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Assertiveness Training and Exposure *In Vivo* for Agoraphobics

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The effectiveness of brief treatment via assertiveness training and exposure *in vivo* was evaluated in a crossover study of eight agoraphobics. Exposure treatment brought short-term benefit as assessed by phobia questionnaires and a depression inventory, but assertiveness training did not. Conversely, assertiveness training produced short-term improvements as measured by an assertiveness inventory, while exposure treatment did not. Both treatments were relevant to the problems of our client sample, but they had specific effects on measures closely related to each treatment's target, consistent with the results of a similar recent study by Emmelkamp *et al.* (1983). At six-month follow-up assessment, phobia questionnaire scores were unchanged from post-treatment assessment, but assertion scores had reverted to pre-treatment levels. In addition, five untreated agoraphobics completed phobia questionnaires on two occasions, six months apart. In a quasi-experiment, their scores on the two occasions were compared with treated clients' pre- and post-treatment scores. Treated clients showed significantly greater improvement, demonstrating the sensitivity of the questionnaires to treatment effects.

Introduction

Agoraphobia is distressing, potentially disabling, and relatively prevalent, and researcher/clinicians have understandably paid much attention to it recently (Thorpe and Burns, 1983). As a result, effective treatments for the handicapping avoidance behavior of agoraphobics have been developed (Marks, 1981; Mathews *et al.*, 1981). Yet many agoraphobics are described as having additional problems such as excessive dependency on others and low

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self-sufficiency or assertiveness (Goldstein and Chambless, 1978; Thorpe *et al.*, 1984), difficulties which may not be adequately addressed by procedures that successfully reduce fear and avoidance in specific phobic situations. Assertiveness training has been recommended as part of the treatment program for agoraphobics by Chambless and Goldstein (1980), and Emmelkamp and Mersch (1982) have called for research in this area, but despite the addition of assertiveness training procedures to behavior therapy regimens in some early studies (Gelder and Marks, 1966), no systematic information has been available until recently.

Emmelkamp *et al.* (1983) compared assertiveness training, exposure *in vivo*, and the combination of both treatments in a between-groups study of 21 unassertive agoraphobics. Ten three-hour group treatment sessions were given; there was a follow-up assessment one month after treatment. Exposure treatment was more effective than assertiveness training in producing change on phobia measures; the reverse was true for assertiveness measures. Both treatments made a contribution in helping unassertive agoraphobics.

We conducted an individual treatment program in which each client received assertiveness training and exposure *in vivo* in a crossover pattern. The study was designed and conducted before the results of Emmelkamp *et al.* (1983) became available. Our hypotheses were that both treatments would bring short-term benefit on particular measures, and that on phobic treatment targets exposure treatment would prove superior to assertiveness training.

Method

Design

Clients applying for treatment of agoraphobia were invited to participate if (a) interview information confirmed the impression of agoraphobia and (b) they could attend the clinic for treatment. Each client had eight 1.5 h sessions of individual treatment, four devoted to assertiveness training and four to exposure *in vivo*. The order of the two treatment components was alternated for successive referrals. Therapists were four doctoral candidates in clinical psychology. Assessments were made before treatment, after the first four sessions, after all eight sessions, after any additional sessions, and six months after all treatment had ended.

Clients

Eight self-referred agoraphobics (six women, two men; mean age = 33 years) began the treatment project in 1982. Level of assertiveness was not a criterion for inclusion. No agoraphobic who could attend the clinic was excluded. All eight expressed interest in both treatment components, but three clients

stopped attending before the eighth session, leaving five who continued until at least the post-treatment assessment. Three of them had from four to eight extra treatment sessions and were re-assessed afterwards; they were assessed finally after a six month interval of no treatment. Of the two remaining clients, one was re-assessed after six months, but the other had relocated and could not be traced.

In addition to these treated clients, six self-diagnosed agoraphobics who had contacted us for help, but who lived too far away to attend the clinic or for us to make home visits, agreed to complete phobia questionnaires sent by mail. All six were women (mean age = 37). Six months later the questionnaires were sent again so that we could assess "fluctuations in agoraphobia over time". One person failed to return the second questionnaires.

Assessment procedures

Clients completed Burns' Agoraphobia Questionnaire, Section 39 (AQ 39; Thorpe and Burns, 1983, pp. 152-153); the Fear Questionnaire (FQ; Marks and Mathews, 1979), slightly modified in that fear and avoidance ratings were separated, as recommended by Wilson (1982); the Fear and General Symptom Questionnaire (FGSQ; Hallam and Hafner, 1978); and the Adult Self-Expression Scale (ASES; Gay *et al.*, 1975), an assertiveness inventory. The untreated subjects completed the FQ and the AQ 39 only.

Ancillary measures used were the Beck Depression Inventory (BDI; Beck *et al.*, 1979, pp. 398-399) and the Maudsley Marital Questionnaire (MMQ; Crowe, 1978). Ratings of expectancy of benefit were made before each treatment.

For behavioral assessment, each client was asked to walk alone along a 2100-foot route through a University campus; distance walked and total time spent outside were recorded. Nine-point rating scales of fear, avoidance, and confidence were completed before and after each walk. Clients also gave confidence ratings after each treatment session on a form which listed nine landmarks along the behavioral assessment route; clients rated their degree of confidence about being able successfully to reach each point.

Treatment procedures

Detailed manuals of procedure were prepared (available from the authors). Therapists were trained in groups of two and supervised by the senior author. Assertiveness training sessions were audiotaped and recordings were discussed to ensure therapists' fidelity to the procedures. Clients were given a general rationale for the treatments in which the concept of emotional expressiveness

in social relationships (assertiveness) was linked with tackling fear directly in phobic environments (exposure *in vivo*). Clients were encouraged to stop avoiding (a) embarrassment and fear in social situations by acting assertively, and (b) fear or panic in phobia-relevant situations by actively venturing into those surroundings at every opportunity.

Assertiveness training. Clients identified half a dozen problematic social interactions and rehearsed assertive responses by means of behavior rehearsal and cognitive restructuring methods. The emphasis of assertiveness training was on encouraging clients to express feelings openly, not necessarily to insist that the other person behave differently.

Exposure in vivo. Clients identified two or three challenging phobic situations (e.g. a large shopping center, a crowded campus cafeteria, a small elevator in the college library), entered each place with the support of the therapist, and remained there until fear declined appreciably. Clients were encouraged to go into the feared surroundings alone after the first two sessions, meeting the therapist in the office before and after each venture.

Results

For each measure, change from pre- to post-treatment (all eight sessions) was assessed by *t*-tests for correlated data. The effects of assertiveness training and exposure treatment were assessed separately in the same way, pooling the scores of the five clients before and after each treatment. One-tailed tests were made throughout.

Table 1 summarizes the questionnaire results. General improvement was noted on the AQ 39, the BDI, and on most scales of the FQ. Exposure treatment produced significant improvement on the AQ 39, on Global Phobia and Anxiety/Depression scales of the FQ, and on the BDI, but assertiveness training did not. Assertiveness training brought benefit, where exposure treatment did not, on ASES scores. FGSQ scores were analyzed separately for the effects of assertiveness training and exposure; two-way analysis of variance with repeated measures (for the FGSQ subscales) showed that only exposure treatment produced significant change ($P < 0.05$), and on some scales more than others ($P < 0.025$). No changes were observed on the MMQ.

There was little variance on the behavioral test because all clients but one struggled hard, against instructions, to complete the walk pre-treatment. The rating scales completed after each walk were analyzed in the form of change scores from before to after each treatment. There was a significant interaction between treatment conditions and scales ($F(2, 8) = 5.38, P < 0.05$),

TABLE 1. Summary of questionnaire data

	Pre-Treatment		Post-Treatment		<i>t</i> (4)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<i>Agoraphobia questionnaire</i>					
Both treatments					
(8 sessions)	80.40	12.84	54.80	19.84	2.82**
Assertiveness					
(4 sessions)	62.80	23.96	59.20	22.49	0.96
Exposure (4 sessions)	79.00	11.68	57.00	19.91	2.30**
<i>Fear questionnaire:</i>					
(a) Global phobia					
Both treatments	5.60	2.30	3.80	2.59	1.76
Assertiveness	4.20	3.35	4.20	2.77	0.00
Exposure	4.80	1.92	3.00	2.24	4.81***
(b) Total phobia: avoidance					
Both treatments	62.20	10.80	40.20	25.86	2.16*
Assertiveness	44.00	30.02	43.80	33.52	0.05
Exposure	62.40	17.39	40.60	25.38	1.85
Total phobia: fear					
Both treatments	61.20	20.04	41.00	26.43	3.46**
Assertiveness	49.20	32.71	44.40	33.04	1.10
Exposure	58.00	20.65	42.60	24.88	1.90
(c) Agoraphobia: avoidance					
Both treatments	30.20	2.77	16.80	10.28	2.85**
Assertiveness	20.20	13.03	18.20	12.40	1.37
Exposure	29.20	5.17	17.80	10.92	2.01
Agoraphobia: fear					
Both treatments	28.60	8.62	17.20	10.62	3.08**
Assertiveness	21.80	14.46	19.00	12.75	3.08**
Exposure	27.00	7.97	18.40	11.26	2.21*
(d) Anxiety/depression					
Both treatments	20.80	7.79	10.60	6.62	4.02***
Assertiveness	15.40	11.59	12.40	8.50	1.26
Exposure	18.60	6.11	11.40	7.50	2.72*
<i>Adult self-expression scale:</i>					
Both treatments	77.40	15.56	89.00	16.54	1.66
Assertiveness	74.20	14.82	83.80	16.11	2.56*
Exposure	82.60	17.10	84.60	19.55	0.28
<i>Maudsley marital questionnaire:</i>					
Both treatments	22.80	12.62	21.80	12.38	0.33
Assertiveness	25.00	9.27	22.80	13.08	0.84
Exposure	23.80	14.11	25.00	10.51	-0.53

TABLE 1. cont.

	Pre-Treatment		Post-Treatment		t(4)
	M	SD	M	SD	
<i>Beck Depression Inventory</i>					
Both treatments	11.00	7.38	7.40	6.58	2.71*
Assertiveness	9.20	9.09	9.40	9.34	-0.20
Exposure	11.40	7.57	7.60	6.65	3.73**

* $P < 0.05$; ** $P < 0.025$; *** $P < 0.01$. All one-tailed.

indicating greater improvement on the anxiety rating in the exposure treatment condition.

No differences in ratings of expectancy of benefit were seen. The confidence ratings made after each treatment session did not show a treatment-condition difference, but confidence increased as treatment progressed ($P < 0.025$).

Six-month follow-up data

Results for the four clients remaining for this assessment were evaluated by single-factor analysis of variance with repeated measures, using data from the initial assessment; the assessment following each client's last treatment session, including extra sessions; and the final assessment after a mean interval of seven months (range = 5 to 10) of no treatment. On the AQ 39, post-treatment and follow-up scores were not significantly different from each

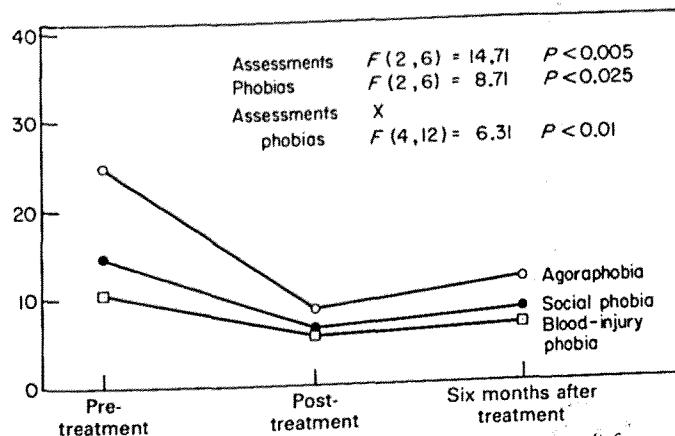


FIGURE 1. Fear questionnaire: mean scores of treated clients ($n = 4$) from pre-treatment to six-month follow-up.

other but both were significantly reduced (improved) from pre-treatment assessment ($P < 0.01$, Newman-Keuls test). A similar pattern was seen for FQ Total Phobia scores, which were analyzed by two-way analysis of variance with repeated measures (see Figure 1). The ASES produced no significant findings on repeated measures analysis.

Comparison of treated and untreated clients

Questionnaire scores of the five untreated clients were tabulated for the first and second assessments (mean interval = 6 months, range = 4 to 7 months);

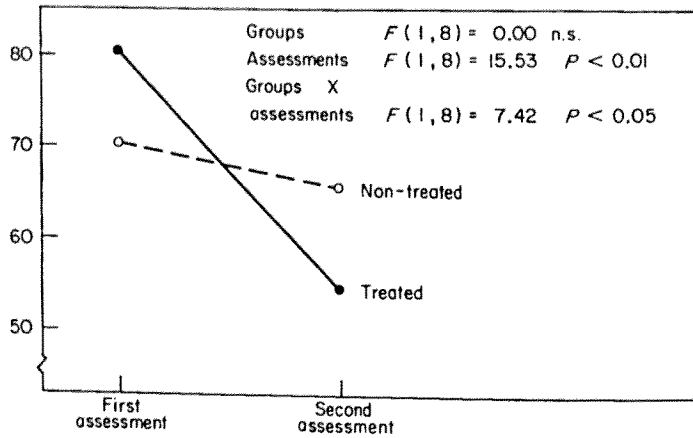


FIGURE 2. Agoraphobia questionnaire: group mean scores for treated ($n = 5$) and non-treated ($n = 5$) clients. Reassessed after six months.

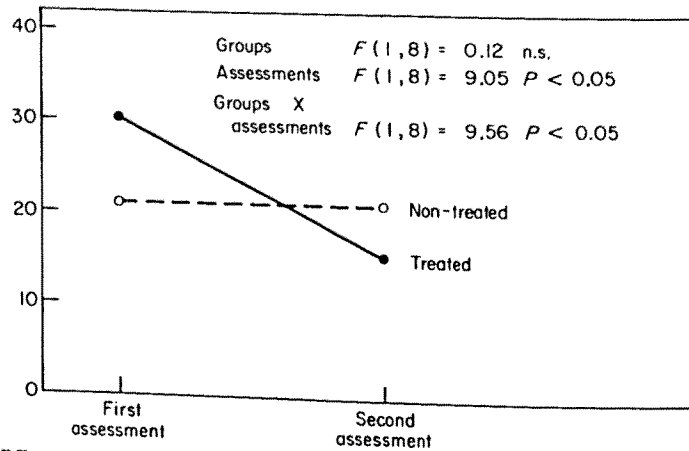


FIGURE 3. Fear questionnaire: agoraphobia. Group mean scores for treated ($n = 5$) and non-treated ($n = 5$) clients. Reassessed after six months.

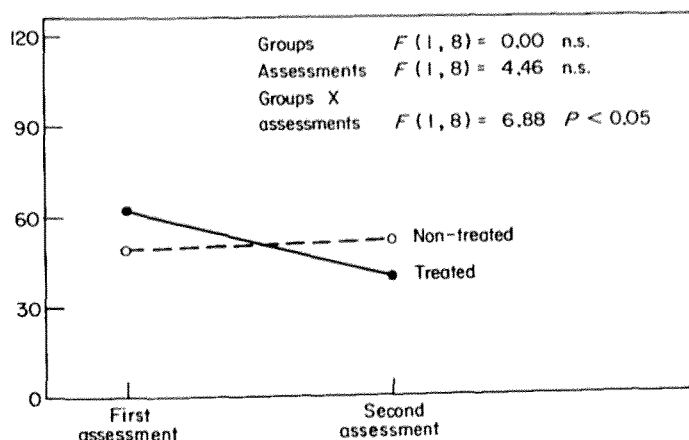


FIGURE 4. Fear questionnaire: total phobia. Group mean scores for treated ($n = 5$) and non-treated ($n = 5$) clients. Reassessed after six months.

scores of the five treated clients were tabulated for the pre-treatment assessment and the last assessment available before the final follow-up (mean interval = 6 months, range = 4 to 8 months). Groups showed no initial difference in questionnaire scores. In this quasi-experiment, treated clients showed greater change than untreated clients (see Figures 2, 3, and 4), illustrating the discriminant validity of both questionnaires in indicating treatment effects.

Discussion

A brief treatment program of eight sessions brought statistically significant changes on most measures (although we would not claim that our clients had entirely resolved their phobic problems). Exposure treatment produced improvements where assertiveness training did not on three different fear inventories, on the anxiety ratings after the unaccompanied walks, and on the depression inventory.

On the assertiveness inventory (ASES) only assertiveness training brought benefit, but this was short-lived, effects having eroded by the time of the six-month follow-up. Taken together with the observations that the three people who left treatment early did so during assertiveness training, and that two of the three clients who requested further treatment opted for exposure treatment, the results show that clients found exposure more helpful as treatment for agoraphobia.

Despite these findings, the therapists were impressed by the relevance of assertiveness training to each client, including the three who terminated early. To compare pre-treatment ASES means in our study and the Emmelkamp *et al.*

(1983) study: Our clients, who were not selected for unassertiveness, had a mean of 82.50, very close to the 81.20 of the Emmelkamp *et al.* subjects, who had been selected for having assertiveness difficulties on this criterion. Our clients, then, were initially comparable to Emmelkamp's, who made greater improvements in a longer treatment program. It is likely that our clients would have made further improvements in assertiveness with extended treatment.

Although assertiveness training procedures failed to reduce phobic fear and avoidance in these studies, assertiveness training could have an indirect and delayed effect: Clients could use the cognitive-behavioral techniques learned in assertiveness training to help them cope with phobic distress, or long-term changes in assertiveness could help modify a general pattern of passivity and avoidance. These possibilities could be evaluated in further research in which clients receive assertiveness training only, and are then re-assessed after a long follow-up interval to measure delayed effects on phobic behavior.

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