The Effects of Spouse-Based Cognitive-Behavior Therapy on the Treatment of Agoraphobia

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THE EFFECTS OF SPOUSE-BASED COGNITIVE-BEHAVIOR THERAPY ON THE TREATMENT OF AGORAPHOBIA

by

Joan Woods

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THE EFFECTS OF SPOUSE-BASED COGNITIVE-BEHAVIOR THERAPY ON THE TREATMENT OF AGORAPHOBIA

Joan Woods, Ph.D.
Western Michigan University, 1988

The purpose of this clinical research was to determine whether spouse-supported treatment of agoraphobia would result in greater improvement on measures of exposure and avoidance than would individual treatment or no treatment. It was hypothesized that Couples Treatment subjects would demonstrate a significantly greater change from pretest to posttest than would Individual Treatment subjects or No-Treatment Control subjects. The study further predicted that significant improvements would be demonstrated for both treated groups on the same outcome measures, pretest to posttest and from pretest to follow-up.

Total N was 10 subjects; all were agoraphobic, married, and female, with 4 in Couples Treatment with spouses, 3 in Individual Treatment, and 3 in the No-Treatment control condition. Random assignment of subjects to conditions was precluded by preferences of some subjects to be accompanied by spouses, resulting in more severely agoraphobic subjects in Couples Treatment. Seven sessions of cognitive-behavior therapy were provided subjects in
Couples and Individual Treatment, preceded by one assessment session (pretest), followed by posttest (ninth session), with follow-up assessment two weeks later, 10 sessions in all. Assessments of exposure were derived from subjects' reports of actual exposures; avoidance measures were based on self-report questionnaires.

Since sample characteristics did not meet assumptions on which between-group statistical analyses are based, between-group hypotheses could not be tested statistically. However, large differences between group means were found at posttest; the Couples Treatment condition manifested superior improvements on outcome measures over the Individual and No-Treatment control conditions. Within-group hypotheses were confirmed; both treated groups improved significantly from pretest to posttest and from pretest to follow-up. The No-Treatment Control group did not improve. Generalizing of results must be limited to married female agoraphobics in treatment for agoraphobia similar in characteristics to the subjects in the samples.

The present study confirmed that spouse-supported treatment of agoraphobia enhances cognitive-behavioral treatment of selected married agoraphobic clients which is in line with previous research and has heuristic value.
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The effects of spouse-based cognitive-behavior therapy on the treatment of agoraphobia

Woods, Joan, Ph.D.

Western Michigan University, 1988
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Joan Woods
# TABLE OF CONTENTS

ACKNOWLEDGEMENTS ........................................... ii

LIST OF TABLES ........................................... v

LIST OF FIGURES ........................................... vi

CHAPTER

I. INTRODUCTION............................................. 1
   The Problem............................................. 2
   Definitions............................................. 2
   Clinical Description................................. 5
   Predisposing Factors................................. 9

II. REVIEW OF SELECTED LITERATURE OF AGORAPHOBIA TREATMENT................. 13
   Studies of Treatment Outcome..................... 14
      Behavioral and Cognitive Treatments........ 14
      Psychopharmacological Treatment......... 26
      Factors Facilitating Treatment Effects..... 32
   Summary................................................. 39

III. DESIGN AND METHODOLOGY................................. 44
   Design.................................................. 44
   Method.................................................. 46
   Subjects............................................... 46
   Assessments.......................................... 59
   Materials............................................. 62
   Procedures............................................ 64

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# Table of Contents—Continued

## CHAPTER

- **Assessment and Treatment Protocol**  
  65

## IV. RESULTS

- Between-Group Hypotheses  
  89
- Within-Group Hypotheses  
  89
- Results of Ancillary Measures  
  98

## V. DISCUSSION AND CONCLUSIONS

- Treatment Differences  
  103
- Treatment Effects  
  105
- Severity Level Differences Between Groups  
  109
- Implications of Ancillary Findings  
  111
- Limitations of the Study  
  111
- Recommendations for Treatment  
  117
- Recommendations for Research  
  120

## APPENDICES

- **A. Informed Consent and Human Subjects Review Board Approval Form**  
  125
- **B. Assessment Instruments**  
  132
- **C. Hierarchical Ranking of Feared Situations and Weekly Record Forms**  
  141
- **D. Informative Handouts for Subjects in Treatment**  
  145
- **E. Case Reports**  
  172

## BIBLIOGRAPHY

  187
LIST OF TABLES

1. Magnitude of Change Pretest to Posttest; Pretest to Follow-Up t Values From Paired t Tests on Change Scores .................. 93
LIST OF FIGURES

1. Approach/Exposure Means of Couples, Individual and No-Treatment Control Conditions ............. 91

2. Avoidance (Agoraphobia Scale, Fear Questionnaire) Means of Couples, Individuals, and No-Treatment Control Conditions ............... 94
CHAPTER I

INTRODUCTION

Epidemiological studies conducted by scientists at the National Institute of Mental Health (NIMH) and in the field have shown the prevalence of agoraphobia in the United States to be approximately 2% to 6% of the population (Myers et al., 1984; Robins et al., 1984). More specific and also disabling phobias afflict an additional 6%. Phobias are the most prevalent mental health disorder among women in the United States; they are more common than depression. Among men, phobias are second in prevalence after drug and alcohol dependence and abuse. DuPont (1982) estimated that of those entering phobia treatment programs, 60% to 75% are agoraphobic.

The NIMH Epidemiological Catchment Area studies mentioned above found the agoraphobia sex ratio of women to men to be approximately 5:1. The sex ratio of women to men seeking treatment for agoraphobia was estimated at approximately 6:1 to 8:1 by DuPont (1982).

Onset of agoraphobia typically occurs during young adulthood, with mean age of onset found to be 24 years by Marks and Gelder (1965), 28 years by Burns and Thorpe (1977), 29 years by Marks and Herst (1970), and 31 years by Buglass, Clarke, Henderson, Kreitman, and Presley

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The Problem

Agoraphobia is a complex form of phobia marked by irrational, intense fears and avoidance of activities outside the home by a person who is in most other respects normal. As a psychiatric/psychological problem, agoraphobia is in the larger category of anxiety disorders. The severity of agoraphobia varies from occasional avoidance to housebound isolation. The combination of depression with agoraphobia is a common clinical observation. Agoraphobia is seriously disruptive for the family members of agoraphobics; the family, work, and social functioning of most agoraphobic individuals is dysfunctional to some degree.

Definitions

It is helpful, first, to define the term, "phobia:"

The essential feature is persistent and irrational fear of a specific object, activity, or situation that results in a compelling desire to avoid the dreaded object, activity, or situation (the phobic stimulus). The fear is recognized by the individual as excessive or unreasonable in proportion to the actual dangerousness of the object, activity, or situation (American Psychiatric Association [APA], 1980).

The Diagnostic and Statistical Manual-III (APA, 1980) is referenced here due to the fact that the present study was begun in 1986, before the 1987 publication of the
DSM-III-Revised superseded the 1980 manual. For this reason, the diagnostic criteria from the DSM-II (APA, 1980) were used to diagnose subjects for inclusion in the study and are the criteria quoted herein.

The term, agoraphobia, is derived from the Greek, agora, meaning "marketplace" or "place of assembly," and phobos, meaning "panic" or "flight" (Weekes, 1976). Classified as an anxiety disorder in the Diagnostic and Statistical Manual-III of the American Psychiatric Association (1980), agoraphobia as a diagnostic category is divided into two types: "Agoraphobia with Panic Attacks, and Agoraphobia without Panic Attacks" (APA, 1980, pp. 225-227). The DSM-III diagnostic criteria for agoraphobia are:

A. The individual has marked fear of and thus avoids being alone or in public places from which escape might be difficult or help not available in case of sudden incapacitation, e.g., crowds, tunnels, bridges, and public transportation.

B. There is increasing constriction of normal activities until the fears or avoidance behavior dominate the individual's life.

C. Not due to a major depressive episode, Obsessive Compulsive Disorder, Paranoid Personality Disorder, or Schizophrenia (APA, 1980, p. 227).

"Sudden incapacitation" in "A" above refers to panic attacks, manifested by the sudden onset of intense apprehension, fear, or terror and feelings of impending doom. Each panic attack is characterized by at least 4 of the
following 12 typical symptoms or body sensations:

(1) Dyspnea; (2) palpitations; (3) chest pain or discomfort; (4) choking or smothering sensations; (5) dizziness, vertigo, or unsteady feelings; (6) feelings of unreality; (7) paresthesias (tingling in hands or feet); (8) hot and cold flashes; (9) sweating; (10) faintness; (11) trembling or shaking; (12) fear of dying, going crazy, or doing something uncontrolled during an attack. (APA, 1980, pp. 231-232)

A severe panic attack may include hyperventilation.

To distinguish between Panic Disorder and Agoraphobia, the panic disordered person does not avoid places, situations, or activities. However, the development of anticipatory fear of loss of control during panic attacks is a common complication which often leads to desire to avoid public places when alone. The diagnosis of Agoraphobia with Panic Attacks is made when many places are avoided. To be diagnosed as Panic Disorder, "at least three panic attacks within a 3-week period in circumstances other than during marked physical exertion or in a life-threatening situation" must occur (APA, 1980, p. 231).

A panic attack is a powerful conditioning experience and is cited by many agoraphobic persons as marking onset of their phobia. Panic or high anxiety levels usually precede agoraphobia (APA, 1980); however, Agras (1985) asserts that panic always precedes the development of agoraphobia and distinguishes it from other phobias. When the diagnosis of agoraphobia without panic attacks is made, the individual experiences high levels of anxiety
without full-blown panic attacks and engages in avoidance of feared situations. Panic attacks occur in anticipation of, during, or following stressful experiences in public or private settings. When occurring, they become associated with the place in which they occurred; thus, agoraphobia is named for the typical settings with which it is associated, i.e., public or shopping areas.

Shands and Schor (1982) have hypothesized that agoraphobia would be more accurately termed "panicphobia" (fear of panic) or "phobophobia" (fear of fear). Agoraphobics report that they fear having a panic attack in a public place more than they fear the setting itself. Thus, the agoraphobic individual is dominated by the internal threat of loss of control, rather than merely by external environmental threats. Fear of fear is the central feature of agoraphobia in which the agoraphobic person anticipates the unpleasant, frightening, unpredictable consequences of panic.

Clinical Description

Mathews, Gelder, and Johnston (1981) describe agoraphobia as irrational anxiety experienced in certain situations, usually at a distance from home or safe place, and characterized by avoidance of settings or situations that have become fear-provoking by the conditioning process. Anxiety becomes conditioned to the internal, or
interoceptive, cues of previous panic. Thus, low anxiety levels produce body sensations that become conditioned stimuli for higher levels of anxiety (Chambless & Goldstein, 1980). When the anxiety levels become intolerable, most agoraphobic persons attempt to decrease anxiety by avoiding the situations that provoke it. Avoidance is also a means of preventing panic attacks which, unfortunately, leads to limiting the person's activities and can result in becoming housebound.

Gray (1971) hypothesized that safety signals such as the agoraphobic person's home contribute to the persistence of avoidance behavior. Reinforcers for avoidance behavior are home, other places construed as safe by the agoraphobic individual (usually where help can be obtained), and associated factors of comfort and relief from stress. Avoidance behavior is extremely persistent; it varies across situations, depending upon the agoraphobic person's prior conditioning to specific situational features and subjective assessment of interoceptive cues. Chambless and Goldstein (1981) assert that avoidance behavior is established on an intermittent reinforcement schedule and is, therefore, difficult to extinguish. The positive reinforcement is relief upon returning home. In effect, negative reinforcement operates in which the effects of aversive stimuli are terminated by avoidance of the situation that is associated with anxiety.
Agoraphobic persons tend to avoid situations in which their departure is likely to incur social disapproval. Such situations cause them to feel trapped and become discriminative stimuli for aversive consequences (possible panic attacks). Thus, situations in which they feel trapped, such as stores, cashier lines, auditoriums, theaters, etc., become conditioned stimuli that continue to elicit some degree of anxiety, even if extreme anxiety culminating in panic attacks does not always occur. Most agoraphobics report a need for an escape route from most public situations in order to reduce the possibility of panic and loss of control.

Other situations experienced as confining may also evoke the anxiety response elicited by some features of the situation in which the person feels trapped. The fear reaction begins to generalize from such previously conditioned features to additional situations and settings, increasing the number of fear-provoking situations. For this reason, agoraphobia is viewed as a multiple form of phobia, with multiple stimuli, in contrast to simple (or specific) phobias which are limited to one stimulus, such as one category of animal, thunderstorms, etc.

An additional distinction among phobias is based on the occurrence of panic attacks (Agras, 1985). A phobia accompanied by panic attacks is a complex phobia, such as agoraphobia, for the reason that panic attacks are not
normally associated with a simple phobia. The panic-phobia combination of agoraphobia is more disabling than a simple phobia. Agoraphobia is also a multiple phobia in two ways, in that the agoraphobic has become phobic to possible panic attacks in multiple locations and features of them and in addition often has other phobias, such as claustrophobia, social phobia, illness or injury phobia, acrophobia, etc.

Many agoraphobic individuals cannot identify antecedents of panic attacks or of their fears, nor are they aware of the behavior patterns that lead to avoidance. Before treatment or education about agoraphobia, they are usually unaware of cognitive patterns of anticipating catastrophic events or of magnifying feelings of anxiety. When questioned, agoraphobic persons often report that they engage in covert self-talk in which they interpret the somatic sensations of anxiety as life-threatening, dangerous, or leading to full-blown panic attacks and loss of control. Such catastrophizing self-directed thoughts escalate anxiety, and the agoraphobic person leaves the situation, thus reinforcing the pattern of avoidance. Focusing on the somatic sensations of anxiety or fear develops as a repetitive pattern, a process of which the agoraphobic person is unaware. Goldstein and Chambless (1978) have proposed that one factor in the etiology of agoraphobia is the preagoraphobic person's developing
behavioral pattern of focusing awareness on somatic responses when anxious, rather than attending to relevant interpersonal or situational events.

Agras (1985) views agoraphobia as part of the panic syndrome which he describes as consisting of anxiety, panic, agoraphobia, isolation, and depression. All of these factors are common clinical observations in the agoraphobic population.

Predisposing Factors

The largest proportion of investigators attribute the development of agoraphobia to a combination of learned emotional, behavioral, cognitive, and physiological reactions (Chambless & Goldstein, 1981; Marks, 1970; Mathews et al., 1981; Weekes, 1976). Predisposing factors are considered to be separation anxiety disorder in childhood and sudden object loss, i.e., loss of a significant person preceding onset, usually in early adulthood (APA, 1980). Some agoraphobic persons have experienced school phobia which is actually a fear of separating from the parent or care giver and leaving home, rather than a fear of school. Perhaps significantly, school phobia and agoraphobia have both been misnamed. Agras (1985) describes the similarities between them, e.g., panic precipitated by separation from attachment figures, the need for a companion when leaving home, limitation of movement to the home, and the
hypochondriacal preoccupation with the physical symptoms of panic and anxiety. Concerning the agoraphobia/panic syndrome, Agras states:

It seems likely that separation fear, an inherited protective mechanism guarding the child from the vicissitudes of early life, instead of disappearing as it normally should, persists in some individuals, leading to school phobia during childhood, and to the panic syndrome in adult life. Possible reasons for such persistence include both faulty learning and faulty biological processes. (p. 39)

A complete review of conceptualizations of etiology of agoraphobia is beyond the scope of the present dissertation which focuses on treatment. However, others in addition to Agras (1985) have noted school phobia as a possible precursor to agoraphobia. Solyom, Silberfeld, and Solyom (1976) tested mothers of agoraphobics, using an objective inventory, and found that they scored higher on subscales of "maternal control" and "maternal concern" than did the overprotective mothers on whom the scale norms were established. The mothers' chronic anxiety scores correlated significantly with the agoraphobic children's scores indicating the prevalence of fears. An implication of these findings is that the mother's modeled degree of anxiety about the child's safety and the child's imitation or reflection of it may be one variable in the development of agoraphobia and of school phobia.

It is possible that learning and biological processes interact in the etiology of agoraphobia. Stressful life
events within the year preceding the onset of the initial panic attack and deficient coping ability may result in a stress reaction of higher levels of autonomic reactivity, hypervigilance, overreactivity, and a general increase in state anxiety, a process frequently reported by clients and noted by clinicians and agoraphobia researchers (Michelson, 1987). Compared to normal controls, agoraphobics exhibit significantly higher autonomic arousal and overreactivity, as well as delayed habituation processes (Lader, 1967). The preagoraphobic person is then at high risk for the initial panic attack which usually occurs in stimulating circumstances following extreme stress.

In a study of 50 agoraphobics, Kleiner and Marshall (1987) found that in the year preceding the initial panic attacks, 84% experienced severe and prolonged marital or relationship conflicts. Other common stress factors were family conflicts (64%), divorce (26%), marriage (22%), social isolation (22%), death of a loved one (22%), and relocation of residence (18%). All subjects reported precipitating factors which involved more than one stressor, with at least one of an interpersonal nature.

Powerful learning processes interact to produce and maintain agoraphobia indefinitely, including classical conditioning, operant conditioning, vicarious or social learning, and cognitive mediation. Interoceptive and environmental conditioning perpetuate the fear-of-fear
cycle. Phobic ideation, frightening imagery, and catastrophic cognitions maintain this distressing disorder which disrupts the agoraphobic individual's social and family roles and functioning.
CHAPTER II

REVIEW OF SELECTED LITERATURE OF AGORAPHOBIA TREATMENT

The purpose of this chapter is to present a review of selected literature (1960-1987) of the treatment of agoraphobia, to indicate trends emerging from research results, and to report the consensus with regard to the most effective treatments.

A pattern of favored interventions for agoraphobia has evolved over the years. Results of many clinical and analogue studies lead away from imaginal systematic desensitization (Wolpe, 1958), an important treatment for other phobias, and toward exposure in vivo (L., in the living body) to feared stimuli.

Exposure, whether in vivo or imaginal, has been found to be the critical procedure for facilitating recovery from phobias. Additional interventions are used by many clinicians, such as relaxation training, to enhance the phobic person's coping skills but are not the curative factors. Exposure to feared stimuli has been investigated thoroughly; during the 1970s, phobia research frequently focused on the question of whether in vivo or imaginal exposure is more effective in treating phobias. Tests of efficacy of these interventions have varied in results.
Studies of Treatment Outcome

Behavioral and Cognitive Treatments

This section of the review will describe interventions based on exposure, imaginal or in vivo, combinations of these, and other behavioral treatments. The studies reviewed utilized behavioral techniques (exposure), or a combination of behavioral, cognitive and/or group therapy. Excluded are studies based on psychoanalytic theory in that such techniques afford less effective results for agoraphobia recovery.

Treatment by exposure to feared stimuli can be carried out in a number of ways. Following the pretreatment interview and assessment of the client's current problems, background, and the diagnosis and treatment planning, and an explanation of the treatment and its rationale, exposure therapy is first keyed to the client's own feared stimuli. The decision to select either imaginal or in vivo exposure is often based on what phobia the individual is suffering from and on actual accessibility to the feared stimuli of the phobia. For example, for illness phobias, imaginal exposure is conducted, stimulated by the therapist's verbal suggestions, or "word pictures." On the other hand, when feared stimuli can be encountered environmentally, the therapist directs the client to enter feared situations on a gradual basis. Normally, with
either imaginal or *in vivo* exposure, the therapist begins by directing the client's attention to feared stimuli that elicit minimal anxiety and proceeds to those that elicit more anxiety.

Wolpe's (1961) systematic desensitization became the treatment of choice for phobias during the 1960s. Because it was recommended for phobias, it was initially adopted for treatment of agoraphobia as well, although Wolpe did not claim efficacy specifically for agoraphobia. Systematic desensitization is based on the principle of reciprocal inhibition: one cannot sustain two opposing responses at the same time. In the application of this principle, the client is asked to describe feared situations/stimuli and to rank them in hierarchical order, from least feared to most feared. The objective is to minimize anxiety by inducing relaxation. The therapist then teaches the client a relaxation technique, such as progressive muscle relaxation (Jacobson, 1938). When relaxation is achieved, the therapist verbally describes the least fear-inducing situation in the client's hierarchy. When the client signals felt anxiety, the therapist resumes relaxation induction, suggesting that the client relax gradually in spite of anxious feelings. Over many sessions and repetitions, and when relaxation is achieved while imagining a feared stimulus the therapist describes the next feared item in the rank-ordered hierarchy until eventually the
client can visualize previously feared stimuli without anxiety. Relaxation counterconditions the client's physical tension during anxiety. Gradually, desensitization to the imagined feared objects or situations occurs.

A second method is called "implosion therapy" (Stampfl & Levis, 1967) in which the therapist begins working with the client by suggesting that he imagine the worst fears first and encouraging him to experience fully the intensity of anxiety associated with the stimulus or stimuli. The feared stimulus or object may also be presented in vivo. The procedure also came to be called "flooding," i.e., emotional flooding, in which the client experiences a flooding of the emotion being elicited. Others, including Wolpe (1969), have pointed to its potential to increase fears, especially if the client elects not to return for the completion of therapy. However, because of the length of time required to carry out systematic desensitization, implosion therapy seemed a likely candidate to replace desensitization. Many repetitions of imaginal exposure are required in desensitization and stimuli are graded hierarchically; for these reasons, desensitization is a laborious process, requiring from 9 to 12 months. Widespread acceptance of implosion therapy has not occurred. The intense anxiety induced by implosive flooding has not been proven to be the critical factor in fear reduction, not has it been found to be more
effective than gradual imaginal exposure (Marks, 1975).

During the late 1960s and early 1970s, a period ensued during which many investigators could find no difference in results among the treatments of desensitization, implosion, and exposure. Eventually, the reasons for this became clear. In studies finding no difference of outcome among therapies, the subjects had practiced exposure to feared situations, either in-session or between treatment sessions. This realization pointed to exposure as the critical factor in the recovery process, rather than to the in-session treatment method.

In 1971, Marks, Boulougouris, and Marset, in comparing implosion therapy to systematic desensitization, found implosion to be superior to systematic desensitization. However, the finding was not replicated in studies by Gelder et al. (1973) or by Mathews, Johnston, Shaw, & Gelder (1974) in which flooding and systematic desensitization were equally effective. Patients' self-ratings suggested that anticipatory anxiety was affected only by in vivo practice exposure to feared situations.

Studies of specific phobias have provided a focus on exposure as the salient variable. Bandura, Blanchard, and Ritter (1969) found that direct exposure was more effective in reducing snake phobias than imaginal or symbolic modeling. In a study of fear of swimming by Sherman (1972), actual exposure reduced the fear, while imaginal
desensitization had no effect on this fear.

Emmelkamp and Wessels (1975) completed a controlled study of agoraphobia treatment comparing the effects of implosion therapy, actual exposure, and a combination of these. One outcome measure was a behavioral test of the time subjects remained out of their homes; other measures utilized were fear and avoidance rating scales. The data indicated that exposure to the actual feared situation was markedly more effective in reducing avoidance behavior and fears than imaginal flooding (implosion).

Mathews et al. (1976) and Johnston et al. (1976) conducted studies in which treatment methods and experimental designs were similar to those of Emmelkamp and Wessels but their results differed, showing that fear was reduced in all conditions and indicated no difference between treatments on outcome measures. The Johnston et al. (1976) study was an extension of the Mathews et al. (1976) study, using similar methodology in the same program of research.

The discrepancy between the findings by Emmelkamp and Wessels (1975) and the above studies of Mathews et al. and Johnston et al. is now attributed to differences in methodology, e.g., location of treatment, duration of treatment, session frequency, and differences in assessment. For example, Emmelkamp and Wessels initiated exposure from subjects' homes and carried out daily exposure treatment.
They did not assign between-session practice, nor was grading of situations used in imaginal flooding which was limited to the most anxiety-arousing scenes. Behavioral assessment was conducted in the same or similar feared situations that were practiced in exposure therapy sessions.

Differences in methods between the Emmelkamp and Wessels (1975) study and the Mathews et al. (1976) study were that imaginal exposure was presented in ascending graded order in the latter study, between-session practice was assigned, with treatment sessions less frequent than in the Emmelkamp and Wessels study but with four more treatment sessions overall. When subjects engaged in exposure during treatment sessions, they went out from the hospital outpatient department rather than from home. However, behavioral assessments were done near patients' homes, in situations different from those in treatment, in contrast to Emmelkamp and Wessels' assessment methods.

In a subsequent analysis of these studies, Mathews et al. (1981) concluded that in the Emmelkamp and Wessels study, in which subjects had had little opportunity to practice exposure between sessions because treatment was daily, subjects' behavior had been maximally sensitive to changes during the exposure therapy sessions. In contrast, Mathews et al. (1976) and Johnston et al. (1976) had maximized the effects of between-session exposure.
practice. Therefore, exposing patients in vivo to feared situations was found to be the critical factor that accounted for the change in avoidance behavior and anxiety and seemed to be the main determinant of treatment success.

A comprehensive review of studies of behavior therapy for agoraphobia (Munby & Johnston, 1980) found that improvements in avoidance behavior resulting from behavioral exposure treatment are well maintained. Posttreatment assessments revealed significant improvement with some slight improvement between posttreatment assessment and follow-up six months after treatment. Two additional studies (McPherson & Brougham, 1980; Emmelkamp & Kuipers, 1979) of the maintenance of improvements of avoidance behavior resulting from exposure-based methods indicated that improvements had been maintained based on posttreatment and follow-up assessment data.

Since the mid-to-late 1970s, it has been generally recognized that psychological treatments of agoraphobia are effective to the extent that the agoraphobic client experiences exposure to his or her feared situations or stimuli.

Cognitions and Cognitive Therapy

Agoraphobic clients report anxiety-provoking thoughts in the form of covert self-talk and/or images, usually
anticipatory thoughts predicting frightening events, including thoughts of anxiety symptoms escalating to panic. Such cognitions can interfere with exposure procedures in that fear-related thoughts inhibit approach behavior to feared exposure situations.

Some agoraphobic clients who respond positively to exposure in vivo succeed in reducing their negative, catastrophizing cognitions based on the fact that they note that the awful events they fear and predict, such as having a heart attack, "going crazy," or dying do not occur during exposure. However, while these cognitive changes occur in some agoraphobic individuals as a result of exposure therapy, not all clients succeed so well at changing such cognitions during treatment. In some agoraphobics experiencing the same exposure therapy as others, these cognitive changes, if they occur, are short-lived, and the effects of exposure are attenuated as the agoraphobic resumes the dominant cognitive pattern of fear-inducing self-talk and/or imaging.

The agoraphobic's use of cognitive (and thus affective) avoidance through certain thoughts is one means by which the effects of exposure are weakened, e.g., "I got through it today, but the next time I try this, I'll panic," or "If I panic, I'll get help." Some individuals with severe agoraphobia obsess ritualistically on certain thoughts upon feeling the first low-level symptom of
anxiety, such as, "I'm going to die." Such obsessive-compulsive use of cognitive avoidance prevents the agoraphobic person from fully engaging in the exposure experience (Emmelkamp, 1982).

During the later 1970s and early 1980s, research on cognitive modification methods for agoraphobia increased. Emmelkamp, Kuipers, and Eggeraat (1978) conducted one of the first studies in this line of research in which they compared cognitive restructuring with prolonged exposure in vivo in a group format. Although exposure in vivo was found to be more effective than cognitive restructuring on the anxiety and avoidance scales and on the behavioral measure, treatment was conducted in one week of five sessions. The investigators concluded that the cognitive therapy was too short to provide for significant cognitive changes to occur.

Subsequently, Emmelkamp and Mersch (1982) compared three treatments in a between-group design: (1) Cognitive restructuring; (2) prolonged exposure in vivo; and (3) a combination of cognitive restructuring and prolonged exposure in vivo. Each treatment consisted of eight 2-hour sessions. In the cognitive restructuring group, insight into unproductive thinking was emphasized, based on the patients' self-analysis of their feelings in terms of Ellis' rational-emotive theory (Ellis, 1962). In the combined procedure, half of the therapy time was spent on
self-instructional training (Meichenbaum, 1977), a form of cognitive restructuring, and the other half on prolonged exposure in vivo. Following self-instructional training in the combined treatment, subjects were instructed to use their positive self-statements during exposure in vivo. At posttest, the combined procedure and prolonged exposure in vivo were superior to cognitive restructuring. However, at one-month follow-up assessment, the cognitive restructuring group had continued to improve, whereas the exposure in vivo group showed slight deterioration, causing differences between treatments to decrease. The combination group maintained the same level of improvement between posttest and follow-up. Thus, over the longer term, cognitive restructuring was approximately as effective as exposure in vivo.

Emmelkamp, Brilman, Kuiper, and Mersch (1986) compared rational-emotive therapy, self-instructional training, and exposure in vivo. Treatment was conducted over a 3-week period; each treatment consisted of six 2.5-hour sessions. Following posttreatment assessment, treatment was suspended for one month, when subjects were again assessed. They were then provided with a course of in vivo exposure therapy of six 2.5-hour sessions. The investigators concluded that exposure was more effective than the cognitive treatments in reducing agoraphobic anxiety and avoidance. Although both self-instructional
training and rational-emotive therapy showed statistically significant improvements on most measures, clinical improvements achieved were less impressive, particularly for rational-emotive therapy. However, Michelson (1987) points out that only the exposure subjects received exposure homework assignments between sessions, whereas the other subjects did not, and that the time duration for the cognitive therapies was too brief.

Michelson, Mavissakalian, Greenwald, Kornblith, and Greenwald (1983) conducted a study to determine the relative efficacy of paradoxical intention and self-instructional training for the treatment of agoraphobia. Part of the rationale for this research was that these two cognitive strategies have diametrically opposed instructional sets. Self-instructional training (SIT) is a straightforward, conscious, rational process of cognitive restructuring with the purpose of reducing negative self-defeating cognitions that operates at the level of changing cognitive products (self-statements). On the other hand, paradoxical intention, in which the therapist paradoxically directs the client to engage in his self-defeating behavior as much as desired, is contradictory, at times employing humor. The researchers believed that paradoxical intention stimulates a more complex intuitive, cognitive process in the client and utilized it in the hope that it might address the complex nature of agoraphobia.
The results indicated statistically significant pre-post improvements with both treatments across all domains; some superior treatment effects were observed for paradoxical intention subjects compared to self-instructional training subjects. At 6-month follow-up assessment, however, the SIT subjects showed marked improvement, so that the two treatment groups were approximately equivalent in terms of amount of change from pretest to follow-up. Paradoxical therapy had stimulated rapid progress, while self-instructional training afforded continuing improvement after termination of treatment. Analyses of cognitive changes revealed that both treatments resulted in decreases of self-defeating cognitions and that cognitive changes that occurred during treatment occurred relatively late in treatment, between the 6th and 12th weeks. This finding and the follow-up findings suggest that adequate time is required for measurable cognitive modification to occur and to affect behavior.

The consensus in the literature regarding cognitive therapy for agoraphobia is that it is an important treatment component and that it be combined with graded exposure therapy for an integrated treatment approach. Cognitive therapy provides a unique benefit for the treatment of the anxiety disorders in that it encourages the client to practice coping methods while in the midst of an anxiety experience. Provided in advance of and concurrently
with exposure therapy, cognitive therapy facilitates exposure and contributes to the maintenance and extension of treatment benefits. The combination of cognitive and behavioral treatment has become the standard for the treatment of agoraphobia (Barlow & Waddell, 1985; Beck & Emery, 1985; Chambless & Goldstein, 1982; Coleman, 1981; Michelson, 1987).

Psychopharmacological Treatment

Anxiety is inevitable during exposure. For those clients whose anxiety levels render them unable to cooperate with immediate exposure in vivo, some investigators have tested the use of pharmacological agents to facilitate behavioral treatment. The question of whether it is more therapeutic to decrease the level of anxiety, as in desensitization, increase it as in imaginal flooding, or instruct the client to tolerate it as in exposure in vivo has been examined in several studies. Friedman (1966), Friedman and Silverstone (1967), and Mawson (1970) used intravenous methohexital sodium (Brevital) to sedate patients during imaginal desensitization; they claim its effects to be superior to those of standard desensitization. However, Yorkston, Sergeant, and Rachman (1986), in a study of Brevital-assisted desensitization compared with various control conditions, found no advantage for Brevital.
Chambless, Foa, Groves, and Goldstein (1979) compared Brevital-assisted flooding, and psychotherapy (traditional talk therapy) for treatment of agoraphobia. They hypothesized that Brevital would blunt the effects of emotional flooding; they believed that effective therapy must extinguish the "fear of fear" that is the hallmark of agoraphobia and that clients must experience it for extinction to occur. Results showed that Brevital provided less improvement than did standard flooding, although both forms of flooding were more effective than psychotherapy which provided no exposure, imaginal or in vivo. These findings seemed to support their hypothesis; however, a subsequent reevaluation of the effects of sedation was provided by Chambless et al. (1982):

The superiority of the non-drug flooding group cannot be attributed (as was concluded in an earlier report) to higher levels of anxiety across flooding sessions. Rather, the drug (methohexitone sodium) appears to have impeded across-session habituation. (p. 219)

It is important to note that therapeutic change was not attributed by Chambless et al. (1982) to higher anxiety levels during exposure, a conclusion of other agoraphobia researchers (e.g., Mathews et al., 1981), but to habituation resulting from repeated exposure to aversive stimuli. Habituation is likely to be the factor that explains the effectiveness of repeated exposure on a long-term basis, as well as of systematic desensitization, a gradual, repetitive process.
Subsequent studies testing effects of various medications on agoraphobia have generally not found their use curative. Beta blockers, such as propranolol, have been found in some cases to hinder positive treatment effects (Hafner & Milton, 1977) in terms of long-term change. However, propranolol is effective for "acute" treatment for public-speaking fear or "stage fright" (DuPont, 1986) in planned, specific situations but not for the anticipatory anxiety of agoraphobia across multiple situations.

In a study by Johnston and Gath (1973), diazepam (Valium) enabled subjects to tolerate immediate exposure in vivo more frequently when they were informed that they had received Valium than when they had received it without being informed of what medication they were taking. The worst treatment outcome was in the condition in which subjects knew they had received no drug. Knowledge of receiving the drug increased its "effects," an apparent example of the placebo effect, as well as of actual effects.

In the 1980s, use of medication in agoraphobia treatment has as its purpose facilitating exposure therapy by suppressing or blocking panic while not eliminating anticipatory or generalized anxiety (DuPont, 1986). Pharmacotherapy of anxiety disorders has found the heterocyclic and monoamine oxidase inhibitor (MAOI) antidepressants to have antipanic effects. This class of medications
includes Tofranil, Elavil, Sinequan, Adapin, Ludiomil, and Desyrel, as well as Parnate and Nardil. Since most agoraphobics report some depression at time of treatment and approximately 50% give evidence of current or past major depression by diagnostic criteria, antidepressants provide appropriate but partial treatment for the agoraphobic syndrome. The antipanic effect of the heterocyclic antidepressants (HCAs) and the other antidepressants appears to be specific to phobic patients who report current so-called "spontaneous" panic attacks (in which antecedents are unknown) and to patients with panic attacks who have not developed phobic avoidance behavior (DuPont, 1986).

Imipramine is the one heterocyclic antidepressant and phenelzine is the one MAOI that demonstrate antipanic effects in well-controlled double-blind studies. However, many antidepressants have been reported to be effective, although none has been shown to be clearly superior to the others. None has been as well studied as imipramine (DuPont, 1986).

The class of medications commonly referred to as antianxiety drugs, the benzodiazepines (e.g., Valium, Ativan, Centrax, Serax, Traxene, Xanax, Equinal, and Miltown) have demonstrated modest benefits for phobics. The potential for long-term dependence is a major disadvantage. However, the unique benzodiazepine, alprazolam (Xanax) is a special case in terms of suppressing or
blocking panic. Benzodiazepines generally do not reduce panic; however, alprazolam does. It also works more quickly and produces fewer unpleasant side effects. However, it produces dependence, making withdrawal difficult at termination of alprazolam therapy. A second major disadvantage is that it is an antiseizure drug, and abrupt cessation can produce seizures.

In spite of the antipanic effects of alprazolam and imipramine, the value of pharmacotherapy in reducing phobic avoidance behavior and in engendering long-term recovery in agoraphobia remains controversial. A review of the literature of the effects of antidepressants in the treatment of agoraphobia by Telch, Tearnan, and Taylor (1983) resulted in their conclusion that 20% of all agoraphobics in studies reviewed expressed reluctance to take medication. Additionally, unpleasant physical side effects, some mimicking the symptoms that clients sought to alleviate, were reported as an important reason for discontinuing the medication in approximately 25% of subjects. Some agoraphobics experience extreme sensitivity to imipramine manifested by amphetamine-like effects, e.g., insomnia and irritability. Also, subject attrition and dropout rates exceed those for behavioral treatments; antidepressant treatments averaged 35% to 40% dropout rates. Relapse is also a major problem, according to Telch et al. (1983):
Relapse data from the previous trials utilizing antidepressant medication with agoraphobics indicated that 27-50% of those patients who initially improved relapsed upon withdrawal of the medication (Sheehan, Ballenger, & Jacobsen, 1980; Zitrin, 1981). (p. 516)

These authors concluded that pharmacotherapy for agoraphobia should be used only with caution. Reasons for their conclusions are that a sizable number of agoraphobics fear ingesting medication in anticipation of adverse side effects, the high dropout rate, and relapse following withdrawal of medication. Also, since the majority of agoraphobics are women in their child-bearing years and these medications are not considered safe during pregnancy, the risk of iatrogenic effects on the fetus is unknown.

A series of programmatic investigations by Michelson and Mavissakalian (1985) found that agoraphobics who received imipramine experienced increased psychophysiological reactivity both during and after treatment and exhibited delayed habituation processes. Compared to behavior therapy, there was a significant trend for imipramine subjects to relapse during the 2-year longitudinal follow-up (Mavissakalian & Michelson, 1986).

Chambless (1985) points out that if an agoraphobic client has not made substantial progress in three to six months of behavior therapy in spite of genuine efforts, the therapist can discuss medication treatment at that time. No consensus can be found in the psychological
literature of agoraphobia treatment indicating pharmacotherapy as the first-line treatment of choice. However, most agoraphobic persons who have sought relief from anxiety through medical care are taking medication when they present themselves for psychological treatment.

The severity of agoraphobia ranges from mild to moderate to severe in terms of intensity of fears and anxiety, co-existing depression, and frequency of panic attacks and avoidance behavior. With regard to extremely severe cases of agoraphobia, the combination of frequent panic attacks and extreme depression predict poor response to any treatment (i.e., poor compliance with therapeutic efforts, dropout, adverse side effects of medication, or relapse after medication withdrawal), including to imipramine and to exposure therapy (Zitrin, Klein, & Woerner, 1980).

For all of the above reasons, nonpharmacological strategies for reducing agoraphobic anxiety, avoidance behavior, and panic attacks appear more likely to provide superior short- and long-term improvement. However, a multifactorial treatment approach combining behavior therapy, cognitive therapy, and medication may benefit certain well-evaluated clients.

Factors Facilitating Treatment Effects

Outcome research suggests that additional factors
affecting efficacy of treatment are the client's self-paced exposure practice, with support (encouragement and reinforcement for exposure) from a significant other in the client's home environment. Emmelkamp (1976) points out that the therapist can decrease his or her direct intervention in the client's exposure practice (i.e., the therapist's presence and assistance in exposure), instead assigning the in vivo exposure practice to the client to carry out from the home environment. Associating the exposure practice with the agoraphobic client's home seems to be more effective than conducting exposure from the therapist's office (Mathews et al., 1981; Barlow et al., 1984).

Rachman (1984) pointed to the importance of providing a sense of safety for the agoraphobic person in order to facilitate approach to fear-provoking settings. He validated the "safety-signal" perspective drawn from Grey's (1971) explanation of avoidance behavior as an attempt to find safety and security by responding to an important stimulus that signals safety for the agoraphobic, i.e., the home. (When agoraphobic persons feel anxious and anticipate possible panic attacks, they usually prefer to remain at home; in severe cases, they may become house-bound.) Rachman suggested that the agoraphobic's "safe person" (another safety signal, the companion with whom the agoraphobic feels safest and can enter feared...
situations without panic, usually the spouse or family member) could provide the agoraphobic with the sense of security needed following exposure by stationing himself or herself at the exit from a fear-provoking setting, e.g., a store. On Rachman's part, this suggestion represents a shift from unsupported exposure therapy to providing the support of significant others to facilitate the agoraphobic's sense of safety and security during or after exposure.

DuPont (1982), a psychiatrist who has developed a phobia treatment program, believes that longer-lasting benefits and prevention of relapse, a frequent problem in agoraphobia, seem to result from supported exposure therapy. Such therapy includes educating a support person about agoraphobia and requesting him or her to be present at certain points in the therapy in order to assist the agoraphobic person by facilitating exposure to feared situations. Ross (1982) states that the amount of progress agoraphobic persons make during therapy often depends upon the degree of support they receive from their spouses or family members. Teaching support people how to be supportive provides them with opportunities to become aware of changes that may occur in the agoraphobic person's behavior and thus in their relationship, as well as facilitating the agoraphobic person's exposure to avoided situations.
Spouse-Aided Treatment

Mathews, Teasdale, Munby, Johnston, and Shaw (1977) designed a home-based treatment method for agoraphobia, described in greater detail by Mathews et al. (1981). Called "programmed practice" (i.e., of graded exposure to fear-provoking stimuli), the method enlists the aid of a close support person, usually the spouse, or a family member, called the "partner." The researchers recommend that treatment emphasize practice that clients carry out themselves with the assistance of the partner in planning exposure targets, traveling to and from exposure situations, and in providing encouragement to remain in the situation until the anxiety decreases. Client and partner are instructed in the importance of habituation to fear-provoking situations through repeated exposures as a means of counter-conditioning the agoraphobia. The therapist functions as a facilitator/instructor but takes no active role in exposure practice. Baseline assessment is carried out before treatment. Manuals for both the agoraphobic client and the partner provide education about agoraphobia and information designed to stimulate exposure practice. The therapist meets with the client and partner five times during the first month to instruct them in how to grade and plan exposure excursions and manage the program. Subsequently, the client and partner continue the practice program alone, using the manuals as guides and recording
outsings. Responsibility is thus transferred to the client and partner for carrying out all exposures and managing the program. Additional meetings may be arranged as needed, but meetings with the therapist are phased out while the client and partner continue the program. With regard to the partner's role, Mathews et al. (1981, p. 110) state: "The involvement of a partner is also seen as a method of increasing social reinforcement for regular practice." The meetings with the therapist are usually in the client's home. Follow-up visits are arranged at intervals after the end of the program to assure that practice is continued.

Program evaluation results indicate that it is both effective and efficient. Significant improvement has been found to continue during follow-up (Mathews et al., 1981). Evaluation of this home-based treatment, by means of replication, was carried out by Jannoun, Munby, Catalan, and Gelder (1980) in which the investigators also compared the program to a "problem-solving" method. The Mathews et al. (1981) home-based programmed practice was found to be more effective than the problem-solving method in the reduction of agoraphobic avoidance. A treatment program that transfers to the client the initiating and carrying out of exposure with the support and assistance of a significant other appears to facilitate and maintain treatment effects.
Barlow, Mavissakalian, and Hay (1981) treated six agoraphobic women and their husbands in a group therapy program consisting of cognitive restructuring, covert rehearsal of coping with anxiety, and graduated exposure between sessions. All subjects had improved at posttreatment and continued to make progress. This study of cases, which examined changes in marital satisfaction among agoraphobics being treated in a couples' group format, was preliminary research as part of a larger program of ongoing research of couples treatment of agoraphobia conducted by these and other investigators.

In their review of studies of marriage patterns of agoraphobics and also from their clinical research, O'Brien et al. (1982) concluded that agoraphobia must be treated first even when severe marital problems co-exist, and that exposure therapy is the treatment of choice for agoraphobia. In the studies reviewed, marital therapy produced no improvement on phobic targets, while it did improve marital problems.

In an important study of couples treatment of agoraphobia, Barlow et al. (1984) compared 14 agoraphobic women treated with their husbands to 14 agoraphobic women treated identically without their spouses. Treatment was focused on agoraphobia and did not provide marital therapy. It consisted of graduated, self-initiated exposure therapy combined with panic management instruction, and
cognitive therapy that included coping self-statements and paradoxical intention. The rationale for including the spouses was based on findings that practice between sessions seemed to be of critical importance in overcoming avoidance associated with agoraphobia and on the hope that including the spouse might ensure that exposure practice in the home environment would be accomplished. Also, earlier studies had supported the conclusion that increasing the social support of a significant other during the treatment of agoraphobia had improved the agoraphobic person's response to treatment (Hand, Lamontagne, & Marks, 1974; Mathews et al., 1977; Mathews et al., 1981).

Because of the large number of measures utilized in the study, Barlow et al. (1984) established criteria for all measures in order to classify subjects into categories of "responders" versus "nonresponders." Results indicated that a significantly greater number of agoraphobics in the spouse group were classified as responders than were those in the nonspouse group at posttest. Eighty-six percent of those in the spouse-assisted group had responded well to treatment, as compared with less that 60% of those in the nonspouse group, a statistically significant difference. A number of additional measures also showed either a statistically significant advantage for the spouse group or a trend in that direction.

Arnow, Taylor, Agras, and Telch (1985) conducted a
study in which couples communication skills training was compared with couples relaxation training following spouse-assisted exposure therapy for 24 agoraphobic subjects. Results indicated that the agoraphobic subjects in the couples communication skills group improved significantly more than those in the relaxation group on all measures of agoraphobia. The investigators concluded that communication skills training dealing with the problems of agoraphobia may enable couples to improve interaction patterns that affect the functioning of agoraphobics.

The above studies suggest that inclusion of the spouse in the treatment of agoraphobia is a worthwhile effort and contributes to the improvement of the agoraphobic in terms of reduction of anxiety and avoidance behavior, the factors that define agoraphobia.

Summary

Twenty-five years of research on the treatment of agoraphobia has resulted in a consensus that the three behavioral and cognitive therapeutic procedures—gradual exposure in vivo, systematic desensitization, and imaginal flooding—share the common specific factor of exposure to feared stimuli, and are effective in reducing the avoidance behavior of agoraphobia and some of the fear that maintains it. While some short-term imaginal desensitization may facilitate exposure in vivo, long-term imaginal
desensitization procedures are more appropriate for simple phobias and may be omitted from agoraphobia treatment. Cognitive modification is an important treatment component that, provided before and concurrently with exposure, also facilitates and maintains the benefits of exposure longer than exposure alone. The studies reviewed indicate that factors in addition to behavioral exposure, such as cognitive therapy, the support and assistance of a significant other, and the frequency, duration, location, and self-pacing of exposure affect the efficacy of the treatment of agoraphobia.

Understanding the agoraphobic as a person whose need for security and safety may derive from inordinate childhood stress and losses is the basis for including studies in this review that examined the effects of support as an adjunct to exposure therapy. The results and conclusions of the research described have strengthened the writer's interest in the effects of spouse-supported treatment of agoraphobia as a facilitative factor for exposure therapy.

The writer has developed a set of hypotheses to be tested with a clinical research effort of spouse-supported treatment of agoraphobia (termed "couples treatment" in the present dissertation) compared to individual treatment of agoraphobia. The rationale for spouse-supported treatment is based on the potential for the spouse to facilitate a greater amount of exposure practice that may afford
more habituation for the agoraphobic person to fear-provoking situations. The application of the principle of habituation, i.e., through repeated exposures to fear-provoking stimuli has been postulated to lead to controverting the disorder of agoraphobia (Chambless et al., 1982; Mathews et al., 1981).

The hypotheses of the present study are as follows:

**Between-Group Hypotheses**

1a. Subjects receiving Couples Treatment for agoraphobia will demonstrate a significantly greater change from pretest to posttest on the Approach/Exposure measure than will subjects receiving Individual Treatment and than the No-Treatment Control subjects.

1b. Subjects receiving Couples Treatment for agoraphobia will demonstrate a significantly greater change from pretest to posttest on the Avoidance self-report measure than will the Individual Treatment subjects or the No-Treatment Control subjects.

2a. Subjects receiving Individual Treatment for agoraphobia will demonstrate a significantly greater change from pretest to posttest on the Approach/Exposure measure than will the No-Treatment Control subjects.

2b. Subjects receiving Individual Treatment for agoraphobia will demonstrate a significantly greater change from pretest to posttest on the Avoidance
self-report measure than will the No-Treatment Control subjects.

**Within-Group Hypotheses**

3a. Subjects receiving Couples Treatment for agoraphobia will engage in a significantly greater number of Approach/Exposures at posttest and at follow-up assessment than at pretest.

3b. Subjects receiving Couples Treatment for agoraphobia will endorse significantly less Avoidance Behavior on the avoidance self-report measure at posttest and at follow-up assessment than at pretest.

4a. Subjects receiving Individual Treatment for agoraphobia will engage in a significantly greater number of Approach/Exposures at posttest and at follow-up assessment than at pretest.

4b. Subjects receiving Individual Treatment for agoraphobia will endorse significantly less Avoidance Behavior on the avoidance self-report measure at posttest and at follow-up assessment than at pretest.

These between-group and within-group comparisons are of interest to the clinician treating agoraphobia and to the agoraphobia researcher.

Two dependent variables are utilized as the outcome measures: (1) Approach/Exposure Behavior; and (2) Avoidance Behavior, described in more detail in the following
chapter. The data from these dependent measures will be subjected to statistical analyses.

Ancillary data were also collected that assessed additional aspects of agoraphobia not assessed by the major dependent variables, in order to note some of the subtleties of what occurred in the samples of agoraphobic subjects in the study. The rationale for acquiring these data was to derive information regarding cognitive and affective variables related to the agoraphobic syndrome. Collection of these data is not to be construed as measurement of treatment effects or as outcome data for the study; they are ancillary.
CHAPTER III

DESIGN AND METHODOLOGY

Design

In order to test the hypotheses stated in Chapter II, two treatment conditions were compared, and a third, the no-treatment control condition, was added for comparison in order to test the efficacy of the treatment. In the Individual Treatment Condition and in the Couples Treatment Condition, the investigator/therapist provided cognitive-behavior therapy for the treatment of agoraphobia, a standard form of treatment, including cognitive restructuring, education about agoraphobia, and behavioral exposure to fear-provoking situations based on each subject's fear-and-avoidance hierarchy. Treatments were identical in the two experimental conditions, except that the experimental component, the presence of the agoraphobic subject's spouse and his participation in therapy, was added to the Couples Treatment Condition.

In the Couples Treatment Condition, treatment was focused on agoraphobia; concerted effort was made to avoid providing marital therapy per se. The Couples Treatment Condition included educating both husband and wife about agoraphobia and its treatment and engendering the spouse's
support and encouragement in order to facilitate the agoraphobic person's exposure therapy.

The independent variable and the dependent variables of the between-groups comparisons are described below. The independent variable of the within-group pretest-posttest comparison for the Individual Treatment Condition is the cognitive-behavioral treatment of agoraphobia provided for both treatment conditions. The independent variable and the dependent variables for the within-group pretest-posttest comparisons for the Couples Treatment Condition are the same as for the between-group comparisons, described below.

**Independent Variable:** The presence and participation of the agoraphobic subject's spouse in the subject's treatment for agoraphobia.

**Dependent Variables:**

1. Approach/Exposure Behavior is one of the two dependent measures and is utilized as one outcome criterion for data analysis. A count of the number of approach/exposures to fear-provoking places and situations outside the home was made at pretest, posttest, and follow-up assessment. The rationale for the behavioral count of approach/exposures was the clinical relevance of the subjects' actual exposure activities to their personal lives and situations. Personally relevant exposure activities seem more likely to be practiced and repeated, in
contrast to a contrived behavioral test, such as the behavioral walk used by some researchers to determine at pre- and posttest how far the agoraphobic subject walks from the clinical setting on a one-mile course. There are precedents in the literature for the use of subjects' reports of exposures as dependent variables (Mathews et al., 1981; Arnow et al., 1985).

2. Avoidance Behavior, as measured by the Agoraphobia Scale of the Fear Questionnaire (Marks & Mathews, 1979), a self-report questionnaire, is the second dependent variable. This instrument was utilized to assess the passive aspect of agoraphobia, i.e., the opposite of the adaptive behavior of approach to exposure to fear-provoking situations. The Fear Questionnaire measures the degree to which the agoraphobic's fear or anxiety inhibits the person's behavior of exposure to situations outside the home, as self-rated by the subjects.

Method

Subjects

The sample consisted of 10 individuals who responded to announcements of "a study of the treatment of agoraphobia," sent by the former leader of an agoraphobia support group at a local mental health agency in a large midwestern city in cooperation with the investigator. Recipients of announcements were individuals on a list who had
either previously attended the support group or who had expressed interest in the group in the past. An announcement of the study was also placed in the city and regional newspapers when response to the agency announcement was minimal. The newspaper announcements stated that short-term treatment of agoraphobia was offered by a therapist as part of "a study of the treatment of agoraphobia." Those interested in the study responded by telephoning the investigator/therapist. Appointments for interviews for those respondents who met inclusion and exclusion criteria were scheduled.

Screening

Because the focus of the study was agoraphobic behavior, the essential criterion for inclusion in the study was the subject's avoidance of places and situations based on interview data and the diagnostic criteria for "agoraphobia with" or "agoraphobia without panic attacks" of the Diagnostic and Statistical Manual-III (APA, 1980). Other inclusion criteria were: Subjects may be either male or female, age between 18 and 60 years, onset of agoraphobia prior to 40 years of age, duration of agoraphobia at least six months, married, and the spouse was willing to participate in treatment.

Exclusion criteria were: Physical problems which would preclude participating in treatment sessions,
organic brain syndrome, and psychiatric disorders other than agoraphobia (with the exception of reactive depression). Those taking anti-anxiety medications for three weeks or less were excluded because of the possibility of their response to the medication during the study. The inclusion of such subjects could cause difficulties in distinguishing between the medication's effects and those of the treatment provided in the study. Agoraphobics who had taken medication for longer than three weeks without benefitting from it in terms of decreasing avoidance behavior associated with agoraphobia were included if they met other criteria (D. H. Barlow, personal communication, June 11, 1984). People receiving psychological or psychiatric treatment elsewhere were also excluded because of the possibly confounding effects of other treatment. Additionally, people who were unwilling to attend regular treatment sessions and whose spouses were unwilling to attend the initial interview and potentially participate in treatment with the agoraphobic were not included.

The nature of the clinical problem studied and the design and requirements of the study caused difficulties in subject acquisition. Most of the individuals who responded to the announcements by telephone did not meet various inclusion criteria, such as marital status, having a spouse willing to accompany them to treatment, or they did not meet exclusion criteria, such as receiving
treatment elsewhere. Of the respondents who were married, some stated that they were reluctant to talk about their agoraphobia with their spouse and to request that the spouse accompany them to the clinical setting. Others stated that they were unable to travel to an office for treatment, alone or accompanied, that they could not drive alone, or that they could not drive the distance from their homes to the downtown location of the office of the study which, they stated, was beyond their "safe radius." (When an agoraphobic person has developed widespread avoidance, limitation of movement to within a 1 or 2-mile radius around the environment, called the safe radius, is a typical aspect of symptomatology.)

Some respondents, however, stated that they were interested in learning about the study and in possible participation. The study was described to interested respondents during the initial telephone call, including the short-term nature of the treatment (10 sessions), and the goals for treatment were described as reduction of avoidance and anxiety associated with agoraphobia. However, it was stated that the offer of therapy implied no "cure" for agoraphobia and that there was no guarantee that participants would be anxiety-free at the end of therapy. The therapist's intentions were to help the agoraphobic participants to improve in terms of coping with their symptoms and a relative decrease in avoidance
behavior and anxiety. It was stated that 10 sessions is considered short-term therapy and that it was necessary to limit the number of sessions due to the time-frame of the study. The sessions would be provided once per week by appointment with the therapist, until the 9th session, when the last (10th) session would be scheduled two weeks later to cover an overall time period of nearly three months.

The cognitive-behavioral therapeutic approach was described as assisting clients to understand how thinking affects emotional reactions and changing agoraphobia-related thoughts to decrease avoidance and anxiety, with the behavior therapy consisting of exposure to anxiety-related places and situations. Many prospective subjects asked whether the therapy would include exposure, having read or heard through the communications media of the importance of it and reacted favorably to being informed that it would be a part of therapy.

Respondents were also informed that individual therapy or treatment with the spouse would be conducted as part of the study and of the necessity for the spouse to attend the first interview and to be willing to participate in therapy. The necessity of random assignment to either of the two treatment conditions was also explained. They were informed of the initial diagnostic interview which would include the informed consent procedure during
which the study would be described in more detail. It was explained that a deposit of $50 would be requested at the beginning of treatment (not at the initial interview), $45 of which would be returned at the last (10th) session, and that $5 would be retained to cover the cost of printed information about agoraphobia provided for participants. They were also informed that participation in the study was voluntary and that they could discontinue participation at any time. In answer to respondents' questions concerning whether they could discontinue participation after being informed of whether they would receive individual or couples treatment, the investigator informed them that they could do so. The investigator also pointed out that it would be necessary for participants to inform their spouse about the study and request his presence at the initial interview. If he agreed to be present and to participate in treatment with the prospective client, it would then be necessary to telephone the investigator again, and an appointment for the interview would be scheduled. Subjects were informed as well that, if they desired or needed additional therapy at the end of the study's 10 sessions, they would have the option of either continuing with the therapist or of referral to another therapist or treatment facility.

Of the prospective subjects who were eligible and willing to participate in the study, four stated that they
were able to come if accompanied by their husbands.

Inability to drive alone (in spite of adequate driving skill and experience) is one symptom of moderate to severe agoraphobia, and inability to enter unfamiliar settings unless accompanied also typifies agoraphobia. Inasmuch as the subject acquisition process was incomplete at the time, it was considered that these individuals were able to participate in the study and were scheduled for the initial interview/informed consent/assessment procedure.

**Informed Consent**

Following telephone screening, an initial interview was scheduled. Spouses accompanied all subjects and were present at the interviews which were conducted by the investigator couple-by-couple (not in a group format). Although the major aspects of the study had been explained during the telephone contact, a full explanation of the study was again given during the interview. The short-term treatment program was again described, including the fact that the 10 sessions would include pretreatment assessment and assessment again at the end of therapy, for the purpose of determining the degree of agoraphobia, the extent of their avoidance behavior, and the amount of change from the beginning to the end of therapy. Subjects and spouses were again informed that the initial diagnostic interview and assessment session would constitute the
first session of the 10-session program, with 9 sessions remaining. The therapist and participant(s) would meet once per week until the 9th session, when the agoraphobic client (subject) would again be asked to complete the questionnaires and would be scheduled to meet again two weeks subsequently, for the last (10th) session and final assessment.

The goals for treatment, the therapeutic approach, the cost of participation, the possibility of receiving either individual or couples treatment, and the necessity for random assignment to either treatment were again described as during the initial telephone contact (see "Screening" section). Additionally, the investigator reiterated to prospective subjects that at the conclusion of therapy, they would have the option of seeking additional treatment with other therapists, with the therapist of the study, or of stopping treatment.

The investigator made no statements concerning the relative efficacy of either of the two treatments. When questioned about the purpose of the study or of couples treatment, the investigator responded with the statement, "The purpose of the study is to determine whether having the spouse present in therapy makes any difference." All prospective subjects accepted this explanation.

Following the verbal explanation, a written statement, "Study of the Treatment of Agoraphobia: Information
for Participants" (see Appendix A), was presented, which both the agoraphobic subject and the spouse were requested to read. When all questions had been answered and they indicated understanding of the forms and the explanation, the subject was asked to sign and date the Informed Consent Form. The spouse was asked to read an additional brief statement on the Informed Consent Form indicating his agreement to participate in treatment if assigned to the "joint therapy format" and, if he agreed, to sign and date it. The spouse's participation in treatment was defined as "being present with the agoraphobic spouse at every therapy session, learning about agoraphobia with the spouse, and learning and applying various ways of encouraging her (or him) to practice entering anxiety-provoking places or situations associated with agoraphobia." A copy of the Informed Consent Form and of the Information for Participants was provided for the subjects and spouses.

When the Informed Consent procedure had been completed, the diagnostic interview was conducted by the investigator, and subjects were asked to complete the pretreatment assessment questionnaires.

Assignment of Subjects

Following the initial interview/assessment session (Session 1), subjects were informed that they would be telephoned to schedule the first treatment appointment one
week after the initial interview. This interval was necessitated by the intent to carry out random assignment to either treatment and to collect a pool of subjects for this purpose. However, as subjects were acquired, it became apparent that a random procedure was not feasible because of the strongly expressed need of four of the subjects, all women, to have their spouses drive them to and from the treatment setting. In these cases, if random assignment determined that these wives were to receive individual treatment, it would be necessary for the spouses to wait during treatment sessions, a factor that was objectionable to these couples. The subjects who had expressed the need to have their spouses accompany them were accommodated by placing them in the couples treatment condition. The spouses did not object to being present in the therapy sessions. The remainder of available subjects who had not stated the need to be accompanied were placed in individual treatment. The sacrifice of random assignment due to preferences of subjects' family members has at least one precedent in the psychological literature in a study conducted by Lovaas (1987) on the treatment of autistic children. The parents' preferences for the new, more intensive experimental treatment over the standard treatment were accommodated as long as there were therapists to provide treatment. The remaining children were offered the traditional program of treatment.
The assignment procedure in the present study resulted in experimental groups that differed in terms of the degree of avoidance behavior and, therefore, the level of agoraphobic severity. The subjects in the couples treatment condition suffered from relatively more severe agoraphobia than did those in individual treatment. Assignment to treatment conditions was based on the expressed preference of some subjects to be accompanied which was based, in turn, on their avoidance of traveling alone away from the "safe" radius around the home environment.

The Treatment and Control Samples

The experimental samples, i.e., the two groups receiving treatment, consisted of seven subjects; four of these subjects were assigned to Couples Treatment (with their spouses), and three were assigned to Individual Treatment.

In addition, a No-Treatment Control group of three subjects was acquired through the same means as were the experimental subjects. The control subjects were added for the purpose of comparing the behavioral changes of the treated subjects to those of nontreated subjects and, thereby, to determine the value of the treatment. The prospective control subjects were informed of the study by telephone. They stated that they did not need immediate
treatment. The investigator inquired whether they would complete questionnaires for the study; they responded affirmatively and were mailed the Informed Consent Form, the instructions, and the questionnaires (see Appendices A and B). They completed the forms and returned them to the investigator by mail. The No-Treatment Control subjects received no therapy during the time period of the study and had no personal contact with the investigator.

Subject Characteristics

All experimental subjects in both Individual and Couples Treatment were female; their ages ranged from 31 years to 57 years (mean age was 43 years). The mean age for the Couples Treatment subjects was 38 years and, for the Individual Treatment subjects, 50 years. Mean ages of onset of agoraphobia were 20 years for the Couples Treatment subjects and 23 years for the subjects in the Individual Treatment condition.

The No-Treatment Control group consisted of three females. Mean age was 42 years, mean age at onset of agoraphobia was 32 years, and age range was 38 to 45 years.

All groups included people on prescribed medication. Subjects in the treatment conditions taking medication had taken it for an average of two years without reduction of agoraphobia. Of the three subjects in the Individual
Treatment condition, one subject took one Valium on the average of once per month if needed (2.5 mg.); the remaining two subjects in Individual Treatment took no medication. In the Couples Treatment condition, three of the four subjects took medication. One subject took Xanax (alprazolam) approximately once per week (.25 mg.). Another used Xanax twice per week (.25 mg.) on the average, as needed, at the beginning of therapy; usage decreased voluntarily to once per week as therapy progressed. The Xanax was prescribed to be taken four times per day in each case; however, both subjects refused to take the prescribed amount. The investigator did not instruct subjects at any time to reduce dosage or to discontinue medication. The third subject on medication in Couples Treatment took Inderal (propranolol), one daily (40 mg.), to reduce some of the physical sensations of anxiety, e.g., rapid heart beat. However, propranolol is ineffective for the psychological aspects of anxiety, such as anticipatory anxiety (Chambless, 1985). This subject experienced no decrease in anticipatory anxiety or in avoidance behavior as the result of the medication. The subjects using Xanax reported no reduction of avoidance behavior or of the agoraphobic syndrome as the result of it.

In the No-Treatment Control group, two subjects had taken medication for an average of four years and
continued to do so. One took Tofranil (imipramine, a tricyclic antidepressant) four times daily, 25 mg. each. The other took Elavil (amitryptyline, a heterocyclic antidepressant), 150 mg. daily, plus Valium, 2 mg. daily. The other subject in the control condition took no medication. Regardless of medication, agoraphobia persisted in all of the control subjects, as well as in the experimental subjects.

Assessments

The initial interview/pretreatment assessment session included use of the Anxiety Disorders Interview Schedule (DiNardo et al., 1985, abbreviated by permission; see Appendix B) as a guide in assessing subjects' responses concerning the course of agoraphobia, history, panic attacks, and avoidance behavior, for the purpose of determining whether a diagnosis of agoraphobia was appropriate in each case. The Anxiety Disorders Interview Schedule was used only for the pretreatment interview for diagnostic purposes and not for subsequent assessment. Following the interview, subjects were also questioned about the number of their approaches to anxiety-provoking situations and settings. The assessments were carried out by the investigator on three occasions: pretreatment (Session 1), posttreatment (Session 9), and at 2-week follow-up (Session 10).
1. **Approach/Exposure Behavior.** Approach/Exposure Behavior is one of the two dependent variables of the study. The number of Approach/Exposures during the seven days prior to the in-session assessment was recorded by the investigator (see Appendix B) by questioning the subjects in the Couples and Individual Treatment conditions about their approaches to "anxiety-provoking or fear provoking places or situations." The data recorded were subjects' verbal reports of number and description of only their actual exposures to these settings and situations. For purposes of pretreatment assessment (baseline), for posttreatment assessment, and for follow-up assessment, the subjects could be alone or accompanied, depending upon what each individual was able to carry out at the time. The basic criterion for recording the exposure activity was that it was anxiety-provoking or fear-provoking for that individual at the time of assessment so that the effort constitutes exposure to stimuli to which the person has become phobic. Experimental and Control subjects were asked the same questions:

How many anxiety-provoking or fear-provoking activities outside your home have you carried out during the past seven days? This includes places that are difficult for you to visit because of anxious feelings, such as stores, shopping malls, public places, etc.

What were they? Please list: (see Approach/Exposure Data Recording Sheet, Appendix B).

The No-Treatment Control subjects completed the
Agoraphobia Questionnaire (see Appendix B) containing the same questions for gathering these data.

Posttreatment and follow-up assessment of Approach/Exposure Behavior was conducted in the same manner as described above for posttreatment assessment.

2. The Fear Questionnaire (Marks & Mathews, 1979); the Agoraphobia Subscale of this questionnaire is the second dependent variable of the study. The Agoraphobia Subscale is a self-report measure of avoidance of typical anxiety-provoking settings and situations for agoraphobics. The five items of the subscale are rated by respondents on the basis of a 0 to 8 scale of frequency of avoidance. The Fear Questionnaire is one of the most frequently-utilized instruments in agoraphobia research and is based on satisfactory reliability and validity data (see Appendix B). The subscale facilitates diagnosis of agoraphobia.

Ancillary Measures (self-report questionnaires)

The following measures were not utilized as outcome measures for the study. They were administered in order to collect data on variables affecting the agoraphobic syndrome, notably specific information regarding cognitive and affective variables. All subjects completed the following self-report questionnaires, as well as the Fear Questionnaire described above.
1. The Agoraphobic Cognitions Questionnaire-Revised (Chambless, 1982), a self-report of frequency of typical agoraphobia-related cognitions, asks respondents to rate how often, on a 1 to 5 scale, 14 specific cognitions occur to them when they are frightened or nervous. The items express cognitions concerned with imagined disastrous consequences of panic attacks. Validation studies confirm that this scale reliably and validly measures the cognitive aspect of agoraphobia (see Appendix B).

2. The Body Sensations Questionnaire (Chambless, 1982; see Appendix B). This 18-item questionnaire asks respondents to rate their intensity of fear, on a 1 to 5 scale, of specific body sensations that are the typical interoceptive symptoms of the anxiety-fear-response. Respondents are also asked to indicate the three most frightening sensations. The reliability and consistency of this instrument have been demonstrated and confirmed.

All subjects completed the above self-report questionnaires, including the control group subjects. Post-treatment and follow-up assessments were conducted in the same manner as pretreatment assessment for each sample of subjects.

Materials

In addition to the assessment questionnaires and forms described above, the following printed materials
were utilized during treatment procedures (see Appendix C).

1. **Hierarchical Ranking of Feared Situations** (Barlow & Waddell, 1985). During Session 2, the investigator collaborated with the subject to develop the list of frequently-avoided settings and situations that the subject would like to be able to enter. The hierarchy list was developed for clinical purposes to be utilized for exposure practice homework assignments. However, it also clarified and specified what the subject would and would not approach for exposure purposes which served to confirm the baseline data of Approach/Exposure Behavior, as well as facilitating treatment planning. Hierarchy items were rated on an avoidance scale of 0 to 8, where 0 represents "Do not avoid--no anxiety" and 8 represents "Invariably avoid the situation--very severe/continuous anxiety; near panic."

2. **Weekly Records** (Barlow & Waddell, 1985). For treatment purposes and to facilitate exposure, subjects receiving treatment were requested to complete Weekly Record forms (A & B; see Appendix C). Form A requests the subject to record incidents during which moderate to severe anxiety was experienced, including panic attacks, if any, with anxiety ratings for each on a 0 to 8 scale. Form B requests the subject to record each occasion of leaving home, including exposure practice assigned by the
therapist and new activities attempted by subjects, with anxiety ratings for each excursion on a 0 to 8 scale. The Weekly Records provided subjects with self-written feedback of progress and incentive to improve.

3. Handouts for subjects (see Appendix D). Photocopies of written information on the nature of agoraphobia, the stress response, the fight-or-flight response, the importance of exposure practice, coping skills, and panic management were provided for subjects. The titles of the handouts are noted in the treatment protocol in the "Procedures" section which follows. Additionally, a handout was provided for the spouses of the Couples Treatment subjects (see Appendix D).

**Procedures**

The investigator also served as therapist for both treatment groups, thus assuring consistency of treatment. Subjects were provided with seven therapy sessions (Sessions 2 through 8) on an individual appointment basis, i.e., the therapist saw one couple or one individual at a time for Couples Treatment or for Individual Treatment, respectively. The initial interview/assessment session (Session 1) was two hours in length, and all subsequent sessions were one and one-half hours for all subjects in both conditions.

Targets for exposure therapy practice were based on
each subject's hierarchy of fear-provoking, avoided places or situations and on what the subject was able to attempt at the time. Beginning with Session 2, a specific exposure practice task was assigned, with the subject's verbal agreement. Subjects were not accompanied by the therapist during exposure practice which was self-initiated by the subject during the week. Practice began with the least-threatening exposure and proceeded step-by-step on a graduated basis. The exposure practice of subjects in Couples Treatment was also self-initiated, although the spouse occasionally facilitated or assisted with the exposure of the subject in various ways, as can be noted in the following "Assessment and Treatment Protocol."

Assessment and Treatment Protocol

Session 1. Informed consent, diagnostic interview, and pretreatment assessment.

Present: The investigator/therapist, the prospective agoraphobic subject, and the spouse of the agoraphobic individual.

Session Time: Two hours.

1. The investigator's verbal explanation of the agoraphobia study was given, as described in the "Subjects: Screening" and "Subjects: Informed Consent" sections.

2. Informed Consent procedure (see "Informed Consent" section).

3. The diagnostic interview was conducted by the
investigator using the "Anxiety Disorders Interview Schedule" (DiNardo et al., 1985, abbreviated by permission; see Appendix B) as a guide to determine or confirm whether a diagnosis of agoraphobia was appropriate in each case.

4. Pretreatment Assessment:

(a) Baseline information gathered during the above interview on approach behavior to anxiety-provoking settings and situations, one of the two outcome measures, was recorded as "Approach to Exposure Situations/Settings," based on the subject's report of behavior during the week preceding pretreatment assessment (see "Assessments" section and Appendix B).

(b) Subjects were requested to complete the following questionnaires (see Appendix B):

The Fear Questionnaire (Marks & Mathews, 1979), of which the Agoraphobia Subscale was used as the second of the two outcome measures.

Ancillary Measures (self-report):

The Agoraphobic Cognitions Questionnaire, Revised (Chambless, 1982), a self-report of frequency of agoraphobia-related cognitions.

The Body Sensations Questionnaire (Chambless, 1982), a self-report assessment of the degree of fear of the physical symptoms of anxiety, fear and panic.

5. Upon completion of assessment, the investigator informed the subject and spouse that they would be
telephoned concerning the outcome of the subject's random assignment to either couples (joint) therapy or individual therapy and that the first treatment appointment would then be scheduled.

Following Session 1 and before scheduling the first therapy appointment for each subject, the investigator scored each questionnaire. Data from the interview related to the diagnostic criteria for Agoraphobia with (or without) Panic Attacks from the *Diagnostic and Statistical Manual-III* (APA, 1980) were considered in conjunction with the results of tests described above to determine the diagnosis of agoraphobia for each subject as well as its severity in each case. The diagnostic criteria utilized for Agoraphobia without Panic Attacks were:

1. Marked fear of and avoidance of being alone or in public places from which escape might be difficult or help not available in case of sudden incapacitation;
2. Increasing constriction of normal activities until the fears or avoidance dominate the individual's life.

In the case of Agoraphobia with Panic Attacks, the criteria were:

1. When there is a history of panic attacks (which
may or may not be currently present) associated with avoidance behavior, the diagnosis of Agoraphobia with Panic Attacks should be made (APA, 1980, p. 226).

2. The presence of Panic Disorder, defined as "at least three panic attacks within a 3-week period in circumstances other than during marked physical exertion or in a life-threatening situation. The attacks are not precipitated only by exposure to a circumscribed phobic stimulus" (APA, 1980, p. 230).

3. Current occasional or recurring panic attacks and/or the anticipatory fear of the occurrence of panic attack as precipitants to avoidance.

4. At least four panic attack symptoms occur during each attack. (See symptom list and description, p. 3).

Session 2. First Therapy Session.

Present: In Individual Treatment, the investigator/therapist and the agoraphobic subject. In Couples Treatment, the investigator/therapist, the agoraphobic subjects, and the spouse of the subject.

Session Time: One and one-half hours.

The therapeutic activities described in the following protocol were carried out in Individual Treatment and Couples Treatment alike. When Couples Treatment included additional interventions, a description of these follows the common treatment description.

1. The therapist first listened to the subject's concerns and feelings about agoraphobia, then collaborated with the subject to develop the rank-ordered (hierarchy)
list of feared and avoided situations. The subject was requested to report the places avoided most frequently, to choose goal activities, then to list 10 specific avoided situations and rank-order them, rating each one on the anxiety scale on the hierarchy form (see Appendix C). (The hierarchy list was completed first in order to prevent the subject from becoming frightened by the realization that, subsequently, therapy would require that she engage in the exposure activities on the list.)

2. Rationale for Cognitive Behavioral Treatment:
The therapist explained that cognitive therapy would begin at the next appointment, during which the subject (and spouse, in Couples Treatment) would learn about the connection between thought (cognitions) and feelings (emotional reactions) and between the subject's interpretations of anxiety symptoms and consequent increase of anxiety. Behavior therapy was explained as consisting of "exposure practice," the rationale for which was based on the conditioning of the anxiety response to certain situations, a learned response that can be changed in gradual steps requiring repeated practice of exposure to what is feared. It was pointed out that avoiding feared situations strengthens agoraphobia, and for this reason, it was necessary to carry out an opposite, or de-conditioning process, to strengthen the subject's ability to approach and enter situations that she currently feared and
avoided. The therapist explained that the subject would be working on exposure practice throughout therapy of specific activities that she was able to engage in each week.

The subject was provided with an informative handout, "What is Agoraphobia?" (From Mathew et al., 1981, "Client Manual;" see Appendix D), which she was requested to read before the next appointment. The purpose of this handout was to reinforce the subject's learning about the effects of the conditioning process on agoraphobia.

3. The therapist explained the relationship between stress, the "flight-or-fight" response, anxiety, and development of agoraphobia. Handouts were provided (see Appendix D): "Flight-or-Fight Response;" "The Stress Response;" "The Effects of Stress on the Body."

4. Panic Management Information: The subject was given information concerning what to do when panic or anxiety feelings arise, e.g.,:

1. Take two deep breaths, using your diaphragm muscle to breathe deeply but slowly, through the nose, hold for a slow count of 4; then exhale slowly. The purpose of slowing down your breathing is to counteract the tendency to hyperventilate.

2. Focus your attention outside yourself, on concrete things around you. A sign in a store, the color of something, the grain of wood in a counter, the floor under your feet.

3. Let the tension go out of your muscles. Tensing up does not give you more control, but less. You'll feel better when you relax your muscles.
4. Think to yourself, 'This is only anxiety. I'll wait and let it pass. It will subside.'

5. Assignment of Exposure Practice and Instructions:

The therapist requested the subject to choose one of the easier, less-threatening items on the hierarchy list that she would be able to carry out during the coming week. If she had difficulty making a choice, she was requested to practice the activity that she had ranked the lowest. The therapist asked for her agreement to practice the activity at least once during the week, preferably three times or more if possible, to build confidence.

The following statement (or some variation of it), intended to facilitate exposure, was made to subjects in both treatment conditions, near the end of every treatment session (Sessions 2 through 8) following the subject's agreement to the exposure practice assignment:

At times, when you are practicing or anticipating practice, you may experience the anxiety feelings you've had before. Remember that these feelings are your body's normal reactions to fear-related thoughts or images, but magnified. They are really not harmful or life-threatening. The point of practicing is to learn to cope with these feelings. Practicing is the opposite of avoidance, so be persistent. Take small steps toward your goal; this will help you to break the habit of avoidance. If you feel anxious or fearful, let it happen, wait for it to pass. Rate the anxiety on a scale of 0 to 10. Focus on concrete things around you. Think 'This is an opportunity to learn to cope, to take a step of progress.' It's better to stay there, if you can, until the fear goes down.

For subjects in Couples Treatment, the following statement
was added to the above.

You may at times want to tell your spouse that you are going to practice going out and ask him if he would go with you, for example, to the shopping mall or whatever you can do at the time and meet you at an agreed-upon place later. The decision of what and when to practice is up to you. Try to do the errand or practice alone, then meet him when you finish.

In Couples Treatment, the therapist related to the spouse in a non-directive manner. He was asked if he would participate in facilitating some of the subject's practice of exposure activities. A summarized version of the explanation to the spouse, stated after the above instructions to the subject near the end of Sessions 2 through 8 follows, although abbreviated versions of these suggestions were stated following Session 2:

Maybe the two of you can collaborate about practice to find things to work on that would be beneficial. Or you might practice together, as I suggested to your wife a moment ago. She can work on her practice at her own pace. It would also be helpful if you would occasionally compliment her efforts, attempts as well as successes. If she is unable to do something, simply suggest she can try it again later. If she experiences panic when you are together, stay there awhile, if she can rest or walk near the place where she first began to feel anxious. If she agrees, encourage her to stay until the fear goes down. In time, the anxiety subsides. Once panic has come and gone, it is unlikely to occur again for a while. Give her praise for even the smallest steps toward improvement.

6. Weekly Records:

The therapist instructed the subject in both treatment conditions in how to complete the Weekly Record forms (see Appendix C) and to complete them daily during
the coming week. Form A requests the client to record incidents that cause moderate or high anxiety and to rate anxiety levels daily. Form B requires the subject to record each excursion outside home and maximum anxiety ratings.

Session 3: Second Therapy Session.

1. Session 3 and all subsequent sessions began with the therapist asking the subject to describe the past week's exposure practice activities, experience of anxiety, and related thoughts that occurred during anxiety-provoking situations.

   Weekly Records were requested and checked during this time. Positive feedback was given for practice completed. The importance of continuing to record excursions, anxiety-provoking incidents, and anxiety ratings was emphasized, and Weekly Record forms for the following week were provided.

2. Rationale for coping techniques and cognitive coping skills. Cognitive therapy was explained, with Ellis' (1962) A-B-C model as the framework for clarifying the effects of thoughts on emotional reactions (e.g., anxiety), on physiological responses (e.g., panic attack symptoms, such as heart palpitations), and on behavior (e.g., avoidance), using the agoraphobic subject's experiences during the past week as examples. The subject's covert self-talk (i.e., appraisals, thoughts, and
interpretations) during anxiety-arousing situations was elicited to demonstrate recognition and identification of the kinds of thoughts that affect anxiety responses. Subjects often reported self-directed “What if . . . ?” questions during the anticipatory phase of anxiety, preceding challenging events, that intensified anxiety.

Examples of alternative coping statements were elicited from the subject, with additional suggestions by the therapist as needed. (In Couples Treatment, the spouse at times also suggested useful coping statements.)

Application: The subject was instructed to use anxiety as a cue to notice thoughts immediately preceding anxiety and/or panic symptoms. As an aid in this process, she was provided with a list of common cognitive distortions (Burns, 1980) which the therapist read aloud with her in session. She was requested to review them during the week and to ask herself whether she tended to interpret situations or to evaluate herself in terms of the cognitive patterns expressed in the handout and that we would discuss her conclusions during the next appointment.

3. Assignment of Exposure Practice:

The therapist requested the subject to choose another practice activity for the coming week. In some cases, the subject was able to choose the next item on the hierarchy list; in other cases, it was necessary to repeat the exposure activity practiced during the previous week. For
example, a subject in Couples Treatment had entered a store in a shopping mall while her husband remained outside the store but was unable to remain within the store alone for more than a few minutes. She attempted the same task again, each time remaining in the store for a slightly longer period.

The therapist provided encouragement for all subjects, e.g., "This is only practice, not a test. It's important that you try practicing a minimum of three times a week, or daily if possible. Try to see each excursion as a challenge to be met."

Reframing the subjects' exposures to fear-provoking situations as challenges, not threats, was one means of facilitating exposure for subjects in both treatment conditions. The handout, "What Keeps Agoraphobia Going?", also intended to facilitate exposure, was provided during this session and assigned to be read before the next appointment.

**Session 4: Third Therapy Session.**


2. Intervention:

   Cognitive Therapy. The subject's self-talk during exposure practice and other activities and its effects on
her agoraphobic symptoms were reviewed. The subject was asked to identify her own cognitive distortions based on the information in the "Cognitive Distortions" handout. The therapist explained the function of beliefs as bases for cognitive distortions and the distinctions between rational and irrational beliefs. The effects of irrational beliefs on cognitive distortions, self-talk, emotions, and panic/anxiety symptoms was emphasized. The subject was asked to report her interpretations of the somatic sensations of anxiety and panic and what beliefs served as the foundations of these interpretations.

Correcting the subjects' misinterpretations of panic/anxiety symptoms was an important part of cognitive therapy. Subjects' most common interpretation of panic symptoms was that they were dangerous and life-threatening. The more severe the agoraphobia, the more catastrophic the interpretations of anxiety/panic symptoms. The therapist's corrective work with interpretations of panic symptoms consisted mainly of three techniques:

1. What is the evidence that the symptoms are life-threatening?

2. What are some alternative ways of feeling or thinking about these symptoms?

3. What would be the worst thing that could happen? If it happened, what would be the outcome for you?

The handout, "Irrational Beliefs" (Ellis, 1962), was provided, with the assignment that she review it and
identify those irrational beliefs on which she based her appraisals, interpretations, and self-talk related to anxiety and avoidance.

3. The subject was asked whether she had any questions regarding last week's handout, "What Keeps Agoraphobia Going?"; it was reviewed, and the last page, "Preparation for Practice," was emphasized to facilitate exposure practice.

4. Assignment of exposure practice from the hierarchy list. The subject and therapist agreed on the specific task to be attempted for the week. The same comments to facilitate exposure were made as stated in Session 2, above.

Session 5: Fourth Therapy Session.

Session 5 through 8 retained the essential format as described in Session 4, above.

1. Reviewed past week’s activities. Weekly Records reviewed and new records assigned.

2. Intervention:

Cognitive Therapy. The subject was requested to identify the irrational beliefs on which she based her interpretations of anxiety/panic symptoms and was assisted in formulating rational beliefs concerning relevant themes (e.g., safety, security, and self-esteem). The therapist aided modification of affect by "normalizing" anxiety, i.e., explaining it as a normal, universal response under
threat, that low-level anxiety can be helpful in some situations, and by enabling the subject to accept her anxiety and her role in intensifying it, in order to facilitate her choice in making changes.

The therapist defined the connection between emotional/physiological reactions of anxiety and beliefs as self-talk about which the subject had a choice. Cognitions that facilitate coping were elicited from the subject to replace anxiety-inducing self-talk. The therapist provided additional suggestions, as needed. The anxiety process was explained in terms of four stages, and the therapist suggested that the subject could apply coping self-statements during each of these stages to allay anxiety. A handout explaining the rationale for cognitive coping skills with a list of coping self-statements was provided (Barlow & Waddel, 1985, "Use Coping Self-Statements;" see Appendix D). The therapist asked the subject to familiarize herself with the coping statements and to begin to use them during exposure practice during the coming week.

3. Assignment of exposure practice, with facilitative comments.

4. Handout for spouse: "Partner's Information" (Mathews et al., 1981, "Partners' Manual;" see Appendix D). The spouse was requested to read the handout and follow the guidelines throughout therapy as well as after the end of therapy. The information in the handout was
previewed in session and its purpose explained which was to provide him with specific information concerning what to do when the subject experienced anxiety or panic and how to facilitate exposure practice.

Comments to the spouse regarding his efforts to facilitate the subject's exposure practice (quoted previously; see Session 2) were reiterated, as at the end of every therapy session.

Throughout the sessions, the therapist assisted the spouse in understanding the anxiety response, avoidance, and his role in facilitating the subject's exposure efforts.

The therapist, however, was not directive in working with the spouse and did not directly "train" him to communicate with the subject to plan every exposure practice in the same sense of training the subject to engage in exposure practice. Rather, the therapist suggested to the spouse that he assist his wife in her attempts to practice. His presence in sessions and awareness of his wife's feelings, thoughts, efforts to practice, and behavioral changes plus his occasional participation in her exposure practice were considered major changes from standard individual treatment and thus were the factors being tested by the study.

Session 6: Fifth Therapy Session.

1. The therapist and subject reviewed the past
week's exposure activities and assignment. Weekly records were collected, reviewed; new records assigned.

The subject's use of coping self-statements was reviewed; questions by the therapist assisted the subject in identifying the most effective coping statements, e.g., "When you felt anxious and your anxiety decreased, what did you do to decrease it?" "Which coping statements worked best for you?" The therapist praised the subject's use of coping self-statements and encouraged her to continue to use them in anticipation of and during exposure.

2. Cognitive Therapy. Additional corrective work on the subject's anxiety-related self-talk. The review of coping self-statements was continued in order to reinforce learning, with behavioral rehearsal of coping statements by the subject. The four stages of the anxiety process were reviewed and suggestions made for application of the coping self-statements for each stage.

3. In Couples Treatment, the "Partner's Information" handout was reviewed and questions answered by the therapist. The couple reported their application of the guidelines in the handout and various ways of managing exposure practice were discussed and planned.

4. Exposure practice assignment agreement with facilitative comments regarding exposure by therapist.

5. Handout, "Practice Builds Confidence," given to the subject, with the assignment to read it during the
Session 7: Sixth Therapy Session.


2. Review of subject's use of cognitive coping self-statements and encouragement of the subject's applications of these.

3. Intervention:

Progressive Muscle Relaxation training (Jacobson, 1938), using "Stressdots" for body temperature "biofeedback," was provided for all subjects in both treatment conditions. (In Couples Treatment, the spouse was included in the relaxation training for his personal benefit.)

Homework Assignment: Subject to practice relaxation four or five times per week, preferably daily, for 15 to 20 minutes each time.

4. Exposure assignment.

5. Handout for subjects, "Ten Rules for Coping with Anxiety" (Mathews et al., 1981; see Appendix D).
Session 8: Seventh Therapy Session.


2. Intervention:

Cognitive therapy (fifth session of CT). The therapist facilitated the subject's in-session practice of coping self-statements in role-plays of several exposure practice situations drawn from the subject's goal list (hierarchy list) and current experience. The notion of acting "as if" confident and free of fear of panic was explained and incorporated into coping self-talk and role-plays. Barriers to the subject's exposure and increasing frequency of exposure were discussed; alternative ways of overcoming barriers and blocks to progress were suggested. Therapeutic goals were to increase the subject's tolerance to anxiety and to strengthen coping skills.

3. Preview of handout, "Coping with Feelings of Panic" (Mathews et al., 1981; see Appendix D).

4. Exposure assignment.

Session 9: Posttreatment Assessment; treatment review.

1. Weekly records collected and briefly reviewed. Therapist checked subject's relaxation practice and response.

2. Posttreatment Assessment: (a) Therapist recorded subject's Approach/Exposure Behavior during the past week.
in terms of the number and description of exposure activities (see "Assessment" section). (b) The therapist requested the subject to complete the self-report questionnaires (see "Assessments" section and "Assessment and Treatment Protocol, Session 1, Pretreatment Assessment" and Appendix B).

3. Following completion of all assessment, therapist and subject reviewed the guidelines for coping with panic and setbacks in agoraphobia. The therapist reviewed and summarized treatment, emphasizing the subject's continued commitment to exposure practice, use of coping skills, and facing anxiety feelings without avoiding. It was pointed out that the final session would be scheduled two weeks following the present one and that at that time, the subject would again be requested to complete questionnaires. No specific exposure assignment was given; however, the subject was told that the therapy was to continue for the coming year without the therapist, and the key to her benefiting from therapy was to practice exposure weekly, using coping skills.

4. Appointment for Session 10 scheduled two weeks after Session 9.

   Session 10: Follow-up Assessment; summary of subject's response to therapy.

   1. Follow-up assessment: (a) Therapist recorded subject's Approach/Exposure Behavior for the week preceding Session 10. (b) Self-report questionnaires were
administered.

2. The therapist summarized for the subject her response to therapy based on her exposure practice, weekly records, posttest results, and her participation in therapy, reflecting her successes and strengths in terms of application of new learning and characteristics that served her well in coping. The results of assessment that indicated improvement were pointed out, e.g., "Your exposure efforts have improved since you began therapy, in terms of the level of difficulty of your activities outside home each week, and the number of them, and the time you now spend out of the house. You've learned to apply coping skills during the anticipatory phase of anxiety, and I commend you for taking new risks." Recommendations for improvements were made, e.g., "My recommendation of a goal for you to work on is that you continue to go out of your home-base area alone more frequently and that you repeat visits to larger stores and public places alone to build your confidence, so that you can do this with little or no anxiety. Use your coping self-talk to encourage yourself to take risks and trust yourself to cope. Remember to reward yourself in various ways when you do."

3. All subjects were thanked for their participation in the study. In Couples Treatment, the spouse was also thanked for his participation. The deposit of $45 was returned to all subjects.
The therapist made a concerted effort to conduct the therapy as similarly as possible for all subjects in both treatment conditions. The therapist goals, method, content, and the session-by-session interventions for the two treatment conditions were identical. Instructions to subjects were also the same, with the exception of instructions to Couples Treatment subjects to request the cooperation of their spouses to assist them occasionally in exposure practice as part of the experimental variable.

Differences between the treatment conditions were that in Couples Treatment, spouses were present and aware of the therapeutic process, instructions to their wives, and of the reasons for the wives' behavioral and/or emotional changes that occurred during therapy. Spouses were also given suggestions that they might participate with their agoraphobic wives in planning and facilitating exposure practice between sessions by accompanying them to, but not into, the anxiety-provoking settings if requested to do so by the subjects. The spouse was not directly trained by the therapist to plan or direct the subject's exposure, nor did the therapist verify such behavior session-by-session. It was intentional on the therapist's part that behavioral or environmental contingencies were not specified to the spouse in terms of consequences resulting from his not actively planning or executing his wife's exposure practice (with the exception

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of informing him that praising her efforts to practice was likely to improve her motivation to do so). Reasons for this were (a) that it was considered that the spouse may have taken too much responsibility for his wife's improvement and recovery, with possible consequent, and unnecessary, resentment on her part and guilt on his part for her setbacks; and (b) that it was considered that the suggestion of cooperation with regard to the subject's exposure practice would focus the couple's attention on more adaptive behavior and that the natural contingencies in the couple's relationship would operate in favor of adaptive behavior. Therefore, the choice to carry out the therapist's suggestions regarding assisting his wife with exposure was left to the spouse as he was willing to do. Subsequent to the presentation of suggestions to practice together, the therapist occasionally asked the couple whether they had done so. When they reported working together, which in some cases was not weekly, they usually reported a trip to a shopping mall or other public place, where each had gone to separate stores, with a planned meeting later. Often, however, the subject reported that she had practiced alone, so that the spouse's active participation in her exposure practice was variable, or took the form of verbally encouraging her to practice, expressing interest in her attempts or successes, or providing verbal praise for her efforts. The therapist's
main focus was on whether the subject had accomplished exposure practice during the week or had at least attempted it, not on the spouse's behavior. Also, marital therapy was not provided in Couples Treatment; the subject's agoraphobia remained the focus of treatment.

The "Partner's Information" handout to spouses was provided not until the fourth therapy session in order to establish a therapeutic relationship with the subject before allowing her the opportunity to read the information provided for her spouse (the assumption was that the subject would read the partner's handout, although she was not requested to do so). The partner's handout served to educate the spouse about the importance of not focusing on panic feelings, of not assuming responsibilities for the agoraphobic person, and of remaining in the exposure situation until the agoraphobic's fear diminished; it was intended to reinforce the spouse's learning of behaviors that would lead to the subject's increase of exposure. To prevent the possibility of subject dropout, the written information for the spouse was provided after the subject had made a commitment to therapy.

The therapist provided considerable encouragement for all subjects in both treatment conditions to engage in exposure practice and reassurance when anxiety blocked a subject's approach to fear-provoking situations. Positive feedback and reinforcement were also provided by the
therapist for all subjects when they reported attempts to practice, as well as successes at completing exposure and meeting their personal goals. The difference between treatment conditions in this regard is that when spouses provided encouragement, reassurance, and positive reinforcement, they were doing so in the subjects' natural and home environments and, therefore, more proximally to subjects' fear-provoking situations.

An on-call psychiatrist was available for crisis intervention throughout the treatment program by prior arrangement by the investigator; however, no need arose for such intervention. Clinical supervision of the treatment process for the investigator/therapist was provided by a licensed clinical psychologist.
CHAPTER IV

RESULTS

Between-Group Hypotheses

Between-group Hypotheses 1a and 1b predicted that the Couples Treatment subjects would demonstrate a significantly greater change from pretest to posttest on the Approach/Exposure measure and significantly greater change from pretest to posttest on the Avoidance measure than Individual Treatment subjects or the No-Treatment Control subjects (see Hypotheses, p. 41). Hypotheses 2a and 2b predicted that Individual Treatment subjects would demonstrate a significantly greater change from pretest to posttest on Approach/Exposure and a significantly greater change from pretest to posttest on Avoidance than the No-Treatment Control subjects.

The analysis of covariance (ANCOVA) was initially considered the most appropriate statistical test for the between-group comparisons given that the assignment to conditions resulted in unequal groups in terms of the variables of agoraphobia (approach and avoidance) being tested. Analyses of covariance were performed on the two dependent variable measures as a multiple comparisons test between all sets of group means. However, results were
questionable in that these data were not appropriate for statistical analyses, because the number of subjects in each group was too small for such analyses, and the sampling variability was too great. For these reasons, the four between-group hypotheses as stated could not be tested statistically based on the data from the samples, as it was deemed untenable to employ the analysis of covariance. The characteristics of the samples did not meet the assumptions on which the analysis of covariance and other statistical analyses, e.g., analysis of variance, are based. However, the nonemployment of statistical tests does not justify the elimination of the between-group hypotheses which can be examined on the basis of the group mean differences.

Comparisons of group means show large differences between groups at posttest, with the Couples Treatment condition manifesting superior improvements between pretest and posttest on the two outcome measures compared to the Individual Treatment and No-Treatment Control subjects. The between-group hypotheses are not confirmed on a statistical basis; however, the large differences between group means are clinically relevant and important.

Figure 1 depicts the means on the Approach/Exposure measure of the Couples Treatment, Individual Treatment, and No-Treatment Control conditions at pretest, posttest, and follow-up assessment, with increasing scores
Figure 1. Approach/Exposure Means of Couples, Individual, and No-Treatment Control Conditions. (Increasing numbers indicate improvement.)
indicating improvement. The greater pretest-to-posttest improvement of the Couples Treatment condition is evident. Table 1 reveals that the Couples Treatment group performed best on the Approach/Exposure measure, engaging in a greater number of exposures during the posttreatment and follow-up assessment weeks (pretest mean = 1.00; posttest mean = 5.0; follow-up mean = 5.75) than Individual Treatment (pretest mean = 1.67; posttest mean = 3.33; follow-up mean = 3.67) or No-Treatment Control subjects (pretest mean = .67; posttest mean = 2.00; follow-up mean = .67). The pretest-to-posttest change on this measure for Couples Treatment was 3.50, while this change for the Individual and No-Treatment Control conditions was 1.33. While Hypothesis 1a is not confirmed in terms of statistically significant differences by these observations, the magnitude of change from pretest to posttest for Couples Treatment compared to those of the other two conditions, shown in Table 1, indicates the superior improvement of Couples Treatment subjects.

Hypothesis 1b predicted that Couples Treatment subjects would demonstrate a significantly greater change from pretest to posttest on the Avoidance measure than would the Individual Treatment or the No-Treatment Control subjects. Figure 2 depicts the group means of the Avoidance measure (Agoraphobia Scale, Fear Questionnaire) of the Couples Treatment, Individual Treatment, and No-
Table 1
Magnitude of Change Pretest to Posttest; Pretest to Follow-Up
\( t \) Values From Paired \( t \) Tests on Change Scores

<table>
<thead>
<tr>
<th>Groups</th>
<th>Pre</th>
<th>Post</th>
<th>Pre- to Post</th>
<th>( t ) Value</th>
<th>Follow-Up</th>
<th>Pre- to Follow-Up</th>
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<tr>
<td><strong>Dependent Variable: Approach/Exposures (Increasing scores = Improvement)</strong></td>
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<tr>
<td>Couples (( n = 4 ))</td>
<td>1.50 (0.58)</td>
<td>5.00 (2.16)</td>
<td>3.50 (2.16)</td>
<td>2.57*</td>
<td>5.75 (3.59)</td>
<td>4.25</td>
<td>2.57*</td>
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<tr>
<td>Individual (( n = 3 ))</td>
<td>1.67 (0.58)</td>
<td>3.33 (0.58)</td>
<td>1.66 (0.58)</td>
<td>3.46*</td>
<td>3.67 (1.15)</td>
<td>2.00</td>
<td>3.46*</td>
</tr>
<tr>
<td>Control (( n = 3 ))</td>
<td>.67 (1.15)</td>
<td>2.00 (1.73)</td>
<td>1.33 (1.73)</td>
<td>-0.91</td>
<td>.67 (0.57)</td>
<td>0.00</td>
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**Dependent Variable: Agoraphobia Scale, Fear Questionnaire (Decreasing scores = Improvement)**

<table>
<thead>
<tr>
<th>Groups</th>
<th>Pre</th>
<th>Post</th>
<th>Pre- to Post</th>
<th>( t ) Value</th>
<th>Follow-Up</th>
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<td>Couples (( n = 4 ))</td>
<td>31.50 (3.70)</td>
<td>19.25 (9.61)</td>
<td>12.25 (9.61)</td>
<td>3.00*</td>
<td>18.00 (8.29)</td>
<td>13.50</td>
<td>5.13**</td>
</tr>
<tr>
<td>Individual (( n = 3 ))</td>
<td>14.33 (4.73)</td>
<td>8.00 (5.29)</td>
<td>6.33 (5.29)</td>
<td>5.27*</td>
<td>6.33 (3.06)</td>
<td>8.00</td>
<td>5.24*</td>
</tr>
<tr>
<td>Control (( n = 3 ))</td>
<td>27.67 (10.78)</td>
<td>27.67 (9.07)</td>
<td>0.00 (9.07)</td>
<td>0.00</td>
<td>23.33 (5.85)</td>
<td>4.34</td>
<td>0.18</td>
</tr>
</tbody>
</table>

* \( p < .05 \)
** \( p < .01 \)
Figure 2. Avoidance (Agoraphobia Scale, Fear Questionnaire) means of Couples, Individual and No-Treatment Control conditions. (Decreasing scores indicate improvement.)
Treatment Control conditions at the three assessment times. This measure has a score range of 0 to 40, with lower scores indicating less avoidance and decreasing scores indicating improvement. The Couples Treatment condition shows the greatest improvement on Avoidance from pretest to posttest, with some continuing improvement at follow-up (pretest mean = 31.50; posttest mean = 19.25; follow-up mean = 18.0; see Table 1). The Individual Treatment condition shows improvement (pretest mean = 14.33; posttest mean = 8.0; follow-up mean = 6.33); however, the pre- to posttest magnitude of change is markedly greater on the part of the Couples Treatment condition (12.25) compared to those of the Individual Treatment (6.33) and No-Treatment Control conditions (0.0). The No-Treatment Control condition shows no improvement between pretest and posttest on this measure (pretest mean = 27.67; posttest mean = 27.67; follow-up mean = 23.33) with some improvement at follow-up assessment. Hypothesis 1b is not confirmed due to the lack of statistical evidence; however, the large differences between groups on this measure are clinically meaningful and have implications in terms of the treatment variables.

Hypothesis 2a predicted that Individual Treatment subjects would demonstrate a significantly greater change from pretest to posttest on the Approach/Exposure measure than would the No-Treatment Control subjects. Table 1
indicates that Individual Treatment subjects engaged in a
greater number of Approach/Exposures at posttest than did the No-Treatment Controls. The amount of change from
pretest to posttest was 1.66 for the Individual Treatment condition and 1.33 for the No-Treatment Control conditions. Pretest to follow-up change scores indicate that the Individual Treatment condition improved more (2.00) than did the No-Treatment Control condition (0.0). The follow-up assessment mean of the No-Treatment Control condition returned to the pretest level. Hypothesis 2a is not confirmed because of the lack of a statistically significant difference.

Hypothesis 2b predicted that subjects receiving Individual Treatment for agoraphobia would demonstrate a significantly greater change from pretest to posttest on the Avoidance measure than would the No-Treatment Control subjects. Table 1 shows a marked difference between the Individual and No-Treatment Control group means on Avoidance at posttest, as well as a marked difference between change scores. The pretest mean of the Individual Treatment condition was 14.33; the posttest mean was 8.00, with a pretest to posttest change score of 6.33. For the No-Treatment Control condition, the pretest mean was 27.67, the posttest mean was 27.67, and the change score was 0.0. While Hypothesis 2b is not confirmed in terms of a statistically significant difference, the greater improvement of
Within-Group Hypotheses

On the Approach/Exposure measure, Hypothesis 3a predicted that Couples Treatment subjects would show a significant improvement in the number of Approach/Exposures from pretest to posttest and from pretest to follow-up assessment. Table 1 shows the results of paired t-tests on change scores between pretest, posttest, and follow-up means; a significant improvement for Couples Treatment is indicated from pretest to posttest, \( t(3) = 2.57, p < .05 \) (\( p = .04 \)). The same t-statistic and p-value were found from pretest to follow-up assessment for Couples Treatment on this measure. Hypothesis 3a is confirmed.

On the Avoidance measure (Agoraphobia Scale, Fear Questionnaire), Hypothesis 3b predicted that the Couples Treatment subjects would endorse significantly less Avoidance at posttest and at follow-up assessment than at pretest. The paired t-tests on change scores for the Couples Treatment condition indicate a significant difference between pretest and posttest, \( t(3) = 3.00, p < .05 \) (\( p = .289 \)). A significant difference from pretest to follow-up, \( t(3) = 5.13, p < .01 \) (\( p = .007 \)), for Couples Treatment was also found, thus confirming the hypothesis.
that Couples Treatment subjects would endorse significantly less avoidance behavior.

Hypothesis 4a predicting that Individual Treatment subjects would show a significantly greater improvement in the number of approach/exposures from pretest to posttest and from pretest to follow-up was also confirmed. The pretest to posttest improvement was significant, \( t(2) = 3.46, p < .05 \) \( (p = .037) \); the \( t \) statistic and \( p \) value were identical for the pretest to follow-up comparison.

Hypothesis 4b asserting that Individual Treatment subjects would endorse significantly less avoidance behavior on the Agoraphobia Scale of the Fear Questionnaire at posttest and at follow-up than at pretest was confirmed. The pretest to posttest difference was significant, \( t(2) = 5.27, p < .05 \) \( (p = 0.17) \); the pretest to follow-up difference was also significant \( t(2) = 5.24, p < .05 \) \( (p = 0.17) \).

For the No-Treatment Control group on both outcome measures, the pretest to posttest differences were not significant, nor were the differences between pretest and follow-up assessments.

Results of Ancillary Measures

Although not specifically formulated in terms of testable hypotheses, the results of the ancillary measures (self-report) were considered clinically relevant for the purpose of understanding the agoraphobic syndrome more
accurately, hoping that additional knowledge would lead to effective treatment. The self-report questionnaires assessed the respondent's self-rating of factors which were believed to have controlling or maintaining effects on agoraphobic behavior, i.e., cognitions typically associated with agoraphobia and the affective component of fear of anxiety and panic symptoms.

**Affect.** The Body Sensations Questionnaire (Chambless, 1982; see Appendix B and "Assessments" section) was used to measure the subjects' fear of fear, i.e., the fear of the physiological sensations or symptoms of the anxiety-fear-panic response.

For the Couples Treatment condition, a statistically significant difference from pretest to follow-up assessment was found, based on paired $t$ tests on change scores between assessments, $t(3) = 3.54$, $p < .05$ ($p = .02$). This was the largest improvement among the three conditions on this measure; all other pretest to posttest and pretest to follow-up comparisons were nonsignificant.

**Cognitions.** The Agoraphobic Cognitions Questionnaire-Revised (Chambless, 1982; see Appendix B and "Assessments" section) was used in order to determine each subject's self-rated frequency of agoraphobia-related thoughts occurring when frightened or nervous, at the beginning of therapy and at subsequent assessment times.
Responses to the questionnaire items identified the respondent's anticipated catastrophes and cued the therapist to the anxiety-stimulating and anxiety-maintaining cognitions to be modified in therapy.

Paired t tests on change scores on the Agoraphobic Cognitions Questionnaire found no statistically significant differences from pretest to posttest or from pretest to follow-up assessment among all three groups. However, the largest within-group improvements on the cognitive measure (pre- to posttest and pretest to follow-up) among the three groups were on the part of the Couples Treatment group.

The findings of significant differences on the outcome variables within the treated groups imply that the changes demonstrated by the Couples Treatment and Individual Treatment conditions were due to the effects of treatment. Such positive treatment effects were expected to result from the cognitive-behavioral therapy of agoraphobia, an established effective treatment modality.

The distinctive findings of the study are the differences in magnitude of response to treatment between the two treated groups shown by group mean differences and the factors accounting for them. These differential treatment effects bring into focus the clinically relevant and meaningful findings of the study.
CHAPTER V

DISCUSSIONS AND CONCLUSIONS

The purpose of the present study was to determine whether the spouse-supported treatment of agoraphobia would provide benefits beyond those of individual therapy, in terms of increasing exposure and decreasing avoidance, improving overall functioning. The large differences between group means at posttest, although not statistically significant, have important implications related to (a) the differences between the treatment modalities and their effects on response to therapy, (b) the contributions of spouse-supported therapy to the relatively greater improvements of subjects in Couples Treatment, and (c) the difference in the level of agoraphobic severity between the two groups.

One conclusion that is drawn from the present study is that exposure is the most salient factor leading to reduction of avoidance behavior. Those subjects who practiced more exposure weekly were those who demonstrated more improvement at posttest and follow-up assessment. Exposure assignment during therapy for all subjects was ongoing, frequent, and began early in therapy. The effects of exposure practice in the present study confirm the results of earlier research showing that exposure is
the critical factor engendering improvement in agoraphobia.

It is also likely that cognitive therapy facilitated subjects' exposure practice. The effects of cognitive therapy may best be reflected in affective change, in this case, fear reduction. The Couples Treatment condition demonstrated a significant improvement from pretest to follow-up assessment on the measure of fear of panic which appears to have been affected by cognitive therapy. Cognitive coping self-statements were intended to equip all subjects with coping skills when anticipating, confronting, and coping with stressors. The provision of such coping techniques improved compliance with exposure assignments.

Panic management procedures are also credited with decreasing the anxiety associated with anticipating panic attacks and thus facilitating movement toward exposure, although these effects varied across subjects due to the heterogeneous nature of their fears and the intensity of panic. Panic management procedures are actually similar to cognitive therapy in terms of self-instructions, e.g., attentional focus and reinterpretations of anxiety, and may be considered in the category of cognitive therapy.

Thus, exposure practice and cognitive therapy, including panic management procedures, were the commonalities of treatment that facilitated behavior change on the
part of subjects in both treatment conditions. Relaxation training was provided with the intention to assist subjects in developing an additional coping skill but was not considered curative.

Beyond the therapeutic efforts described above, the contribution of the present study concerning the treatment of agoraphobia is to be found in examining the effects of the variable of spouse support.

If individual therapy for agoraphobia is considered the basic standard treatment, the implications of the study's findings reside in the answers to the following question: What features accounted for the relatively better response to therapy of those subjects receiving spouse-supported treatment of agoraphobia? In order to address this question, it is necessary to look at the treatment differences and their effects separately.

Treatment Differences

Several differences between treatment conditions affected the Couples Treatment subjects' response to therapy. First, the spouses acquired a more accurate understanding of agoraphobia and of their wives' personal experience of its intensity and its debilitating effects on functioning as the result of the education provided in Couples Treatment. The spouses reported that they had learned information about agoraphobia with which they were
previously unfamiliar, as well as of the importance of anxiety and stress reduction.

Secondly, during Sessions 2 through 8, instructions were given to the agoraphobic subject in Couples Treatment, suggesting that she occasionally request her spouse to accompany her to exposure settings where she might practice by remaining in a fear-provoking situation alone and where she might meet him subsequent to completion of her exposure task. These instructions were not given to subjects in Individual Treatment, although these subjects were given no injunction against practicing with their spouses or other support persons.

Thirdly, the therapist suggested to the spouse (Sessions 2 through 8), varying the content somewhat from session to session, that he collaborate occasionally with his agoraphobic wife to plan exposure practice. It was also suggested that he accompany her to, but not into, the exposure settings, that he praise her efforts, attempts as well as successes, that he encourage her to try again if she failed to complete practice, and that if she panics, he could assist her to remain in the situation until her anxiety decreased. The informative written handout, "Partner's Information," was provided for spouses in order to strengthen the spouse's learning and application of behaviors that would lead to the subject's increasing exposure to fear- and panic-provoking situations. Thus,
the third major difference between treatment conditions was the provision of suggestions to the spouse to assist his wife in facilitating exposure, to provide positive reinforcement of her efforts, to encourage her during setbacks, and to assist in managing panic in ways that decrease reinforcement for avoidance.

Another feature of Couples Treatment that differed from Individual Treatment was the fact that the spouse was a helpful resource person in therapy, e.g., during the process of the therapist's eliciting coping statements from the subject, the spouse at times suggested coping statements that were especially suitable for his wife, or commented that if she were to apply them consistently when going out, it would be helpful. Thus, the spouse also facilitated the subject's application of coping skills as the result of being present in therapy.

Treatment Effects

The Couples Treatment subjects' superior response to therapy was judged to be due to the spouses' involvement in facilitating exposure and in providing positive reinforcement for it. Thus, the unique features of spouse-supported therapy stimulated new exposure-facilitative behaviors and/or increased existing ones on the part of spouses which, in turn, had the effects of increasing the subjects' exposure.
The following specific behavior changes were reported by subjects concerning spouses' behavior and by spouses themselves. As the result of the Couples Treatment of agoraphobia, the spouses:

1. Assisted the agoraphobic subject in planning exposure practice targets, thus stimulating her focus of attention on exposure and stimulating more exposure practice than she might have carried out alone.

2. Accompanied the subject to exposure settings, while remaining outside the exposure situation itself, and meeting her when she emerged (thus providing positive reinforcement for her completion or attempt of the task).

3. Provided verbal and nonverbal positive reinforcement for the subject following her attempts, improvements, and/or successes at exposure.

4. Encouraged the subject to try again following failures at exposure and eliminated critical or punishing remarks when she was unable to remain in or complete an exposure task (thus eliminating punishment for a desired behavior).

5. Expressed interest in the subject's improvement and recovery by asking her whether she had practiced during the week, thus reminding her of exposure practice.

6. Prompted the subject to use coping self-statements and coping techniques when anxiety blocked her attempts to engage in exposure (thus assisting her in
fading her cognitive and emotional responses to anxiety-evoking self-statements and strengthening her responses to positive coping self-statements and techniques).

7. Assisted the subject during panic or high anxiety to remain in the fear-provoking situations when she agreed to tolerate doing so, thus decreasing the frequency of reinforcement of avoidance behavior, as the result of panic management information made available to spouses in Couples Treatment. (Panic management information was made available to subjects in Individual Treatment as well; however, their spouses did not receive the information from the therapist, and it is unlikely that their spouses' behavior was affected by it.)

While the frequency and strength of the above behaviors varied across spouses in various situations, both the spouses and the subjects reported these behaviors as either new behaviors or as occurring much more frequently than prior to therapy.

The effects of the spouses' specific facilitative behaviors described above on subjects' exposure were based on the behavioral principles of positive reinforcement (e.g., of exposure), shaping of component behaviors leading to exposure practice, reinforced practice, stimulus discrimination, negative reinforcement, extinction (e.g., decrease of reinforcement of avoidance), and prompting as part of stimulus control and discrimination. This is not
to say that the spouses were systematically trained to be aware of or to base their behavior on these principles; nontechnical language was employed by the therapist in communicating suggestions to spouses. However, as the spouses applied the suggestions intended to facilitate the subjects' exposure in the natural environment, the spouses' behavior exemplified these principles and were the natural consequences of therapy. The spouses' facilitative behaviors strengthened the subjects' more normative behaviors, i.e., more frequent excursions out of the home and more frequent completion of normal tasks associated with family life.

The features unique to Couples Treatment previously described and the spouses' facilitative behaviors described above are the only salient differing factors between the two treatment conditions. The purpose of investigating the effects of spouse-supported agoraphobia treatment on agoraphobic functioning was to determine what, if any, interactive behaviors affect the agoraphobic's emotional inhibition of normal behaviors due to panic and anxiety. The specific behaviors of the spouses appeared to encourage the agoraphobic person to initiate exposure to fear-provoking situations and thus to the somatic stimuli that automatically elicit panic-based fears. The investigator's rationale for inclusion of the spouse in the agoraphobic's therapy was based on previous findings.
that between-session exposure practice is of key importance in decreasing avoidance behavior (e.g., Mathews et al., 1976; Mathews et al., 1981). It was hoped that including the spouse would stimulate the agoraphobic person's exposure-related behavior in that exposure must be initiated from the home environment. The spouse's presence in the subject's therapy also seemed to enhance his awareness and understanding of her treatment and consequent behavioral changes and thereby to engender his cooperation and facilitative efforts on her behalf. Also, the emotional support of the spouse during the inevitable stresses of therapy appeared to have benefitted the Couples Treatment subject.

Severity-Level Differences Between Groups

Most experienced clinicians would agree that the more severe a client's psychological disorder, the more likely it is that the client will need longer-term therapy, that the client would have more difficulty in responding to therapy during the treatment process, and that the client would take longer to respond to therapy than would those with less severe or less frequent symptoms. Most experienced agoraphobia clinicians would agree that these factors apply to those who suffer from agoraphobia as well.

In consideration of the more severe degree of agoraphobia of the Couples Treatment subjects, it is remarkable
that they achieved a markedly greater magnitude of change than did the Individual Treatment subjects in response to therapy. On the approach/exposure dependent variable, the magnitude of change for the Couples Treatment condition is over 100% higher at posttest than that of the Individual Treatment condition (3.50 compared to 1.66; see Table 1). Similarly, on the avoidance measure, the Couples Treatment change score at posttest is nearly 100% higher than that of the Individual Treatment condition (12.25 compared to 6.33).

Also, based on clinical observation of all treated subjects in the study session-by-session, all subjects in Couples Treatment were judged to be more severely agoraphobic than were the Individual Treatment subjects. Panic attack frequency and intensity were more severe among Couples Treatment subjects at the outset of and during therapy. Two case reports are presented in Appendix E that illustrate the complexity of the antecedent and current conditions of agoraphobia and the handicapping effects of severe agoraphobia.

The fact that the Couples Treatment subjects demonstrated a magnitude of change, relative to the starting point, greater than that of the Individual Treatment subjects implies that spouse-supported treatment provided some unique benefits to which these subjects responded. It is concluded that the distinctive effects of
spouse-supported treatment are the facilitative spouse behaviors outlined previously.

Implications of Ancillary Findings

The significance of cognitive modification for agoraphobic clients is its usefulness in reducing existing emotional and cognitive obstacles to overcoming the behavioral inhibition caused by anxiety and panic. In the present study, the teaching of coping self-statements for application during anxiety experiences was intended to engender changes in subjects' thoughts, emotions, and ultimately in self-initiated approach and exposure behavior to fear-provoking situations and thus to panic sensations. Results of the study indicate that the Couples Treatment condition demonstrated a statistically significant improvement on fear-of-panic symptoms from pretest to follow-up. While the Individual Treatment subjects improved somewhat, their degree of improvement for the same time period was not significant. On the cognitions measure, there was a relatively greater, but nonsignificant improvement for Couples Treatment and a nonsignificant improvement for Individual Treatment at posttest and follow-up. The items on the fear-of-panic measure, the Body Sensations Questionnaire (Chambless, 1982), identify the precise stimuli to which agoraphobics must expose themselves, i.e., the physical sensations of panic or
anxiety, in order to become desensitized to them. The fact that the Couples Treatment subjects improved significantly on the fear-of-panic measure suggests that some factor or factors working in their favor affected these subjects more profoundly than the Individual Treatment subjects.

One implication of the Couples Treatment subjects' relatively greater improvement on both the fear and cognitions measures is that the connection between agoraphobia-related cognitions and fear of panic may have been mediated by the modification of self-talk (and possibly of phobia-related imagery affected by changes in self-talk, as well as by changes caused by increased exposure). This connection suggests a relationship between cognitions and consequent affect, or degree of fear, in this case. While the Couples Treatment subjects may have improved significantly on the fear of panic measure as a result of increased exposure, the fact that they also improved relatively more on the cognitions measure than the Individual Treatment subjects indicates a possible causal connection between agoraphobia-related cognitions and consequent escalation of anxiety and fear. The fact that the spouses occasionally prompted their wives' use of cognitive coping statements as the result of being present in cognitive therapy may have been one of the factors that accounted for the greater improvement of the Couples Treatment subjects.
subjects.

While positive behavioral improvements were apparent by posttreatment assessment, following seven sessions of therapy, cognitive and affective changes were smaller at the same assessment time. The implications of these findings are that emotional and cognitive change in reducing fear and fear-related or panic-related thoughts requires a longer term of cognitive therapy than was provided and a longer overall course of therapy. Research indicates that adequate time must be allowed for newly-learned cognitive skills to be integrated and applied (e.g., Michelson et al., 1983). Nonetheless, cognitive therapy was included in the treatment in the present study in the belief that it would provide and strengthen coping skills for the subjects to use in anticipation of and during anxiety-provoking experiences and that it would facilitate exposure and contribute to maintenance of treatment effects.

Limitations of the Study

The small total number of subjects was the major limitation of the study. The outcome-relevant inclusion criterion for the study limited subjects to those who were married in order to test the effects of the spouse's presence. This requirement subsequently limited the number of subjects. In addition, the nature of
agoraphobia and its debilitating effects on functioning often preclude the agoraphobic's seeking treatment. One means of increasing the number of subjects might have been to test instead the effects of the presence of the agoraphobic subject's "safe person" in therapy, allowing inclusion of single agoraphobics as subjects. Also, due to the constraints under which it was necessary to conduct the study, the extended time period required for acquisition of a greater number of subjects was precluded.

The second major limitation of the study was the assigning of subjects to treatment conditions on the basis of their preference to be accompanied rather than by random assignment, thus resulting in groups differing in severity level. Unfortunately, this division resulted in testing the between-group hypotheses under much more stringent conditions, i.e., the group whose greater relative improvement was predicted was the group that was less likely to improve based on the level of dysfunction of the subjects in that group. However, the separation of subjects in this manner allowed the investigator to see even more impressively the effects of the spouse's participation in therapy on the relatively more dysfunctional level of subjects. At that time in the development of the study, the decision was made to proceed with the differing groups and to utilize the analysis of covariance as a means of correcting for the difference between groups.
However, it was subsequently determined that the small number of subjects in each group, the amount of variability among scores, and the lack of random assignment were not congruent with the assumptions on which such statistical tests as analysis of covariance are based. Because of these methodological problems, it was necessary to forgo between-group statistical analyses and simply examine the data for between-group differences. Exerting laboratory-like controls on a clinical problem as complex as agoraphobia is a difficult task.

Of those subjects in the study taking medication, two of the three subjects in Couples Treatment refused to take the prescribed amount of their medication (Xanax) due to fear of addiction. (Xanax is addictive.) The prescriptions of both of these subjects directed them to take Xanax four times per day. However, one subject took one tablet once per week, the other took one tablet twice per week, and occasionally less. One subject had taken Xanax for two years, the other for one and one-half years without improvement in agoraphobia. The third subject taking Inderal took it as prescribed, daily; however, she had taken it for two years with no improvement in her agoraphobia. It is highly doubtful that these subjects were responding to the effects of medication rather than to the therapy provided in the study. Further, the agoraphobia research literature shows that clinical studies of
agoraphobia include agoraphobic subjects taking medication. Most agoraphobics have sought medical treatment prior to seeking psychological assistance and most are taking medication before psychological treatment begins. For this reason, it is very difficult to acquire agoraphobic subjects for research who are not taking medication which would eliminate the potential confounding effects of medication.

Another limitation of the study was the lack of additional therapists for the provision of randomly assigning therapists to conditions. Controlling for experimenter bias would have improved research methodology by utilizing more than one therapist and their random assignment to conditions.

In summary, the small total number of subjects in the study, the lack of random allocation of subjects to conditions, and the lack of control for experimenter bias were methodological problems that limit generalizing the results to married agoraphobic clients in treatment for agoraphobia who are similar in other characteristics to subjects in the samples. However, in spite of these problems and in view of the large differences between group means, the clinical findings of the study with regard to the effects of spouse support on agoraphobia treatment are relevant for other clinicians and have heuristic value.
Recommendations for Treatment

1. The between-group and ancillary findings of the study suggest that a longer course of therapy may have improved the effectiveness of the treatment for both individually treated and spouse-supported subjects. The investigator suggests a minimum course of 16 or more sessions of cognitive-behavioral therapy, depending upon the degree of severity of agoraphobia in each case, with each client's needs determining the overall time and treatment plan. Due to the tenacity of fear-related thoughts, the conditioned anxiety and panic response, and the resistance to change caused by the reinforcement of habitual safety-seeking through avoidance, adequate time must be allowed for the client to incorporate changes in cognitions, emotional responses, and behavior.

2. A second recommendation for treatment is that agoraphobia clinicians develop a means of assessing which agoraphobic clients might benefit more from spouse-supported therapy and which from individual therapy. The investigator suggests a functional analysis for each client, one feature of which may determine whether the client needs more frequent, immediate, and direct positive reinforcement for exposure than a therapist alone can provide, either in-session or in therapist-assisted exposure practice. With severely dysfunctional clients, the therapist may elect to enlist the spouse or other safe person as a
source of encouragement, support, and reinforcement for the benefit of the client.

3. When spouse-supported treatment is the selected modality, the investigator recommends that the therapy include communication skills training for the couple, including problem-solving training and negotiating of agreements concerning agoraphobia-related problems. The agoraphobic client's exposure can be planned and conducted concurrently or sequentially. Arnow et al. (1985) conducted spouse-assisted exposure therapy for agoraphobia, then systematically and directly trained one group of couples in couples communication skills training and another couples group in relaxation. The agoraphobic subjects (wives) in the couples communication skills group improved significantly more than those in the relaxation group on measures of agoraphobia. The researchers trained the couples in communication skills to deal with problems that affected both the agoraphobic's progress and the relationship.

4. Assessment of assertiveness skills is recommended for both married and unmarried agoraphobic clients. Assertiveness training is recommended as an adjunct to cognitive-behavior therapy for individual or spouse-supported therapy and may be provided for a group of agoraphobic clients, separately from individual or couples therapy. The rationale for incorporating this training
for agoraphobic clients is that they typically find it difficult to express negative emotions and to communicate assertively; this pattern leads to additional behavioral inhibition.

5. Multi-factorial treatment of agoraphobia is recommended in order to take into account the multiplicity of the agoraphobic client's modes of response, i.e., emotional, physiological, and cognitive, and the heterogeneity of fears that develop in the agoraphobic syndrome. Additionally, many agoraphobic clients have not learned effective ways of handling stressors, especially interpersonal ones. The agoraphobia literature indicates that a high proportion of the sources of stress that agoraphobics have experienced during the year prior to onset or relapse are interpersonal in nature (e.g., Kleiner & Marshall, 1987). Agoraphobic persons need assistance in therapy beyond that provided by short-term cognitive-behavioral therapy to deal with interpersonal stresses. The investigator's recommendation is to begin treatment of agoraphobia with cognitive-behavioral therapy, including exposure to somatic sensations of anxiety and panic through in vivo exposure, cognitive restructuring, panic management, and relaxation training, but to assist in prevention of relapse, guiding the client to resolve hurt, anger, and/or emotional traumas may also be necessary. Therapy that enables the client to resolve difficult interpersonal
issues is recommended, in addition to couples communication skills and/or assertiveness training. With severely agoraphobic clients, long-term therapy may be necessary.

Recommendations for Research

1. A research focus on panic rather than on avoidance behavior as the outcome variable may provide information that would lead to decreasing panic frequency. In some agoraphobic persons, frequent panic attacks seem to occur "spontaneously," i.e., without the person's awareness of antecedents, although misattribution of symptoms or lack of awareness of causal events may account for the apparent "spontaneity" of such attacks, as was the case with some subjects in the present study. Anxiety and panic reduction is the best predictor of outcome in the treatment of agoraphobia (Michelson, Mavissakalian, & Marchione, 1985).

2. In order to determine whether interpretations of panic attack symptoms, expressed as covert self-talk or imaging, affect frequency and intensity of panic attacks, the assessment of agoraphobia-related cognitions and their correlation with panic occurrences is recommended on a repeated measures basis during therapy. The understanding that anxiety or panic symptoms are not life-threatening in healthy individuals but are normal physiological reactions to fear-related thoughts and images and to high stress
levels is often resisted by agoraphobic persons. Assessment of changes in their cognitive interpretations of panic symptoms and correlations with panic frequency may yield information leading to increased efficacy of cognitive therapy.

3. Research with potential for refining treatment may be based on distinguishing between agoraphobics with panic attacks who respond relatively more to one class of stimuli than to another during anxiety or panic. In the present study, it was found that some agoraphobic subjects focused more on their somatic symptoms of anxiety or panic with consequent escalation of anxiety, while others focused more on fear-related cognitions, especially anticipatory thoughts concerning entering and remaining in situations in which they believed they were likely to panic. The investigator's clinical observations and assessments in the study reveal that such clients tend to respond more positively to interventions that affect their dominant response modes, somatic or cognitive, both of which affect emotional reactions. The question of whether somatically-oriented agoraphobics respond relatively better to somatically-based therapies, e.g., relaxation and breathing retraining, or whether cognitively-oriented agoraphobics respond relatively better to cognitive therapy can be tested within the context of cognitive-behavioral therapy.
4. The writer believes that a key research area that could increase knowledge of prevention of agoraphobia is the agoraphobic person's family history, including the family-of-origin and extended family, with the purpose of attempting to separate the effects of family modeling, learning, and dynamics from genetic or familially-related biochemical processes. The family histories of the subjects in the present study indicate that a majority of them had a parent, a grandparent, and/or a child who was (or is) agoraphobic. In addition, five of the seven treated subjects in the study had been verbally and emotionally abused and/or neglected as children.

5. A worthwhile research effort would be the determination of the effects of agoraphobia-related stress on families of agoraphobics in order to develop recommendations for care of such families, at diagnosis, during treatment, and at follow-up. The inclusion of the agoraphobic's safe person in therapy may lead to the formulation of recommendations for family care. In the present study, the inclusion of the spouse, who was in every case, the agoraphobic subject's safe person, revealed the spouse's high level of stress due to responding to family needs that were often abdicated by the agoraphobic person. The more accurate understanding of agoraphobia acquired by the spouse in therapy alleviated some of his emotional stress, and his wife's improvement alleviated some of his
responsibility-related stress.

The investigator of the present study has concluded that spouse-supported treatment provided the process and framework for engendering the spouse's facilitative behaviors which increased the agoraphobic's exposure and contributed to the recovery process. This treatment is a worthwhile therapeutic effort for the ultimate benefit of selected married agoraphobic clients. The present study confirmed the importance of including the spouse of the agoraphobic person in the treatment of agoraphobia.
Appendix A

Informed Consent and Human Subjects Review
Board Approval Form
DIRECTIONS: Please type or print each response - except signatures. Refer to the Western Michigan University Policy for the Protection of Human Subjects to determine the appropriate level of review.

PRINCIPAL INVESTIGATOR: Joan Woods, M.A. DEPARTMENT: Psychology

Home Phone: (616) 956-0644 Office Phone: Cell: N.

Home Address: 1879 Mont Rue SE Office Address: 252 State St

PROJECT TITLE: AGORAPHOBIA: COUPLES TREATMENT VS. INDIVIDUAL TREATMENT

SUBMISSION DATE: Oct. 23, 1986 PROPOSED PROJECT DATES: Nov. 10 to March 10, 1986

APPLICATION IS: X New Renewal Continuation Supplement

SOURCE OF FUNDING: (if applicable)

STUDENT, RESEARCH (Fill out if applicable:)

Name of Student: Joan Woods, M.A. Phone: 956-0644 Address: 1879 Mont Rue SE Grand Rapids, MI 49506

The research is: Undergraduate Level X Graduate Level

Faculty Advisor: Chris Konopka Department: Psychology

Signature of Faculty Advisor: Chris Konopka Phone: (616) 333-1950

VULNERABLE SUBJECT INVOLVEMENT (Fill out if applicable:)

Research involves subjects who are: (check as many as apply)

1. Children
2. Mentally retarded persons
3. Mental health patients
4. Prisoners
5. Pregnant women
6. Other subjects whose life circumstances may interfere with their ability to make free choices in consenting to take part in research

Check if institutionalized based on informed consent

(Describe Please)

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LEVEL OF REVIEW: Please indicate here if you think that the research project is except from review, subject to expedited review, or subject to full review.

___Exempt (Forward ___ application to IRB Chair)
Which category of exception applies? ___

___Expedited (Forward ___ applications to IRB Chair)
___Subject to full IRB review (Forward ___ applications to IRB Chair)

Comments:

Four application was reviewed and the Human Subject Institutional Review Board (HSIRB) has determined that:

1. The proposed activities, subject to any conditions and/or restrictions indicated in Remarks below, have (a) provided adequate safeguards to protect the rights and welfare of human subjects involved, (b) established appropriate procedures and/or documents to obtain informed consent, and (c) demonstrated that the potential benefits of the research substantially outweigh the risks.

2. The proposed activities, for reasons indicated in Remarks below do not provide adequate protection for the rights and welfare of the human subjects.

At its meeting on __, the HSIRB (approved) (provisionally approved... see remarks) this application with regard to the treatment of human subjects. The HSIRB categorised this application as:

___1. Involving subjects at no more than minimal risk.
___2. Involving subjects at more than minimal risk.

REMARKS:

Change Req. cannot to: 1) Deep learning
2) 5 of times not completed, entire report is perfect.

[Signature]  [Date]
STUDY OF THE TREATMENT OF AGORAPHOBIA
INFORMATION FOR PARTICIPANTS

A study of the treatment of agoraphobia is being conducted by Joan Woods, M.A., a doctoral student in clinical psychology at Western Michigan University. This research project will compare two treatment approaches: Some participants will receive individual therapy, while others will receive therapy with spouses. Both treatment approaches are accepted treatments for agoraphobia.

It is necessary to determine suitability for the study. An interview to determine a diagnosis of agoraphobia is the first step in determining suitability. Also, it will not be possible to include individuals who have health or medical problems (other than agoraphobia) which would prevent them from coming for treatment sessions weekly.

If you are interested in receiving treatment for agoraphobia and your spouse would be willing to be present in the treatment sessions with you, you will be invited to schedule an appointment for an interview. Within approximately one week following the initial interview, you will be contacted to schedule the next appointment if you have agoraphobia and agree to participate in the study. You will be informed of whether you will receive individual or joint therapy with your spouse when you are contacted by telephone before the first treatment session. All participants will be randomly assigned to one of the two treatment formats. If the agoraphobic person has been assigned to individual treatment, spouses will not be asked to participate. If the agoraphobia person has been assigned to therapy with spouse present, the spouse will be asked to attend therapy sessions with him or her.

Including the initial interview described above, there will be a total of ten sessions, consisting of eight weekly treatment sessions, followed by one session two weeks later. Because of session spacing, the treatment process will cover approximately two and one-half months.

If participants or spouses have any questions concerning the treatment or the study, they will be answered by the researcher/therapist.

Information disclosed by participants and/or spouses during treatment will be treated confidentially; data obtained will be used for treatment and research purposes only, by prior agreement.

A deposit of $50 will be requested at the beginning of treatment. $45 will be refunded when participants complete the treatment program; otherwise, it will be forfeited. $5 will help with the cost of supplies used for the benefit of participants (printed information about agoraphobia, coping skills, etc.).

If you would like to participate in this study, would you please read the accompanying informed consent form. Thank you for your interest.
INFORMED CONSENT FORM
FOR PARTICIPANTS IN THE STUDY OF THE TREATMENT OF AGORAPHOBIA

I have read the attached explanation of the study of the treatment of agoraphobia. I understand the procedures involved in the study as explained.

To my knowledge, I do not suffer from any physical diseases, handicaps, or illnesses, other than agoraphobia, that would prevent me from participating in treatment sessions, practice tasks between sessions, or leaving my home. If I am taking medication at the time I begin participating in this study or during it, I agree that I will contact my prescribing physician before changing my dosage or stopping medication. I understand that my medication management is not the responsibility of the researcher/therapist in this study.

I agree that the information that I disclose on questionnaires and/or other testing data obtained will be used for treatment and research purposes only, knowing that my responses will be used anonymously and my identity will not be revealed in a research report or in any other way. I understand that, at any time, I may stop the tests or refuse to have the test results used and that I may discontinue participation in the study at any time. If I have any questions, I have been notified that my questions will be answered.

If I feel that I need or want additional therapy at the conclusion of the study, I will discuss this with the therapist in the study. I understand that I may be referred to another therapist or treated by the same therapist, if additional therapy is needed.

Name (please print) ___________________________ Signature ___________________________
Date____________________

For Spouse: I, ___________________________ , agree to participate in the treatment process with my spouse if my spouse is assigned to the joint therapy format, as described in the attached explanation of the study. In this case, I will attend all treatment sessions with my spouse except when emergencies prevent me from doing so.

Signature ___________________________
Date____________________
INSTRUCTIONS

Dear Participant:

The Informed Consent Form for Control Group participants is enclosed. If you are willing to complete the enclosed information after reading it thoroughly, please sign, date, and return the Informed Consent Form, as well.

Please also complete the questionnaires and accompanying sheet that requests basic information about your experience of agoraphobia. All of your responses will be anonymous and treated in a confidential manner. The Informed Consent Form is to be kept separately from the questionnaire data after receipt by the researcher and will never be associated in any way. Please do not write your last name on any of the questionnaires.

If you have questions regarding answering the questions on the questionnaires, please call the researcher at the telephone number below.

Thank you very much for your interest and cooperation.

Sincerely,

Joan Woods, M.A.

Phone 616 - 956-0644
INFORMED CONSENT FORM FOR CONTROL GROUP PARTICIPANTS
IN THE STUDY OF THE TREATMENT OF AGORAPHOBIA

I have heard and understand the explanation of the researcher, Joan Woods, M.A., for completing the questionnaires for the study of agoraphobia as a control group participant.

If I have any questions regarding the questionnaires before, during, or after their completion, I understand that I may telephone the researcher for assistance or information. I agree that the information that I disclose on questionnaires and/or other testing data obtained will be used for research and/or treatment purposes only, knowing that my responses will be used anonymously and my identity will not be revealed in a research report or in any other way. I understand that, at any time, I may discontinue the completion of questionnaires or refuse to have the results used and that I may discontinue participation in the study at any time. If I have any questions, I have been notified that my questions will be answered.

If I feel I need or desire to have therapy at the conclusion of the study, I can, if I choose, discuss this with the therapist/researcher in the study or with another therapist.

Name(Please print) ____________________________ Signature __________________________

Date __________________________
Appendix B

Assessment Instruments
PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

133-140

146-171
Appendix C

Hierarchical Ranking of Feared Situations and Weekly Record Forms
Hierarchical Ranking of Feared Situations based on Degree of Avoidance & Anxiety

First, rank order your fears at left, below. Rate the degree to which you tend to avoid situations because of the fear or unpleasant feelings associated with them. Briefly describe the feared situations below, center. For each, write the applicable number in the space provided at the right.

<table>
<thead>
<tr>
<th>Do not avoid--no anxiety</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>situation</td>
<td>enter</td>
<td>Sometimes</td>
<td>avoid</td>
<td>avoid</td>
<td>avoid</td>
<td>situation--</td>
<td>avoid</td>
<td>avoid</td>
<td>situation--</td>
</tr>
<tr>
<td>but rarely avoid</td>
<td>definitely</td>
<td>--markedly</td>
<td>or very</td>
<td>continuous</td>
<td>or very</td>
<td>anxiety;</td>
<td>slightly/</td>
<td>moderately</td>
<td>very severe/</td>
</tr>
<tr>
<td>avoid it--</td>
<td>anxious</td>
<td>anxious</td>
<td>slightly</td>
<td>near panic</td>
<td>moderately</td>
<td>very severe/</td>
<td>somewhat anxious</td>
<td>very severe/</td>
<td>anxiety;</td>
</tr>
</tbody>
</table>

*Please see note at bottom of page

<table>
<thead>
<tr>
<th>DESCRIPTION OF SITUATION</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The worst fear</td>
<td></td>
</tr>
<tr>
<td>2. The second worst fear</td>
<td></td>
</tr>
<tr>
<td>3. The third worst fear</td>
<td></td>
</tr>
<tr>
<td>4. The fourth worst fear</td>
<td></td>
</tr>
<tr>
<td>5. The fifth worst fear</td>
<td></td>
</tr>
<tr>
<td>6. The sixth worst fear</td>
<td></td>
</tr>
<tr>
<td>7. The seventh worst fear</td>
<td></td>
</tr>
<tr>
<td>8. The eighth worst fear</td>
<td></td>
</tr>
<tr>
<td>9. The ninth worst fear</td>
<td></td>
</tr>
<tr>
<td>10. The tenth worst fear</td>
<td></td>
</tr>
</tbody>
</table>

* In describing the situations, try to think of specific situations, places, and/or people that you tend to avoid as well as specific activities that you tend to avoid doing.

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Weekly Record, Form A

Name: ___________________________ Week # ________________________

Anxiety Ratings:

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete relaxation</td>
<td>Very slight anxiety</td>
<td>Slight anxiety</td>
<td>Some anxiety</td>
<td>Moderate anxiety</td>
<td>Definite anxiety</td>
<td>Much anxiety</td>
<td>Very much anxiety</td>
<td>Maximum anxiety discomfort</td>
</tr>
</tbody>
</table>

1. Daily ratings of anxiety—include rating and the time recorded:

Date & Day: ___________________________ ___________________________

Morning  
Afternoon  
Evening  
Bedtime

2. On the following, using the above scale, list incidents that you would rate as "4" or above:

For any incident that you would label as "panic," please put a "P" after your Maximum Anxiety Rating.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time of onset</th>
<th>Time ending</th>
<th>Maximum Anxiety anxiety at end-</th>
<th>Anxiety provoking provok-</th>
<th>Non-anx. anxiety provoking provok- nonstress ing</th>
<th>Situation of increased anxiety</th>
<th>Indicate with &quot;P&quot; &amp; Comments</th>
<th>Stress-</th>
<th>I-Full</th>
</tr>
</thead>
</table>

143
### Weekly Record, Form B

Name: ____________________________  Weekly Record: Date ________ to ________

**PLEASE RECORD EACH TIME YOU LEAVE THE HOUSE.**

Put a "✓" by any activity that was an assigned practice for this week.

**Use the scale below for the anxiety rating at the right hand side of this form.**

<table>
<thead>
<tr>
<th>Anxiety Level</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete relaxation</td>
<td>0</td>
</tr>
<tr>
<td>Very slight anxiety</td>
<td>1</td>
</tr>
<tr>
<td>Slight anxiety</td>
<td>2</td>
</tr>
<tr>
<td>Some anxiety</td>
<td>3</td>
</tr>
<tr>
<td>Moderate anxiety</td>
<td>4</td>
</tr>
<tr>
<td>Definite anxiety</td>
<td>5</td>
</tr>
<tr>
<td>Much anxiety</td>
<td>6</td>
</tr>
<tr>
<td>Very much anxiety</td>
<td>7</td>
</tr>
<tr>
<td>Maximum discomfort</td>
<td>8</td>
</tr>
</tbody>
</table>

### Time

- Time left returned
- Home
- Home, if accompanied, & with whom

### Anxiety

- Time spent
- Total time

<table>
<thead>
<tr>
<th>Date</th>
<th>Time left returned</th>
<th>Home</th>
<th>Home, if accompanied, &amp; with whom</th>
<th>Total time</th>
<th>Anxiety rating (0-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D

Informative Handouts for Subjects in Treatment
Appendix E

Case Reports
CASE REPORTS

Case descriptions are presented for the reason that the small number of subjects in the sample directs the focus of the study toward clinical considerations of helping agoraphobic individuals to recover. Following are two case reports, one from the Individual Treatment condition, the other from the Couples Treatment condition. It is the hope of the writer to convey a sense of some of the complexities of the antecedent conditions of agoraphobia. (Fictitious initials are used to protect the identities of the individuals whose cases are described.)
Case 1

Ms. N., a 57 year-old married woman with one adult son, was treated individually for agoraphobia. She is married to her second husband of 13 years. She is a well-dressed woman with a pleasant manner. She stated that her last panic attack was one week before the initial interview in a department store while her husband was on another floor.

This client traced initial onset of her panic attacks to stress exacerbated by a work situation in which she was passed over for promotion at 24 years of age, after having established seniority in her supervisory job. At that time, she began to experience anxiety attack symptoms of heart palpitations, sweating, feeling disoriented, with typical agoraphobic cognitions of, "I've got to get out of here; I'm going to go crazy and snap." Subsequently, she experienced increasing anxiety, feelings of being trapped, began to avoid places where she had previously experienced panic, and eventually quit her job.

She reported that her first husband's infidelity, excessive drinking, and criticism caused her extreme stress, and she became increasingly agoraphobic. She began to drink secretly in order to reduce her anxiety. When the frequency of her drinking began to frighten her, she became able to admit her problem with the help of a friend who attended Alcoholics Anonymous.

Following a divorce from her first husband, she voluntarily went to AA, responded well to the recovery program, and stopped drinking. She reported having been alcoholic for seven years.

Within two years she married a man who had also recovered from alcoholism, whom she met at AA. He is a successful businessman, a self-described "workaholic." He now suffers from a chronic bowel
disease of such severity that his condition precludes a shared social life. He is often in pain, takes steroid medication, and retires early. Surgery has been ruled out, and his illness is progressing. The client's response to her husband's illness is fear, frustration, and anticipatory anxiety concerning his possible death. She feels frustrated about his inability to enjoy a normal life, yet she fears losing him and being alone ("If he died, I'd have no one to depend on or to depend on me. I need that.")

Ms. N. is a child of an alcoholic father whom she described as a weekend drinker who caused few family problems. However, she reported that she "got between (her) parents to protect (her) mother at times." She views his alcoholism as a disease of addiction rather than as a response to anxiety, as in her case. She recognized her own addictive pattern but stated that she drank to alleviate anxiety.

A number of traumatic experiences during childhood intensified her feelings of insecurity: At six years of age, while in a dentist's chair, the dentist put a gas mask on her unexpectedly from behind and threatened that her mother would leave if she cried. At five years old, she was taken from her mother during a physical examination at a hospital and left alone for a long period of time. At six, she lost consciousness while visiting a friend in the hospital with her mother. At seven years old, she was struck by a car though not seriously injured. Later that year, a teenage boy attempted to molest her; she fled and eluded him. At four, she was trapped inside a buffet where she had hidden and was unable to open the door; eventually her mother found her. When she was eight years old, her favorite aunt was suddenly hospitalized in a state psychiatric hospital. The family had
previously told Ms. N that she resembled her aunt in personality, so that she identified with her. When she visited her aunt at the state hospital, the fear and confusion she felt at seeing her there was intensified by her identification with her.

These experiences, combined with her mother's dramatizing of possible events and negative predictions, and her father's alcoholism, resulted in a stressful childhood marked by insecurity. Her adult life has also been marked by many sources of stress.

Four years before the present therapy, Ms. N. had provided nursing care of her elderly parents for two years, until their deaths within one year of one another. She reported that during her caregiving responsibilities, she had no panic attacks and rare agoraphobic avoidance, stating that she had had "no time" for these problems. However, she experienced extreme anxiety, usually when arriving at the hospital to visit her parents, but she coped by having friends accompany her.

Following her parents' deaths and turning her attention once again to her own life, she gradually became more agoraphobic. At approximately the time that she had begun to care for her parents, her husband developed the chronic bowel disease. The exacerbation of his illness and of her agoraphobia seemed to parallel one another (noticed by the therapist but not by the client). She gradually avoided more and more places where she had previously experienced severe anxiety or panic attacks, especially expressways and the interstate route to the town where her parents had lived until their deaths.

At pretreatment assessment during the present study, M. N. reported one panic attack during the previous seven days. Her pre-
treatment Approach/Exposure Behavior frequency for that week was one anxiety-provoking activity outside her home. Her score on the Agoraphobia Scale (the avoidance measure) of the Fear Questionnaire was 18 at pretreatment assessment. On the Agoraphobic Cognitions Questionnaire, her score was 1.93 (the average on a 1 to 5 rating scale), and on the Body Sensations Questionnaire (fear of panic attack symptoms), 1.88 (also an average on a 1 to 5 rating scale). The latter are not extreme scores; however, this client's history of agoraphobic fear and avoidance, her current functioning, panic attacks, and verbal behavior confirmed the diagnosis of agoraphobia. When speaking of places she avoided or in which she experienced anxiety, she usually expressed typical agoraphobic emotional reactions, attributions, and interpretations, e.g., "I'm afraid I may not be able to control myself," "I feel trapped on upper floors," and "I feel as if I'm going to go crazy whenever I'm anxious."

Response to Treatment: Ms. N. related in a warm, friendly manner, had no social phobia, and developed rapport rather quickly. She was able to understand the explanation of the flight or fight response, the anxiety response, physiological arousal leading to panic attack symptoms, and the cognitive restructuring interventions. She was also able to grasp the treatment rationale for exposure therapy but showed some resistance to exposure assignments when they were first given.

Her resistance was exacerbated by increased stress when her husband's elderly parents began calling her repeatedly to be taken for medical care. She had assisted them two years previously when her mother-in-law had had a stroke, doing laundry, cooking, and transporting them. She continued to help them but felt ambivalent and resentful.
because she experienced them as demanding. Also, having assisted her own parents before their deaths, the emotional pain associated with those memories made it difficult for her to respond. The increased stress caused her more difficulty in practicing exposure assignments.

Cognitive restructuring was a major effort of in-session therapy, focused on "coping self-statements" (Barlow & Waddell, 1985); Meichenbaum, 1977) to enable clients to help themselves break through their resistance to changing their behavior. This client spontaneously expressed numerous negative, anxiety-provoking self-directed statements and "what if" questions. She was taught to learn and apply coping self-statements with the purpose of decreasing her anticipatory anxiety during key times of increased anxiety before exposure trips. Clinically, she seemed to feel more secure as a result of acquiring a defined coping technique. Panic management techniques were also provided in order to decrease fear of panic attacks and, thus, to decrease her resistance to practicing exposure activities.

This client was willing to go to some places selectively but not willing to engage in certain activities, such as driving alone on the expressway, stay long in stores, malls, or hospitals. As with most agoraphobics, she most feared her own anxiety/fear symptoms occurring in places where she "could not get help quickly." When she began to experience small successes in less anxiety-provoking situations, such as visiting a department store for 20 minutes of exposure alone, then leaving, and then increasing the time alone the next time, she attempted more challenging tasks. Her confidence grew gradually. The therapist checked the client's exposure activities accomplished every week and gave positive feedback when appropriate. During the course of
therapy, she accompanied a friend to a hospital and entered elevators (on her hierarchy list), became a hospital volunteer, drove short distances alone on the expressway, attended luncheons, etc.

This client's response to exposure therapy vacillated; at times, she accomplished her practice exposures with little difficulty. However, on a number of occasions, she unexpectedly experienced a rush of anxiety, e.g., when she attempted to find her husband in a department store, or when volunteering at the hospital. She would at times enter the expressway only to turn off at the next exit, thinking, "I can't do it." Overall, however, her course of responding to treatment was positive. During the last week of therapy, she accomplished four challenging exposure activities, whereas at pretreatment assessment, she had engaged in one anxiety-provoking activity that week. She became progressively more active and began to accept the therapist's challenge to carry out one more activity or part of an activity each week than she had done previously. Re-framing, or reinterpreting fear or anxiety-provoking excursions, responsibilities, and activities as challenges was strongly emphasized during sessions for all subjects in the study. This approach seemed to stimulate this client's motivation to improve. The idea of meeting challenges was balanced by another emphasis on viewing exposure assignments as "This is practice, not a test." The therapist's message, "No one expects you to improve all at once, perfectly," seemed to reduce the client's tendency to practice compulsive perfectionism, a common pattern in agoraphobics. This client related to the approach expressed by the therapist, "One step at a time is all that is necessary to improve," having learned this idea at AA as well.
Her posttreatment assessment scores indicated considerable improvement. On the Agoraphobia Scale (avoidance) of the Fear Questionnaire, she scored 10 compared to 18 at pretreatment assessment, with the follow-up score of 7 indicating continuing improvement. On Approach/Exposure Behavior at posttreatment assessment, she engaged in four exposure activities (one at pretreatment) but in only three exposure activities during the week of follow-up assessment. Generally, this client demonstrated considerable behavioral improvement over the course of the ten-session assessment and treatment program. She reported that she experienced no panic attacks, other than high anxiety levels, during the course of treatment. Her Agoraphobic Cognitions Questionnaire scores reflected some small improvement (1.93 at pretreatment, 1.71 at posttreatment, and 1.43 at follow-up assessment). Body Sensation Questionnaire (fear of panic symptoms) scores fluctuated (1.88 at pretreatment, 1.23 at posttreatment, and 1.71 at follow-up assessment). In the therapist's view, her report of slightly increased fear of panic attack symptoms from posttreatment to follow-up assessment may reflect her anticipation of the end of therapy and loss of ongoing support by the therapist. Although the client demonstrated the capability of responding well to cognitive therapy, she had experienced strong modeling by her mother of agoraphobic cognitions and found it difficult to replace them consistently with coping self-statements during the short-term therapy. With all clients in the study, it was found that cognitive learning and application of new cognitive coping skills required a longer treatment time than did the basic step of exposure therapy for change to become evident.
Case 2

Ms. A. is a 31 year-old married woman with three children who range in age from two to eight. She was treated for agoraphobia with her spouse present. She is a licensed practical nurse currently unemployed due both to recurrence of panic attacks, including frequent episodes at the hospital where she formerly worked, and to the birth of a child two years prior to therapy.

Recurrence of panic attacks began during her training just prior to her employment. She had enjoyed a partial remission of agoraphobic panic and avoidance for two to three years, following a divorce from her first husband and extending into her present marriage of five years to her second husband. Following approximately two years of marriage, she began to experience anxiety attacks during the additional stress of acquiring nurses training, pregnancy and childbirth.

During the initial interview, Ms. A. appeared very anxious, with considerable anger about her past expressed both verbally and nonverbally. She described the onset of her panic attacks as originating from a traumatic accident at six years old when a heavy pipe was pushed onto her by another child from an outdoor swing set. Her head was gashed; she was rushed to the hospital emergency room and treated. She stated that the doctors insisted that her parents leave the room while they examined and treated her; she became hysterical and identifies this reaction as her first panic attack. Subsequently, she experienced panic attacks at various times during childhood and teenage years.

She characterized her family of origin as relatively unloving,
cold, distant, argumentative, and alienated. She described one incident when, at age seven, she was kicked by her father when she blocked his view of the television set. While physical abuse was not ongoing, she reported that both parents had verbally and emotionally abused her and her three siblings, and had also neglected to express acceptance and love to the children.

She reported that she had an intense panic attack in the hospital following the birth of her third baby. Six weeks later, she experienced the worst attack she has ever had, during which she hyper-ventilated and was taken to the hospital emergency room. She was unable to name any stimuli that might have caused this panic attack. She reported that since that time, she has experienced frequent "spontaneous" panic attacks (stimuli unknown) and repeatedly stated that her "body is in a state of high anxiety most of the time."

During her first marriage, her husband told her that he would leave her because of her emotional problems. He did so, an event which sensitized her further to themes of abandonment and rejection that she reported she had experienced in her family of origin. In sessions, she occasionally reiterated her first husband's threat to leave her; she seemed to fear abandonment by her second husband due to the same problems of anxiety and inability to cope alone.

At her post-childbirth relapse, this client was experiencing conflicts concerning the additional responsibilities of caring for her newborn plus caring for her two children from her first marriage, not returning to her nursing job, financial strain, and fears of inadequacy to cope.
At intake for the study, she reported three panic attacks during the past seven days. Pretreatment approach behavior was one fear-provoking activity outside her home during the week of assessment. Her Agoraphobia Scale (avoidance) score of the Fear Questionnaire was 32, highly agoraphobic, indicating frequent, widespread avoidance. On the Agoraphobic Cognitions Questionnaire, her score was 3.50; a thought that she wrote on the sheet was "I will die," rated 5, indicating that this "thought always occurs when anxious" (see Appendix B). This obsessive thought is a panic attack symptom for a minority of agoraphobic persons seeking treatment for phobias, usually found only in severe cases. This repetitive thought was her most troublesome symptom. Other items endorsed with a 4 rating ("thought usually occurs") were "passing out," "having a heart attack, a stroke, a brain tumor," "going crazy," and "screaming." Her Body Sensations Questionnaire score was 3.30, with extreme scores on items concerning feeling short of breath, heart palpitations, pressure in chest, dizziness, blurred or distorted vision, feeling disoriented and confused, and feeling disconnected from her body.

This client's in-session behavior was marked by compulsive talking, a controlling style of relating, initial resistance to therapeutic interventions, and reluctance to admit any improvement. The latter behavior seemed to express her reluctance to give up the secondary gains inherent in agoraphobic behavior, i.e., attention and care-taking from her husband, and her husband and oldest daughter (age eight) assuming responsibilities that she could not carry out when highly anxious. This client also displayed depressed affect.
Response to Treatment. The above-described behavior characterized Ms. A.'s demeanor during the first five sessions of therapy with, however, some cooperation in carrying out assigned exposure practice which was described by the therapist as the curative factor. Eventually, the positive side (i.e., her desire to improve) of her ambivalence toward letting go of her avoidance patterns won over her fear of re-entering many places where she had experienced panic attacks, and she gradually began to respond to exposure therapy. However, the course of treatment was not smooth, with considerable resistance, panic attacks, and complaints of anxiety symptoms. With the therapist’s consistent focus on re-framing anxiety-provoking situations as challenges to be met and on the positive rewards of meeting her goals, she began to take pleasure in completing errands and responsibilities.

Ms. A.'s mate selection appeared to have been based on her need for help, among other factors. Her husband's in-session behavior appeared passive, unassertive, allowing his wife to control him, yet caring and kind. He had frequently rescued her from her avoidance situations in the past; her neediness seemed to allow him an opportunity to feel important and needed. In contrast, she was demanding of help, expressing considerable chronic anger concerning past hurts from both family of origin and former marriage. Some variation of this type of symbiotic relationship seemed to appear in almost every couple in the couples treatment condition.

As the client's trust improved in the therapeutic relationship, her pattern of manipulating and controlling others by obsessing about her anxiety symptoms, magnifying them, and forcing her family to focus on her disability began to attenuate. Dysfunctional family
patterns had already appeared; she engaged in role reversal with her eight-year-old daughter, who rescued and assisted the client during anxiety attacks. Anxiety and compulsive behaviors were manifesting in her middle child as well.

Eventually, the trust relationship between therapist and client resulted in the client following therapeutic suggestions, cooperating, and considerable behavioral improvement, with cognitive and emotional changes following more slowly.

Ms. A.'s husband cooperated with the therapist in his willingness to facilitate his wife's exposure practice activities when she requested him to do so, at times accompanying her to a large store and waiting for her while she shopped so that she practiced alone. Eventually, she became willing to drive to stores alone. Care was taken not to put the husband in the position of a live-in therapist, or to take responsibility either for the wife's agoraphobia or for her improvement. Such a role for the spouse could be damaging to the relationship and to the self-esteem of both spouses. If an agoraphobic's spouse believes that he/she must be the phobic mate's therapist, the spouse may tend to become over-responsible (this was the tendency of the husband in Ms. A.'s case) and to feel like a failure during times of the agoraphobic's avoidance and relapses. Or the agoraphobic may tend to view the spouse as "policing" her behavior, leading to resentment and to the tendency to project blame onto the "authority-figure" person. Because of the potential for retaliation and relationship breakdown when the responsibility issue is unbalanced, the spouse is never labeled a co-therapist or "live-in therapist."

The husband was informed of what to do if his wife panics when they
are out together and gently warned not to take over her responsibilities for her.

Ms. A.'s posttreatment assessment scores showed considerable improvement. The Agoraphobia Scale score (the avoidance measure) of the Fear Questionnaire decreased from 32 at pretreatment to 11 at posttreatment assessment, reflecting a high degree of improvement in frequency of avoidance behavior. Reported Approach/Exposure Behavior had improved from one outside activity at pretreatment assessment to three activities at posttreatment assessment. Follow-up assessment found that she was maintaining outside exposure activities at three per week. Agoraphobic Cognitions worsened slightly (3.93 at posttest, compared to 3.50 at pretreatment). Her Body Sensations Questionnaire (fear of panic symptoms) score was also slightly worse, at 3.50 (pre-test, 3.30).

This client expressed the themes shared with most agoraphobics: childhood insecurity followed by intense fear reactions to separation threats in adult life. Her panic attacks and chronic anxiety as antecedents to subsequent agoraphobic avoidance appear to be symptoms of these radical problems in her past life.

These case descriptions exemplify the complexity that marks the personal histories of agoraphobic persons. Their lives are often characterized by extreme stress, childhood events that caused feelings of insecurity and early fears, as well as interpersonal difficulties that continue to undermine feelings of self-efficacy.


Bland, K., & Hallam, R. S. (1981). Relationship between response to graded exposure and marital satisfaction in agoraphobics. Behaviour Research and Therapy, 19,


handbook of behavior modification and therapy (pp. 349-395). New York: Plenum.


Marks, I. M. (1970). Agoraphobic syndrome (phobic anxi-


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New York: Brunner/Mazel.


