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Enhancing Agoraphobia Treatment Outcome by Changing Couple Communication Patterns

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Twenty-four females meeting the DSM-III criteria for agoraphobia with panic attacks underwent partner-assisted exposure therapy followed by either Couples Relaxation Training or Couples Communication Skills Training. Posttest results indicated an advantage in favor of communications training. Subjects in this condition reported significantly lower scores on the agoraphobia subscale of the Fear Questionnaire, significantly more unaccompanied excursions out of the home, and performed significantly better on a Behavioral Approach Test than their counterparts in the relaxation group. While both groups demonstrated a slight tendency toward relapse at the 8-month follow-up, significant differences between groups were maintained on the Behavioral Approach Test and on the number of excursions out of the home. Communication training may help couples to identify and change patterns of interaction that impede agoraphobics' progress in overcoming phobic avoidance.

Despite a number of studies (Emmelkamp & Wessels, 1975; Greist, Marks, Berlin, Gournay, & Noshirvani, 1980; McDonald, Sartory, Grey, Cobb, Stern, & Marks, 1979; Stern & Marks, 1973; Watson, Gaind, & Marks, 1971; Watson, Mullett, & Pillay, 1973) indicating that significant changes in agoraphobic symptoms are obtained with procedures that facilitate the client's exposure to fear-evoking situations, some "disquiet" regarding the efficacy of exposure therapy remains (Rachman, 1983). Barlow, O'Brien, and Last (1984) have, for example, estimated that while 60 to 70% of agoraphobics completing treatment derive clinical benefit, at

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least 30% may be treatment failures. And among those who improve, a considerable number may remain significantly impaired. In a long-term follow-up study, McPherson, Brougham, and McLaren (1980) reported that of 56 agoraphobics who improved following treatment, only 18% reported themselves symptom-free 4 years later. Sixty-one percent of this sample received in vivo exposure therapy. Thus present clinical results warrant further research aimed at providing more effective treatment for agoraphobia.

Recent efforts have been geared toward enhancing treatment outcome of agoraphobia by adding various features to exposure therapy protocols. For example, social cohesion appeared to enhance the immediate outcome of group exposure therapy, though evidence supporting its association with additional posttreatment gains was mixed (Hand, Lamontagne, & Marks, 1974; Teasdale, Walsh, Lancashire, & Mathews, 1977). The results of several studies (e.g., Telch, Agras, Taylor, Roth, & Gallen, 1985; Zitrin, Klein, & Woerner, 1980) suggest that imipramine enhances the potency of exposure therapy with agoraphobics.

The amount of practice in confronting feared situations between sessions may be an important determinant of outcome (Mathews, Teasdale, Munby, Johnston, & Shaw, 1977). Thus a recent trend in agoraphobia treatment has been to involve spouses as cotherapists (Barlow et al., 1984; Mathews et al., 1977). Partners are called upon to help devise and carry out practice plans, presumably facilitating the agoraphobic's increasing exposure to fear-evoking situations. While the hypothesis that spouse participation occasions increased levels of practice has not been confirmed (Barlow et al., 1984), spouse-assisted treatment has demonstrated lower drop-out rates (Barlow et al., 1984; Jannoun, Munby, Catalan, & Gelder, 1980; Mathews et al., 1977) and continued improvement during follow-up (Mathews et al., 1977; Munby & Johnston, 1980).

But while including spouses as cotherapists may in some cases facilitate "more efficient and effective practice" (Barlow et al., 1984, p. 53), such an approach does not directly address the problem of marital issues that may interfere with treatment gains or spouse behaviors that may unwittingly maintain or exacerbate the patient's symptoms. Hafner (1977) and Milton and Hafner (1979) have reported that the marriages of some agoraphobics are adversely affected by successful exposure therapy and that in these cases relapse often follows. In addition, there is some evidence that agoraphobic patients who are involved in unsatisfactory marriages show a higher rate of relapse than those reporting more satisfaction with their marriage (Bland & Hallam, 1981; Milton & Hafner). As Lazarus (1966) pointed out, "it is presumably impossible to become an agoraphobic without the aid of someone who will submit to the inevitable demands imposed upon them by the sufferer" (p. 97). Goldstein and Chambless (1978) have noted that the spouses of agoraphobics often press for a "return to more dependent behavior once the client begins to function more autonomously" (p. 57). As Popler (1977) has noted, most agoraphobics are rewarded for staying at home. Thus one way to enhance the

outcome of exposure therapy might be to help couples modify specific behavioral sequences that impede the development of autonomy in the agoraphobic.

This study investigated whether providing communication skills training for couples following exposure therapy would enhance treatment gains. The focus of communication training was on changing those behavioral sequences between partners that may be instrumental in maintaining agoraphobic symptoms. It was hypothesized that couples communication training following exposure therapy would be superior to exposure therapy followed by couples relaxation training.

METHOD

Subject Selection

Females suffering from agoraphobia and living with a partner willing to participate in treatment were recruited through advertisements placed in local newspapers. Three subjects were unmarried; of these, all had been living with their partners for 1 year or longer and were planning marriage. Subjects' ages ranged from 22 to 63 years, with a mean of 39 years.

All subjects met the DSM-III criteria for agoraphobia with panic attacks. Screening procedures included a telephone interview, a clinical interview conducted by the principal investigator, and a Behavioral Approach Test (Agras, Leitenberg, & Barlow, 1968; Agras & Jacob, 1981) conducted in a local shopping center. In addition to presenting symptoms consistent with a DSM-III diagnosis of agoraphobia with panic attacks during the interview, all subjects scored 20 or above on the agoraphobia subscale of the Fear Questionnaire (Marks & Mathews, 1979), and failed to complete the Behavioral Approach Test.

Of 131 individuals who telephoned the Behavioral Medicine Clinic at Stanford University Medical Center expressing interest in the study, 83 were initially excluded on grounds that they did not describe symptoms consistent with a DSM-III diagnosis of agoraphobia with panic attacks and/or lack of a partner willing to participate in treatment. Of the 48 people who were invited for further screening, 13 failed to appear. Of the 35 potential subjects who presented themselves, 10 were considered insufficiently phobic based on successful completion of the Behavioral Approach Test. Thus, 25 women and their partners were accepted into the study.

Experimental Conditions

All 25 agoraphobic subjects were given 4 weeks of in vivo exposure therapy. Following exposure treatment, subjects were matched according to change scores on the Behavioral Approach Test, and assigned randomly to either Couples Relaxation Training or Couples Communication Skills Training. Change scores on the Behavioral Approach Test were used to assign subjects to groups in order to assure that members of the two experimental conditions had experienced comparable levels of symptom reduction during the first phase of the study.

Treatment Procedures

In vivo exposure therapy. In vivo exposure procedures were designed to capitalize on the strengths of both prolonged exposure (e.g., Hand et al., 1974) and the more recent spouse-assisted approaches to agoraphobia treatment (e.g., Barlow et al., 1984; Jannoun et al., 1980; Mathews et al., 1977). During the 1st week, 12 hrs of in vivo training were spread equally over 3 successive days, with subjects treated in groups of eight or nine individuals. Partners were not involved during the 1st week of treatment.

During weeks 2–4, subjects and partners met in small groups with the therapist to discuss issues related to home practice. Each weekly meeting lasted 90 min. Sessions served (a) to reinforce homework completion, (b) to uncover problems in home practice that had arisen during the week, (c) to generate solutions to problems completing the assignments, and (d) to assure that each couple specified homework targets for the coming week.

Couples communication skills training. Couples assigned to this condition met in groups of three to five couples during weeks 5–12. Training in communication focused on the following skills (Stuart, 1980): (a) listening ability; (b) formulating self-statements; (c) constructive request-making; (d) delivering feedback; and (e) seeking clarification. In addition, couples were taught specific techniques for resolving conflict (Jacobson & Margolin, 1979). These included starting problem solving sessions with a positive statement about one's partner, formulating complaints in specific behavioral terms, admitting one's role in the problem, brainstorming solutions, offering to change one's own behavior, and making specific change agreements.

Couples relaxation training. Couples assigned to this condition received training in relaxation skills during weeks 5–12. Couples were treated in groups of four. Procedures for each session closely followed those described by Schneider, Allen, Agras, Taylor, and Southam (1980). Sessions were devoted to practicing relaxation skills. Couples were given three relaxation tapes for home use. Daily practice was encouraged. Report cards were provided, and each session began with a review of each couple's relaxation practice record. Difficulties encountered carrying out homework were discussed, and where necessary, the therapist made suggestions regarding how to resolve such problems.

In-session procedures were geared to maximizing couples' practice of the above skills under therapist supervision. Homework assignments were also given. While the couples themselves determined the content of in-session and home practice discussions, in general, participants were encouraged to focus on ways of modifying their interaction to facilitate the agoraphobic subjects' progress.

Treatment expectancies. In order to compare the effectiveness of communication and relaxation skills training, it was important to create equal expectancies regarding treatment efficacy and comparable levels of motivation to comply with directives. The treatment rationale for both conditions emphasized that decreases in the level of phobic symptoms as-

sociated with exposure therapy might prove stressful and would certainly have an impact on both partners. Both relaxation training and communication skills training were presented as tools to enable couples to deal more effectively with such stress, thereby facilitating continued progress in combatting the agoraphobic symptoms.

Since considerable evidence exists that instructing subjects to practice confronting feared situations achieves positive results (e.g., Emmelkamp & Wessels, 1975; Mathews et al., 1977), testing the efficacy of communication skills training demanded that both postexposure conditions receive comparable instructions regarding exposure. Accordingly, during the first session of both couples relaxation training and couples communication skills training, participants were told that they now possessed sufficient skills and information regarding home practice to make continued progress in reducing agoraphobia on their own. The next phase of treatment, it was explained, would involve learning an entirely new set of skills that might also be helpful in overcoming agoraphobia. Learning these skills effectively would demand all of the therapist's remaining time. No further directives regarding self-exposure were issued to either group.

Therapists

Exposure therapy was conducted by one of the authors (MJT). Couples Relaxation Training and Couples Communication Skills Training were conducted by graduate level therapists with at least 3 years experience.

Measures

Self-report measures. Several questionnaires were administered at pretest, postexposure, postcommunication/relaxation, and at the 8-month follow-up. These included the Fear Questionnaire (Marks & Mathews, 1979), the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), and the Dyadic Adjustment Scale (Spanier, 1976).

Behavioral approach test. In order to gain a direct behavioral assessment of the severity of phobic symptoms, agoraphobic subjects were asked to walk a specially designed course along the major pedestrian walkway of a local shopping center and to enter several stores. The course was divided into 17 stations, and was approximately three-quarters of a mile long. Stations were arranged hierarchically, each one growing more difficult. The test was divided into two parts. In part one (stations 1–12), subjects were asked to walk through the course as far as possible without stopping and to place a red tape marker on the ground at the furthest point reached.

Part two (stations 13–17) involved walking into stores and performing certain tasks (e.g., buying a pack of gum, taking the escalator to the second and third floors of a crowded department store). For this part of the assessment, subjects were given a form on which to record specific information about each task (e.g., which department is opposite the third floor escalator). Each subject was given a map and instructed to complete

the course unaccompanied as far as possible without stopping. A trained undergraduate observer recorded the number of stations each subject reached. Observers remained at a predesignated point adjacent the parking lot of the shopping center and were not visible to subjects once they passed station 1. The Behavioral Approach Test was administered at pretreatment, postexposure, postcommunication/relaxation, and at the 8-month follow-up. The total score consisted of the number of stations completed.

Home diary records. To assess the impact of treatment on agoraphobics' daily behavior in the natural environment, subjects were asked to record their activities in a diary each day for a 1 week period at pretreatment, postexposure, postcommunication/relaxation, and at the 8-month follow-up. Data recorded included the date of the excursion, time spent away from home, whether the subject was alone or accompanied, and anticipatory and performance anxiety levels. The home diary records also contained space for subjects to record data for each panic attack experienced, including the date of the attack, the precipitant, if any, whether the subject was alone or accompanied, and the severity on a 0–10 scale. To facilitate compliance with the recording procedure subjects were instructed to pin their forms to all doors leading out of the house.

Marital interaction coding system. To assess changes in couples' communication behavior, the Marital Interaction Coding System (MICS; Hops, Wills, Patterson, & Weiss, 1972) was applied to videotaped interaction samples in which each couple attempted to resolve a marital disagreement. The 29 MICS codes provide data on both verbal (e.g., criticize), and nonverbal (e.g., smile) behavior. Interobserver reliability has been reported above 70% for raters at the University of Oregon (Patterson, 1976) where the videotapes for the current study were sent for coding. Margolin (1978a) has reported test-retest reliability at .70 for positive communication behaviors and .83 for negative communication behaviors. The MICS was administered at pretest and postcommunication/relaxation.

Structured interviews. A structured interview was devised to measure the extent to which partners of agoraphobics encouraged autonomy. Nine brief vignettes were devised. For example, one situation was as follows: "The two of you decide to go to the movies. When you get to the theater, Mrs. — insists on sitting in the last row, in the seat closest to the door. Mr. —, you are not sure you can see well from there, and you would like to sit closer. What would the two of you do?" Each couple was presented with three vignettes at pretreatment, postexposure, and postcommunication/relaxation.

Two trained undergraduate raters were asked to determine whether the spouse encouraged independence (+1), encouraged dependence (−1), or whether the response was unclear (0). Scores for the three vignettes per interview were added together to obtain one score (−3 to +3). These scores were then converted to a 1–7 scale. In order to assess reliability, one-quarter of all vignettes were cross-rated by both undergraduates. Percent of agreement between raters was 83.3%. Kappa coefficient was .65.

Data Analysis Procedures

Major phobia outcome measures were administered four times: pretest (Time 1), postexposure (Time 2), postcommunication/relaxation (Time 3), and at the 8-month follow-up (Time 4). The MICS-coded couples interaction task was administered at Times 1 and 3. The structured interviews were administered at Times 1, 2, and 3.

At Time 2, participants were matched on the basis of change scores on the Behavioral Approach Test before random assignment to either Couples Communication Skill Training or Couples Relaxation Training; this procedure introduced statistical dependence between the matched pairs. Because analysis of variance procedures assume independent observations (Hays, 1973), it was necessary that the pair itself become the unit of analysis. Independence between pairs remained unaffected by the matching procedure.

Accordingly, to ascertain the differences between experimental treatments at Time 3, dependent variables were subjected to a one-way repeated measures analysis of variance using the difference scores between pair members at the first three testing occasions. An exception to this procedure occurred for the analysis of the Behavioral Approach Test total scores. Because subjects were matched on this specific variable, the differences between pair members at Time 2 were all at or near 0. Consequently, the repeated measures analysis for this variable was performed only on difference scores at Times 2 and 3.

The one-way repeated measures ANOVA using the difference scores between pair members tested whether the magnitude of differences changed over the course of the study. In effect, it provided a test of the Group × Test Occasions interaction.

Follow-up results were analyzed first by subjecting dependent measures to a one-way repeated measures analysis of variance on difference scores between pair members at Times 3 and 4. The purpose of this analysis was to determine whether treatment-related gains were maintained at the 8-month follow-up. To determine whether there were significant differences between groups at follow-up, a repeated measures analysis was performed on difference scores computed at Times 1, 2, and 4 for all the major outcome measures except the Behavioral Approach Test (BAT). The repeated measures analysis for the BAT was performed on difference scores at Times 2 and 4.

Paired t tests were used to assess the outcome of the first 4 weeks of exposure therapy, in which all subjects participated. All probabilities reported for the study are one-tailed.

RESULTS

Of the 25 couples who began the study, one dropped out prior to completing exposure therapy, citing discomfort with the group format. Thus, 24 agoraphobic women together with their partners completed the program.

TABLE 1
MEANS AND STANDARD DEVIATIONS FOR MICS-CODED[a] COMMUNICATION BEHAVIORS EXPRESSED AS A PERCENTAGE OF THE TOTAL INTERACTION

	Communication training	Relaxation training
MICS positive behaviors		
Pretest (%)	27.9 (10.6)	29.0 (8.7)
Postcommunication/relaxation (%)	43.3 (16.8)	30.9 (11.3)
MICS negative behaviors		
Pretest (%)	7.4 (6.5)	6.2 (4.7)
Postcommunication/relaxation (%)	3.7 (5.5)	9.2 (4.9)

[a] MICS = Marital Interaction Coding System.

Couples Interaction

The first question to be asked was whether the communication skills training intervention was associated with changes in couple communication patterns. Means and standard deviations for MICS-coded positive and negative communication behaviors are presented in Table 1. Results of the one-way repeated measures analysis of variance performed on the difference scores between pair members at pretreatment and postcommunication/relaxation indicate that the group receiving communication training demonstrated significantly more positive behaviors ($F(1, 11) = 5.97$, $p < .02$) and significantly less negative behavior ($F(1, 11) = 18.21$, $p < .001$) at the conclusion of treatment. There were no significant differences in marital satisfaction ratings obtained from the Dyadic Adjustment Scale.

Phobia Outcome: Pretest to Postexposure

The results of analyses performed on the phobia outcome variables over the first 4 weeks of treatment, when all subjects received exposure therapy, are presented in Table 2. These results indicate highly significant changes from pretest to postexposure for all major outcome variables except the number of panic attacks reported, which remained largely unchanged. However, by dividing the number of reported panic attacks by the number of reported excursions for each group, one can obtain a *ratio* summarizing the relationship between these two variables. And indeed, the ratio of panic attacks to excursions underwent a steep decline over this period of time (pretest = 2.35; postexposure = 0.37).

Phobia Outcome: Postexposure to Postcommunication/Relaxation Training

The next question to be asked was whether phobia outcome results were superior for those subjects who underwent communication skills training as opposed to relaxation training. Means and standard deviations

TABLE 2
STATISTICAL SUMMARY OF PHOBIA OUTCOME: PRETEST TO POSTEXPOSURE

Dependent measure	Pretest		Postexposure		
	Mean	*SD*	Mean	*SD*	*t* value[a]
FQ[b]: agoraphobia subscale	31.0	5.3	20.5	7.6	6.64***
FQ: global impairment	6.4	1.3	4.6	1.5	4.59***
BAT[c]: total score	8.8	4.3	16.0	2.4	−8.83***
Diary: excursions alone	0.7	1.4	3.5	2.5	−5.00***
Diary: panic attacks	1.7	1.7	1.4	1.6	0.76
Beck Depression Inventory	17.2	7.9	12.2	6.4	3.47**

[a] $df = 23$.
[b] FQ = Fear Questionnaire.
[c] BAT = Behavioral Approach Test.
** $p < .01$; *** $p < .001$.

for the phobia outcome measures at all four testing occasions are presented in Table 3. Overall, the results indicate an advantage in favor of the communication skills training condition.

As the subjects were matched according to change scores on the Behavioral Approach Test before being randomly assigned to communication or relaxation training, the question arises whether the level of symptom severity for the two groups was comparable. That is, it is possible that while two matched subjects might have demonstrated similar levels of *change* on the criterion measure, their overall level of symptom *severity* might differ. However, as the means for the BAT suggest, there were no large discrepancies between members of the matched pairs. The range of postexposure BAT scores for the communication skills training subjects was 8–17 while for the relaxation group the range was 10–17.

When compared with those who underwent couples relaxation treatment, agoraphobic subjects who received couples communication training reported significantly lower scores on the agoraphobia subscale of the Fear Questionnaire ($F(2, 22) = 2.62$, $p = .05$), significantly more unaccompanied excursions in the Behavioral Diary ($F(2, 20) = 5.35$, $p < .01$), and performed significantly better on the Behavioral Approach Test ($F(1, 11) = 4.34$, $p = .03$) at the conclusion of treatment. Results of the global phobia rating from the Fear Questionnaire and the Beck Depression Inventory also indicated a trend in favor of communication skills training. Interestingly, subjects in the relaxation condition reported significantly fewer panic attacks at posttest ($F(2, 20) = 3.32$, $p = .03$). However, if the ratio of panic attacks to excursions is examined, the group means are similar—.26 for the communication group, and .24 for the relaxation group.

Eight-month Follow-up

Results of the one-way repeated measures analysis performed on difference scores for all variables at postcommunication/relaxation and at

TABLE 3
MEANS AND STANDARD DEVIATIONS FOR PHOBIA OUTCOME MEASURES BY GROUP

Dependent measure	Communication training	Relaxation training
Fear Questionnaire: agoraphobia subscale		
Pretest	30.4 (5.8)	31.5 (5.0)
Postexposure	20.4 (7.3)	20.6 (8.0)
Postcommunication/relaxation	14.2 (8.2)	21.0 (7.6)
Eight-month follow-up	17.2 (7.5)	22.8 (5.3)
Fear Questionnaire: global impairment		
Pretest	6.6 (1.6)	6.2 (1.1)
Postexposure	4.8 (1.6)	4.4 (1.4)
Postcommunication/relaxation	3.4 (2.2)	4.0 (1.6)
Eight-month follow-up	4.3 (1.8)	4.4 (1.4)
Behavioral Approach Test: total score		
Pretest	8.4 (4.9)	9.3 (3.7)
Postexposure	15.9 (2.1)	16.1 (2.6)
Postcommunication/relaxation	16.3 (1.8)	13.8 (5.0)
Eight-month follow-up	16.5 (1.0)	13.3 (5.2)
Behavioral Diary: excursions alone		
Pretest	0.5 (0.8)	0.9 (2.0)
Postexposure	3.7 (2.8)	3.3 (2.3)
Postcommunication/relaxation	4.9 (3.8)	1.7 (1.8)
Eight-month follow-up	2.8 (2.5)	1.4 (1.8)
Behavioral Diary: panic attacks		
Pretest	1.5 (1.7)	1.9 (1.7)
Postexposure	1.2 (1.5)	1.7 (1.7)
Postcommunication/relaxation	1.3 (2.0)	0.4 (0.7)
Eight-month follow-up	0.6 (1.2)	0.7 (1.5)
Beck Depression Inventory		
Pretest	15.9 (7.5)	18.4 (8.5)
Postexposure	10.1 (6.0)	14.3 (6.7)
Postcommunication/relaxation	6.9 (6.9)	13.2 (9.2)
Eight-month follow-up	13.2 (8.8)	13.6 (7.6)

the 8-month follow-up yielded no significant findings. This indicates that the magnitude of differences between the groups did not change between the conclusion of treatment and the 8-month follow-up.

Results of the repeated measures analysis performed on the difference scores at postexposure and the 8-month follow-up indicated that significant differences between groups were maintained on the Behavioral Approach Test ($F(1, 10) = 6.06$, $p < .02$) with communication group subjects demonstrating slight continued improvement and relaxation group subjects a slight decline. While the number of excursions reported by members of both groups declined, the differences between groups on this

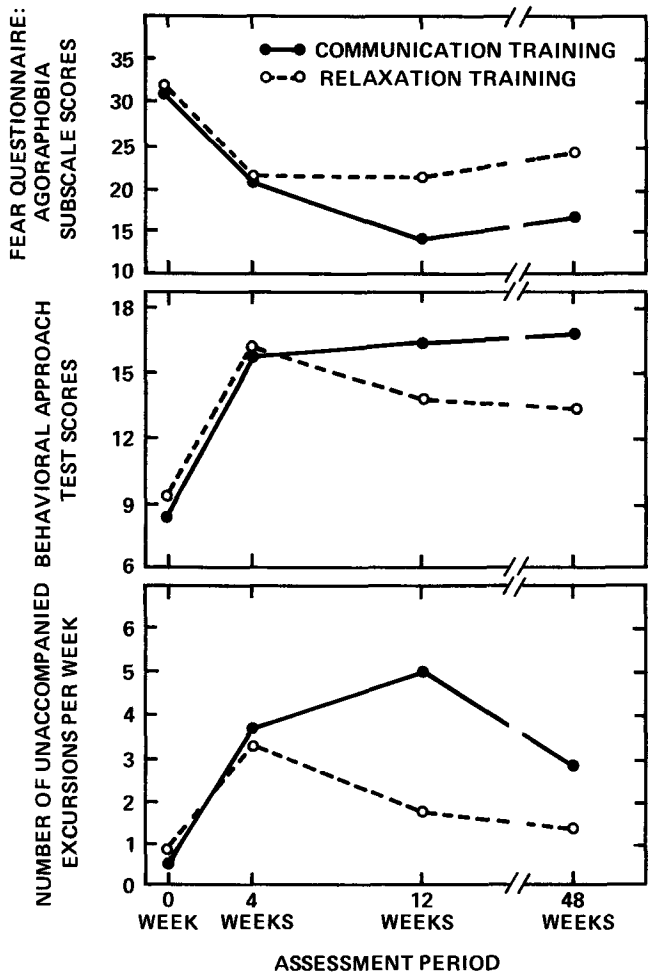

FIG. 1. Selected phobia outcome results at Week 0 (pretreatment), Week 4 (postexposure), Week 12 (postcommunication/relaxation), and Week 48 (8-month follow-up).

measure also remained significant ($F(2, 20) = 5.64, p < .01$). Both groups declined slightly on the agoraphobia subscale of the Fear Questionnaire and the differences between groups were no longer significant; however, the trend in favor of communication training continued. The absolute differences in reported panic attacks between the groups largely disappeared at the follow-up, but communication group participants reported a lower ratio of panic attacks to excursions (.23 vs. .50). The groups were comparable on the global phobia rating from the Fear Questionnaire, and the Beck Depression Inventory. Figure 1 displays the results of the agoraphobia subscale of the Fear Questionnaire, the Behavioral Approach

TABLE 4
MEANS AND STANDARD DEVIATIONS FOR STRUCTURED INTERVIEWS MEASURING SPOUSE ENCOURAGEMENT OF AUTONOMY

	Communication training	Relaxation training
Pretest	2.3 (1.6)	2.3 (1.5)
Postexposure	3.2 (1.7)	4.0 (2.1)
Postcommunication/relaxation	4.1 (1.9)	3.5 (2.4)

Test, and the number of reported unaccompanied excursions for the four testing occasions.

Measuring Spouse Encouragement of Autonomy: Structured Interview Data

The rationale for incorporating couples communication skills training into agoraphobia treatment in the current study was to help couple members identify and change sequences of interaction between them that may be important in maintaining agoraphobic symptoms. The structured interview served as a way to assess whether communication training did in fact alter partner encouragement of autonomy.

Means and standard deviations for the structured interview data are presented in Table 4. Findings indicate that partner encouragement of autonomy increased for both groups following exposure therapy, but that partner encouragement of independence increased further among those who subsequently underwent communication skills training, and declined slightly among relaxation group participants. However, between-group differences were not statistically significant.

DISCUSSION

The results of this study suggest that providing communication skills training to couples enhances treatment outcome among female agoraphobics. At the conclusion of treatment, when compared to those who underwent relaxation training, subjects in the communications condition performed significantly better on the Behavioral Approach Test, reported significantly more out-of-the-home excursions in the Behavioral Diaries, and reported significantly lower levels of avoidance on the agoraphobia subscale of the Fear Questionnaire. While significance was not achieved on the Beck Depression Inventory or on global impairment ratings on the Fear Questionnaire, the trend favors communication group subjects.

When scores on these measures are examined at the 8-month follow-up, the overall advantage in favor of communication group subjects is maintained. Significant differences were maintained on the Behavioral Approach Test and on the number of excursions reported in the Behavioral Diaries. Scores on the agoraphobia subscale of the Fear Questionnaire also favored the communication group, though the differences were

no longer significant. Between-group differences on the Beck Depression Inventory, and on the global impairment item of the Fear Questionnaire were negligible at follow-up.

On one of the six outcome measures—the number of panic attacks reported—relaxation group subjects showed significantly more improvement than those in the communication group at the conclusion of treatment. However, this result can probably be attributed to the lower number of excursions reported by relaxation group members. The ratios of panic attacks to unaccompanied excursions for the two groups at Time 3 were nearly identical. While the panic/excursion ratio is not useful as an individual performance measure (a 0 in either the numerator or denominator yields a ratio of 0), when computed for groups it may provide a more sensitive indication of treatment outcome than the absolute number of panic attacks.

In accounting for the success of communication skills training when compared with relaxation training, it is important to reiterate that couples were encouraged to use communication skills to discuss, identify, and change interactional patterns that may have been impeding the agoraphobic's progress in overcoming the symptoms. For example, one subject persuaded her husband to stop mentioning his fears for her safety when she went out alone. Others reached new agreements with their partners regarding more overt demonstrations of interest in their progress. In other cases, partners were asked to be less accommodating to subjects' fears; in these instances, subjects' complaints that their partners "anticipate" their anxiety and were overly helpful were translated into specific behavioral change requests.

Thus communication skills training facilitated changes in couple behavior in several ways. First, it provided an opportunity for couples to focus on and identify areas where changes in *partner behavior* might enhance the agoraphobic's progress. This was a new experience for most of the couples, who were accustomed to directing their full attention to the symptoms themselves, rarely considering the possible contribution of partners. And indeed, the results of the structured interview data suggest that communications training was instrumental in altering partner behavior. One reason why differences between groups on this measure were not more pronounced is that among a few agoraphobic subjects in the communication condition, further partner "encouragement" was explicitly discouraged by the therapist. In these cases, subjects perceived their partner's encouragement as "pushing," signalling a lack of empathy.

Second, couples were taught specific skills that helped them negotiate new agreements more productively. The decreases in negative behavior and increases in positive behavior demonstrated in the MICS-coded couples interaction task are indicative of enhanced ability to discuss sensitive issues in ways less likely to lead to defensiveness or increased marital tension. Finally, the problem-solving component included in communications training helped couples to negotiate agreements framed in specific behavioral terms; the importance of monitoring compliance was stressed,

and couples reported each week on the status of all agreements reached.

It is important to note that we have no evidence that the success of communication training may be attributed to improvement in overall marital satisfaction. Dyadic Adjustment Scale scores remained largely unchanged throughout the study despite significant positive changes in communication among those couples who underwent communication skills training. Several factors might explain this pattern of results. First the correlation between self-report measures of marital satisfaction and trained observer ratings is generally low (Margolin, 1978a, 1978b; Robinson & Price, 1980). Second, the Dyadic Adjustment Scale may be less sensitive to change in the upper score ranges. Relatively few of the marriages (25%) among the present sample appeared distressed at pretest (i.e., scored <194 on the DAS). Finally, couples in the present study applied for treatment of agoraphobia, rather than marital therapy. While they were given the opportunity to address marital issues, they were encouraged to use communication skills to change the way they addressed phobic avoidance as a couple. Hence, day-to-day marital issues may not have received enough attention to affect levels of marital satisfaction.

While attempts to compare the present results with those of other reported studies are complicated by differences in treatment length, procedures, and measures, several observations may be noted. First, the low dropout rate is consistent with other reported studies in which spouses were included in treatment (Barlow et al., 1984; Mathews et al., 1977). Second, results achieved through exposure therapy appear comparable to those reported elsewhere for studies of similar length. For example, in one of the conditions in a recent study Telch and his colleagues (1985) administered 4 weeks of exposure therapy with spouse participation to one group of patients who also received a placebo. An examination of the outcome of those measures common to both studies indicates few differences between the samples.

Third, if one uses the "customary criterion" (Barlow et al., 1984) of a 2-point or more improvement on a 9-point scale of overall phobic severity as an index of the treatment's effectiveness, there appears an advantage to enhancing couple communication skills. Using the final item on the Fear Questionnaire (Marks & Mathews, 1979) as a measure of the above criterion, 8 of 12 (or 67%) subjects who underwent relaxation training were improved at the conclusion of treatment while among those who underwent communication skills training 10 of 12 (or 83.3%) improved 2 points or more. This compares with a usual success rate of 60–70% (Barlow et al., 1984). At follow-up, though both groups declined on this criterion, communication group participants still demonstrated a higher percentage of improvement (8 of 12 or 67%) than relaxation subjects (6 of 11 or 55%).

At the 8-month follow-up, a slight trend toward relapse emerged for both groups. Those subjects whose gains were erased attributed their renewed avoidance to one or more significant episodes of panic. While the present study suggests that changing couple communication patterns

and facilitating changes in specific partner responses to agoraphobia is a promising avenue that may enhance the outcome of exposure therapy, it appears also that some of our subjects continued to suffer panic attacks, attenuating the overall results. Thus the potential efficacy of adding other components to enhance and maintain outcome, including pharmacotherapy or other specific panic management procedures, also merits investigation.

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