USE OF ASSERTIVENESS TRAINING AND
CUE-CONTROLLED DESENSITIZATION
FOR ASSERTION PROBLEMS WITH WOMEN

A Thesis
Presented in Partial Fulfillment of the Requirements
for the Degree Master of Arts

by
Audrey Ann Glenn, B. A.
The Ohio State University
1980

Copyright © 1980
by Audrey Ann Glenn
All rights reserved.

Approved by

[Signature]
Advisor
Department of Psychology
Acknowledgements

I'm told that this is where I thank all the people who have helped me reach the day when I can finally write an "Acknowledgements" page. As many people before me have said, there are too many people to thank for supporting me and this project. I hope that those whom I do not mention here, will know that their support was, and is, what keeps me plugging away.

To Rich Russell, my advisor - Your encouragement, patience, and wisdom have been there when I needed them most.

To Susan Longborn and Barb Gorski, my group leaders - Your time, energy, friendship, and laughter kept me from giving up. I wouldn't have traded those Monday afternoons for anything.

To Nancy Betz and Clarke Carnney, my committee members - Your thoughtful and interesting comments and suggestions were much appreciated.

To Chris, Connie, Jane, Kate, and Laura - thank you for award winning performances as the roleplayers.

To Dwayne - it wouldn't have happened without your time, energy, and knowledge. Thank you for going 'beyond the call of duty'.

To Donn - for many helpful suggestions and for bearing with two years of my 'externality'. Thank you.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>v</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vi</td>
</tr>
<tr>
<td>List of Figures</td>
<td>vii</td>
</tr>
<tr>
<td><strong>Chapter</strong></td>
<td></td>
</tr>
<tr>
<td>I  Review of Related Literature</td>
<td>1</td>
</tr>
<tr>
<td>Assertive Behavior</td>
<td>7</td>
</tr>
<tr>
<td>Definitions of the Assertive Response</td>
<td>11</td>
</tr>
<tr>
<td>The Development of Cue-controlled Desensitization</td>
<td>18</td>
</tr>
<tr>
<td>Combining Cue-controlled Desensitization and Assertiveness Training</td>
<td>25</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>27</td>
</tr>
<tr>
<td>II Methodology</td>
<td>29</td>
</tr>
<tr>
<td>Purpose</td>
<td>29</td>
</tr>
<tr>
<td>Subjects</td>
<td>29</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>30</td>
</tr>
<tr>
<td>Group Leaders</td>
<td>34</td>
</tr>
<tr>
<td>Confederates for Assertive Behavior Test</td>
<td>34</td>
</tr>
<tr>
<td>Raters for Assertive Behavior Test</td>
<td>34</td>
</tr>
<tr>
<td>Procedure</td>
<td>35</td>
</tr>
<tr>
<td>Treatment Groups</td>
<td>37</td>
</tr>
<tr>
<td>III Results</td>
<td>42</td>
</tr>
<tr>
<td>Self-Report Measures: Pre- and Posttreatment</td>
<td>42</td>
</tr>
<tr>
<td>Posttreatment Only Measures</td>
<td>54</td>
</tr>
<tr>
<td>Follow-up Self-Report Measures</td>
<td>61</td>
</tr>
</tbody>
</table>
Table of Contents cont.

Chapter                                Page
V                                      66
  Discussion                             66
  Assertiveness: Self-Report and Behavioral Assessment
  State and Trait Anxiety
  Interpersonal Anxiety
  Treatment Credibility
  The Relationship between Assertiveness and Anxiety
  Limitations
  Implications for Future Research

References                               82

Appendix                                 88
  1 The Advertisement
  2 Statement to Subjects at Initial Phone Contact
  3 Self-Report Instruments
  4 Directions and Rating Forms for Assertive Behavior Test
  5 Correlation Coefficients between Dependent Measures (Table 17)
     Proportion of Variance Accounted for at Pre-, Posttreatment, and Follow-up (Table 18)
List of Tables

Table | Page
-----|-----
1 Means and Standard Deviations for Groups at Pre- and Posttest on Ratus Assertiveness Schedule (RAS), State-Trait Anxiety Inventory, Trait Form (STAI-T), Social Avoidance and Distress Scale (SAD), and Fear of Negative Evaluation Scale (FNE) | 43
2 ANOVA Summary Table for Pretreatment Scores for RAS, STAI-T, SAD, and FNE | 45
3 ANOVA Summary Table of Self-Report Measures from Pretest to Posttest | 46
4 ANOVA Summary Table of Change Scores from Pretreatment to Posttreatment | 53
5 ANOVA Summary Table of Residual Change Scores from Pretreatment to Posttreatment | 54
6 Correlation Coefficients for Characteristics of Assertive Behavior Test Across Raters | 55
7 Means and Standard Deviations of Variables of the Assertive Behavior Test | 56
8 Summary Table of Univariate ANOVA's for Characteristics of the Assertive Behavior Test | 57
9 Means and Standard Deviations on the Anxiety Differential | 58
10 ANOVA Summary Table for the Anxiety Differential | 58
11 Means and Standard Deviations on the Credibility Questionnaire | 59
12 ANOVA Summary Table for the Credibility Questionnaire | 60
List of Tables cont.

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Means and Standard Deviations at Posttest and Follow-up on RAS, STAI-T, SAD, and FNE</td>
<td>62</td>
</tr>
<tr>
<td>14</td>
<td>ANOVA Summary Table for Follow-up Scores for RAS, STAI-T, SAD, and FNE</td>
<td>63</td>
</tr>
<tr>
<td>15</td>
<td>ANOVA Summary Table for Change Scores from Posttest to Follow-up and Pretest to Follow-up</td>
<td>64</td>
</tr>
<tr>
<td>16</td>
<td>ANOVA Summary Table for Residual Change Scores from Posttest to Follow-up and Pretest to Follow-up</td>
<td>65</td>
</tr>
</tbody>
</table>
List of Figures

Figure

1  Group Means on Rathus Assertiveness Schedule at Pre-, Posttreatment, and Follow-up . . . . 49

2  Group Means on State-Trait Anxiety Inventory, Trait Form at Pre-, Posttreatment, and Follow-up . . . . . . . . . . . . . . 50

3  Group Means on Social Avoidance and Distress Scale at Pre-, Posttreatment, and Follow-up . . 51

4  Group Means on Fear of Negative Evaluation Scale at Pre-, Posttreatment, and Follow-up . . 52
Chapter 1

Introduction

"Assertiveness" as an interpersonal skill, is becoming increasingly popular among some psychologists and the general public alike. Workshops involving assertiveness training are now widespread among university campuses, community colleges, and community centers, as well as in industrial settings. Assertiveness skills may be called upon in dealing with a variety of interpersonal situations. Thus, it seems important that an area which pervades many aspects of daily life be empirically investigated and validated.

The concept of assertiveness has been defined in various ways since its initial conception. Salter (1949) described the inhibitory (unassertive) and excitatory (assertive) personalities which differ in their responses to and conditioning by the environment. Inhibition is caused by early childhood conditioning and resultant anxiety over the consequences of expressing emotions, while excitation is seen as a spontaneous expression of emotion. "Excitation is a basic law of life, and neurosis is the result of inhibition..." (p. 27). Wolfe (1958) who introduced the term "assertive", based his concept on Salter's work and
defined assertive behavior as the outward expression of practically all feelings other than anxiety. Assertiveness has also been viewed as a behavioral skill. Alberti and Emmons (1974) defined assertiveness as a skill which enables individuals to act in their own best interests, stand up for themselves without undue anxiety and to express their rights without denying the rights of others. Wolpe and Lazarus (1969) also viewed assertiveness as a skill, suggesting that skill deficits may occasionally account for non-assertive behavior.

The assumption that assertiveness is a skill suggests that it can be taught and developed through practice. Assertiveness training (AT) may therefore be viewed as a therapeutic tool. Techniques such as behavior rehearsal, modeling, successive approximation, response shaping, and reinforcement may be used to teach assertive behavior.

A second assumption in AT in a therapeutic context stems from Wolpe's (1969) recommendation of AT for the client who has unadaptive anxiety responses in interpersonal contexts. Assertive expressions tend to inhibit that anxiety. "The therapist's interventions are aimed at augmenting every impulse towards the elicitation of these inhibited responses, with the expectation, that each time they do, they will, reciprocally, be an inhibitor of the anxiety ...." (Wolpe, 1969, p. 62). Thus, as a result of AT, anxiety should be reduced and the number of assertive responses should be increased.
Studies of the inverse relationship between assertiveness and anxiety, however, provide mixed results. Orenstein, Orenstein, and Carr (1975) and Gay, Hollandsworth, and Galassi (1975) found that non-assertiveness was related to anxiety for their college adult populations respectively. However, Bandier, Russell, and Weiskott (1978) did not find decreases in anxiety with college women who received assertive training. Eisler, Miller, and Hersen (1973) found that interpersonal anxiety was not significantly related to assertiveness for their male psychiatric patients. Morgan (1978) did find a significant relationship between assertiveness and anxiety but concluded that the correlation showed little predictive importance since it accounted for less than 6% of the total variance. Rathus (1973) like Eisler et al. (1973) did not find decreases in anxiety following assertive training but did find increased assertiveness as measured by the Rathus Assertiveness Schedule. Thus, the relationship between assertiveness and anxiety is suggested by correlational studies though not by the outcome studies. In the outcome studies, an increase in assertive responses was found but not a decrease in anxiety. Perhaps the method of assertive training employed in these studies taught the client assertiveness skills but did not teach the client how to deal with anxiety.

According to Wolpe (1958) the therapist facilitating assertive training has three tasks: 1) instigating assertive behavior; 2) explaining how unadaptive fears (e.g., anxiety) are
at the root of interpersonal ineffectiveness; and 3) describing how these fears can be overcome by another, stronger emotion (eg; relaxation). Theoretically, if an antagonistic physiological state is induced, the anxiety evoking potential of the stimulus will be progressively weakened. Accordingly, Wolpe (1958) recommended systematic desensitization, plus progressive relaxation (Jacobson, 1939) for use with clients for whom AT alone was not enough.

Recent reports have discussed the applicability of a behavioral treatment technique, cue-controlled relaxation (CCR) in both the individual (Russell and Sipich, 1974) and the group setting (Russell, Miller, and June, 1974; Russell and Wise, 1976). The goal of the CCR procedure is to enable the client to achieve relaxation in response to a self-produced cue-word such as "calm" or "relax". It involves: 1) progressive muscle training, and 2) continually associating the relaxed state with the sub-vocalized cue word. While these studies have focused on the alleviation of test and speech anxiety through the CCR technique, additional evidence indicates that the procedure may also be effective in dealing with phobic reactions (Russell and Matthews, 1975). These investigators have discussed the potential advantages inherent in the CCR technique: 1) the client is provided with a more active role; 2) there is a greater generalization of treatment effects because of the "how to cope" orientation.
towards stress (Davison and Valins, 1969; Goldfried, 1973; Mahoney, 1974; Spiegler, Cooley, Marshall, Prince, Puckett, Skinazy, 1976; Zenmore, 1975); and 3) there is no need for hierarchy construction, thus no concern with presentation and timing of items or visualization of anxiety eliciting scenes.

Russell, Lent, and Sipich (1977) suggest an additional advantage, that of incorporating CCR into an SD program to increase, potentially, the efficacy of both techniques. This novel "coping" strategy is termed "cue-controlled desensitization" and has been used in the treatment of test anxiety (Lent and Russell, 1978; Russell, Lent, and Sipich, 1977). In each of the above cited studies CCR and CCD have been successful in reducing anxiety as measured by several self-report indices.

The relative efficacy of CCD and SD has also been examined (Russell, Miller, and June, 1975; Russell, Wise, and Stradoukis, 1976; Russell and Wise, 1976). These studies found CCD to be as effective as SD in the treatment of test and speech anxiety. The authors discuss the generalizability and procedural advantages of CCD.

Because of the inability of assertiveness skill training programs alone to reduce problematic anxiety, the present study will compare the relative effectiveness of cue-controlled desensitization, assertiveness skills training, an AT-CCD combined training,
and a no treatment control group. In this way, it will be possible to discern what CCD might add to assertiveness training programs.

When studying the effectiveness of assertiveness training it seems preferable to investigate sex groups separately as previous studies (Percell, Berwich, and Beigel, 1974; Tolor, Kelly, and Stebbins, 1976) have shown different characteristics in men and women related to assertiveness. Therefore, only women will be used in the present study.
Chapter II

Review of the Literature

The purpose of this chapter is to review and critique the literature which examines the area of anxiety reduction through the methods of assertive training and cue-controlled desensitization. The concept of assertive behavior will be presented from the perspectives of its theoretical base, its various operational definitions, and its behavioral components. The final section of this chapter will focus on the development of the cue-controlled desensitization strategy as it relates to anxiety reduction.

Assertive Behavior

The concept of assertiveness was initiated by Salter (1949) in his descriptions of the excitatory and inhibitory personalities. He describes the excitatory person as one who is relaxed, spontaneous, emotionally free, and direct in responding to the environment. "Above all the excitatory person is free of anxiety. S/he is truly happy" (p. 46, Salter, 1949). The inhibitory person, however, is inadequate, frustrated, and "suffers from constipation
of the emotions" (p. 47, Salter, 1949). Thus, Salter conceived of inhibitory properties as the basis for neurosis and suggested that clients "let go" and practice excitation. Because childhood conditioning and early social learning are the fundamental causes for inhibition, therapy should consist of individual re-education to the healthy spontaneity. More specifically, Salter suggests six techniques for increasing excitation: feeling talk, the deliberate utterance of spontaneously felt emotions; contradiction, expressing feelings which differ from someone else's; deliberate use of "I" statements; expression of agreement when praised; improvisation, stressing living spontaneously in the 'here and now'. This set of techniques contains some of the basic elements of assertiveness training (AT).

Wolpe (1958, 1969) agreed with Salter (1949) that assertive behavior was the expression of any emotion other than anxiety, and developed his ideas of reciprocal inhibition from Salter's concept of the inhibitory and excitatory personalities. Wolpe, however, was more specific, recommending AT for neurosis based on unadaptive interpersonal anxieties. Similarly, Lazarus (1968) considered assertive responses to be a part of the repertoire of an emotionally free individual and advocated AT as a means of overcoming interpersonal anxiety.

Based on Wolpe's (1958, 1969) contention that assertive responses are incompatible with anxiety and are effective in overcoming neurotic fear, a few studies have examined the relationship
between assertiveness and anxiety as a personality trait.

Orenstein, Orenstein, and Carr, (1975) collected data from 450 college freshmen concerning their level of assertiveness as measured by the Rathus Assertiveness Schedule (RAS, Rathus, 1973). Eighty-six subjects were selected for a study of the correlation of assertiveness and anxiety and were assigned to three discrete groups—high, average, and low assertive. Results showed a significant relationship between low assertiveness and neuroticism as measured by the Maudsley Personality Inventory. Low scorers had significantly higher trait anxiety scores as measured by Spielberger's State-Trait Anxiety Inventory (Spielberger et al., 1970). The Geer Fear Survey Schedule (Geer, 1965) differentiated significantly among high, average, and low scorers on the RAS. Men were found to be significantly more assertive than women though they experienced greater social anxiety than women at compatible levels of assertiveness. This suggests the desirability of studying sex groups separately when investigating assertiveness; social learning and sex role differences may influence learning assertiveness in our culture.

In a study which addressed the question of how sex-role stereotyping related to differences in assertiveness (Tolor, Kelly, and Stebbins, 1976), women who were low in sex-role stereotyping were significantly more assertive than men who were low in sex-role stereotyping, providing further support for the need to study sex groups separately.
The Orenstein et al. (1975) findings regarding trait anxiety were in accord with those reported by Gay, Hollandsworth, and Galassi (1975). The results showed that for an adult population, with an age range from 18 to 60, measures of anxiety using the Taylor Manifest Anxiety Scale clearly differentiated unassertive from highly assertive subjects as identified by the Adult Self-Expression Scale. The findings of the Orenstein et al. (1975) and Gay, et al. (1975) studies however, must be cautiously generalized to a clinical population, i.e., to individuals who voluntarily seek assertive training, as the former sample was taken from a general student population and the latter from a general adult population. Harstook, Olch, and de Wolf (1976) compared the personality characteristics of women volunteers for an assertiveness group at a college counseling center with a control group of vocational counselees and a college female norm group on the Edwards Personal Preference Schedule. They conducted an ongoing evaluation of the effectiveness of the eight two-hour AT sessions. It was predicted that participants would rate themselves as less anxious in interpersonal situations on the Willoughby Questionnaire and more assertive as measured by the Assertiveness Inventory (Alberti and Emmons, 1974). The pre- and posttest results were significant ($p < .01$) in the predicted direction indicating that AT accomplished its purpose. There are two major limitations in the Harstook et al. design: 1) A follow-up was not included and hence, it cannot be determined if these changes
are stable and 2) A control group was lacking, making it improper to ascribe changes in anxiety and assertiveness to training per se. Changes could be the result of testing effects, intervening life experiences, or a temporary fulfillment of the experimentors' implicit expectations of change since the first two authors co-facilitated the assertive training groups.

In summary, Salter (1949) and Wolpe (1958, 1969) contend that assertive responses and anxiety are incompatible and that AT represents a means of overcoming anxiety (Lazarus, 1968; Salter, 1949; Wolpe, 1958, 1969). The contentions 1) that there is an inverse relationship between anxiety and assertiveness and 2) that AT increases assertive responses thereby decreasing feelings of anxiety form the bases for the hypotheses of the present investigation.

Definitions of the Assertive Response

Due to the variety of definitions and methodological approaches to assertiveness, a system of organization would be helpful. Johnson (1976) has provided such an organization, describing four ways to view assertiveness. These are: a general theoretical definition, an operational definition including specific verbal and non-verbal behavioral components, a definition dealing with the content and format of the verbal response, and a definition in terms of differential environmental influence.

Rimm and Masters define assertive behavior as "interpersonal
behavior involving the honest and relatively straightforward expression of feelings" (p. 81, 1974). Rather than viewing assertiveness as a personality trait, Rimm and Masters suggest assertiveness to be situation specific and recommend techniques for teaching assertiveness to overcome behavioral skills deficits.

A second approach to defining assertiveness has generated a great deal of research in that it provides more specific verbal and non-verbal components of effective assertive behavior. Eisler, Miller, and Hersen (1973) differentiated between high and low assertive subjects by operationally defining some of the seven components as duration of looking, smiles, duration of reply, latency of response, loudness of speech, fluency of speech, compliance of content, content requesting new behavior, and affect. Thirty male psychiatric inpatients were requested to respond on videotape to fourteen standardized interpersonal situations which required assertive behavior. Judges were supplied descriptions of assertive behavior according to Wolpe (1969) and Wolfe and Lazarus (1966). Judges used these descriptions to rate all subjects' responses on a five point scale with "1" indicating very unassertive and "5" indicating very assertive. Results of the study revealed that high assertive subjects showed louder speech, less compliance, requested new behavior, and showed more affect than low assertive subjects. These results were replicated by Eisler, Miller, Hersen, and Blanchard (1975). Contrary to the
theorizing of Alberti and Emmons (1974), duration of looking, smiling, and speech fluency were unrelated to assertiveness. Generalizability of these studies is limited due to the use of male psychiatric inpatients with differing psychiatric classifications. Nevertheless, the study begins to define some specific behavioral components of assertiveness and provides a rationale for investigating behavioral differences among treatment groups in the present study.

Serber (1962) emphasized the nonverbal components of AT. The particular behaviors are: loudness of voice, fluency of spoken words, body expression, eye contact, facial expression, and distance from the person with whom one is interacting. Subjects, after three weeks of intensive training, had substantially improved these non-verbal components and were dealing effectively with others as they had improved their interpersonal communications.

Rathus (1973, 1975) described behavioral components of effective assertive responses based largely on Salter's (1949) and Wolpe's (1958, 1969) work:

1) rectifying statements--goal oriented statements used by the client in an attempt to be treated fairly (i.e. 'I would appreciate it if you would turn down the T.V.');

2) commendatory statements--goal oriented statements intended to increase the behavior of the receiver of the remark (i.e.
'You look very good today.');
3) feeling talk (identical to Salter's notion);
4) greeting others;
5) disagreement--passively by looking away or changing the topic, or actively and emotionally when sure of their ground;
6) asking why when something sounds unreasonable or un-enjoyable;
7) talking about oneself when appropriate;
8) rewarding others for compliments;
9) refusing to justify opinions to habitually disputatious persons;
10) looking people in the eye;
11) anti-phobic responses--the "purposeful performance of anxiety-provoking activities which would be productive to the client but are neglected because of anxiety" (p. 17, Rathus, 1975).

Winship and Kelly (1976) focused upon 'the content and format of the assertive verbal response. They operationally defined an assertive response as consisting of three elements:

"1) an empathy statement--the ability to see the situation through the other person's eyes; 2) a conflict statement--the individual's communicative rationale for her/his situation; and 3) an action statement--what it is the individual wants to happen." (p.

In their study of the effectiveness of assertive training techniques, the occurrence of any one of these three elements in a
response from a subject was scored one point; a response which included all three elements was scored three points. Winship and Kelly (1976) found that the nursing students who participated in their study were more likely to be assertive in a variety of situations than attention-control or no treatment control subjects. This investigation was limited because of the small number of subjects (n=25), the absence of an in vivo follow-up measure, the application of a training to a specialized group, and the lack of observation/assessment of non-verbal behaviors.

A fourth definition of assertive behavior considers the environmental settings' influence on level of assertiveness. Galassi, DeLeo, and Galassi (1974) developed the College Self-Expression Scale to evaluate three types of assertive behavior in a variety of interpersonal settings. The three types of assertiveness are:

1) positive assertiveness which includes complimenting others and expressing affection and approval;
2) negative assertiveness which involves expression of disagreement, dissatisfaction, and justified anger; and
3) self-derealization which includes overapologizing, excessive anxiety, and exaggerated concern for others.

A factor analysis of the instrument resulted in only one of nine factors dealing entirely with an environmental setting. That factor consisted mainly of items concerning situations with parents.
The sample consisted of college freshmen; this group is in the first stages of establishing independence from parents and is therefore likely to encounter a higher incidence of situations calling for assertive behaviors with parents. Eisler, Hersen, Miller, and Blanchard (1975) systematically examined the effects of social context on interpersonal behavior in assertive situations. Sixty male psychiatric inpatients were asked to respond to role play situations which were varied in terms of the interpersonal partner's sex and familiarity with subject, and type of assertive responses (positive versus negative) elicited. While the specific results are too extensive to report here, the overall results indicated that interpersonal behavior in assertive situations did vary as a function of social context.

In summary, it seems important to examine the various definitions of assertiveness as they pertain to the present study. Rimm and Masters' (1974) general theoretical definition is related to Wolpe's theory of reciprocal inhibition that an assertive response is incompatible with anxiety. It is generally postulated, based on this definition, that anxiety will decrease and assertiveness will increase as a result of assertiveness training.

The second group of definitions operationally define assertiveness according to specific verbal and nonverbal elements of the response. The assertiveness training exercises used in the treatment groups were oriented towards developing these elements.
Winship and Kelly's (1976) definition deals with the content and form of the assertive response and neglected the nonverbal components which have been shown to be significant. Their definition does, however, consider the other individual and provides a basis for discriminating between assertive and aggressive responses. This is consistent with Alberti and Emmons' (1974) definition of assertiveness as "...behavior which enables a person to act in his/her own best interests, or stand up for himself/herself without undue anxiety, to express his/her rights without denying the rights of others" (p. 2). An experimental investigation (Galassi and Galassi, 1975) showed that the two are different behaviors. Exercises focusing on the awareness of the differences between aggressive, assertive, and non-assertive behaviors were also built into the treatment modules.

Finally Galassi and Galassi (1973) found subgroups according to the environmental setting in which the behavior took place and according to the type of response required. A self-estimate of behavioral responses would be given for each environment/response-type combination as a means of estimating level of assertiveness. Several moderately reliable instruments have been validated for this use (Galassi et al., 1974; Gay et al., 1975; Rathus, 1973). This was the method of evaluation used in the present study.
The Development of Cue-Controlled Desensitization

Systematic Desensitization

Systematic Desensitization (SD) was originally described as a "counterconditioning" procedure for the alleviation of anxiety associated with various environmental stimuli or situations (Wolpe, 1958). A physiological state (typically relaxation) which inhibits anxiety is induced in the patient. The patient is then repeatedly exposed to a weak, anxiety arousing stimulus until the stimulus ceases to cause anxiety. Then progressively 'stronger' stimuli are introduced and similarly treated. Wolpe (1968) developed SD based on deconditioning anxiety in cats who had been conditioned in experimental neurosis. When applying his techniques to human neurotic habits, he found that this method was successful with non-interpersonal neurosis while assertion training was successful with interpersonal neurosis. Wolpe (1969) suggests, for example, that SD is relevant for anxiety responses to non-personal stimuli such as enclosed spaces, animals, heights, etc. It is also relevant when anxiety responses are to persons to whom direct action would be inappropriate, i.e., where fear was invoked by the mere presence of particular persons, by being the center of attention, or by feeling "rejection" in a social situation. Later Wolpe (1969) discovered progressive relaxation (Jacobson, 1969) to be employed with patients for whose neurosis, assertion training was not applicable.

Systematic desensitization has been found to be successful in
treatments. The literature examining the efficacy of SD in these problem areas is extensive and is beyond the scope of the present literature review (Crighton, 1969; Donner and Guernsey, 1970; Emery and Drumboltz, 1967; Goldfried, 1971; Jacks, 1972; Lang, 1969; Paul, 1969; Paul and Shannon, 1966).

Self-Control Desensitization

Goldfried (1971), while agreeing that SD is an empirically well grounded behavioral technique, questions Wolpe's (1958) theoretical explanation (reciprocal inhibition). Goldfried and his associates (e.g. Goldfried, 1971; Goldfried and Merbaum, 1973; Goldfried and Trier, 1974) suggest a mediational model to account for its effectiveness. This model maintains that once clients are successful in becoming sensitive to proprioceptive tension cues and can differentiate between these and positive affect charged cues associated with relaxation, they learn a 'coping' response which can be used to circumvent anxiety reactions. Lang (1969) expounds upon this model suggesting that a client may be developing a "cognitive set" in which the response "I am not afraid" or "I am relaxed" is inadvertently being shaped. Paul and Shannon (1966) also note that subjects may perceive SD as an "active mastery technique...(suggesting) the development of a confidence building 'how to cope' orientation" (p. 133).

Several procedural modifications are included in Goldfried's
(1971) model to facilitate development of self-control skills: a) to have clients "relax away tensions" as they begin to build up in response to individual hierarchy items, rather than telling clients to stop visualizing these scenes; and b) to instruct clients to actively use relaxation responses in vivo, where anxiety may occur, thus providing behavioral rehearsal and fostering confidence in their self-control ability.

Two basic treatment forms seem to have emerged from Goldfried's orientation: self-control desensitization (SCD; Jacks, 1972; Spiegler et al., 1976; Zenore 1975) and applied (or "differential") relaxation (Chang-Liang and Denny, 1976; Goldfried and Trier, 1974). The major difference between the two methods lies in the presence or absence of an anxiety hierarchy. They both, however, rely on the use of deep muscle relaxation as an active coping skill.

Several studies have compared the relative efficacy of traditional SD and SCD. Spiegler et al. (1976) used test anxiety as the target problem. As predicted, the self control condition was significantly superior in reducing self-report test anxiety, however, it was not significantly greater in reducing subjects' range of fears between pre- and posttesting on the Fear Survey Schedule (Wolpe and Lang, 1964). This finding seems important in light of the authors' claim that SCD should result in greater transfer of training than the traditional SD procedure. Jacks (1972, cited in Goldfried and Trier, 1974) also compared traditional SD with SCD. Jacks had acrophobic subjects in his self-control
condition maintain tension-eliciting scene presentations while relaxing away any experienced anxiety. Although there was no evidence for differential performance of the two groups on a behavioral avoidance posttest, subjects in the self-control condition did report a significantly greater decrease in subjective anxiety than the traditional SD group.

A second approach to the development of self-control anxiety reduction skills involves the use of "applied" relaxation. This procedure involves basically the same strategy as the self-control desensitization minus the hierarchy construction and presentation. Similar to cue-controlled relaxation (CCR--to be discussed in detail later), applied relaxation is aimed at imparting an active coping skill with which the client may reduce anxiety whenever it is encountered. Several reports, involving a variety of target problems, have indicated the potential use of this method.

In a comparative study, Zeissee (1968) found applied relaxation to be equally effective in alleviating interview anxiety among hospitalized patients. Both procedures produced significantly greater reductions on a behavioral measure of interview anxiety than did NT control conditions. Gelfried and Trier (1974), however, did not find completely supportive results with applied relaxation in treating public speaking anxiety. These authors found no significant differences between applied relaxation, standard relaxation, and attention-placebo discussion groups on any dependent measures. The self-control condition did seem to exhibit
the most consistent within group improvement. Unfortunately, a NT control was not included in this study.

Chang-Liang and Dency (1976) have applied self-control relaxation to the problem of test anxiety. Applied relaxation was more effective than standard relaxation and NT control on two measures of test and general anxiety. Applied relaxation was significantly more effective on increasing a performance criterion, the Wonderlic Personnel Test.

Cue-Controlled Relaxation

One other recently developed treatment program directed at anxiety reduction is cue-controlled relaxation (CCR; e.g. Russell and Sipich, 1973). This treatment approach is very similar to the applied relaxation technique; however as opposed to responding to proprioceptive cues, the client attempts to achieve relaxation in response to a self-produced cue-word, such as "calm" or "relax". CCR involves a two step process: 1) progressive muscle relaxation training, and 2) continuously associating the relaxed state with the sub-vocalized cue word.

Recent reports have discussed the applicability of CCR with individuals. Russell and Sipich (1973, 1974) in uncontrolled case studies, produced suggestive evidence for CCR's potential in treating test anxiety. Subjects demonstrated decreases in anxiety on several self-report measures. Russell and Matthews (1975) found CCR coupled with an anxiety hierarchy successful in treating
an intense phobia of snakes. This study similarly lacked relevant control conditions; however, it produced suggestive evidence for CCR's potential in dealing with phobic reactions.

Cue-controlled relaxation has been examined in group settings as well. Russell, Miller, and June (1974), using self-report criteria, successfully applied CCR in a group setting to nine test anxious subjects. This study also lacked relevant control conditions.

In order to compare the relative efficacy of CCR and SD, Russell, Miller, and June (1975) used test anxiety as a target behavior. The authors compared group administrations of both SD and CCR in a controlled investigation. Both treatments were more effective in decreasing self-report anxiety than NTC condition. A further attempt by Russell, Wise, and Stradoukis (1976) has produced equivocal findings. Utilizing speech anxiety as a target behavior, Russell and Wise (1976) compared CCR and SD. Changes in self-report indices of speech anxiety showed the CCR and SD to be significantly more effective but not different from each other. These authors interpreted their findings as being indicative of CCR's relative advantage over SD in treating anxiety since the two techniques did not differ on the dependent variables and CCR is procedurally easier, i.e., does not necessitate hierarchy construction or presentation.

The lack of no treatment or placebo controls in several of
the above mentioned studies as well as reliance upon self-report
measures of anxiety reduction are the two methodological limita-
tions which must be considered before final conclusions are drawn.

Combining CCR and SD: Cue-controlled Desensitization

Three recent studies are significant in laying the procedural
groundwork for cue-controlled desensitization (CCD), the combined
CCR-SD self-control technique which was employed in the present
investigation: Reeves and Mealica (1975), Russell, Lent, and
Sipich (1977), and Lent and Russell (1978).

Reeves and Mealica (1975) describe the successful treatment
of three self-referred flight phobic clients using an EMG
biofeedback-assisted CCR technique, in conjunction with SD. These
authors also present evidence that CCR may promote a deeper level
of relaxation than non-cue-controlled relaxation, using frontalis
EMG as a dependent measure of muscle tension. This lends support
to the practice of using a self-induced cue word in synchrony with
the relaxed state, instead of merely instructing subjects to
"relax away" anxiety.

Russell, Lent, and Sipich (1977) found incorporating CCR
within an SD format successful in reducing anxiety with a woman
experiencing a strong anxiety reaction to night driving.

Lent and Russell (1978) compared the relative efficacy of SD
and CCD in combination with study skills training in the treatment
of test anxiety. No differences were found between the two desensitization packages on any dependent measure although both demonstrated significant improvement over study skills alone or NTC.

The addition of CCR and SD serves two functions. First, it gives the client a means of actively coping with anxiety elicited during the visualization of hierarchy items. Secondly, the cue-controlled technique can be implemented in vivo when the client encounters the fear-eliciting stimuli outside the therapy setting. Additionally, CCR may be applied by the clients as a general anxiety-reducing skill. The primary fear may be treated through desensitization, with the remaining anxieties being dealt with through CCR. Potential advantages of incorporating CCR with a self-report format are supported by Davison and Valins (1969) who indicate that subjects who attribute successful behavior to their own efforts show greater persistence in treatment effects than those who attribute it to an external source. Mahoney (1974) noted that provision of coping skills may enhance maintenance and generalization of treatment effects through overlearning and teaching a problem-solving orientation relevant to future situations.

Combining CCD and AT

Wolpe (1973) has suggested that for inpatients who have a
great deal of anxiety about assertion, it may be necessary to
grade the tasks in a way that parallels desensitization. In
some cases of severe interpersonal anxiety, Wolpe has recommended
that desensitization be employed before any attempt at assertive
training. Orenstein et al. (1975) further suggest including the
use of relaxation training during training sessions.

Surprisingly, no published experimental studies of assertive
training have incorporated any of these suggested methods of
anxiety reduction. While the efficacy of SD has been well docu-
mented (e.g. McManus, 1971) procedural aspects of the technique
may limit its effectiveness in certain instances, especially in
a group setting. Given the lack of previous assertive skills
training programs to reduce problematic anxiety, the present
investigation of a CCD-AT combined program is well warranted.
Hypotheses

Based on the research cited previously, directional hypotheses for the relationship of change in assertiveness level and anxiety were developed:

1) There would be a significant increase in the level of assertiveness as measured by the Ratus Assertiveness Schedule (RAS) for participants in the AT and AT-CCD groups. There would be no change on this measure for participants in the CCD and NTC groups.

2) Participants in the AT and AT-CCD groups would display significantly more assertive behavior than those in the CCD and NTC groups on the Assertiveness Behavior Test (ABT).

3) Participants in the AT-CCD and CCD groups would report significantly less state anxiety than those in the AT and NTC groups on the Anxiety Differential (AD).

4) There would be a significant decrease in trait anxiety as measured by the State-Trait Anxiety Inventory, Trait Form (STAI-T) for participants in the AT-CCD and CCD groups. There would be no change on this measure for participants in the AT and NTC groups.
5) There would be a significant decrease in the level of interpersonal anxiety as measured by the Social Avoidance and Distress Scale (SAD) for participants in the AT-CCD and CCD groups. There would be no change on this measure for participants in the AT and NTC groups.

6) There would be a significant decrease in the level of interpersonal anxiety as measured by the Fear of Negative Evaluation Scale (FNE) for participants in the AT-CCD and CCD groups. There would be no change on this measure for participants in the AT and NTC groups.

7) There would be no difference between groups on participants' view of treatment credibility as measured by the Credibility Scale (CRED).
Chapter III

Methodology

Purpose

This study attempted to determine if a combined program of assertiveness training (AT) and cue-controlled desensitization (CCD) training for women would increase assertiveness as measured by Rathus Assertiveness Schedule (RAS) and the Assertive Behavior Test (ABT), and decrease state, trait, and interpersonal anxiety as measured by the Anxiety Differential (AD), the State-Trait Anxiety Inventory, Trait Form (STAI-T), the Fear of Negative Evaluation Scale (FNE), and the Social Avoidance and Distress Scale (SAD).

Subjects

Participants in this study were recruited by advertising in the undergraduate residence halls at the Ohio State University (See Appendix 1). Interested women students were invited to contact the investigator. The investigator also spoke with Resident Advisors, Assistant Directors, and Directors within the residence halls to inform them about the groups and requested their assistance in referring women who were interested in re-
Receiving assertiveness training.

A total of fifty-six women responded to the advertisement. Six of these women dropped out before the groups began because of other commitments. One woman dropped out during the second week also because of other time commitments. Thus, forty-nine women completed the program. These women were residents of the following halls: Stadium Dormitory, Mack-Canfield Hall, Stradley Hall, Siebert Hall, Baker Hall, Nosker Hall, Blackburn Hall, Taylor Hall, and the Davisson-Hanley House.

Instrumentation

Seven measures were used to evaluate the relative efficacy of the treatment programs. These included: the Rathus Assertiveness Schedule, the Assertive Behavior Test, the State-Trait Anxiety Inventory, Trait Form, the Social Avoidance and Distress Scale, the Fear of Negative Evaluation Scale, and the Credibility Questionnaire. A more detailed description of these dependent variables is given below:

1) Rathus Assertiveness Schedule (RAS; Rathus, 1973) -- is a thirty item self-report measure dealing with situations that can be handled either by inhibiting feelings or by reacting assertively. Responses are scored on a six point scale, -3 to +3, with some items keyed in the reverse direction. A test-retest reliability coefficient of .78 is reported over a two month interval. The measure appears valid on the basis of congruence with rater evaluation
and other criteria (Rathus, 1973). (See Appendix 3A)

2) Assertive Behavior Test (ABT; Glenn, 1979) -- is a behavioral assessment of assertiveness which consists of two brief, 3-5 minute roleplays. Each subject chose two situations to be assertive with another person. The subject described these situations and then roleplayed the situation with a confederate. The roleplays were taped and subjects' responses rated in terms of duration of reply, latency of response, loudness of speech, fluency of speech, compliance content, request of new behavior, positive content, affect, and overall assertiveness (Eisler et al., 1973). (See Appendix 4).

3) State-Trait Anxiety Inventory, Trait Form (STAI-T; Spielberger et al., 1970) -- provides a measure of trait, or characteristic, anxiety. Subjects respond to twenty statements on a four point scale, based on how they "generally feel". Spielberger et al. suggest that the STAI-T reflects "relatively stable individual differences in anxiety proneness". Test-retest reliability for the trait scale is reported to range between .73 and .86, over a three month interval. The STAI-T has been found to correlate significantly with the Taylor Manifest Anxiety Scale (r = .80) which is intended to measure the same construct. (See Appendix 3B).

4) Anxiety Differential (AD; Husek and Alexander, 1963) -- was developed to measure situationally aroused stress, or what
Spielberger et al. (1970) have referred to as "state" anxiety. The AD was constructed on a semantic differential format. It consists of eighteen items (or concepts) which subjects respond to on a seven point scale depending on what each concept "means" to them at the moment the questionnaire is being filled out. A unique advantage of the AD is that it may not be readily susceptible to faking or conscious distortion since "a majority of subjects (do) not know what the instrument (is) attempting to measure" (p. 317). The internal consistency of various item combinations was examined with Alpha Coefficients. These ranged between .58 and .80, with median coefficient of .68. (See Appendix 3C).

5) Social Avoidance and Distress Scale (SAD; Watson and Friend, 1969) -- was designed to measure social avoidance which is defined as avoiding being with, talking to, or escaping from others for any reason, and social distress which is defined as the reported experience of a negative emotion, such as being upset, distressed, tense, or anxious in social interactions, or the reported lack of negative emotion. The scale consists of 28 true-false items evenly divided between true and false items. The product-moment test-retest correlation is .68 over a one month interval. (See Appendix 3D).

6) Fear of Negative Evaluation Scale (FNE; Watson and Friend, 1969) -- was developed to measure apprehension about others'
evaluations, distress over their negative evaluations, avoidance of evaluative situations, and the expectation that others would evaluate oneself negatively. High FNE may operate in any social, evaluative situation, such as being on a date, talking to one's superiors, or being interviewed for a job. The scale consists of 30 true-false items, 17 true and 13 false. The product-moment, test-retest correlation is .78 over a one month interval. (See Appendix 3E).

7) Credibility Questionnaire (CQ; Borkovec and Nau, 1972) was developed to measure subjects' view of treatment credibility and expectancy for improvement as a result of the treatment. Subjects are asked to indicate their feelings about their "own" treatment procedure by responding to each of five items on a 10-point scale. Credibility scores are summed over the five items of the scale. While Borkovec and Nau (1972) do not present any reliability data, some evidence for the scale's validity is provided by Nau, Caputo, and Borkovec (1974). For example, credibility ratings were found to correlate positively with simulated treatment responses in three different experiments ($r = .30, .38, and .60$ respectively). (See Appendix 3F).

The order of dependent measure administration was as follows:

Pretest: RAS, STAI-T, SAD, FNE; Posttest: RAS, STAI-T, SAD, FNE, A&T, AD, CQ; Follow-up: RAS, STAI-T, SAD, FNE.
Group Leaders

Experimental treatment groups were led by graduate students, one in Counseling Psychology, and one in Student Personnel Work. These leaders completed five training sessions over a four week period in assertiveness training and cue-controlled desensitization techniques. The investigator met with these leaders on a weekly basis to review the techniques. The treatment groups were tape recorded and monitored by the investigator. Each leader facilitated one AT group, one CCD group, and one combined AT-CCD group.

Confederates for Assertive Behavior Test

Five graduate students in psychology with experience in roleplaying were trained by the investigator to serve as confederates in the Assertive Behavior Test. Confederates received instructions to behave in a realistic manner, behaving assertively rather than aggressively or passively.

Raters

One graduate and one advanced undergraduate student in psychology were trained to evaluate the subjects' taped responses on the ABT. The training consisted of listening to a practice tape and rating duration of the responses, latency of the response, request for new behavior, affect, compliance content, loudness of voice, fluency of spoken words, and overall assertiveness. Raters also received handouts extensively defining assertive-
ness. These handouts were the same as ones given to subjects during treatment.

Procedure

All participating subjects were recruited by advertising in the undergraduate residence halls. When a sufficient number of students had expressed interest they were recontacted to meet for a pre-testing session. Three pre-testing sessions were held during which the RAS, STA-I-T, SAD, FNE, and consent forms were administered. Each subject attended the session which fit her schedule. When subjects attended the pre-testing session, they were informed about the time and place of their group meeting or were told that they were on a waiting list for Spring Quarter. The investigator had randomly assigned subjects to groups prior to the pre-testing session based on their schedules and whether they lived on North or South campus, or in Stadium dorm. Assignment was done in this manner because of concern for the subjects' safety. (The groups met during evening hours). Those subjects whose schedules conflicted with group times were assigned to the NTC group (i.e.; waiting list.)

At this time, subjects were equally distributed among conditions with an n=14 in each. However, during the ten days between pre-testing and the groups beginning, six subjects decided not to participate because of other time commitments.
One subject, who had been assigned to the NTC changed her schedule so that she could attend a group. Thus, subjects were distributed as follows: AT, n=15; CCD, n=12; AT-CCD, n=12; and NTC, n=11. During the second week of the treatment, one subject dropped out of the CCD condition because of other time commitments.

Treatments were administered for four weeks to the subjects assigned to the experimental groups. Each group met for one and a half hours per week. Two groups were run in each condition with a range of six to eight participants in each group. The CQ was administered at the end of the last group meeting along with a general feedback questionnaire requesting feedback for the leaders.

During the week following completion of the treatment groups all subjects met with the investigator for one hour for administration of the posttest measures. This included the RAS, STAI-T, SAD, FNE, ABT, and AD. At this time, those subjects who had been placed on the "waiting list" were assigned to a treatment group to begin three weeks later. (This group was facilitated by two graduate students in Student Personnel Work who received training from the investigator. The group received AT only.)

A six week follow-up was mailed to the thirty-eight participants in the treatment groups. This follow-up included RAS, STAI-T, SAD, and FNE. A resource list of assertiveness training information was included as well. Thirty-four were returned.
Treatment groups

1) Assertiveness Training Group (AT)

The purpose of the AT group was to teach members basic definitions and concepts of assertiveness and assist them in applying these concepts to their own behavior through extensive roleplaying, feedback, and homework assignments. A more detailed description of a group is outlined below.

Session one focused on acquaintanceship and establishing group norms, defining assertiveness, distinguishing between unassertive, assertive, and aggressive behavior, and the relationship between women's roles and assertive behavior. Handouts, structured experiences, and group discussion were utilized. For homework, members began monitoring their assertive behavior.

In session two, roleplaying was introduced as a structured experience in which each group member took a turn saying no to an unreasonable request. Goal setting was discussed and each member contracted to attempt assertive behavior in a specific situation.

During session three, more extensive roleplaying was utilized. Members chose situations from a list of assertiveness problems and roleplayed these in pairs. Specific feedback was directed toward assertive behavior. Members also chose personally relevant behavior to roleplay.

Session four introduced the concepts of emotional hooks and self-talk. The focus during this session was examining behavior
and/or feelings which maintained unassertive behavior. The group concluded with an overview of assertive rights and responsibilities. Evaluation forms were completed by each member.

2) Cue-controlled Desensitization Group (CCD)

The purpose of the CCD group was to teach group members the CCD technique (Lent and Russell, 1978) and how they could utilize this technique in reducing anxiety which prevents them from behaving assertively. Roleplaying and homework assignments were employed to help teach the CCD technique. In order for the group members to have a common starting point, basic definitions and concepts of assertiveness were introduced as well. A more detailed description of the group experience is detailed below.

Session one focused on acquaintanceship and establishing group norms, defining assertiveness, distinguishing between unassertive, assertive, and aggressive behavior. The relationship between relaxation and assertiveness was introduced and progressive muscle relaxation (Jacobson, 1969) training was begun. Members also rated items on a hierarchy for use with CCD procedures. For homework, members were asked to practice relaxation daily.

Session two focused entirely on CCD techniques (Lent and Russell, 1978). This included: a) instruction in progressive muscle relaxation; and b) continuously associating the relaxed state with the subvocalized cue word 'calm'. Members attended to their breathing
while silently repeating the cue-word in synchrony with each exhalation. This "coping" strategy was employed each time members experienced stress during a five item hierarchy presentation. Subjects signaled by raising a finger on their left hand if they experienced any discomfort. If a subject could not overcome the tension by employing the cue-word, the relaxation state was reinstated, and the scene re-introduced until it had been successfully coped with. Members were asked to practice visualizing scenes as well as relaxation during the week.

During session three, use of CCD in vivo was introduced by having members roleplay assertiveness situations from a sample list and from their own experiences. Feedback focused on how anxious they felt or appeared rather than on assertive behavior. In addition, members went through another CCD hierarchy.

Session four was identical to session three with another hierarchy used for the CCD procedure. The group concluded with a discussion of assertive rights and responsibilities.

3) Combined Assertiveness Training and Cue-controlled Desensitization (AT-CCD)

The purpose of the AT-CCD group was to teach assertiveness concepts and skills as well as the CCD technique. Roleplaying, feedback, and practice of the CCD were utilized to help members master
and integrate both skills in order to behave more assertively and feel less anxiety while doing so. A more detailed description of the group experience is detailed below.

Session one was identical to session one in the CCD group. For homework, members were asked to both monitor their assertive behavior and practice progressive relaxation.

During session two, roleplaying was introduced as a structured experience. Reactions were processed in terms of assertive behavior and comfort or anxiety level. Only two of these exercises were used as compared to four in the AT group. CCD techniques were introduced (Lent and Russell, 1978) and one hierarchy presented. Members were asked to practice relaxation and visualizing during the week. Members contracted to attempt assertive behavior in a specific situation.

Session three focused on roleplaying, feedback, and use of CCD in vivo. Feedback was directed towards specific assertive behavior and how anxious members felt or appeared. Another hierarchy was presented during a CCD procedure.

Session four focused on blocks to assertive behavior including emotional hooks and self-talk. A third hierarchy was presented during the CCD procedure. The group concluded with a discussion of assertive rights and responsibilities.
4) No Treatment Control Group (NTC)

Participants in this group were administered the pretesting and posttesting instruments only and did not undergo treatment until the three experimental groups were completed. At that time, they were placed in a group similar to the AT group.
Chapter IV

Results

This chapter presents the results of the analyses of the data obtained from the cue-controlled desensitization (CCD) group, combined assertiveness training and cue-controlled desensitization (AT-CCD) group, assertiveness training (AT) group, and no treatment control (NTC) group. Data from pre- and posttreatment self-report measures, posttreatment only measures, and follow-up self-report measures will be discussed separately.

**Self-Report Measures: Pre- and Posttreatment**

Table 1 contains the means and standard deviations of the four groups at pre- and posttesting on the Rathus Assertiveness Schedule (RAS), the State-Trait Anxiety Inventory, Trait Form (STAI-T), the Social Avoidance and Distress Scale (SAD), and the Fear of Negative Evaluation Scale (FNE).
### Table 1
Means and Standard Deviations for Groups at Pre- and Posttest

#### A. RAS

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>CCD</td>
<td>12.00</td>
<td>37.08</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>-8.57</td>
<td>27.86</td>
</tr>
<tr>
<td>AT</td>
<td>-11.14</td>
<td>16.76</td>
</tr>
<tr>
<td>NTC</td>
<td>0.27</td>
<td>29.26</td>
</tr>
</tbody>
</table>

#### B. STAI-T

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>CCD</td>
<td>41.20</td>
<td>14.31</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>45.78</td>
<td>7.48</td>
</tr>
<tr>
<td>AT</td>
<td>44.78</td>
<td>11.59</td>
</tr>
<tr>
<td>NTC</td>
<td>42.45</td>
<td>10.32</td>
</tr>
</tbody>
</table>

#### C. SAD

<table>
<thead>
<tr>
<th>Group</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>CCD</td>
<td>8.60</td>
<td>6.76</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>7.21</td>
<td>4.20</td>
</tr>
<tr>
<td>AT</td>
<td>8.92</td>
<td>4.08</td>
</tr>
<tr>
<td>NTC</td>
<td>9.18</td>
<td>7.08</td>
</tr>
</tbody>
</table>
Table 1 cont.

<table>
<thead>
<tr>
<th>Groups</th>
<th>Pretest X</th>
<th>Pretest SD</th>
<th>Posttest X</th>
<th>Posttest SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>14.00</td>
<td>10.17</td>
<td>10.40</td>
<td>9.14</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>19.57</td>
<td>8.40</td>
<td>15.21</td>
<td>7.75</td>
</tr>
<tr>
<td>AT</td>
<td>19.71</td>
<td>5.25</td>
<td>14.14</td>
<td>7.64</td>
</tr>
<tr>
<td>NTC</td>
<td>17.72</td>
<td>8.43</td>
<td>12.50</td>
<td>6.18</td>
</tr>
</tbody>
</table>
A 4 x 1 analysis of variance (ANOVA) was performed on the pretest instruments to determine if groups were comparable prior to treatment on each variable. Table 2 reveals the results.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>Group</td>
<td>3</td>
<td>3729.94</td>
<td>1.61</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>3</td>
<td>156.31</td>
<td>0.44</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>3</td>
<td>30.68</td>
<td>0.34</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>3</td>
<td>236.35</td>
<td>1.21</td>
</tr>
</tbody>
</table>

Since groups were comparable on the four self-report indices, it was reasonable to use ANOVA to analyze for significant differences on posttest. Table 3 contains a summary of the results of the 4 x 2 ANOVA for each dependent variable for each group from pretest to posttest.
Table 3  
ANOVA Summary of Self-Report Measures from  
Pretest to Posttest

A. RAS

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>3</td>
<td>4997.20</td>
<td>1665.73</td>
<td>1.50</td>
</tr>
<tr>
<td>S's w/in groups</td>
<td>44</td>
<td>48907.43</td>
<td>1111.53</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
<td>7110.88</td>
<td>7110.88</td>
<td>40.18*</td>
</tr>
<tr>
<td>Time x Group</td>
<td>3</td>
<td>512.50</td>
<td>170.83</td>
<td>0.97</td>
</tr>
<tr>
<td>Time x S's w/in</td>
<td>44</td>
<td>7786.46</td>
<td>176.96</td>
<td></td>
</tr>
</tbody>
</table>

B. STAI-T

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>3</td>
<td>106.22</td>
<td>35.41</td>
<td>0.16</td>
</tr>
<tr>
<td>S's w/in groups</td>
<td>44</td>
<td>9887.02</td>
<td>224.71</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
<td>1112.05</td>
<td>1112.05</td>
<td>44.29*</td>
</tr>
<tr>
<td>Time x Group</td>
<td>3</td>
<td>121.86</td>
<td>40.62</td>
<td>1.62</td>
</tr>
<tr>
<td>Time x S's w/in</td>
<td>44</td>
<td>1104.88</td>
<td>25.11</td>
<td></td>
</tr>
</tbody>
</table>

C. SAD

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>3</td>
<td>80.45</td>
<td>26.82</td>
<td>0.05</td>
</tr>
<tr>
<td>S's w/in groups</td>
<td>44</td>
<td>1395.54</td>
<td>31.72</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
<td>304.20</td>
<td>304.20</td>
<td>21.33*</td>
</tr>
<tr>
<td>Time x Group</td>
<td>3</td>
<td>15.68</td>
<td>5.23</td>
<td>0.37</td>
</tr>
<tr>
<td>Time x S's w/in</td>
<td>44</td>
<td>627.48</td>
<td>14.26</td>
<td></td>
</tr>
</tbody>
</table>
Table 3 cont.

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td>3</td>
<td>392.65</td>
<td>130.88</td>
<td>1.30</td>
</tr>
<tr>
<td>S's w/in groups</td>
<td>44</td>
<td>4433.69</td>
<td>100.77</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>1</td>
<td>453.20</td>
<td>453.20</td>
<td>20.22*</td>
</tr>
<tr>
<td>Time x Group</td>
<td>3</td>
<td>13.03</td>
<td>4.34</td>
<td>0.19</td>
</tr>
<tr>
<td>Time x S's w/in</td>
<td>44</td>
<td>985.97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .0001
Since this was a repeated measures design, the interaction of time by group is of interest. An interaction effect would suggest that the treatment was having an effect. It can be seen from the results in Table 3 that there were no significant interaction effects on the self-report measures following treatment.

In order to view what changes did occur from pretreatment to posttreatment, the mean scores of groups on the four self-report measures are graphed in Figures 1 through 4.
Figure 1
Group Means on Rathus Assertiveness Schedule at Pretreatment, Posttreatment, and Follow-up

Means

Pretreatment  Posttreatment  Follow-up
Figure 2
Group Means on State Trait Anxiety Inventory, Trait Form
at Pretreatment, Posttreatment, and Follow-up
Figure 3

Group Means of Social Avoidance and Distress Scale at Pretreatment, Posttreatment, and Follow-up
Figure 4
Group Means of Fear of Negative Evaluation Scale at Pretreatment, Posttreatment, and Follow-up

![Graph](image-url)
It is apparent that some change did occur from pretreatment to posttreatment of each self-report measure for each group including the no treatment control group. In order to assess if there was a significant difference in change between groups, change scores were computed. A $4 \times 1$ ANOVA was performed on change scores. The results appear in Table 4.

Table 4
ANOVA Summary Table of Change Scores from Pre- to Posttreatment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>Group</td>
<td>3</td>
<td>1025.00</td>
<td>0.97</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>3</td>
<td>243.72</td>
<td>1.62</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>3</td>
<td>31.36</td>
<td>0.37</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>3</td>
<td>26.06</td>
<td>0.19</td>
</tr>
</tbody>
</table>

In addition to subtraction change scores, residual change scores were computed to compare within group changes, and a $4 \times 1$ ANOVA was performed on these residual change scores. The results appear in Table 5.
### Table 5
ANOVA Summary Table of Residual Change Scores from Pre- to Posttreatment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>Group</td>
<td>3</td>
<td>334.53</td>
<td>0.49</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>3</td>
<td>174.72</td>
<td>1.25</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>3</td>
<td>49.09</td>
<td>1.30</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>3</td>
<td>13.30</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Thus, the analysis of variance did not produce evidence of significant differences in subtraction change or residual change scores on the self-report measures RAS, STAI-T, SAD, or FNE from pretreatment to posttreatment.

**Posttreatment Only Measures**

The Assertive Behavior Test (ABT) was administered to all subjects at posttreatment only. Two raters rated each subject on a total of nine characteristics. Data is only available on a total of 28 subjects due to mechanical difficulties at the time of administration. Because of the small and unequal n's, the validity and reliability of these...
results is questionable; however, results will be reported for informational purposes.

Correlation coefficients were computed to assess interrater reliability. Reliability ranged from low (.04) to high (.95). The coefficients for each variable can be found in Table 6.

Table 6
Correlation Coefficients for Characteristics of Assertive Behavior Test Across Raters

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Coefficients Rater 1 x 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of Reply (1)</td>
<td>0.65***</td>
</tr>
<tr>
<td>Latency of Response (2)</td>
<td>0.95****</td>
</tr>
<tr>
<td>Loudness (3)</td>
<td>0.43*</td>
</tr>
<tr>
<td>Fluency (4)</td>
<td>0.46**</td>
</tr>
<tr>
<td>Compliance (5)</td>
<td>0.04</td>
</tr>
<tr>
<td>Request of New Behavior (6)</td>
<td>0.71****</td>
</tr>
<tr>
<td>Positive Content (7)</td>
<td>0.42*</td>
</tr>
<tr>
<td>Affect (8)</td>
<td>0.35</td>
</tr>
<tr>
<td>Overall Assertiveness (9)</td>
<td>3.44**</td>
</tr>
</tbody>
</table>

* p < .05
** p < .01
*** p < .001
**** p < .0001
Means for each characteristic were computed by averaging each subject’s score across both raters. The means and standard deviations for each group are found in Table 7.

### Table 7

<table>
<thead>
<tr>
<th>Variable</th>
<th>( X )</th>
<th>( SD )</th>
<th>( X )</th>
<th>( SD )</th>
<th>( X )</th>
<th>( SD )</th>
<th>( X )</th>
<th>( SD )</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>6.00</td>
<td>1.54</td>
<td>4.81</td>
<td>1.22</td>
<td>6.67</td>
<td>2.15</td>
<td>5.47</td>
<td>1.64</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>4.04</td>
<td>8.20</td>
<td>2.50</td>
<td>0.89</td>
<td>3.95</td>
<td>0.56</td>
<td>2.70</td>
<td>0.57</td>
</tr>
<tr>
<td>AT</td>
<td>3.57</td>
<td>0.79</td>
<td>3.17</td>
<td>0.82</td>
<td>3.67</td>
<td>0.97</td>
<td>2.70</td>
<td>1.35</td>
</tr>
<tr>
<td>NTC</td>
<td>1.79</td>
<td>1.47</td>
<td>1.92</td>
<td>1.07</td>
<td>2.25</td>
<td>0.54</td>
<td>1.30</td>
<td>0.76</td>
</tr>
<tr>
<td>Group 1</td>
<td>1.79</td>
<td>1.95</td>
<td>2.50</td>
<td>2.49</td>
<td>3.35</td>
<td>1.58</td>
<td>1.50</td>
<td>0.50</td>
</tr>
<tr>
<td>Group 2</td>
<td>0.86</td>
<td>0.75</td>
<td>1.17</td>
<td>0.61</td>
<td>1.15</td>
<td>1.38</td>
<td>0.80</td>
<td>0.76</td>
</tr>
<tr>
<td>Group 3</td>
<td>3.29</td>
<td>0.76</td>
<td>2.75</td>
<td>0.94</td>
<td>3.40</td>
<td>0.61</td>
<td>3.30</td>
<td>0.84</td>
</tr>
<tr>
<td>Group 4</td>
<td>3.50</td>
<td>1.19</td>
<td>3.17</td>
<td>1.03</td>
<td>3.80</td>
<td>0.99</td>
<td>3.40</td>
<td>1.08</td>
</tr>
</tbody>
</table>

* \( n = 7 \)
** \( n = 6 \)
*** \( n = 10 \)
**** \( n = 5 \)
Multivariate analysis of variance (MANOVA) was performed on the characteristics of the Assertive Behavior Test to assess differences between groups. The results of the univariate ANOVA's are presented in Table 8.

Table 8
Summary Table of Univariate ANOVA's for Characteristics of the Assertive Behavior Test

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Group</td>
<td>3</td>
<td>16.45</td>
<td>1.78</td>
</tr>
<tr>
<td>2</td>
<td>Group</td>
<td>3</td>
<td>30.67</td>
<td>0.65</td>
</tr>
<tr>
<td>3</td>
<td>Group</td>
<td>3</td>
<td>1.36</td>
<td>1.00</td>
</tr>
<tr>
<td>4</td>
<td>Group</td>
<td>3</td>
<td>3.20</td>
<td>1.12</td>
</tr>
<tr>
<td>5</td>
<td>Group</td>
<td>3</td>
<td>3.38</td>
<td>1.08</td>
</tr>
<tr>
<td>6</td>
<td>Group</td>
<td>3</td>
<td>14.52</td>
<td>1.42</td>
</tr>
<tr>
<td>7</td>
<td>Group</td>
<td>3</td>
<td>9.66</td>
<td>0.21</td>
</tr>
<tr>
<td>8</td>
<td>Group</td>
<td>3</td>
<td>2.23</td>
<td>1.32</td>
</tr>
<tr>
<td>9</td>
<td>Group</td>
<td>3</td>
<td>1.80</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Because no significant differences were found on any characteristic no post hoc analyses were computed.
The Anxiety Differential (AD) was administered at post-treatment to all subjects during the Assertive Behavior Test. Means and standard deviations are reported in Table 9; results of a 4 x 1 ANOVA are reported in Table 10. Again, no post hoc analyses were necessary due to insignificant F ratios on the ANOVA.

Table 9
Means and Standard Deviations on the Anxiety Differential

<table>
<thead>
<tr>
<th>Group</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>54.12</td>
<td>8.50</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>65.50</td>
<td>12.72</td>
</tr>
<tr>
<td>AT</td>
<td>64.57</td>
<td>12.72</td>
</tr>
<tr>
<td>NTC</td>
<td>64.00</td>
<td>16.89</td>
</tr>
</tbody>
</table>

Table 10
Summary Table of ANOVA on the Anxiety Differential

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD</td>
<td>Group</td>
<td>3</td>
<td>758.06</td>
<td>1.54</td>
</tr>
</tbody>
</table>
The Credibility Questionnaire (CQ) was administered to subjects in the treatment groups only at the end of the last treatment group. Means and standard deviations for the three treatment groups are presented in Table 11. A 3 x 2 (group by facilitator) ANOVA was performed on these means, the results of which can be found in Table 12.

Table 11
Means and Standard Deviations on the Credibility Questionnaire

<table>
<thead>
<tr>
<th>Group</th>
<th>X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>38.11</td>
<td>5.28</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>39.85</td>
<td>4.34</td>
</tr>
<tr>
<td>AT</td>
<td>43.53</td>
<td>3.50</td>
</tr>
</tbody>
</table>
Table 12
ANOVA Summary Table for the Credibility Questionnaire

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility Questionnaire n = 37</td>
<td>Group</td>
<td>2</td>
<td>188.44</td>
<td>5.16*</td>
</tr>
<tr>
<td></td>
<td>Facil</td>
<td>1</td>
<td>14.21</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>Group x Facil</td>
<td>2</td>
<td>39.79</td>
<td>1.09</td>
</tr>
</tbody>
</table>

* p < 0.01

Duncan’s Multiple Range post hoc comparisons indicated that the mean for the AT group was significantly greater (p < 0.05) than the means for either the CCD group or the AT-CCD group. There were no significant differences between the CCD group and AT-CCD group. Thus subjects believed the AT group to be more credible than either the CCD or AT-CCD groups.
Follow-up Self-Report Measures

Follow-up measures were administered to subjects who participated in treatment groups only. The rationale for this was twofold: 1) follow-up measures were utilized to assess maintainence of improvement that resulted from treatment, therefore, this theoretical rationale did not justify a follow-up assessment of NTC groups, and 2) the investigator felt ethically obligated to initiate training for those in the NTC as soon as posttesting was completed.

Table 13 contains the means and standard deviations of the three treatment groups at posttreatment and six week follow-up on the RAS, STAI-T, SAD, and FNE self-report measures. The means (pre-, posttest, and follow-up) of these measures are graphed, as well, in Figures 1 through 4.
Table 13
Means and Standard Deviations at
Posttest and Follow-up

A. RAS

<table>
<thead>
<tr>
<th>Group</th>
<th>Posttest X</th>
<th>Posttest SD</th>
<th>Follow-up X</th>
<th>Follow-up SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>26.70</td>
<td>24.74</td>
<td>39.50</td>
<td>21.11</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>12.64</td>
<td>24.82</td>
<td>17.07</td>
<td>28.75</td>
</tr>
<tr>
<td>AT</td>
<td>11.57</td>
<td>20.63</td>
<td>19.84</td>
<td>17.57</td>
</tr>
</tbody>
</table>

B. STAI-T

<table>
<thead>
<tr>
<th>Group</th>
<th>Posttest X</th>
<th>Posttest SD</th>
<th>Follow-up X</th>
<th>Follow-up SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>35.70</td>
<td>13.03</td>
<td>31.33</td>
<td>10.53</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>37.07</td>
<td>9.84</td>
<td>37.71</td>
<td>9.27</td>
</tr>
<tr>
<td>AT</td>
<td>35.28</td>
<td>11.13</td>
<td>34.61</td>
<td>11.44</td>
</tr>
</tbody>
</table>

C. SAD

<table>
<thead>
<tr>
<th>Group</th>
<th>Posttest X</th>
<th>Posttest SD</th>
<th>Follow-up X</th>
<th>Follow-up SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>4.60</td>
<td>3.62</td>
<td>3.33</td>
<td>4.32</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>3.64</td>
<td>2.37</td>
<td>3.00</td>
<td>2.35</td>
</tr>
<tr>
<td>AT</td>
<td>4.36</td>
<td>3.79</td>
<td>3.07</td>
<td>2.95</td>
</tr>
</tbody>
</table>

D. FNE

<table>
<thead>
<tr>
<th>Group</th>
<th>Posttest X</th>
<th>Posttest SD</th>
<th>Follow-up X</th>
<th>Follow-up SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCD</td>
<td>10.40</td>
<td>9.14</td>
<td>7.00</td>
<td>0.17</td>
</tr>
<tr>
<td>AT-CCD</td>
<td>15.21</td>
<td>7.75</td>
<td>11.64</td>
<td>8.24</td>
</tr>
<tr>
<td>AT</td>
<td>14.14</td>
<td>7.64</td>
<td>11.07</td>
<td>6.31</td>
</tr>
</tbody>
</table>
A 3 x 1 ANOVA was performed on follow-up scores to determine if significant differences existed between groups at follow-up. The results are presented in Table 14.

Table 14
ANOVA Summary Table for Follow-up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>Group</td>
<td>2</td>
<td>2235.94</td>
<td>2.01</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>2</td>
<td>182.07</td>
<td>0.84</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>2</td>
<td>0.47</td>
<td>0.03</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>2</td>
<td>95.92</td>
<td>0.85</td>
</tr>
</tbody>
</table>

The procedure utilized to analyze change on follow-up scores is identical to that utilized to analyze change from pretreatment to posttreatment. Subtraction change scores and residual change scores were computed for posttest to follow-up, as well as for pretest to follow-up. A 3 x 1 ANOVA was performed to determine if significant differences existed between groups on these scores. The results on these analyses can be found in Table 15 and Table 16. These analyses did not produce
evidence of significant differences in subtraction change or residual change on the self-report measures RAS, STAI-T, SAD, or FNE from posttreatment to follow-up or from pretreatment to follow-up.

Table 15
ANOVA Summary Table for Change Scores from Posttest to Follow-up and Pretest to Follow-up

A. Posttest to Follow-up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>Group</td>
<td>2</td>
<td>119.95</td>
<td>0.24</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>2</td>
<td>51.09</td>
<td>0.37</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>2</td>
<td>8.24</td>
<td>0.09</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>2</td>
<td>4.23</td>
<td>0.07</td>
</tr>
</tbody>
</table>

B. Pretest to Follow-up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>Group</td>
<td>2</td>
<td>136.24</td>
<td>0.30</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>2</td>
<td>51.01</td>
<td>0.53</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>2</td>
<td>15.08</td>
<td>0.48</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>2</td>
<td>20.52</td>
<td>0.24</td>
</tr>
<tr>
<td>Variable</td>
<td>Source</td>
<td>df</td>
<td>SS</td>
<td>F</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>----</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>RAS</td>
<td>Group</td>
<td>2</td>
<td>255.38</td>
<td>0.58</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>2</td>
<td>70.13</td>
<td>1.50</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>2</td>
<td>4.75</td>
<td>0.67</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>2</td>
<td>2.01</td>
<td>0.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>Group</td>
<td>2</td>
<td>377.49</td>
<td>0.69</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>2</td>
<td>46.39</td>
<td>0.57</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>2</td>
<td>1.36</td>
<td>0.13</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>2</td>
<td>10.83</td>
<td>0.13</td>
</tr>
</tbody>
</table>
Chapter V

Discussion

The statistical analyses presented in Chapter IV were performed to assess the relative effectiveness of cue-controlled desensitization (CCD), assertiveness training (AT), and a combined assertiveness training and cue-controlled desensitization training (AT-CCD) as methods for increasing assertiveness and decreasing anxiety. The results will be discussed in this chapter in terms of the variables of interest -- assertiveness, state and trait anxiety, interpersonal anxiety, treatment credibility, and the relationship between assertiveness and anxiety. This chapter will conclude with a summary of the limitations of the present study and suggestions for future research. Throughout, references will be made to the hypotheses stated in Chapter II and plausible explanations offered for the findings.

Assertiveness: Self-Report and Behavioral Assessment

It was hypothesized that participants in the AT group and the AT-CCD group would evidence a significant increase in assertiveness as measured by the Rathus Assertiveness Schedule (RAS). This hypothesis, however, was not supported. No participants in any treatment group, including the no treatment control group (NTC)
reported a significant increase in assertiveness.

Several investigators (Bander et al., 1978; Harstook et al., 1976; Rathus, 1973) have reported an increase in assertiveness as measured by self-report instruments for their subjects who have completed some form of assertiveness training. Thus, the fact that the subjects in the present study failed to report a similar increase is a curious one. Attempting to assess distinctions between previous research and the present study is a difficult task, however, in that rarely does an investigator report, in detail, the components of the training program. Literally hundreds of program designs have been suggested (e.g., Butler, 1975; Cheek, 1976; Galassi and Galassi, 1977; Lange, 1978; and Osborn, 1975). Thus, examining the content aspect of the training program employed in the present study seems futile at best. (See "Future Research" section for further discussion of this point.)

One plausible explanation for these results may be the effect of the length of the treatment program. Some suggestive research by Bander et al. (1977) revealed that a minimum of eight hours of assertiveness training may be necessary in order to discern change on a self-report measure of assertiveness. In the present study, participants in the AT group received approximately six hours of training, while participants in the AT-CCD group received approximately four hours of AT. Some evidence for this explanation can be found by examining the means and standard deviations of change scores from pre- to posttreatment. While the means of the CCD and NTC groups
rose approximately 13-14 points, the means of the AT and AT-CDD groups rose approximately 22-23 points. These changes were not significantly different but may suggest a trend that would have reached significance had the treatment been extended. The large standard deviations affected this situation as well. There was a large amount of variance within the sampled population that was reflected in the standard deviations of the RAS (See Table 1.) Consequently, large changes would have been necessary in order to achieve levels of significance on the analysis of variance. This variance may be attributed to the fact that several aggressive women responded to the advertisement, identifying themselves as being in need of assertiveness training. An aggressive woman would score fairly high on the RAS.

Relatively few studies have included a follow-up procedure directed at assessing the stability of increases in assertiveness as a result of AT. McFall and Harston (1970) and Hedquist and Weingold (1970) found that significant differences in assertiveness no longer existed at a six week follow-up, while Galassi et al. (1975), who utilized a longer more extensive program, present contrary findings which indicate stability of long-term effects of AT. In the present study there were no significant differences between treatment groups at follow-up, nor were there significant changes in assertiveness from posttest to follow-up.
It was also hypothesized that participants in the AT group and AT-CCD group would evidence more assertive behavior during the Assertive Behavior Test (ABT) than would participants in the CCD group or NTC group. Results indicated, however, no differences between the groups on any of the nine characteristics of the ABT. As was briefly mentioned in Chapter IV, the reliability and validity of this instrument is very questionable due to the small and unequal n's.

The use of behavioral measures to assess changes in and/or differences between treatment groups on assertiveness has been frequent and has produced mixed results (Alberti and Emmons, 1974; Eisler et al., 1974; Galassi et al., 1974; Galassi et al., 1975; McFall and Lillesand, 1971; McFall and Marston, 1970; Server, 1972). Unfortunately, the results of the present study do little to clarify the inconsistencies of previous research findings. It might be suggested, however, that the length of the treatment program could similarly have affected the ABT although similar trends in mean changes do not exist.

State and Trait Anxiety

It was hypothesized that participants in the CCD group and the AT-CCD group would evidence significantly less state anxiety than those in the AT group and NTC group as measured by the Anxiety Differential (AD). The AD was administered in order to
assess how anxious subjects felt about asserting themselves during the roleplays of the ABT. Results indicated that no significant differences existed between the groups.

These results are contrary to the findings of other investigators (Lent, 1979; Lent and Russell, 1978) who administered the AD in a pre- and posttreatment design to subjects who had received CCD training for speech and test anxiety, respectively. In both studies the level of state anxiety significantly decreased between pre- and posttesting; however, only Lent (1979) found CCD to be more effective than the NTC group in reducing state anxiety. Several important differences between the present study and Lent (1979) and Lent and Russell (1978) are of interest and may explain the discrepancies in the results. First is the experience level of the counselors or group leaders. Lent (1979) and Lent and Russell (1978) used PhD level counselors with previous experience in CCD training while the present study employed Masters level counselors who had some experience with progressive relaxation only. Hence, they were relatively unsophisticated in the administration of CCD, and received training only three to four weeks prior to the treatment groups beginning.

A second difference was the length of the treatment program. Subjects in the present study received three to four hours of CCD training over a 4 week time period while subjects in Lent and Lent and Russell received 5 hours of training over a 5 week period. Perhaps the difference in the actual amount of training as well as
differences in a massed versus distributed training program had an effect on reducing state anxiety.

There is also a difference in presenting problems. While test and speech anxieties tend to be somewhat specific, unassertiveness can be either generalized, specific to a few situations, or specific to many situations depending upon the individual. While a strong attempt was made to utilize CCD hierarchies which would tap into a variety of situations, the CCD procedure may not be as amenable to so broad a presenting problem as assertiveness.

In addition, it is not known whether subjects in the present study made any attempts at employing CCD during the roleplays, although use of the cue-word "calm" was encouraged during role-playing in the CCD and the AT-CCD treatment groups. Theoretically, if subjects had utilized CCD procedures, they would have experienced less state anxiety.

It was hypothesized as well that participants in the CCD group and AT-CCD group would evidence a significant decrease in trait anxiety as measured by the State-Trait Anxiety Inventory, Trait Form (STAI-T). This hypothesis was not supported; rather no participants reported a decrease in trait anxiety.

Again, this in contrary to the results reported by Lent (1979) and Lent and Russell (1978) who administered the STAI-T at pre and posttesting. In both studies the level of trait anxiety significantly decreased between pre- and posttesting;
however, only Lent and Russell found CCD to be more effective than systematic desensitization (SD) or NTC in reducing trait anxiety. Lack of significant results in the present study suggests that the CCD procedure employed did not affect how subjects generally feel in situations which they perceive as threatening. The experience level of the group leaders and length of treatment may account for discrepancies. In addition, participants were asked to record practicing relaxation and visualizing but were not asked to record general situations in which they were using the cue word. Several subjects, however, reported successfully using the cue word to relieve anxiety related to studying and test taking.

In terms of follow-up assessment, there were no significant differences between treatment groups, nor were there any significant changes in trait anxiety from pretest to follow-up or from posttest to follow-up. These results contrast with the findings of Lent who found a significant decrease for all groups, including NTC, at follow-up on the STAI-T. Lent and Russell, however, support the findings of the present study reporting no change in trait anxiety at follow-up. Since there were no changes from pre- to posttest in the present study, no conclusions can be drawn about the follow-up results.
Interpersonal Anxiety

It was hypothesized that participants in the AT-CCD group and CCD group would evidence significantly less interpersonal anxiety than those in the AT group or NTC group as measured by the Social Avoidance and Distress Scale (SAD) and the Fear of Negative Evaluation Scale (FNE). Results showed no differences between groups and no changes over time (at posttest or follow-up) on either the SAD or FNE.

These results differ from Lent's (1979) who administered the SAD and the FNE at pre- and posttreatment, and found decreases over time on both measures. Experimental groups did not differ on either measure. Because Lent utilized a repeated measures design, lack of an interaction effect suggests that the treatment did not affect the decrease in interpersonal anxiety. Interpreted in this manner, Lent's findings do not differ from those in the present study.

Both investigations call to question the efficacy of CCD to reduce interpersonal anxiety. In his discussion of systematic desensitization (SD), Wolpe (1969) suggests that SD is relevant for anxiety responses to non-personal stimuli while progressive relaxation alone (Jacobson, 1969) is relevant for interpersonal situations. Except for procedural differences, SD and CCD are similarly grounded. The present study then supports Wolpe's suggestion.

The specific nature of the hierarchies utilized in the CCD
procedure may detracted from the benefit which the general relaxation procedure provided. Perhaps, then, use of progressive relaxation alone, rather than CCD, would decrease interpersonal anxiety. (The effect of AT on anxiety will be discussed in a later section of this chapter.)

Treatment Credibility

It was hypothesized that participants would view all treatment approaches as equally credible. This hypothesis was rejected. Participants viewed AT as significantly more credible than CCD or AT-CCD which were seen as equally credible (AT > CCD = AT-CCD).

These findings seem directly related to participants' expectations when responding to the initial advertisement. While no data was collected on participants' previous knowledge of assertiveness training, the popular sources available to the public discuss "traditional" AT (as was utilized in the AT group) as opposed to CCD training (as was utilized in the AT-CCD and CCD groups).

In addition, one problem affecting the AT-CCD group involved the attempt to teach both assertiveness skills and CCD within four hour and a half sessions. The effort required to master and integrate both skills may have been overwhelming, resulting in a questioning of the treatment effectiveness/credibility.

Although the CCD group was seen as less credible in the present study, Lent (1979) reported similar means on the CQ for his CCD groups. The CQ was administered during treatment three times
by Lent with means of 37.4, 38.3, and 41.4. This is similar to
the present study reporting a mean of 38.11 for the CCD group
and 39.5 for the AT-CCD group (See Table 11).

The Relationship between Assertiveness and Anxiety

As was discussed in Chapters I and II, the literature and
research concerning the relationship between assertiveness and
anxiety has revealed mixed results. In general, correlational
studies have shown an inverse relationship between these two
traits (Gay et al., 1975; Orenstein et al., 1975) while outcome
studies have challenged whether that relationship affects
treatment and/or outcome (Bander et al., 1978; Harstook et al., 1976).

In the present study, it appears that assertiveness training
did not affect state, trait, or interpersonal anxiety. This
contradicts Wolpe (1958) who suggested SD for reducing non-
interpersonal anxiety and AT for overcoming interpersonal
anxiety. One might take this contradiction further to challenge
the "initiators" of assertiveness (Salter, 1949; Wolpe, 1958, 1969)
who defined the assertive person as one who "is free of anxiety"
(Salter, 1949, p. 46). Given the limitations of the present study
(and outcome studies in general) this challenge seems extremely
bold. Perhaps this issue represents an example of the gap between
theory and application.

On the question of the correlational relationship between
assertiveness and anxiety, partial correlation coefficients between the RAS, STAI-T, SAD, and FNE are presented in Table 17 (See appendix 5). There exist significant inverse relationships between a self-report measure of assertiveness and self-report measures of trait and interpersonal anxiety. Thus, the present study supports the results of other correlational research on assertiveness and anxiety (Gay et al., 1975; Orenstein et al., 1975). In conclusion, then, there is evidence for correlational inferences rather than causal ones.

Limitations

Several limitations of the present study warrant discussion including: the length of treatment, size of treatment groups, previous experience of group leaders and group members, monitoring the use of CCD, and subject recruitment.

The length of the treatment may well have affected both CCD and AT training in light of both Bander et al.'s (1978) findings on AT, and the contrary findings of Lent (1979) and Lent and Russell (1978) using CCD. It appears that a minimum of eight hours of AT is necessary in order to detect significant changes on a self-report measure of assertiveness like the RAS. It also appears that a more extended CCD training program (perhaps 5 weeks minimum) is necessary for subjects to master and integrate CCD procedures. Additionally, there was an obvious trade-off for the combined AT-CCD group in
terms of treatment length. These groups received less AT and less CCD training in order to receive an equal amount of total treatment time.

The size of the treatment groups in the present study is a serious limitation and may well account for the lack of significant effects on the four main dependent measures (RAS, STAI-T, SAD, and FNE). The size of the treatment groups resulted in low statistical power of the tests performed. With four groups and approximately 12 subjects per group, the probability of obtaining a statistically significant result for the ANOVA F test ($p \leq .05$) is .60 for a "large" effect, and only .26 for a "moderate" effect (Cohen, 1977). A large effect corresponds to a difference between means that accounts for about 14% of the variation in a dependent variable. A moderate effect is one which accounts for about 6%. Initially, it was expected that large effects would be present in the population and therefore the power at .60 would have been marginally adequate for most tests. However, it appears, at least from the data, that most effects could be more correctly estimated as "moderate". (See Table 18 in Appendix 6.) The r-square values range from less than .01 to .09 which would indicate a moderate effect. If these can serve as estimates for the population r-squares then power would actually range from .08 - .40. Rather than concluding that there is no effect of treatment it would be more reasonable to
conclude that the effect is not as large as was hoped. (One would need approximately 44 subjects per group in order to observe effects if the effect size is "moderate".)

The group leaders in the present study lacked experience with CCD training. This factor may have contributed to differences between this study and Lent's (1979) and Lent and Russell's (1978). This could have been somewhat alleviated by use of a pilot study. No data was collected from the subjects on previous experience or knowledge of assertiveness training. This fact may have attributed to differential views of treatment credibility. In addition, it would have been helpful to know what methods (if any) subjects preferred to utilize for stress management. Swearingen (1980) suggests viewing stress management on a continuum from active or physical to passive or mental techniques. For example, jogging, swimming, or walking would be "active" approaches; meditation and bio-feedback would be "passive" approaches. CCD and progressive relaxation would fall in the middle of the continuum because they combine the physical (tensing and relaxing muscles) with the mental (imagery, associating relaxation with the word "calm"). Swearingen also suggests that many individuals have a preference for an area on the continuum. For example, athletic, outgoing or external people would prefer approaches on the upper half of the continuum while unathletic, unassertive, or internal
people would prefer approaches on the lower half of the continuum. While there is no empirical evidence at this time to support such a proposal, it is, nonetheless, an interesting one in view of observations by the group leaders when teaching CCD techniques. One woman had great difficulty lying still long enough to complete the progressive relaxation segment; a second woman did not believe in the credibility of the CCD technique claiming that she would prefer running. Both of these women reported themselves as generally assertive during the initial training sessions. If Swearingen's proposal has merit, a group of unassertive individuals might prefer meditation to reduce anxiety rather than CCD or progressive relaxation.

While subjects in the AT group were asked to monitor their assertive attempts between group meetings, subjects in the CCD group were asked to practice visualizing and progressive relaxation. This may have resulted in CCD group members failing to employ CCD techniques other than when in training sessions, and could have attributed to a lack of decrease in anxiety at posttreatment. Inquiry was also not made during the ART roleplays as to the use of CCD techniques to reduce anxiety.

One final limitation involves the recruitment of subjects. Use of self-referred subjects without pre-screening increased the chance of a varied population. This resulted in large standard deviations on the RAS requiring greater change in order
to detect significant differences.

Implications for Future Research

As a result of the limitations discussed in the previous section, the present study has not clearly delineated the effectiveness of combining AT and CCD training in order to increase assertiveness and decrease anxiety. Replication of this study with longer treatment, more experienced group leaders, and larger treatment groups would alleviate many of those limitations.

It is plausible, even given the limitations of the present study, that CCD is not effective with a broad presenting problem such as assertiveness. Future research dealing with assertiveness problems might compare the effectiveness of CCD with CCR (cue-controlled relaxation) which is less specific because it does not include a hierarchy. More closely monitoring subjects’ use of the cue-word is recommended in order to encourage mastering and integrating the CCD (or CCR) technique in general life situations.

The question of the relationship between assertiveness and anxiety remains unanswered as well. More well-controlled assertiveness training outcome studies are needed. In addition, the treatment packages utilized in future research need a higher degree of consistency. More detailed descriptions of group sessions are encouraged as a step
toward that end.
References


Johnson, P. A. The relationships of trait anxiety, personality characteristics, and values to assertiveness in the adult woman. Unpublished doctoral dissertation, The Ohio State University, 1976.


SAMPLE ADVERTISEMENT FOR GROUPS

WOMEN

DO YOU FIND IT DIFFICULT TO STAND UP FOR YOUR RIGHTS????
ARE YOU UNCOMFORTABLE EXPRESSING YOUR FEELINGS OF ANGER OR TENDERNESS????
DOES THE THOUGHT OF ASKING YOUR FRIEND OR ROOMMATE TO CLEAN UP THEIR MESS UPSET YOU????
DO YOU FIND IT DIFFICULT TO SAY 'NO' WHEN A FRIEND ASKS A FAVOR????

TRAINING GROUPS TO HELP YOU DEAL WITH THESE PROBLEMS ARE BEING OFFERED DURING WINTER QUARTER!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
GROUPS WILL BEGIN IN EARLY FEBRUARY AND WILL MEET 1 TIME/WEEK FOR 4 WEEKS.............

FOR MORE INFORMATION AND TO SIGN UP --------------- CALL
AUDREY GLENN  422-5766  Days / 299-3693  Evenings

These groups are being offered as a research project being conducted by DR. R. RUSSELL and AUDREY GLENN, a graduate student in Counselling Psychology
Statement to Subjects at Initial Phone Contact

The groups that are being offered for Assertiveness problems will be running from the third week through the eighth week of Winter quarter. There will be six groups scheduled, and depending upon your schedule and the schedule of the group leaders, you will be assigned to one of these groups.

The groups are being offered as part of a research project I am doing which is comparing three types of training for assertiveness. All three of these training methods have been successful in the past and I am now trying to find out if one is more effective than the other.

The groups will meet for an hour and a half for four weeks. It is important that I have a commitment from you to participate for the full 4 weeks. Before the groups begin, I will ask you to meet with me for half an hour during which you can ask further questions, fill out a consent form, which is required because this is a research project, and fill out a few questionnaires. I will ask you to meet with me for one additional hour also at the end of the 4 weeks again to fill out a few questionnaires as well as to give me your impressions of the group.

(At this point if the caller is interested, I asked her name, address, phone number, and if available, her Winter quarter schedule, and some times when she would be willing to have the group meet. I informed her that I would contact her during the first week of Winter quarter, to confirm group times and to arrange a pretesting time.)
Appendix 3A

Rathus Assertiveness Schedule

Directions: Indicate how characteristic or descriptive each of the following statements is of you by using the code given below.

+3 very characteristic of me, extremely descriptive
+2 rather characteristic of me, quite descriptive
+1 somewhat characteristic of me, slightly descriptive
-1 somewhat uncharacteristic of me, slightly nondescriptive
-2 rather uncharacteristic of me, quite nondescriptive
-3 very uncharacteristic of me, extremely nondescriptive

1. Most people seem to be more aggressive and assertive than I am.*
2. I have hesitated to make or accept dates because of "shyness".*
3. When the food served at a restaurant is not done to my satisfaction, I complain about it to the waiter or waitress.
4. I am careful to avoid hurting other people's feelings, even when I feel that I have been injured.*
5. If a salesman has gone to considerable trouble to show me merchandise which is not quite suitable, I have a difficult time in saying, "NO".*
6. When I am asked to do something, I insist upon knowing why.
7. There are times when I look for a good, vigorous argument.
8. I strive to get ahead as well as most people in my position.
9. To be honest, people often take advantage of me.*
10. I enjoy starting conversations with new acquaintances and strangers.
11. I often don't know what to say to attractive persons of the opposite sex.*
12. I will hesitate to make phone calls to business establishments and institutions.*
13. I would rather apply for a job or for admission to a college by writing letters than by going through with personal interviews.*
14. I find it embarrassing to return merchandise.*
15. If a close and respected relative were annoying me, I would smoother my feelings rather than express my annoyance.*
16. I have avoided asking questions for fear of sounding stupid.*
17. During an argument I am sometimes afraid that I will get so upset that I will shake all over.*
18. If a famed and respected lecturer makes a statement which I think is incorrect I will have the audience hear my point of view as well.
19. I avoid arguing over prices with clerks and salesmen.*
20. When I have done something important or worthwhile, I manage to let others know about it.*
21. I am open and frank about my feelings.
22. If someone has been spreading false and bad stories about me, I see him (her) as soon as possible to "have a talk" about it.
Rathus Assertiveness Schedule (cont.)

23. I often have a hard time saying "No".*
24. I tend to bottle up my emotions rather than make a scene.*
25. I complain about poor service in a restaurant and go elsewhere.
26. When I am given a compliment, I sometimes just don't know what to say.*
27. If a couple near me in a theatre or at a lecture were conversing rather loudly I would ask them to be quiet or to take their conversation elsewhere.
28. Anyone attempting to push ahead of me in a line is in for a good battle.
29. I am quick to express an opinion.
30. There are times when I just can't say anything.*

* These items are reversed scored.
Appendix 3B
State-Trait Anxiety Scale, Trait Form

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number at the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

1. I tire quickly 1 2 3 4
2. I feel like crying 1 2 3 4
3. I wish I could be as happy as others seem to be 1 2 3 4
4. I am losing out on things because I can't make my mind up soon enough 1 2 3 4
5. If I had my life to live over again, I would want it the same* 1 2 3 4
6. I am "calm, cool, and collected"* 1 2 3 4
7. I feel that difficulties are piling up so that I cannot overcome them 1 2 3 4
8. I worry beyond reason over something that really doesn't matter 1 2 3 4
9. I feel useless 1 2 3 4
10. I am inclined to take things hard 1 2 3 4
11. Life is a strain for me 1 2 3 4
12. I lack self confidence 1 2 3 4
13. I shrink from facing a crisis or difficulty 1 2 3 4
14. I feel blue 1 2 3 4
15. I do (have done) many things which I regret 1 2 3 4
16. I brood 1 2 3 4
17. Some unimportant thoughts run through my mind and bother me 1 2 3 4
18. I take disappointments so keenly that I can't put them out of my mind 1 2 3 4
19. I feel tired 1 2 3 4
20. I get in a state of tension or turmoil as I think over my recent concerns and interests 1 2 3 4

* These items are reversed scored.
Appendix 3C
Anxiety Differential

Instructions: In answering the items below, please make your judgments on the basis of what these things mean to you now. Each item contains a different concept to be judged and beneath it a scale. You are to rate the concept on the scale. Here is how you use the scales:

**EXAMS**

FAIR: X: ___: ___: ___: ___: ___: ___: UNFAIR
FAIR: ___: ___: ___: ___: ___: ___: X UNFAIR

In the example above, EXAMS were rated as extremely Fair or Extremely Unfair.

If you feel that the concept is QUITE CLOSELY RELATED to one or the other end of the scale (but not extremely), you should place your check as follows:

**EXAMS**

STRONG: X: ___: ___: ___: ___: ___: ___: WEAK
STRONG: ___: ___: ___: ___: ___: ___: X: ___: WEAK

If the concept seems only SLIGHTLY RELATED to one side as opposed to the other side (but is not really neutral), then you should check as follows:

**EXAMS**

ACTIVE: ___: ___: ___: ___: ___: ___: PASSIVE
ACTIVE: ___: ___: ___: ___: ___: ___: X: ___: PASSIVE

If you consider the concept or be NEUTRAL on the scale, both sides of the scale EQUALLY ASSOCIATED with the concept then you should place your check mark in the middle space.

SAFE: ___: ___: ___: ___: ___: ___: DANGEROUS

Make each item a separate and independent judgement. Don't worry or puzzle over individual items. It is your first impression, the immediate feelings about the items that we are interested in. On the other hand please do not be careless, because we want your true impressions.
Please rate the following concepts.

1. STRAIGHT: FINGERS: __________: __________: __________: ________: TWISTED
2. HELPLESS: ME: __________: __________: __________: ________: SECURED
3. TIGHT: BREATHING: __________: __________: __________: ________: LOOSE
4. STRONG: SCREW: __________: __________: __________: ________: WEAK
5. WET: HANDS: __________: __________: ________: DRY
6. LOOSE: TODAY: __________: __________: __________: ________: TIGHT
7. FRIGHTENED: ME: __________: __________: ________: FEARLESS
8. DEEP: GERMS: __________: __________: ________: SHALLOW
9. GOOD: HANDS: __________: ________: BAD
10. CAREFUL: BREATHING: __________: ________: CAREFREE
11. LOOSE: SCREW: __________: ________: TIGHT
12. STIFF: FINGERS: __________: __________: ________: RELAXED
13. CALM: ME: __________: ________: JITTERY
14. TIGHT: HANDS: __________: ________: LOOSE
15. HOT: BREATHING: __________: ________: COLD
16. CAREFREE: __: __: __: __: __: __: __: WORRIED

17. CLEAR: __: __: __: __: __: __: __: HAZY

18. LOOSE: __: __: __: __: __: __: __: TIGHT
Appendix 3D
Social Avoidance and Distress Scale

Please respond to the following statements by placing a T for TRUE or a F for FALSE in the left margin.

1. I feel relaxed even in unfamiliar social situations. (F)
2. I try to avoid situations which force me to be very sociable. (T)
3. It is easy for me to relax when I am with strangers. (F)
4. I have no particular desire to avoid people. (F)
5. I often find social occasions upsetting. (T)
6. I usually feel calm and comfortable at social occasions. (F)
7. I am usually at ease when talking to someone of the opposite sex. (F)
8. I try to avoid talking to people unless I know them well. (T)
9. If the chance comes to meet new people, I often take it. (T)
10. I often feel nervous or tense in casual get-togethers in which both sexes are present. (T)
11. I am usually nervous with people unless I know them well. (T)
12. I usually feel relaxed when I am with a group of people. (F)
13. I often want to get away from people. (T)
14. I usually feel uncomfortable when I am in a group of people I don't know. (T)
15. I usually feel relaxed when I meet someone for the first time. (F)
16. Being introduced to people makes me tense and nervous. (T)
17. Even though a room is full of strangers, I may enter it anyway. (F)
18. I would avoid walking up and joining a large group of people. (T)
19. When my superiors want to talk with me, I talk willingly. (T)
20. I often feel on edge when I am with a group of people. (T)
21. I tend to withdraw from people. (T)
22. I don't mind talking to people at parties or social gatherings. (F)
23. I am seldom at ease in a large group of people. (T)
24. I often think up excuses in order to avoid social engagements. (T)
25. I sometimes take the responsibility for introducing people to each other. (F)
26. I try to avoid formal social occasions. (T)
27. I usually go to whatever social engagements I have. (F)
28. I find it easy to relax with other people. (F)
Appendix 3F

Fear of Negative Evaluation Scale

Please respond to the following statements by placing a T for TRUE or a F for FALSE in the left margin.

1. I rarely worry about seeming foolish to others. (F)
2. I worry about what other people will think of me even when I know it doesn't make any difference. (T)
3. I become tense and jittery if I know someone is sizing me up. (T)
4. I am unconcerned even if I know people are forming an unfavorable impression of me. (F)
5. The opinions that important people have of me cause me little concern. (F)
6. I feel very upset when I commit some social error. (T)
7. I am often afraid that I may look ridiculous or make a fool of myself. (T)
8. I react very little when other people disapprove of me. (F)
9. I am frequently afraid of other people noticing my shortcomings. (T)
10. The disapproval of others would have little effect on me. (F)
11. If someone is evaluating me I tend to expect the worst. (T)
12. I rarely worry about what kind of impression I am making on someone. (F)
13. I am afraid that others will not approve of me. (T)
14. I am afraid that people will find fault with me. (T)
15. Other people's opinions of me do not bother me. (F)
16. I am not necessarily upset if I do not please someone. (F)
17. When I am talking to someone, I worry about what they may be thinking about me. (T)
18. I feel that you can't help making social errors sometimes, so why worry about it. (F)
19. I am usually worried about what kind of impression I make. (T)
20. I worry a lot about what my superiors think of me. (T)
21. If I know some one is judging me, it has little effect on me. (F)
22. I worry that others will think I am not worthwhile. (T)
23. I worry very little about what others may think of me. (F)
24. Sometimes I think I am too concerned with what other people of me. (T)
25. I often worry that I will say or do the wrong things. (T)
26. I am often indifferent to the opinions others have of me. (F)
27. I am usually confident that others will have a favorable impression of me. (F)
28. I often worry that people who are important to me won't think very much of me. (T)
29. I brood about the opinions my friends have about me. (T)
30. I become tense and jittery if I know I am being judged by my superiors. (T)
Appendix 3F

Credibility Questionnaire

Below are several questions designed to assess your reactions to the training you have received. This information will be helpful in planning future groups of this nature, as well as to help the group leaders in facilitating future groups. Please be as honest as possible. Thank you!

Place an "X" on the scale at the point which most closely approximates your feelings about the techniques:

1. How logical does this type of treatment seem to you?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all logical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely logical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How confident are you that this treatment will be successful if eliminating assertiveness problems?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. How confident would you be in recommending this treatment to a friend who was having problems with assertiveness?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely confident</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. If you were extremely anxious in assertiveness situations, would you be willing to undergo such treatment?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all willing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extremely willing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Credibility Questionnaire (cont.)

5. How successful do you feel this treatment would be in decreasing a different problem; for example, public speaking?

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>not at all successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>extremely successful</td>
</tr>
</tbody>
</table>

6. What was most helpful to you?**

7. What was least helpful to you?**

8. Specific feedback for your group leaders.**

** These questions are not part of the Credibility Questionnaire created by Borkovec and Nau (1972) but were included in order to solicit additional feedback for the group leaders and for the design in general.
Directions for the Assertive Behavior Test

1. In a few minutes I will ask you to do two practice roleplays with a woman who is helping me with this research study. (You will probably not know her.) These will take about 2-3 minutes each and will be tape recorded. (They will be completely anonymous)

2. You will be roleplaying two situations of YOUR choosing, so while you are waiting, please write down any two situations in which you would like to be assertive with another person. The "Roleplayer" will ask you to describe the other person and the situation so that she can act as if she were her or him.

Briefly describe the situations here:

1.

2.
Characteristics for Rating Roleplay Tapes

Speech Characteristics

1. Duration of Reply:
   Record the length of time subject speaks per response in each role play. If the subject pauses for more than 3 seconds, terminate timing until subject speaks again. Average across two role plays.

2. Latency of Response:
   Record length of time between roleplayer's responses/statements ending and subjects' responses beginning. Average across two roleplays.

3. Loudness of Speech:
   Rate loudness of subjects' speech for each roleplay on a 5 point scale from 1 (very low) to 5 (very loud). Average across two roleplays.

4. Fluency of Speech:
   Rate fluency of subject's speech for each roleplay on a 5 point scale from 1 (very non-fluent) to 5 (very fluent). Long pauses, hesitations, repetitions, use of ah, oh, um, you know, and other expletives are to be considered non-fluent speech. Average across two roleplays.

Content and Affect

1. Compliance Content:
   Compliance of verbal content is to be rated on a dichotomous occurrence/nonoccurrence basis for each situation. Compliance is scored when subject gets the roleplayer to comply or refuses to comply with roleplayer's request.

2. Content Requesting New Behavior:
   Scored on a dichotomous basis (occurrence/nonoccurrence) for each situation. The subject must evidence wanting the roleplayer to change her behavior.

3. Positive Content:
Characteristics for Rating ABT (cont.)

3. Positive Consent:

   Scored on a dichotomous basis (occurrence/nonoccurrence) for each role play. The subject expresses approval, admiration, or appreciation of the roleplayer or of herself.

4. Affect:

   Rate the emotional tone of subject's responses in each roleplay on a 5 point scale from 1 (flat, unemotional) to 5 (full, appropriate, affect). Average across two roleplays.

Overall Assertiveness

After rating all previous categories rate each subject's overall assertiveness in each role play on a 5 point scale from 1 (very unassertive) to 5 (very assertive). Average across two roleplays.
Roleplay Behavior Rating Form

1. Duration of Reply ________ minutes ________ seconds

2. Latency of Response ________ minutes ________ seconds

3. Loudness of Speech:

   1 2 3 4 5
   very low very loud

4. Fluency of Speech:

   1 2 3 4 5
   very non-fluent very fluent

5. Compliance Content: ________ Total number of occurrences

6. Requesting New Behavior: ________ Total number of occurrences

7. Positive Content: ________ Total number of occurrences

8. Affect:

   1 2 3 4 5
   flat unemotional full appropriate

9. Overall Assertiveness:

   1 2 3 4 5
   very non-assertive very assertive
Table 17

Partial Correlation Coefficients between RAS, STAI-T, SAD, and FNE Self-report Measures

<table>
<thead>
<tr>
<th></th>
<th>RAS</th>
<th>STAI-T</th>
<th>SAD</th>
<th>FNE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>1.00***</td>
<td>-.373*</td>
<td>-.500**</td>
<td>-.403**</td>
</tr>
<tr>
<td>STAI-T</td>
<td>1.000***</td>
<td>0.377*</td>
<td>0.409**</td>
<td></td>
</tr>
<tr>
<td>SAD</td>
<td>1.000***</td>
<td>0.516**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNE</td>
<td>1.000***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .01
** p < .005
*** p < .0000
Table 16  
Proportion of Variance Accounted for on Pre-, Posttreatment, and Follow-up

<table>
<thead>
<tr>
<th>Variable</th>
<th>Source</th>
<th>$F$</th>
<th>R-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Pretreatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAS</td>
<td>Group</td>
<td>0.20</td>
<td>0.097</td>
</tr>
<tr>
<td>STAI-T</td>
<td>Group</td>
<td>0.44</td>
<td>0.028</td>
</tr>
<tr>
<td>SAD</td>
<td>Group</td>
<td>0.34</td>
<td>0.797</td>
</tr>
<tr>
<td>FNE</td>
<td>Group</td>
<td>1.21</td>
<td>0.316</td>
</tr>
</tbody>
</table>

| B. Posttreatment |        |      |          |
| RAS      | Group  | 1.07 | 0.067    |
| STAI-T   | Group  | 0.12 | 0.003    |
| SAD      | Group  | 1.46 | 0.090    |
| FNE      | Group  | 0.84 | 0.054    |
| AD       | Group  | 1.54 | 0.105    |

| C. Follow-up |        |      |          |
| RAS      | Group  | 2.01 | 0.118    |
| STAI-T   | Group  | 0.84 | 0.053    |
| SAD      | Group  | 0.03 | 0.001    |
| FNE      | Group  | 0.85 | 0.438    |