and follow while experiencing a panic attack. The second phase, (b) rehearsal phase, involved teaching subjects the steps of the
PAG, how and when to use it. The third, (c) practice and application phase, involved repetitive practice and drill in the application of the PAG. Subjects were encouraged to listen to an audio tape of the PAG two times a day as homework.

The control group involved a program of general communications skills training (CST) consisting of lecture, discussion, practice of listening, talking, and conflict resolution techniques. Both treatment and control groups involved three 90-minute meetings once a week during a 15-day period.

Expected Subject Demographic Characteristics

It was expected that subjects for the PACT study would roughly approximate characteristics of the agoraphobics in the Thorpe and Burns (1983) national survey of agoraphobics (N 963). It was also expected there would be a higher rate of subjects working due to economic conditions in the proposed study than in the Thorpe and Burns study which was done in England.

Demographic characteristics for the 34 subjects in the PACT are presented in Table 1 along with the data from the Thorpe and Burns survey. Subjects appear to be generally representative of agoraphobics as found in the Thorpe and Burns national survey of agoraphobics in terms of mean age, age at problem onset. There were 17.58% more males and 24.27% more subjects working in the present study compared to the Thorpe and Burns survey. With the few noted exceptions the study appears to fairly represent the general agoraphobic population.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>PACT Study (N 34)</th>
<th>Thorpe &amp; Burns National Survey (N 963)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>43.52</td>
<td>43.6</td>
</tr>
<tr>
<td>Female</td>
<td>70.58</td>
<td>88.16</td>
</tr>
<tr>
<td>Age Onset</td>
<td>27.73 (SD 13.33)</td>
<td>28.02 (10.35)</td>
</tr>
<tr>
<td>Married</td>
<td>73.52 %</td>
<td>71.0 %</td>
</tr>
<tr>
<td>Working</td>
<td>52.94 %</td>
<td>28. %</td>
</tr>
</tbody>
</table>

For ethical reasons subjects in the control groups were offered the
opportunity to take part in a treatment group after the study was complete.

Results

The initial equality of the four treatment groups and four control groups was established using one way analyses of variance on pretest scores for the basic dependent measures. No significant differences were found on these measures.

Hypothesis 1.
There will be a difference between treatment group and control group in reducing the frequency of panic attacks.

Analysis of data was done on three measures: (1) Frequency of Panic Attacks - Scale (FPA - Scale) a nine point Likert-type scale (Watson Marks, 1971). (2) Added to the FPA - Scale was number of panic attacks in the last two weeks (FPA - 2 Weeks); a retrospective estimate of attacks during the past two weeks and (3) Number of Panic Attacks from the Daily Activity Sheet (DAS - PA 2 Weeks) which represents the previous two week total of panic attacks. The Pretest DAS - PA 2 Weeks represents the sum of two weeks baseline following the pretest and before training started. Table 2 represents the t tests between treatment and control at Pretest, Posttest 1 (two weeks), Posttest 2 (one month), and Posttest 3 (3 months for Fall Phase only).

Posttest 1
Results indicate differences between frequency of panic attacks were statistically nonsignificant at Posttest 1 (2 weeks). However, the DAS - 2 Weeks nearly achieved significance at .05.

Posttest 2
At one month Posttest 2 results indicate statistical significances at ≤ .05 for FPA - PA 2 Weeks, and DAS - PA 2 Weeks. FPA, which is not an actual number count of attacks, but a more subjective rating of frequency, intensity, and duration of panic attacks, only reached significance at ≤ .10 on Posttest 2.

Posttest 3
At three month Posttest (Fall Phase only, N 21) there was a large and significant difference between treatment and control groups on frequency of
panic attacks on all three measures.

Table 2  T Test Unpaired Groups for Frequency of Panic Attacks (FPA- Scale) with 2 Weeks Panic Attacks, FPA PA 2 Weeks, and Daily Activity Sheet - (PA 2 Weeks).

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>Cont. M</th>
<th>Treat. M</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPA Scale</td>
<td>32</td>
<td>4.412</td>
<td>3.824</td>
<td>1.081</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>FPA PA 2 Weeks</td>
<td>32</td>
<td>6.353</td>
<td>9.000</td>
<td>.944</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>DAS PA 2 Weeks</td>
<td>32</td>
<td>8.2794</td>
<td>6.471</td>
<td>.968</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>Posttest 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPA Scale</td>
<td>31</td>
<td>3.55</td>
<td>3.353</td>
<td>.597</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>FPA (PA 2 Weeks)</td>
<td>32</td>
<td>5.824</td>
<td>3.765</td>
<td>1.266</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>DAS (PA 2 Weeks)</td>
<td>32</td>
<td>5.294</td>
<td>3.353</td>
<td>1.351</td>
<td>.05 &lt; p ≤ .1</td>
</tr>
<tr>
<td>Posttest 2 (One Month)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPA Scale</td>
<td>28</td>
<td>3.625</td>
<td>2.429</td>
<td>1.598</td>
<td>.05 &lt; p ≤ .1</td>
</tr>
<tr>
<td>FPA (PA 2 Weeks)</td>
<td>30</td>
<td>4.176</td>
<td>2.133</td>
<td>1.958</td>
<td>.025 &lt; p ≤ .05</td>
</tr>
<tr>
<td>DAS (PA 2 Weeks)</td>
<td>30</td>
<td>5.471</td>
<td>1.733</td>
<td>2.849</td>
<td>.005 &lt; p ≤ .005</td>
</tr>
<tr>
<td>Posttest 3 (3 Month)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPA (Scale)</td>
<td>19</td>
<td>4.182</td>
<td>.7</td>
<td>2.58</td>
<td>p ≤ .0005</td>
</tr>
<tr>
<td>FPA (PA 2 Weeks)</td>
<td>19</td>
<td>4.636</td>
<td>.5</td>
<td>3.605</td>
<td>.0005 &lt; p ≤ .005</td>
</tr>
<tr>
<td>DAS (PA 2 Weeks)</td>
<td>19</td>
<td>4.182</td>
<td>.6</td>
<td>2.807</td>
<td>.005 &lt; p ≤ .01</td>
</tr>
</tbody>
</table>

Hypothesis 2:
There will be a difference between treatment group and control group in reducing the intensity and duration of panic attacks.

Analysis was done on DAS - High Rating (Intensity) of panic attacks on the DAS. This is a rating of each panic attack on a nine point Likert-type scale. The control showed a somewhat inflated pretest intensity score. The duration of panic attacks in minutes was also analyzed on the duration part of the DAS, since it is associated with the discomfort of an attack. Table 3 presents the t tests at pretest and posttests two weeks, one month, and three month (Fall Phase only) on intensity and duration of panic attacks.

Posttest 1
Results indicate the difference between groups on intensity of panic attacks was not statistically significant at Posttest 1. There was, however, a significant difference in duration of panic attacks indicating the "interrupting" effect of the PAG on attacks.
Posttest 2

Results indicate there was marked significant difference at Posttest 2 on High Rating (Intensity) of panic attacks. Differences on duration became even greater at Posttest 2.

Posttest 3

A difference of significance was maintained between treatment and control groups on intensity and duration of panic attacks. The data suggest that not only were significant differences maintained at Posttest 3, but show a marked decrease in these two variables compared to the control group.

Table 3 T Test Unpaired Groups for Daily Activity Sheet (DAS) for High Rating (Intensity) Panic Attack and Duration in Minutes.

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>Cont. M</th>
<th>Treat. M</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest Rating (Intensity)</td>
<td>30</td>
<td>29.733</td>
<td>19.706</td>
<td>1.589</td>
<td>.05 &lt; p ≤ .1</td>
</tr>
<tr>
<td>Duration</td>
<td>32</td>
<td>157.941</td>
<td>138.706</td>
<td>.358</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>Posttest 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Rating PA</td>
<td>29</td>
<td>20.933</td>
<td>14.375</td>
<td>.981</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>Duration</td>
<td>30</td>
<td>113.667</td>
<td>42.529</td>
<td>2.042</td>
<td>.025 &lt; p ≤ .05</td>
</tr>
<tr>
<td>Posttest 2 (1 Month)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Rating PA</td>
<td>30</td>
<td>27.059</td>
<td>7.333</td>
<td>2.899</td>
<td>.005 &lt; p ≤ .01</td>
</tr>
<tr>
<td>Duration</td>
<td>28</td>
<td>116.867</td>
<td>27.733</td>
<td>2.867</td>
<td>.0005 &lt; p ≤ .005</td>
</tr>
<tr>
<td>Posttest 3 (3 Month)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Rating PA</td>
<td>19</td>
<td>24</td>
<td>2.1</td>
<td>2.239</td>
<td>.01 &lt; p ≤ .025</td>
</tr>
<tr>
<td>Duration</td>
<td>19</td>
<td>92.636</td>
<td>7.5</td>
<td>2.64</td>
<td>.005 &lt; p ≤ .01</td>
</tr>
</tbody>
</table>

Hypothesis 3:

There will be a significant difference between treatment group and control group in reducing phobic (anticipatory) anxiety.

For analyzing phobic anxiety: (1) The Phobic Anxiety Dimension of the Brief Symptom Inventory (PAD-BSI) was the measure selected. Phobic anxiety is a persistent fear-response to persons, places, objects or situations, which is characterized as irrational and disproportionate to the stimulus and can lead to avoidance or escape behavior.

Table 4 presents the t tests between treatment and control at Posttest 1 (two weeks), Posttest 2 (one month), and Posttest 3 (3 month) (Fall Phase
only) on phobic anxiety.

Table 4. T Test Unpaired Groups for Phobic Anxiety (Anticipatory Anxiety) on the PAD - BSI.

<table>
<thead>
<tr>
<th></th>
<th>DF</th>
<th>Cont. M</th>
<th>Treat. M</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest PAD-BSI</td>
<td>32</td>
<td>37.118</td>
<td>33.526</td>
<td>.713</td>
<td>.1 &lt; p ≤ .375</td>
</tr>
<tr>
<td>Posttest 1 (2 Weeks) PAD - BSI</td>
<td>32</td>
<td>30.765</td>
<td>20.941</td>
<td>2.014</td>
<td>.025 &lt; p ≤ .05</td>
</tr>
<tr>
<td>Posttest 2 (1 Month) PAD- BSI</td>
<td>30</td>
<td>32.235</td>
<td>19.867</td>
<td>2.11</td>
<td>.025 &lt; p ≤ .05</td>
</tr>
<tr>
<td>Posttest 3 (3 Month) PAD - BSI</td>
<td>19</td>
<td>34.091</td>
<td>16.7</td>
<td>2.276</td>
<td>.01 &lt; p ≤ .025</td>
</tr>
</tbody>
</table>

Results indicate differences between groups on phobic anxiety were statistically significant from the earliest Posttest in reducing phobic anxiety. The real problem with anticipatory anxiety is the agoraphobic's perceived expectation of what might happen in a specific situation and not necessarily what would happen. So the results are an indication of lessening anticipation of anxiety and avoidance of those situations after finishing the PACT.

Additional Data Collected and Analyses

The following section will examine pre and post results for treatment and control groups on selected clinical measures. These measures are The Fear Questionnaire, State Trait Anxiety Inventory, Adult Self Expression Scale, and Control of Symptoms. None of the instruments used under additional data are part of the main dependent variables, but they were included in an attempt to understand other possible effects the PACT might have had on subjects.

Because of the significant differences of some of these scores at Pretest, t tests for paired groups were used to measure change within groups between the Pre and the Posttests.

The Fear Questionnaire

The Fear Questionnaire was used in rating (1) the main target phobia which was panic attacks; (2) agoraphobia; (3) total phobia; (4) anxiety-depression; and (5) global phobia.

The PACT was designed to treat the panic attack and did not try to deal specifically with agoraphobia. It is interesting to note that, the treatment
group reached statistical significance on the scale for agoraphobia at Posttest 2. There are a number of techniques in the PAG which are useful in dealing with anticipatory anxiety, anxiety, and panic felt in phobic situations. This might account for the possible results in pre and posttest significance. Another factor could involve the information given during the PACT training about agoraphobia. Clinical observation has shown some agoraphobics, after the first intake interview and an explanation of agoraphobia, the agoraphobic cycle, and the approach to treatment (with no actual treatment techniques being given), have shown a marked improvement the following week. The dramatic improvement would then be gone by the succeeding week. The treatment group had not maintained the difference of significance on agoraphobia at Posttest 3. Anecdotal comments, however, by some treatment subjects at Posttest 3 indicated they were able to do things and go places they had not been able to do or go before the PACT training. Again, no formal attempt was made to actually treat agoraphobia outside the context of the panic attack during the PACT.

**Adult Self Expression Scale**

A significant difference was found at Pretest on the Adult Self Expression Scale (ASES) in which the control group was inflated by two high scores. The ASES was used as a control on the impact of communication skills training to insure control groups were, in fact, receiving as close to a placebo experience as possible. The ASES for the control group remained relatively stable, but an interesting phenomena happened with the treatment group. The treatment subjects' ASES scores continued to increase during the time of the study. This is in contrast to findings by Emmelkamp, Van Der Hout, and DeVries (1982) in a study on assertiveness training for agoraphobics. One of three treatment groups in their study received prolonged in vivo exposure. This group showed very little mean score change (83.5 to 84.5) between pretest and posttest (over a ten week period) on the ASES. The other two groups received (1) assertiveness training and (2) a combination of assertiveness training and in vivo exposure. These groups showed improvement on the ASES.

Although Emmelkamp was not necessarily treating panic attacks, it is interesting that the PACT group also did not receive assertiveness training, but did show a mean increase of 12.2 points between Pretest and Posttest 2 (91.6 to 103.8). A possible explanation for the change in the treatment group in the present study could be as the subjects became more confident in their ability
to control symptoms, they were more able to express and assert themselves. However, Emmelkamp's in vivo treatment group would then be expected to show change in assertiveness which it didn't. Emmelkamp suggested, "Based on self-efficacy theory one could predict that increased self-efficacy gained through assertiveness training increases coping efforts in other areas" (Emmelkamp et al. p.68). If the PACT and in vivo treatments are quite different and cannot be compared in regards to effects on assertiveness, then it could be suggested that increased self-efficacy gained through the PACT training increases coping efforts in other areas, such as assertiveness. There may also be other nonspecific influences affecting the increase in assertiveness scores.

**State Trait Anxiety Inventory**

The STAI looked at the effects on trait and state anxiety. Using the t test for paired groups, the treatment group achieved significance in lowering state and trait anxiety at Posttest 1 while the control group achieved significance in lowering trait anxiety. It is possible that the control group's change in trait anxiety could be related to the group interaction in which subjects were able to use some of their phobic experiences for examples in CST. Treatment subjects did not discuss to any extent their individual phobic problems during PACT. According to control subjects, one of the most useful aspects of the CST involved being with others who had the same problems. It is noted that the treatment groups' improved ability to handle panic attacks might suggest their lowered trait and state anxiety scores. Although the control groups' trait anxiety score lowered, their state anxiety never changed enough to reach significance throughout the study.

**Control of Symptoms**

The Control of Symptoms measure was used to look at the effects the PACT could have on subjects' feelings over their symptoms. An increase in scores indicates more control over symptoms. At Pretest 1 differences reached significance indicating treatment subjects felt more in control of their symptoms after PACT than the control group did after the CST.

The agoraphobic problem is related to a thinking process. Agoraphobics tell themselves that if they go into a specific situation, they will lose control and have panic attacks. This starts the anticipatory anxiety and by the time the agoraphobics go into the situation, they are already experiencing anxiety.
arousal which they interpret as impending panics. They can then literally talk
themselves into the panic. The more agoraphobics feel or think they are in
control of their symptoms and the situation, the less anxiety they will
experience. It would appear as treatment subjects in this study gained control
over their panics, the more they felt in control of their symptoms. This seems
to be an important step in recovery from panic attacks and agoraphobia and
fits into the Theory of Self-Efficacy (Bandur, Adams, Hardy, & Howells, 1980).

The major findings indicate the Panic Attack Control Training received in
the treatment group had a significant effect in reducing the frequency,
intensity, and duration of panic attacks. It also significantly reduced
anticipatory (phobic) anxiety in the treatment group as compared to the
control group and suggests the possible usefulness of PACT in helping
agoraphobics control panic attacks.

Discussion and Implications

At the present time more and more people are becoming aware of the
problem of agoraphobia. This is evidenced by the growing number of
newspaper and magazine articles as well as television programs discussing
agoraphobia and its associated anxiety and panic symptoms. As people
become more aware of and able to recognize the problem, the need for
competent, efficient, and cost-effective treatment increases.

The results of the study indicated the PACT program was effective in
significantly reducing frequency, intensity, and duration of panic attacks, and
reducing phobic anxiety in treatment subjects compared to control subjects.

Limitations

There are a number of limitations to the study. There were only 34
subjects who participated in the study and thus, some of the inherent
problems associated with small sample research and statistical analyses may
have had an effect on the outcome. Results should be noted with some
cautions. Attempts were made to maximize the experimental variance and to
keep the control group away from behavioral or cognitive techniques
associated with the PACT.
In addition the time frame for training in the study was three 90-minute meetings during a 15-day period. Subjects in the study have had the problem an average of 14.2 years. A longer training period might have increased the treatment's effectiveness and helped to further reduce the frequency of panics in some of the subjects.

Randomization was utilized to control extraneous variables. There were, however, problems with the randomization. Subjects were restricted to two different geographical location centers. Some subjects had to be reassigned to a different group within their center. By chance there was a significant difference between the treatment and control groups in regards to age. There was a problem with significant initial differences between the treatment and control groups on some of the additional variables measured.

It may be that the control group was less a placebo group than hoped for. Although the Adult Expression Scale was used and it showed marked stability for the control group, there may have been other variables working, such as interaction between subjects. In any case, the control group made significant progress on some peripheral measures contained in the STAI, FQ (anxiety-depression, trait anxiety, global phobia). However, analysis of within-group change for the control group on the variety of dependent variables and associated clinical measures was not pursued within the context of this design, which primarily seeks to establish the effects of the PACT in a randomized control group pretest-posttest structure.

Another major problem in the study of agoraphobia and panic attacks is the instruments used to measure it. Certain instruments may not have been relevant, sensitive enough, or adequate to correctly measure the variable they were intended to measure. For this reason several instruments were used where appropriate and possible to measure a variable (i.e. number of panic attacks).

Even with these different measures, there still exists the problem of defining a panic attack so subjects can all be rating the same thing. There does not seem, at this time, to be a completely satisfactory and practical instrument for measuring the panic attack (A. J. Goldstein, personal communication, September, 1985).
Another possible limitation of the study could be effects of medication on both treatment and control groups in regards to panic, anxiety, and other somatic symptoms.

**Implications**

Within the framework of the design and bearing in mind the limitations of the present study, some generalizations may be made.

Comparing the characteristics of the subjects in this study to characteristics of respondents in a national survey on agoraphobics found the two groups very similar. This lends support to possible generalization of findings.

The PACT had been used in single subject studies running concurrently with the present investigation by the author (not part of this study) with subjects who were eligible for the program but could not attend because of schedule conflicts. Results were similar. It is felt that PACT can be used on both an individual or group basis.

When PACT recipients (treatment subjects) were analyzed by subject characteristics, there was little evidence that progress in treatment was limited to specific kinds of individuals or particular clinical histories. This supports generalizability implying it is not limited and consequently can be helpful to many kinds of people with agoraphobia and panic attacks.

Next to helping control panic attacks, treatment subjects gave the highest mean score to using the panic attack guide (PAG) in helping with general anxiety. From this it could be suggested the PAG might benefit other agoraphobics in helping to manage their more general anxiety and not just escalating panic or full blown attacks.

If the panic attacks suffered by agoraphobics in the study can be controlled through the use of the PAG, it might also prove useful to other individuals suffering from anxiety states, or panic attacks, but who do not necessarily have agoraphobia. Panic Disorder is the most frequent of the Anxiety Disorders individuals seek treatment for. The PACT could possibly be modified and geared to a specific anxiety problem.
Because of the short training time of PACT (three meetings) it could easily be incorporated into time-limited brief treatment and could be very cost effective.

Techniques, such as the PACT and PAG, are basically easy to learn and teach (subjects were taught the PAG at the first meeting) and could probably be taught by most therapists with clients suffering from anxiety attacks. In addition the PACT might also be self-taught, which would make it available to more people who may not be able to attain professional intervention.

The panic attack is an extremely frightening experience for an agoraphobic. Relatively little research has been done on the non-medical treatment of panic attacks suffered by agoraphobics. This study has demonstrated the effectiveness of the Panic Attack Control Training program in treating panic attacks suffered by agoraphobics. It is hoped that this information will be of benefit to direct clinical practice.

References


DuPont, R. L. (1984). New evidence demonstrates that phobias are far more common than was previously thought. In N. Flaxman (Ed.), Fear Breaker, 3(1), 2. (Available from Phobia Society of America, Rockville, Md.).


