THE RELATIONSHIP AMONG ASSERTIVENESS, SELF-ACCEPTANCE AND ANXIETY, AND THEIR SYSTEMATIC RESPONSIVENESS TO GROUP ASSERTIVE TRAINING

by

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I hereby recommend that this dissertation prepared under my direction by **Lawrence Paul Percell**

entitled **The Relationship Among Assertiveness, Self-Acceptance and Anxiety, and Their Systematic Responsiveness to Group Assertive Training**

be accepted as fulfilling the dissertation requirement of the degree of **Doctor of Philosophy**

George W. Hohmann — 3/9/73

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ABSTRACT

The extant literature in assertive behavior and assertive training suggests a relationship among the constructs assertiveness, self-acceptance and anxiety. The hypothesis that people who are assertive are also more self-accepting and less anxious was tested by administering to 100 psychiatric patients an assertive inventory, a self-acceptance scale, and an anxiety measure. Results showed a substantial positive relationship for both males and females between the assertive inventory and the self-acceptance measure, a product-moment correlation of about .50, and a strong negative correlation for females only between the assertive inventory and the anxiety measure, a correlation of -.88. These results are discussed and interpreted.

Since traditional therapists often criticize behavior modifiers for being concerned only with overt behavior and not with cognitive and affective changes in their clients, an experiment was conducted to see if increasing patients' number of assertive responses through group assertive training would also increase their self-esteem and lower their general level of anxiety. Twenty-four patients at a mental health clinic were assigned either to an assertive training group or a relationship-control therapy group

for eight 1 to 1½ hour sessions. Based on a series of self-report measures, subjects in the assertive training group showed significant increases in assertiveness and self-acceptance and a significant decrease in anxiety; the control group showed no change on the measures. Results are interpreted and certain cautions discussed.

INTRODUCTION

Wolpe and Lazarus (1966, p. 39) define assertive behavior very broadly as "all socially acceptable expressions of personal rights and feelings." Besides the expression of anger, this includes the expression of disagreement, irritation, and the positive emotions such as joy, praise, and respect. In everyday practice the clinical psychologist encounters numerous individuals who are unable to stand up for their rights and be firm and strong when the situation calls for such responses. In a normative study Manosevitz and Lanyon (1965) found that in a college population, social fears received the highest ratings in terms of frequency and intensity on the Fear Survey Schedule. Fears included rejection by others, rejection by a potential spouse, parting from friends, disapproval, and looking foolish. It is, thus, not surprising that a specific therapeutic procedure would be developed to deal with problems arising from an individual's inability to behave assertively.

The Technique, Theory, and Application of Assertive Training

The Technique of Assertive Training

Assertive training encompasses the therapeutic procedures proposed by Kelly (1955), Wolpe (1958), and Lazarus

(1965). The techniques of Kelly, Wolpe, and Lazarus, while described in somewhat different theoretical language, share the same fundamental treatment procedures and principles. Subjects with deficiencies in their social or interpersonal behaviors, such as nonassertive individuals, are given direct training in more efficient and effective alternative behaviors. The specific techniques used in assertive training are numerous. Wolpe and Lazarus (1966) mention the following treatment variables: a hierarchical presentation of stimulus situations, operant shaping by the therapist, constructive criticism, role playing, role reversal, repeated playbacks of tape-recorded responses, response practice, homework assignments, postural and vocal analysis and training, therapist exhortation and lecturing, modeling, and relaxation training. Assertive training, whose goals are the spontaneous expression of feelings both positive and negative, appears to employ rather complex, unsystematic, and unstandardized approaches relative to other behavior therapy techniques. Social appropriateness is stressed in order to maximize the likelihood of positive consequences.

Behavior Rehearsal. One technique worth discussing separately because of its frequent incorporation in assertive training programs is behavior rehearsal. Since behavior rehearsal is most often associated with the treatment of timidity, the term "assertive training" has become virtually synonymous with behavior rehearsal (Rimm, Keyson, and

Hunziker, 1971). When using this technique, the therapist plays the role of someone to whom the client reacts with anxiety in real life. The client is instructed to respond to the therapist in an uninhibited, forthright, and assertive manner. A sequence from the least to most demanding situations is enacted until the client can enact the scene comfortably and in an appropriately assertive manner.

The Theory of Assertive Training

The Conditioned Reflex Model. Assertive training, at least its theoretical basis, originated with Andrew Salter (1949). Drawing heavily upon Pavlovian theory, Salter hypothesized that as dogs develop an inhibitory reflex to punishment and an excitatory reflex to food, so too the child, through the process of socialization, comes to have initially excitatory processes progressively inhibited. Neurotic individuals were considered to suffer from deprivation of excitation.

Salter (1949, p. 49) eloquently describes the inhibitory or nonassertive personality.

> An incident that is casual to the excitatory personality, may be crucial and catastrophic to the inhibitory. He will tell you that he is sensitive, or shy and high strung. He is tense and does not know how to relax. He is a smoker, a drinker, and a coffee lover. His hands tremble when he lifts a cup in company, or when he has to sign his name in front of strangers. He complains when he is criticized in the presence of others, yet he does not want to be critized when he is alone. The person who fears crowds also fears individuals....

> The inhibitory are no different in the little things of life than in the big ones. They're the last to enter, and the last to leave an elevator. They are always apologetic. They are the exploited, toiling at tedious tasks. They poison themselves with resentment for years before asking for a wage increase. They are pathetic with waiters, barbers, and salesmen, and they have as much difficulty with their mothers-in-law. They are the women who go into a dress shop and buy in order to get out. As one of them put it, "I've been refusing second portions all my life." They constantly fear that they are inconveniencing people and attracting attention. They fear they're taking up too much space, and breathing too much air.

Salter's theorizing led to various techniques to remove the sources of inhibition. His techniques rely heavily upon exhortation and persuading the patient to begin acting in a less inhibitory fashion. Central to the approach is encouragement of the patient to assert his individual rights and to become a strong, aggressive, and at times an obnoxious individual. The patient is taught initially to discount what others think of him, to practice a maximum of excitation, and then to modify it. At no point in his early writings did Salter discuss the use of behavior rehearsal.

The Reciprocal Inhibition Model. Wolpe's use of behavior rehearsal actually predates his employment of systematic desensitization, which was specifically developed to handle those situations not amenable to behavior rehearsal (Wolpe, 1969). In an important early article, Wolpe (1954, p. 205) discusses his hypothesized curative mechanism in assertive training and in all psychotherapeutic change.

> When fundamental psychotherapeutic effects are obtained in neuroses--no matter by what therapist--these effects are nearly always really a consequence of the occurrence of reciprocal inhibition of neurotic anxiety responses, i.e., the complete or partial suppression of the anxiety responses as a consequence of the simultaneous evocation of other responses physiologically antagonistic to anxiety.

Lazarus (1963, p. 70) makes a more formal statement. "If a response inhibitory to anxiety can be made to occur in the presence of anxiety-evoking stimuli so that it is accompanied by a complete or partial suppression of the anxiety response, the bond between these stimuli and the anxiety response will be weakened."

Reciprocal inhibition, in Wolpe's model, is considered to be the primary principle of assertive training. Since anxiety is postulated to inhibit the expression of appropriate feelings and the performance of adaptive acts, each time assertive responses are made, they reciprocally inhibit anxiety and weaken the anxiety response habit (Wolpe and Lazarus, 1966). Although assertive training and systematic desensitization are proposed as separate techniques to inhibit anxiety, Wolpe (1970) has recently stated that systematic desensitization is often an indispensible ingredient in an assertive training program. Conversely, Cautela (1966) maintains that assertive training is a necessary adjunct to desensitization in the treatment of free-floating or, more precisely, pervasive anxiety.

The Operant Model. From Wolpe's early writings to his 1969 publication, and clearly in the work of Arnold Lazarus, there is a trend toward using operant strategies in implementing the goals of behavior therapy. The use of operant techniques such as social reinforcement and material reward and punishment is certainly a part of assertive training. Since external rewards and punishments are involved, operant theory can assume some of the explanatory burden formerly assumed by the principles of the conditioned reflex or reciprocal inhibition. In this paradigm, one would look to discover whether the nonassertive individual has experienced a series of punishments for attempts to exhibit assertive behavior.

The Application of Assertive Training

Despite its rather prevalent practice (Bandura, 1965; Ullmann and Krasner, 1965), assertive training appears to be one of the least systematically studied behavior therapy approaches (Lazarus, 1966). To date, there are less than a half-dozen controlled experimental studies in the literature. In the first large scale study employing behavior rehearsal in assertive training, Lazarus (1966) reported improvement in 23 of 25 patients receiving these procedures, in contrast to 11 of 25 receiving advice and 8 of 25 receiving "reflection-interpretation", with all subjects receiving a maximum of four thirty-minute sessions. Improvement was

assessed by the patient's verbal report that he had engaged in the behavior which he had previously been unable to perform.

Sanders (1968) divided assertive training into components. The first he called "imaginal desensitization" in which the person imagines himself in specific situations which call for assertive behavior. The second was called "behavior rehearsal" in which the client rehearses the behaviors that he will enact. The study measured how effectively these components reduced public speaking anxiety. Assessment was made by clients and raters who estimated anxiety, confidence while speaking, and organization of the topic. Clients were divided into four groups: (1) an imaginal desensitization group in which clients imagined themselves in front of raters and described the situation aloud; (2) a behavior rehearsal group in which talks were prepared and presented; (3) a group which incorporated both imaginal desensitization and behavior rehearsal; and (4) a no-treatment control group. Sanders found that all treatment groups showed lowered self-report anxiety from pre- to post-therapy measures, but differences were noted by raters only for the rehearsal and the imaginal plus rehearsal groups.

McFall and Marston (1970) examined the relative contributions of behavior rehearsal and subject feedback in assertive training. They developed a standardized, semi-automated, behavior rehearsal treatment procedure and

compared two variations of this procedure, one with performance feedback and one without, with a placebo therapy condition in which the antecedents and consequences of the subject's nonassertive responses were explored, and a no-treatment condition. The two behavior rehearsal groups were presented with tape-recorded stimulus situations selected to represent common interpersonal encounters requiring assertive responses. The subjects practiced making overt assertive responses to these stimuli; their responses were tape-recorded, and for the rehearsal plus feedback group, played back to them. On behavioral, self-report, and *in vivo* measures the behavior rehearsal and rehearsal plus feedback groups showed significantly greater improvements in assertive performance than did the control groups. There was a non-significant tendency for behavior rehearsal coupled with performance feedback to show the greatest treatment effects. These treatment effects were maintained through a follow-up two weeks after the post-treatment assessment.

In a study elaborating upon McFall and Marston (1970), McFall and Lillesand (1971) administered nonassertive subjects two sessions of training in refusing unreasonable requests. The training consisted of the same standardized, semiautomated, laboratory analog used in the previous study. Treatment subjects received either overt or covert practice plus symbolic verbal modeling and therapist coaching. Overt subjects were instructed to rehearse

aloud, whereas covert subjects were told only to imagine responding; and overt subjects heard a recorded replay of their practice response, while covert subjects spent an equivalent period of time merely reflecting on their response. A third group was an assessment-placebo group who were led to believe that the assessment procedures were a form of behavioral training.

Results showed that overt and covert behavior rehearsal subjects improved significantly over the control group in their assertive-refusal behavior on self-report and behavioral laboratory measures. Covert rehearsal tended to produce the greatest improvement; however, none of the treatment effects, overt or covert, were maintained through a follow-up three to five days after the second session.

Lawrence (1969), in a well-controlled experiment, provided one group of subjects with behavior rehearsal which included modeling and reinforcement for appropriate behavior along with instructions to practice assertive behavior. Subjects in a second, "logical-directive" group were informed of the advantages of assertive behavior and the disadvantages of behaving nonassertively. The third group was an attention-control group, in which subjects could discuss whatever they wanted, and the fourth a no-contact control group which only took the pre- and post-measures. The principle subject response measure was the extent to which the subject would spontaneously disagree with statements from

others indicating attitudes clearly conflicting with his own. Although all groups showed some improvement relative to the no-contact controls, only the behavior rehearsal subjects maintained this improvement in a test of generalization conducted two weeks after the completion of the treatment. Treatment in no case exceeded two half-hour sessions.

Rimm et al. (1971) state that in using the term "assertive training," there is a clear and unfortunate implication that only problems relating to timidity can benefit from such procedures. Consequently, they applied group assertive training procedures to hospitalized mental patients with histories of anti-social, aggressive behavior. Such individuals were considered inappropriately aggressive in part because they were lacking in socially appropriate, assertive behavior. Assertive training, presented for a total of six hours, included a series of five exercises graduated in difficulty, beginning with personal introductions and terminating in behavior rehearsal. In contrast to an attention-placebo control group, subjects receiving assertive training showed significant increments in assertiveness on two of three laboratory measures. In vivo observations indicated a definite increase in assertive behavior and a commensurate decrease in anti-social aggression following assertive training.

The Relationship Between Behavior and Cognitive Variables

Behavior therapy research has generally demonstrated that behavior can be changed; however, generalization from the modified behavior to aspects of the client's cognitive structure has received little research attention. Traditional therapists have attacked behavioral programs for their failure to assess whether cognitive and attitudinal changes co-vary with changes in behavior (Rogers and Dymond, 1954). They contend that changing an individual's behavior is pointless if that person still feels unhappy, worthless, and upset.

In recent years, however, the behavioral therapists have become increasingly concerned with changes in self-attitudes and feelings which may accompany behavior changes. Several experiments have provided empirical evidence of affective and cognitive changes accompanying changes in behavior. Bandura, Blanchard, and Ritter (1969), for example, found that elimination of phobic behavior was accompanied by favorable changes in attitudes toward reptiles.

Behaviorally oriented theorists maintain that one's self-conceptions and attitudes may be changed more effectively by behavioral strategies. Festinger and his coworkers (Festinger, 1957; Brehm and Cohen, 1962) view attitude change as a process brought about by a change in a person's

overt actions. Festinger claims that a change in attitude often occurs because the changes in behavior do not fit the person's prior cognitions. Since this dissonance is a noxious state, in the Festinger model, the individual automatically tries to reduce the incongruence by bringing his attitudes into line with his behavior.

Bem (1967a, 1967b) takes issue with Festinger's assumption that cognitive dissonance, the state which results from a discrepancy between an individual's attitudes and his behavior, is a noxious state which serves as a drive toward cognitive and behavioral consistency. In his self-perception model, Bem theorizes that just as an individual infers another's attitudes from his overt behavior, so he infers his own attitudes by observing his own behavior. Thus Bem views attitude change as a process brought about by the person's self-perceptions and not, like Festinger and his collaborators, as a drive resulting from incongruence (between his behavior and cognitions) which is noxious and demands a realignment of cognitions and behavior.

The Relationship Among Assertiveness, Self-Acceptance, and Anxiety

The Self-Acceptance Variable. Self-acceptance has figured prominently in a number of personality theories (Horney, 1937; Fromm, 1941; Snygg and Combs, 1949; Rogers, 1951, 1958, 1961). In fact, Rogers (1961) conceives of his system of psychotherapy as a means of establishing feelings

of self-worth and self-acceptance. He relies on Sheerer's (1949, pp. 188-189) definition: "Acceptance of self...means that the client tends to perceive himself as a person of worth, worthy of respect rather than condemnation."

Rogers and other traditional theorists argue that therapy is not successful unless after therapy the client perceives himself in a more favorable way. Some of the changes thought to accompany successful therapy are: (a) an increasing number of positively toned self-reference and self-regarding attitudes; (b) a decreasing number of negative self statements; (c) the client's perception of himself as worthy, independent, more adequate, and able to cope with life's problems; and (d) his becoming more self-accepting. Rogers also maintains that along with the changes in self structure, psychotherapy leads to changes in behavior since the individual's behavior is thought to be consistent with the self-concept.

Assertive Behavior and Self-Acceptance. Alberti and Emmons (1970) suggest that a relationship exists between assertiveness and self-acceptance. They theorize that the assertive individual is more likely to achieve his desired goals since he is more expressive and able to make choices for himself; and, consequently, he feels good about himself. The nonassertive person is more inhibited and less able to make choices for himself; and so he does not often achieve his goals and hence does not have good feelings about himself.

Sears (1967) reviewed studies relating non-assertiveness, social anxiety, and conforming behavior. He found that persuadable individuals were described as having low self-esteem, feelings of inadequacy, social inhibitions, and social anxiety. To date, there is no other empirical literature examining the hypothesis of a relationship between assertiveness and self-acceptance. The present study attempts to assess the correlation between measures of assertiveness and measures of self-acceptance to discover whether subjects low in assertiveness are also low in self-acceptance, and those high in assertiveness are also high in self-acceptance. The present research also attempts to respond to the mandate of Rogers (1961) and follow the lead of Bandura, Blanchard and Ritter (1969) by testing whether group assertive training, an intervention aimed at increasing a patient's repertoire of assertive responses, results in systematic changes in self-acceptance. The study does not deal with the problem of time sequence, whether the behavior change is produced by a change in the self-concept, as the Rogerian school suggests, or the attitudinal changes follow behavior change. In a review of the attitude change literature Rosenthal (1972) concludes that this temporal question is almost impossible to answer at the present time because of the complexity of human behavior.

It was hypothesized in the present study that there will be a significant positive correlation between measures

of assertiveness and self-acceptance, and further that, after assertive training, subjects will exhibit a significant increase on self-acceptance measures.

Assertive Behavior and Anxiety. As was discussed above, Wolpe views an assertive response as incompatible with and an adequate inhibitor of anxiety. If this is so, then assertive training should effectively reduce the anxiety which results from the inability to be assertive in social situations. The present study also looks at the relationship between assertiveness and self-reported anxiety and at the effects of group assertive training upon self-reported anxiety. It was hypothesized that there will be a significant negative correlation between measures of assertiveness and anxiety and that, after assertive training, subjects will exhibit a significant decrease on anxiety measures.

METHOD

In order to test the hypotheses formulated, it was necessary to conduct two studies. The first study aimed at gathering norms for low assertiveness on the primary assertive inventory to be used and to assess the relationship among assertiveness, self-acceptance, and anxiety, proposed by Alberti and Emmons (1970) and Wolpe (1969) as measured by self-report questionnaires. The second study attempts to measure the effectiveness of group assertive training not only on assertive behavior but also on the cognitive and affective variables of self-acceptance and anxiety.

Study One

Subjects

One hundred patients, 50 males and 50 females, at the Southern Arizona Mental Health Center, an outpatient, psychiatric facility in Tucson, Arizona, were used in the first study. Some of the patients were new admissions to the Clinic while others were on-going patients in the outpatient division. The mean age of the males was 27.5 years and of the females 31.3 years.

Procedure

Subjects were asked to take two tests, one labeled the Interpersonal Behavior Test and the other an Attitude Scale. The Interpersonal Behavior Test (IBT) consisted of the items developed by Lawrence (1969). The test is designed to measure assertiveness and consists of 79 situations which call for an assertive response. The subject is asked to imagine himself present in each situation as vividly as possible and then select one response (out of four choices) which best approximates how he would respond in that situation. Only one response is considered to be assertive; the other three are thought to be either nonassertive or overly aggressive. There are both male and female forms of the test.

The Attitude Scale was made up of two other measures, the Self-Acceptance Scale of the California Psychological Inventory (Gough, 1957) and the Taylor Manifest Anxiety Scale (Taylor, 1953). Subjects were not told what the Attitude Scale purported to measure nor that the IBT was a measure of assertiveness. They were simply asked to take the tests as part of the assessment needed by their therapists. It was hypothesized that there would be a strong positive correlation between measures of assertiveness and self-acceptance and a strong negative relationship between measures of assertiveness and anxiety.

Study Two

Subjects

Twenty-four subjects were selected from the Southern Arizona Mental Health Center and randomly assigned either to the control or to the experimental groups to be described later. Subjects were chosen on the basis of two criteria. One criterion was the subject's score on the Interpersonal Behavior Test being in the bottom one-third of the distribution obtained in Study One. The second criterion was the referring therapist's decision that the patient would not be in need of nor receive any form of therapy other than what he received in the present study.

Twelve subjects, 5 males and 7 females, with the mean age of 28.8 years comprised the control group. The experimental group also contained 12 subjects, 7 males and 5 females, with the mean age of 28.3 years.

Procedure

Subjects in both groups were told that they had been referred for eight 1 to 1½ hour sessions of group therapy. It was explained to them that the group was on-going but that each member came for only 8 sessions. They were also instructed to take a series of psychological tests before the first session and again after completion of the agreed 8 sessions. Both groups began with 7 members, and members

were added until 12 subjects per group had each completed their 8 sessions.

Assessment Devices. The primary assertive measure was the Interpersonal Behavior Test (Lawrence, 1969), described earlier. The 30-item Assertive Inventory developed by Wolpe and Lazarus (1966) was also administered. Finally, to measure changes in assertiveness, a modified form of an adjective rating scale dealing with appropriate assertiveness, developed by Lawrence (1969), was completed by the therapist referring the patient to the groups. The Adjective Rating Scale is reproduced in Appendix A. Therapists were unaware of the group to which the subjects they referred were assigned.

Two scales were used to measure subjects' changes in self-acceptance, the Self-Acceptance (SA) Scale of the California Psychological Inventory (CPI) and the Breger Self-Acceptance (SA) Scale (Breger, 1952). The anxiety measures were the Taylor Manifest Anxiety Scale (TMAS), the Welsh Anxiety Factor (Welsh, 1956), and the Welsh Anxiety Index (Welsh, 1952), which are all scored from the Minnesota Multiphasic Personality Inventory.

Treatments

Relationship-Control Therapy Group. Subjects in this group were informed of the advantages of being assertive, standing up for one's rights, and talking openly to

others when what they do either pleases or disturbs them. The situational determinants of each subject's nonassertive behavior were explored, distinguishing when he could and could not perform satisfactorily and specifying the critical factors of his behavior. Many sessions were devoted to advice both from the therapist and from fellow group members on how to behave more effectively and solve some of the problems. Successful attempts to behave assertively between sessions were discussed and reinforced. Failures were analyzed and interpreted.

Essentially, this therapy condition was considered a relationship control in the experiment; however, subjects were given a "common sense" psychological rationale for their inappropriate behavior, were taught the discriminative cues for such behavior, and were strongly encouraged to begin behaving assertively. These treatment components are not uncommonly considered sufficient and effective for assertive training (Ellis, 1962). Alternatively, the body of research already discussed (Lazarus, 1966; Sanders, 1968; Lawrence, 1969; McFall and Marston, 1970) suggest that the effective component in assertive training is behavior rehearsal; and so behavior rehearsal was not done in the control group.

Assertive Training Group. During each subject's first session of assertive training, the treatment rationale and expectations were given. The treatment rationale

explained that the best way for a person to become more assertive is for him to learn what constitutes an assertive response, and to practice making such responses under non-threatening circumstances such as the clinical setting. The primary practice method used was behavior rehearsal.

Subjects were asked to provide realistic situations in which they lack appropriate assertiveness. Ordinarily, situations are ordered in a graduated hierarchy so that easier exercises can be presented first (Wolpe, 1958, 1969). Subjects in this group, however, preferred to start with situations higher on the hierarchy primarily because these situations bore more relevance for them. Consequently, interaction problems with spouses, parents-in-law, employers and employees, and girl friends were dealt with early in the training.

When a member provided the group with a specific problem area, the group, under the leadership of the therapist, decided upon the behaviors appropriate to the situation. Once the appropriate response had been decided upon, the member was asked to rehearse the behavior with other members assuming complementary roles. If his response was considered adequate, the group responded with warm praise. If the performance lacked appropriate assertiveness, the therapist or other members pointed out its strong points but also indicated where it was lacking. At this point, another member or the therapist modeled it appropriately and

received praise from the group. The target member was then asked to rehearse the response again, and any improvement received praise.

McFall and Marston (1970) describe escalation as an essential part of behavior rehearsal. "Escalation" refers to the situation in which the minimal assertive response has been ineffective and a more powerful response is called for. At each stage of escalation the group decided on the appropriate assertive response.

Two other areas, small talk and breaking in, were focused on quite frequently because members reported a need for them. "Small talk" may be defined as the exchange of comments pertaining to topics that are relatively free of intense affect. Small talk is an essential time filler in many social situations. Additionally, small talk is almost always a necessary precursor to more intense and satisfying interpersonal interactions.

The exercise began with one member naming two other members and providing them with a small talk topic. The selected members then engaged in small talk until the individual who selected them allows them to stop (usually four or five minutes). Reinforcement by the group members was provided for good eye contact, smiling, and verbal spontaneity.

"Breaking in" is a variant of small talk. If an individual is to engage in a conversation, he must

frequently break into an ongoing verbal interaction. In this exercise several members engaged in small talk and another member, after a minute or two, was required to enter the conversation. Often times it was necessary for someone to model a more effective breaking-in technique to the target subject.

Therapist. The therapist in both the relationship-control therapy group and the assertive training group was the present author, who at the time of this study was an advanced clinical psychology student. On occasion the groups were visited by his supervisor; however, the supervisor participated minimally.

RESULTS

Since the two studies differed significantly in terms of the statistical analyses employed, it is necessary to report each study separately.

Study One

Pearson product-moment correlations (Hays, 1963) were computed between assertiveness and self-acceptance and assertiveness and anxiety for males and females separately. The correlation between the Interpersonal Behavior Test and the SA Scale of the CPI for males was .49 (t = 3.86; df = 48; $p < .001$). The coefficient of determination, obtained by squaring the correlation coefficient (Hays, 1963) was .24, meaning that 24% of the variance was accounted for by the two variables. The correlation between the IBT and the Taylor Manifest Anxiety Scale (TMAS) for males was -.04 (t = -.25; df = 48; $p < .4$). The coefficient of determination suggests that almost none of the variance was accounted for by these two variables.

The correlation between the IBT and the SA Scale of the CPI for females was .51 (t = 4.75; df = 48; $p < .001$). The coefficient of determination was .26, meaning that 26% of the variance was accounted for by the two variables.

The correlation between the IBT and the TMAS for females was -.88 (t = 12.59; df = 48; $p < .001$). The coefficient of determination was .77, meaning that 77% of the variance was accounted for by these two variables.

Study Two

Study Two was an outcome study measuring the effectiveness of group assertive training in comparison to a relationship-control therapy group in increasing variables such as assertiveness and self-acceptance and decreasing variables like anxiety and general level of distress.

Assertive Measures

Two measures of assertiveness were used, the Interpersonal Behavior Test (Lawrence, 1969) and the Wolpe-Lazarus (W-L) Assertive Inventory (Wolpe and Lazarus, 1966). Results for the IBT are reported graphically in Figure 1. The means and standard deviations are reported in Table 1. A mixed analysis of variance (Meyers, 1966) revealed a significant treatment effect (F = 13.72; df = 1, 22; $p < .01$). A summary table of this analysis is presented in Table 2. Estimated omegas squared (Hays, 1963) were computed for the treatment effect, the repeated measurement variable, and the interaction, and are also reported in Table 2.

Since a significant treatment effect was obtained, Neuman-Keul's post-hoc analyses (Meyers, 1966) were performed on the treatment means. Analyses showed no significant

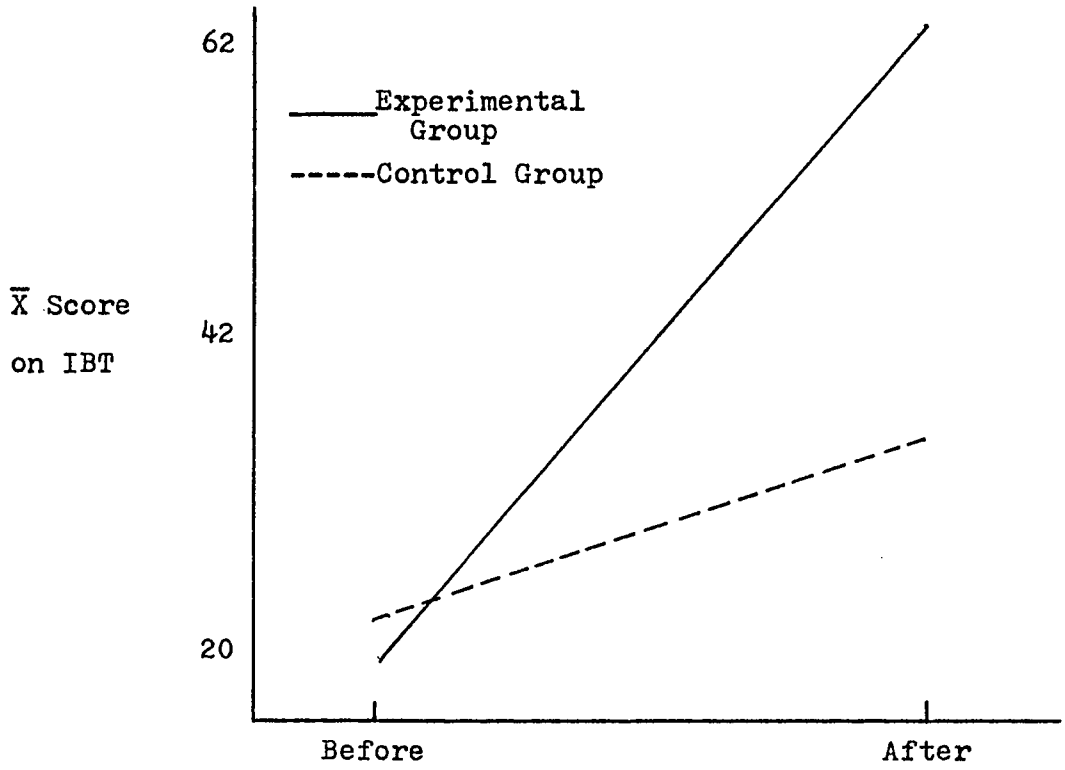

Figure 1. Mean Score on the IBT before and after Therapeutic Intervention.

Table 1. Means and Standard Deviations for Self-Report Outcome Measures

	Before Treatment				After Treatment			
	Control Group		Experimental Group		Control Group		Experimental Group	
Scale	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
IBT	21.67	9.02	20.17	7.56	30.58	15.70	61.42	12.64
W-L	8.67	3.83	10.92	5.85	13.08	6.67	21.42	3.07
SA of CPI	17.42	2.30	15.42	3.74	20.50	5.59	20.21	2.70
Breger SA	83.17	23.43	96.92	26.92	89.67	24.80	138.00	25.65
TMAS	35.17	8.22	29.08	8.79	30.67	7.89	19.92	7.55
Anxiety Factor	18.67	4.66	17.25	5.13	18.75	4.73	11.25	4.23
Anxiety Index	43.75	9.32	44.75	12.20	44.17	13.47	31.17	7.67

Table 2. ANOVA Summary Table for IBT

Source	df	SS	MS	F-ratio	p	Omega Squared
Treatment	1	2581.33	2581.33	13.72	$<.01$	.12
Error	22	4140.59	188.21			
Test-Retest	1	7550.08	7550.08	69.11	$<.01$	.37
Interaction	1	3136.34	3136.34	28.71	$<.01$	.15
Error	22	2403.58	109.25			
Total	47	19811.92				

test-score difference between experimental and control groups prior to the therapeutic interventions as well as no significant increase in score for the control group after treatment. Analysis did, however, reveal a significant increase in IBT scores in the experimental group after assertive training.

Results from the Wolpe-Lazarus Inventory were essentially the same as the IBT. They are presented graphically in Figure 2. The means and standard deviations are reported in Table 1. A mixed analysis of variance revealed a significant treatment effect ($F = 10.01$; $df = 1, 22$; $p < .01$). A summary table of this analysis is presented in Table 3.

Neuman-Keul's post-hoc analyses showed no significant test-score difference between experimental and control groups prior to the therapeutic interventions as well as no significant increase in score for the control group after treatment. A significant increase in the Wolpe-Lazarus Test scores in the experimental group after assertive training did occur, however.

Adjective Rating Scale. A one-tailed t test was performed for each adjective on the mean change difference (the mean pretest score minus the mean posttest score). The mean change scores for those adjectives for which there were significant change scores are presented in Table 4.

The most relevant adjective to this research included in the Rating Scale was "assertive." Subjects in both the

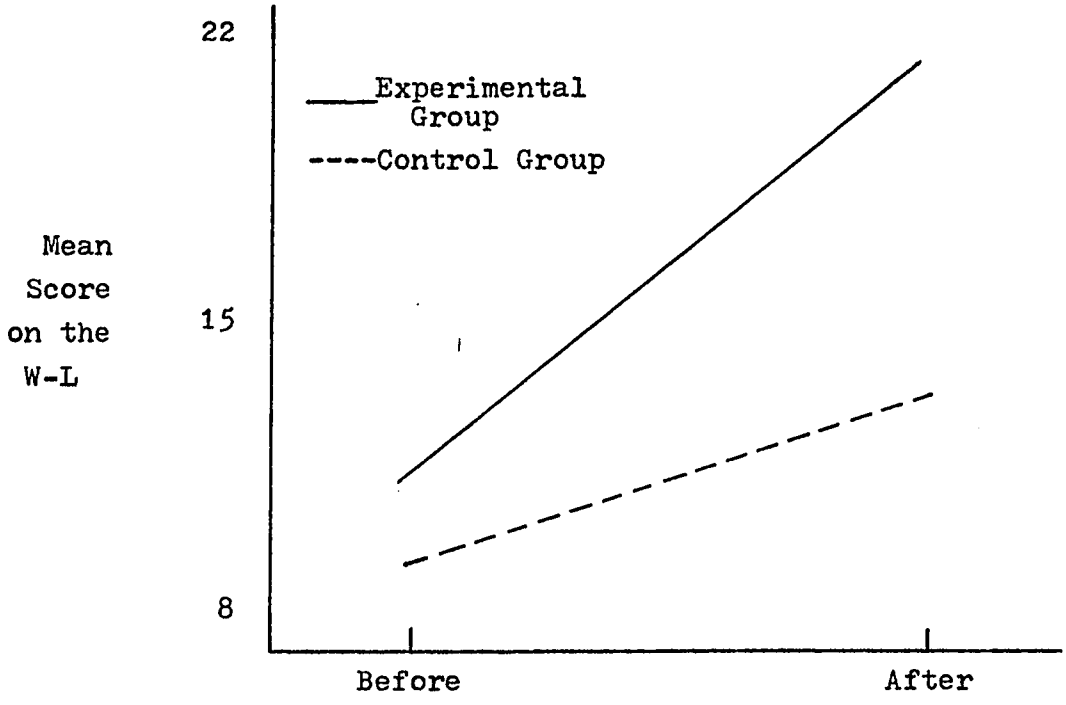

Figure 2. Mean Score on the Wolpe-Lazarus Test before and after Therapeutic Intervention.

Table 3. ANOVA Summary Table for the Wolpe-Lazarus Inventory

Source	df	SS	MS	F-ratio	p	Omega Squared
Treatment	1	336.02	336.02	10.01	$<.01$	.13
Error	22	738.46	33.57			
Test-Retest	1	667.52	667.52	29.55	$<.01$	.27
Interaction	1	111.02	111.02	4.91	$<.05$	.04
Error	22	496.96	22.59			
Total	47	2349.98				

Table 4. Mean Change Scores on Adjective Rating Scale*

Adjective	Control Group $\bar{X}$ Change Difference	Control Group t	Control Group p	Experimental Group $\bar{X}$ Change Difference	Experimental Group t	Experimental Group p
Assertive	-0.59	-2.08	<.025	-2.50	-8.92	<.001
Aggressive	-0.50	-1.08		-1.25	-3.80	<.001
Inhibited	-0.08	-0.96		1.50	3.81	<.001
Anxious	0.08	0.18		1.00	4.09	<.001
Spontaneous	-0.08	-0.20		-1.50	-4.56	<.001
Calm	0.09	0.22		-0.92	-2.65	<.01
Collected	-0.08	-0.21		-1.00	-2.93	<.005
Emphatic	-0.55	-1.08		-1.16	-2.83	<.005
Happy	-0.92	-2.94	<.005	-1.75	-6.17	<.001
Angry	-0.33	-0.83		1.00	2.98	<.005
Outgoing	-0.50	-1.39		-1.00	-2.89	<.005
Tense	0.34	0.74		1.59	1.91	<.05
Argumentative	-1.08	-2.63	<.01	-0.41	-0.79	
Confrontational	-0.58	-1.24		-0.83	-1.76	<.05
Open	-0.67	-1.76	<.05	-0.75	-1.62	
Relaxed	-0.66	-1.91	<.05	-1.50	-4.32	<.001

*Negative change scores indicate an increase in rating on the adjective; positive change scores indicate a decrease.

control and experimental groups were rated significantly more assertive by referring therapists after treatment. However, a one-tailed *t* test done on the posttest means on this adjective for both groups showed the experimental group to be rated significantly more assertive than the control ($t = 5.26$; $df = 22$; $p < .001$).

The analysis reported in Table 4 also showed both groups to be rated significantly happier and more relaxed after treatment. Once again, however, *t* tests showed the experimental group to be rated significantly happier and more relaxed ($t = 2.94$; $df = 22$; $p < .005$; and $t = 2.17$; $df = 22$; $p < .025$, respectively).

Self-Acceptance Measures

Two measures of self-acceptance were used, the SA Scale of the CPI (Gough, 1957) and the Breger SA Scale (Breger, 1952). An analysis of variance revealed no significant change on the SA Scale of the CPI.

Results for the Breger SA Scale are presented graphically in Figure 3. The means and standard deviations are reported in Table 1. A mixed analysis of variance revealed a significant treatment effect ($F = 14.35$; $df = 1, 22$; $p < .01$). A summary table of this analysis is presented in Table 5.

Neuman-Keul's post-hoc analyses showed no significant test-score difference between experimental and control

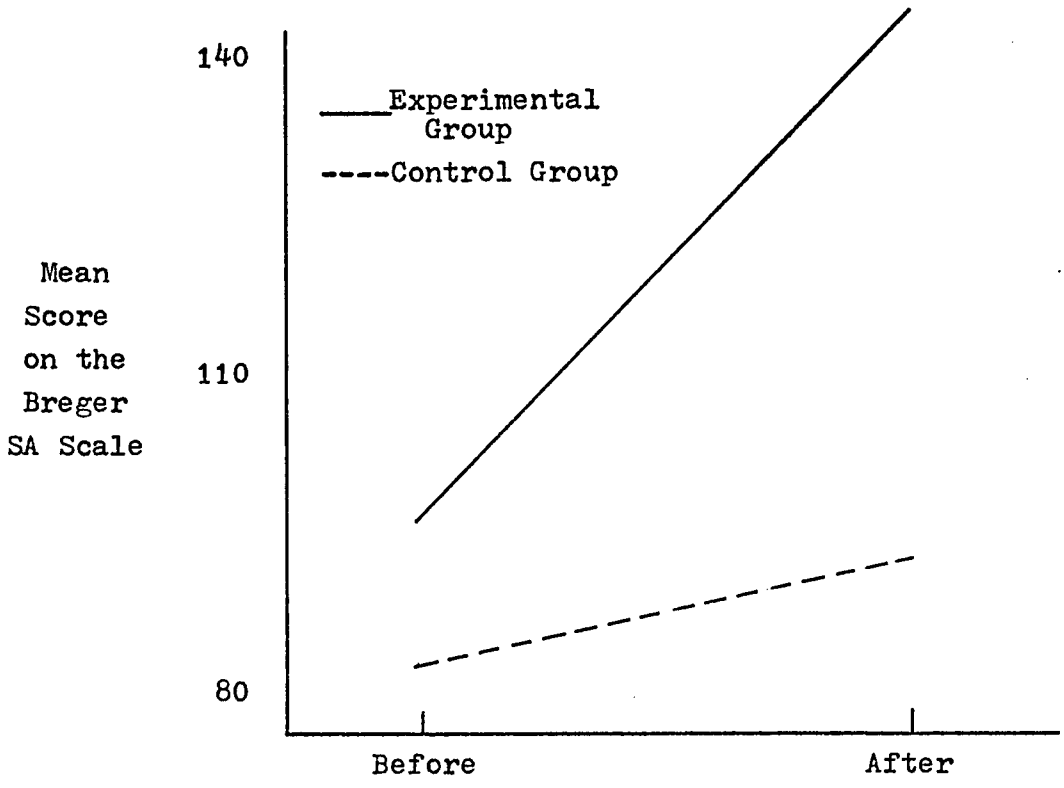

Figure 3. Mean Score on the Breger SA Scale before and after Therapeutic Intervention.

Table 5. ANOVA Summary Table for Breger SA Scale

Source	df	SS	MS	F-ratio	p	Omega Squared
Treatment	1	11,563.02	11,563.02	14.35	$<.01$	.20
Error	22	17,728.29	805.83			
Test-Retest	1	6,792.52	6,792.52	11.63	$<.01$	.12
Interaction	1	3,588.02	3,588.02	6.14	$<.025$	.06
Error	22	12,848.96	584.04			
Total	47	52,520.81				

group after treatment. Analysis did, however, reveal a significant increase in Breger SA scores in the experimental group after assertive training.

Anxiety Measures

Three measures of anxiety were used, the Anxiety Index (Welsh, 1952), the Taylor Manifest Anxiety Scale (Taylor, 1953), and the Welsh Anxiety Factor (Welsh, 1956). A mixed analysis of variance rendered the data from the Anxiety Index nonsignificant.

Results for the TMAS are presented graphically in Figure 4. The means and standard deviations are presented in Table 1. A mixed analysis of variance revealed a significant treatment effect ($F = 7.76$; $df = 1, 22$; $p < .025$). A summary table of this analysis is presented in Table 6.

Neuman-Keul's post-hoc analyses showed no significant test-score difference between the experimental and control groups prior to therapeutic interventions as well as no significant decrease in score for the control group after treatment. Analysis did, however, reveal a significant decrease in TMAS scores in the experimental group after assertive training.

The results of the mixed analysis of variance and post-hoc analyses were essentially the same for the Welsh Anxiety Factor as for the TMAS, except that there was no

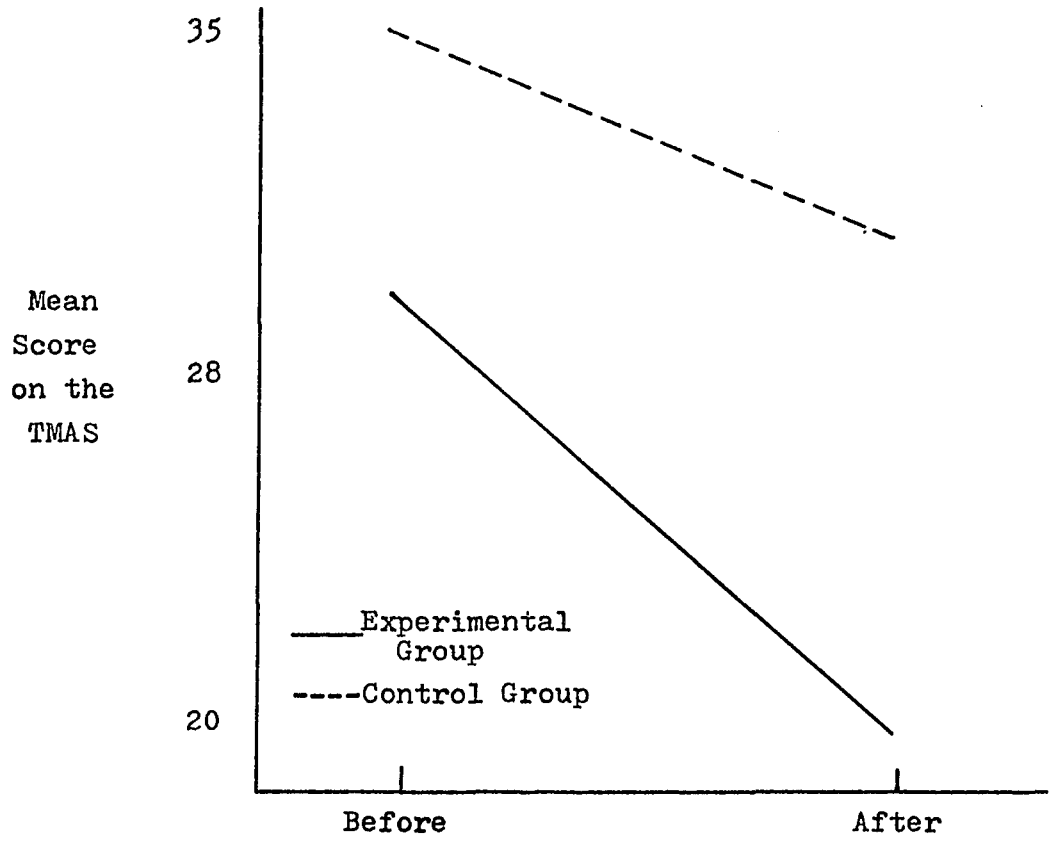

Figure 4. Mean Score on the Taylor Manifest Anxiety Scale before and after Therapeutic Intervention.

Table 6. ANOVA Summary Table for TMAS

Source	df	SS	MS	F-ratio	p	Omega Squared
Treatment	1	850.08	850.08	7.76	$<.025$	.16
Error	22	2350.84	106.86			
Test-Retest	1	560.33	560.33	14.97	$<.01$	.11
Interaction	1	65.34	65.34	1.75	NS	.01
Error	22	823.33	37.42			
Total	47	4649.92				

significant decrease in the anxiety score in either group as a result of the therapeutic interventions.

Welsh Anxiety Factor results are presented graphically in Figure 5, as well as the means and standard deviations in Table 1 and the ANOVA summary table in Table 7.

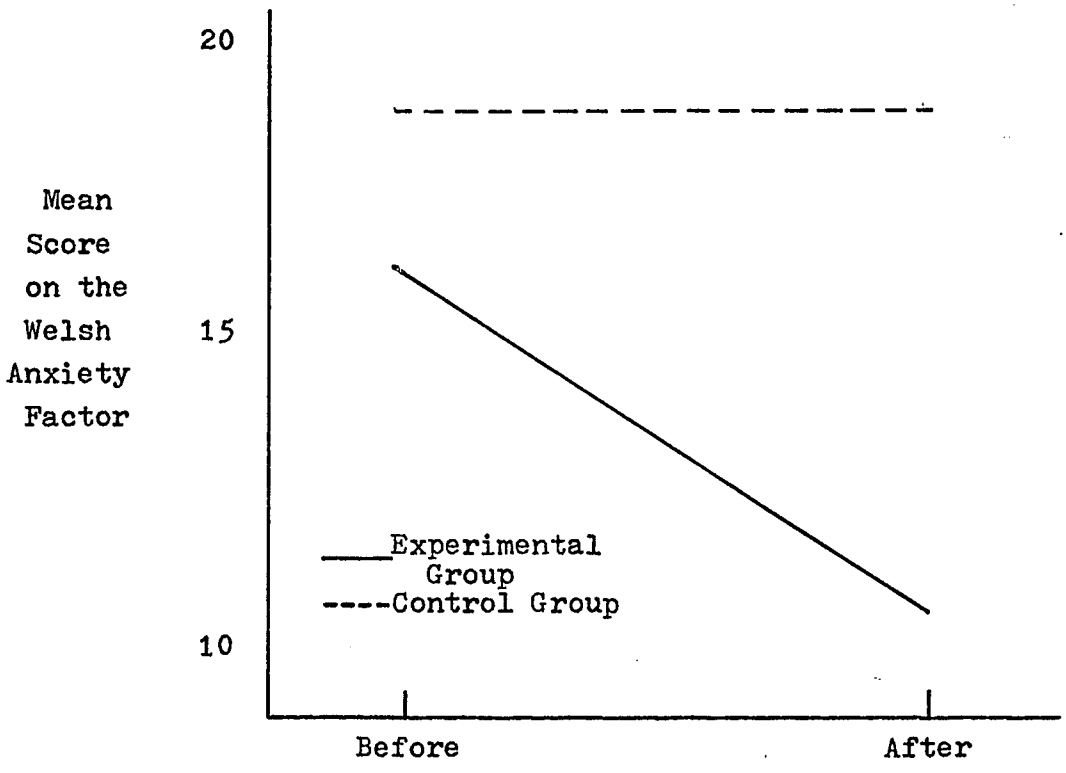

Figure 5. Mean Score on the Welsh Anxiety Factor before and after Therapeutic Intervention.

Table 7. ANOVA Summary Table for Welsh Anxiety Factor

Source	df	SS	MS	F-ratio	p	Omega Squared
Treatment	1	320.33	320.33	8.70	$<.01$	.18
Error	22	809.92	36.82			
Test-Retest	1	60.75	60.75	5.32	$<.05$	.03
Interaction	1	65.34	65.34	5.73	$<.05$	.04
Error	22	250.91	11.41			
Total	47	1507.25				

DISCUSSION

Since the results of the two studies were reported separately, these results will also be discussed and interpreted separately.

Study One

Pearson product-moment correlations indicate that the relationship between the Interpersonal Behavior Test and the Self-Acceptance Scale of the CPI for the present sample was approximately .50, which also means that about 25% of the variance was accounted for by these measures.

Considering the number of variables which could affect assertiveness and self-acceptance other than these two, especially in a psychiatric population, 25% of the variance might be considered impressive. Of course, these results have to be interpreted with caution since they are based solely on self-report measures. The IBT, especially, relies both on the honesty of the subject and on his ability to predict how he will respond in a hypothetical situation. However, there does appear to be a significant positive relationship between the IBT, an assertive measure, and the SA Scale of the CPI, a self-acceptance measure, as the literature suggests (Alberti and Emmons, 1970).

Pearson product-moment correlations indicate that the relationship between the IBT and the Taylor Manifest Anxiety Scale for women in the present sample was -.88, which also means that about 77% of the variance was accounted for by these measures. There was almost no relationship between the IBT and the TMAS for the males in the sample.

The strength of the negative relationship between the IBT and the TMAS for women is quite impressive and follows closely the prediction made by Alberti and Emmons (1970). It is further significant because psychiatric populations experience anxiety for a variety of reasons other than inability to be appropriately assertive. Like the conclusions reached regarding assertiveness and self-acceptance, however, caution must be exercised when interpreting the relationship between assertiveness and anxiety because of the sole use of self-report measures.

It is difficult to explain the lack of relationship between the IBT and the TMAS for the male patients. One would intuitively expect that an inability to be assertive would induce more anxiety in men than in women because of societal expectations that men be the assertive and aggressive members of the species. It may be that in the present male sample anxiety was associated with a variety of problems some of which were assertive problems and some not. However, this is a post-hoc explanation and fails to offer

a satisfactory rationale for the differences between males and females.

Study Two

Assertive Measures

Both self-report assertive measures, the IBT and the Wolpe-Lazarus Assertive Inventory, showed significant score increases in the assertive direction in the experimental group after assertive training but not in the control group. These results support earlier research (Lazarus, 1966; Sanders, 1968; McFall and Marston, 1970; McFall and Lillesand, 1971) that suggests that the effective component of assertive training is behavior rehearsal. However, it is possible that the effective component is not behavior rehearsal alone but rather the interaction between behavior rehearsal and the relationship context in which it was used. The assertive training was performed in the context of a relationship between therapist and patient and between patient and patient, and the present experimental design is unable to tease out the effects of such an interaction.

All conclusions must be made with caution. First of all, results are based solely on self-report measures. It is unknown whether the experimental subjects' future behavior would match their response on the IBT and the W-L. However, support is lent to the self-report results by the Adjective Rating Scale. Although subjects in both groups

were rated significantly more assertive after therapy, subjects in the assertive group were still rated significantly more assertive than those in the control groups. The assertive group also showed significant increased ratings on such adjectives as aggressive, spontaneous, emphatic, outgoing, and confrontational, attributes commonly thought to correlate with being assertive.

A second cause for caution in interpreting these results is the estimated omegas squared obtained for the IBT and the W-L. This statistic suggests that on the IBT more of the variance is accounted for by retaking the instrument (37%) than by the treatment intervention (12%). The omegas squared for the W-L are similar to these (refer to Tables 2 and 3).

These values probably point to a weakness in the dependent measures employed. Self-report measures are certainly not the most appropriate means of assessing increases in assertive behavior. However, when doing outcome research in a mental health clinic, choice of dependent measures are based on availability and economic considerations. Self-report measures of assertiveness are certainly the most available. But future research in the domain of assertive training would do well to develop a more direct and behaviorally relevant means of assessing one's ability to respond assertively.

In their research on assertive training, McFall and his colleagues (McFall and Marston, 1970; McFall and Lillesand, 1971) have developed two approaches to assessing assertiveness. One method is a series of taped situations which call for an assertive response. Subjects' responses are also recorded and rated according to their degree of assertiveness by independent judges. However, this technique seems to add little to the IBT other than offering the subject a free- rather than a multiple-choice situation (Scott, 1968).

The other method introduced by McFall is the use of a follow-up telephone sales call. McFall had his assistant phone subjects two weeks after assertive training and attempted to sell them magazines. The amount of resistance shown to the sales pitch was the measure of assertiveness. Such an assessment technique, however, does not seem relevant to a psychiatric population. Just because a patient can resist a telephone salesman does not mean he can confront his wife with her lack of thoughtfulness for him.

In his assertive outcome study, Lazarus (1966) used the patient's verbal report that he had engaged in the behavior which he had previously been unable to perform as the measure of improvement. In doing assertive research with a psychiatric population, the present author considers this the most potentially useful assessment approach for further study. Having patients list assertive behavior

deficits at the outset of assertive training and then some report of improvement by the patient and a collateral source, such as a spouse, might be potentially the most fruitful and relevant assessment device. Of course, further research is needed to explore the feasibility of this approach.

Self-Acceptance and Anxiety Measures

It was hypothesized that, after assertive training, subjects who increased in assertiveness (have a higher score on the assertive measures) would also become more self-accepting (have a higher score on the self-acceptance measures) and less anxious (have a reduced score on the anxiety measures). This hypothesis was supported by the results obtained from the Breger SA Scale and from the TMAS.

Subjects in the assertive group showed a significant increase on the Breger SA Scale and a significant decrease on the TMAS while controls showed change on neither. These results must again be viewed with caution. The estimated omegas squared revealed the treatment effect to account for only 20% of the variance on the Breger and 16% on the TMAS. However, decreases in score on the TMAS were supported by decreased ratings on the adjectives "anxious" and "tense" on the Adjective Rating Scale.

The present study attempted to respond to the criticism of traditional therapists (Rogers and Dymond, 1954) that behavioral programs fail to assess whether cognitive

and attitudinal changes covary with changes in behavior. Even considering the various cautions discussed, it would seem that assertive training did result in raising patients' self concept and in lowering their general levels of anxiety as well as increasing their repertoire of assertive responses. The present study does not, of course, answer the question of which came first, the behavior change or the attitude change. In the clinical setting, however, this temporal question is secondary to the more important concern that patients, as well as learning more effective ways of coping, also feel better about themselves and experience less discomfort.

Conclusion

The current study began with two hypotheses: that subjects high in assertiveness are also high in self-acceptance and low in anxiety and that a therapeutic technique which increases assertive behavior in its members would also increase their self-esteem and lower their level of anxiety. The results showed these hypotheses generally to be supported but with certain cautions regarding the heavy use of self-report inventories and the apparent weakness of some of the results. However, the present research was an attempt not only to test the two hypotheses but to test them in a clinical rather than a laboratory setting. Conducting research in this setting is not easy, but certain

lessons and directions for future research can be gained from this research.

Future Research. The problem of relying solely on self-report measures has already been discussed. A suggestion for using target behavior deficits was made with such deficits being the focus of baseline and continued verbal report by the patient to determine progress. Perhaps such behavior deficits could be ascertained in a structured, pre- and post-therapy interview. It might be decided that a certain minimum number of deficits be requisite for inclusion into the group. Such a tack would circumvent a problem encountered in the present study in which prospective group members with apparent assertive behavior deficits nonetheless scored too high on the IBT to be included in the study.

Another problem encountered in the present study was the periodic destruction of group cohesion by the admission of new members. Both experimental and control groups were conducted as ongoing groups into which subjects were admitted for 8 sessions; subjects were added and subtracted until 12 subjects per group had been treated. Since members were added after some of the original members had been together for 4 to 6 sessions, once group cohesion had been formed, these new arrivals were not made to feel as much a part of the group as the originals. One means of correcting this problem might be to keep the group membership static

by not adding new members and simly use the dropout rate as a dependent measure.

The final suggestion for modification of future research in this domain is to use a more programmed approach to assertive training. A concerted effort was made in the present research to make the assertive training unstructured so that members would have plenty of opportunity to focus on the assertive behavior deficits most relevant to their current situation. However, it was found that members learned to be more assertive in their own relevant areas in about 4 to 5 sessions and then participated minimally for the remainder of their 8 sessions. Therefore, it might be helpful besides leaving ample time to focus on each member's defined assertive behavior deficits to have programmed lessons in assertive behavior deficits that subjects might simply not be encountering at the present time, such as returning damaged items to a department store or saying "no" to a persistent salesman. Some of this was done in the present assertive group, but further use of such programmed therapy might have improved the results.

Summary. The present research did find a significant positive correlation between assertiveness and self-acceptance for both male and female patients and a significant negative correlation between assertiveness and anxiety for female patients. This research also found, in accordance with theory, that patients became more

self-accepting and less anxious as they became more assertive. It would seem, then, that assertive training not only results in behavior change but also influences important cognitive and affective variables which many behavior therapists, until recently, have preferred to ignore.

APPENDIX A

ADJECTIVE RATING SCALE

Patient's Name_____

To what extent do these terms apply to your patient during most of your contacts with him or her.

1. Not at all
2. A little
3. A moderate amount
4. Quite a lot
5. A great extent

_____ aggressive
_____ inhibited
_____ anxious
_____ spontaneous
_____ assertive
_____ apologetic
_____ withdrawn
_____ warm
_____ calm
_____ nervous
_____ submissive
_____ collected
_____ strong-willed
_____ restless
_____ defensive

_____ emphatic
_____ hesitant
_____ shy
_____ happy
_____ domineering
_____ angry
_____ out-going
_____ pacifying
_____ tense
_____ argumentative
_____ expressive
_____ confrontational
_____ open
_____ closed-off
_____ relaxed

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