

THE EFFECTIVENESS OF RELAXATION TRAINING  
IN REDUCING THE ANXIETY LEVEL  
OF VOCATIONAL REHABILITATION CLIENTS  
PRIOR TO AN AUDIO-VIDEOTAPED  
SIMULATION OF A JOB INTERVIEW

by

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(ABSTRACT)

The Department of Rehabilitative Services of the Commonwealth of Virginia is charged with the responsibility of assisting eligible citizens (clients) with physical and/or psychological handicaps to enter, return to, or remain in gainful employment. To accomplish this goal, it is often necessary to have the client undergo training in Job Search Skills (JSS). Part of this training includes helping clients to develop better job interviewing skills. Empirical evidence gathered in recent years indicates, however, that anxiety associated with job interviewing is a major problem for many clients.

This study was designed to field test a relaxation training technique to help vocational rehabilitation (VR) clients reduce their job interview anxiety. The subjects were 60 adult VR clients (46 males and 14 females) participating in a five-day JSS training program. The subjects were randomly assigned to one of two treatment groups: The experimental group (n = 30) and the control group (n = 30). On the first day of the program, all

subjects were administered the Trait Anxiety Scale of the State-Trait Anxiety Inventory (STAI). Experimental subjects received relaxation training and practiced self-relaxation during the five-day program. Control subjects received a placebo training exercise. On the fifth day of the program, all subjects completed the STAI State Anxiety Scale and had their blood pressure taken immediately prior to participating as the interviewee in an audio-videotaped simulation of a job interview.

Data were analyzed using frequency distribution, chi-square analysis, t-tests, and multiple regression analysis procedures. Results showed that the experimental group had significantly ( $p .01$ ) lower state anxiety scores than the control group. In addition, the groups were found to differ significantly on trait anxiety, years of education, age, and body weight. The interaction effects of these variables were discussed. It was concluded that relaxation training had a significant effect in helping rehabilitation clients to reduce their job interview anxiety. The implications of the findings for JSS training programs were discussed.

To and --for everything

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## TABLE OF CONTENTS

	Page
DEDICATION . . . . .	iv
ACKNOWLEDGEMENTS . . . . .	v
LIST OF TABLES . . . . .	viii
 Chapter	
1. INTRODUCTION . . . . .	1
Background And Practical Basis Of The Study . . . . .	1
Research Problem . . . . .	8
Purpose Of The Research . . . . .	8
Research Questions . . . . .	9
Definition Of Terms . . . . .	11
Delimitations . . . . .	12
Limitations . . . . .	13
Significance Of The Research . . . . .	14
Summary . . . . .	15
 2. REVIEW OF THE LITERATURE . . . . .	 16
Anxiety Described And Defined . . . . .	17
Assessment Of Anxiety . . . . .	19
Assessment: Physiological Reactions . . . . .	20
Cardiovascular Responses . . . . .	22
Assessment: Subjective Experiences (Self-Report) . . . . .	24
State-Trait Anxiety Inventory (STAI) . . . . .	25
Job Interview Anxiety: Real And Simulated . . . . .	28
Management Of Anxiety . . . . .	30
Hypnotic Techniques . . . . .	32
Summary . . . . .	37
 3. METHODOLOGY . . . . .	 38
Research Design . . . . .	40
Subjects And Sampling Procedures . . . . .	41
Instrumentation . . . . .	42

Cardiovascular Measures . . . . .	42
Subjective/Self-Report Measures . . . . .	44
Reliability . . . . .	45
Validity . . . . .	46
Procedures . . . . .	47
Data Analysis . . . . .	50
Descriptive Analysis and	
Hypothesis Testing . . . . .	51
Explanatory Analysis . . . . .	52
Summary . . . . .	52
4. RESULTS . . . . .	54
Descriptive Analysis and	
Hypothesis Testing . . . . .	54
Explanatory Analysis . . . . .	61
Summary . . . . .	63
5. DISCUSSION OF RESULTS . . . . .	67
Summary . . . . .	67
Discussion . . . . .	69
Conclusions . . . . .	73
Implications . . . . .	74
REFERENCES . . . . .	76
APPENDICES . . . . .	90
A. Subject Profile Sheet . . . . .	91
B. Informed Consent Form	
(Experimental Group) . . . . .	93
C. Informed Consent Form	
(Control Group) . . . . .	96
D. State-Trait Anxiety Inventory (STAI) . . . . .	99
E. Self-Relaxation Exercise . . . . .	101
F. Directions For Home Practice . . . . .	103
G. Interview Directions And Questionnaire	
(Interview Script) . . . . .	105
VITA . . . . .	108

LIST OF TABLES

Table		Page
4.1.	Frequency and Percent of Total Sample And of Treatment Groups on Sex and Type of Disability . . . . .	56
4.2.	Chi-Square Results of Relationships Between Groups on Sex and Type Of Disability . . . . .	56
4.3.	Summary Statistics for Total Sample On Individual Characteristics and Anxiety Measures . . . . .	58
4.4.	Comparison of Experimental and Control Groups on Individual Characteristics And Anxiety Measures . . . . .	59
4.5.	Analysis of Variance Table for the Regression Equation: Reduced Model . . .	64
4.6.	Multiple Regression Equation: Reduced Model . . . . .	64
4.7.	Multiple Regression Correlation Coefficients: Reduced Model . . . . .	65

## Chapter 1

### INTRODUCTION

#### Background and Practical Basis Of The Study

Selling yourself to a prospective employer on a job interview can be an anxiety-arousing and difficult task for anyone. However, if you have a handicap, or disability, the odds against you can seem overwhelming. The purpose of this study was to investigate and test the viability of an approach which might help to even those odds.

There have been numerous studies conducted on employer attitudes toward the disabled (Cohen, 1963; Hartledge, 1964, 1966; Hartledge & Roland, 1971; Reichel, 1975; Byrd, Byrd & Emener, 1977; Cole & Bragman, 1982), interviewing the disabled (Sweitzer & Deely, 1982), and accommodating the disabled (Berkeley Planning Associates, 1982; E. I. duPont de Nemours & Co., Inc., 1982; Strom & Ferris, 1982; Sweitzer & Deely, 1982). Although there is some indication that a more altruistic attitude among employers may be emerging (Gruder, Romer & Korth, 1978), recent studies still reveal employer concern about the disabled person's potential productivity (Ruffner, 1981; Zadney, 1980).

Nevertheless, as a result of the affirmative action programs which were created by the passing of the

Rehabilitation Act of 1973 and the Vietnam Era Veteran's Readjustment Act of 1974, personnel managers and interviewers are seeing an increased number of disabled job applicants (Cole & Bragman, 1983). Many of these applicants are sent to employers by state rehabilitation agencies such as the Department of Rehabilitative Services (DRS) of the Commonwealth of Virginia.

The mission of DRS is to "assist an eligible handicapped individual to enter, return to, or remain in gainful employment" (Department of Rehabilitative Services, 1977).

There are three phases to this vocational rehabilitation process. The first is the evaluative and diagnostic phase. This involves the assessment of the individual's aptitudes, interests, limitations, and needs vis-a-vis employment. The process begins with the client being assigned to a caseload counselor who will help him or her choose an appropriate vocational goal and plan strategies to attain that goal. Every client goes through this first phase of the vocational rehabilitation process.

If the rehabilitation plan includes either medical or psychological treatment, vocational training, or a program of academic education, the caseload counselor will arrange for these services to be provided to the client. The

delivery of these services would constitute the second phase of the rehabilitation process.

Once the client has completed the first and, if necessary, the second phase of the vocational rehabilitation process, he or she is assigned a placement specialist for phase three. This third phase involves the active search for employment. It is the placement specialist's responsibility to assist the client in finding and securing employment. That assistance may vary according to the needs of the particular client. The placement specialist may do nothing more than advise the client about opportunities that are available in the local job market. However, it is not unusual for the placement specialist to take a more active role and actually accompany the client on job interviews. In the latter case, the placement specialist can evaluate the client's performance during the interviews and make suggestions and recommendations when improvement is needed.

Traditionally, the placement of clients in jobs has been the ultimate goal of vocational rehabilitation and the criterion by which such programs have been judged (Burruss, 1962; Hutchinson & Cogan, 1974; Uglund, 1977; Bruyere, 1979; Puelo, 1979). Until recently, however, relatively few disabled individuals actually received satisfactory job placement services from state agency personnel (May & Vieceli, 1983). In this sense, DRS had been typical.

Despite the fact that the effectiveness of the agency was evaluated on the basis of the number of clients that were placed in jobs, DRS was placing more emphasis on the first two phases of the rehabilitation process and largely letting placement take care of itself.

In the last few years, however, rehabilitation professionals across the nation have become more aware of the vital role that placement services play in achieving successful vocational rehabilitations (Garvin, 1984). Public demand for reduced spending by government has forced state rehabilitation organizations to shift program priorities. This includes having placement services programs with definable outcomes and deemphasizing lengthy and expensive vocational preparation services (McFarland & Frost, 1981).

Responding to this new awareness and shift in emphasis, DRS has stepped up its commitment of funds, personnel, and other resources to the development and expansion of in-house training programs for clients to enhance the placement effort. These training programs are called Job Search Skills (JSS) training.

As currently structured, JSS training takes clients through a five-day workshop in designing a resume, completing job applications, identifying job lead resources,

and learning techniques to improve their performance on job interviews. This last component of the training, that dealing with interviewing, includes audio-videotaping clients in a simulated job interview. This technique enables the clients to observe their own performance and, thereby, gain a greater understanding of their particular interviewing problems.

The administrators of these JSS training programs conduct regular evaluations to determine the effectiveness of the training and, in general, have concluded that the programs are doing a good job (Department of Management and Systems Development, 1983). This conclusion is supported by the fact that JSS-trained clients generally show improvement in their ability to develop a resume and complete applications for employment. They also learn more about the local job market and how to search for jobs. Indeed, as a result of JSS training, clients are usually better prepared for the task of seeking employment. Unfortunately, however, they are often no better prepared to actually secure employment.

Despite management's overall satisfaction with the JSS training programs, there is empirical evidence which suggests that there may be some room for improvement, especially in that aspect of JSS training which is intended to enhance the client's ability to interview successfully.

This, at least, is the opinion of those DRS staff who work most closely with the clients during JSS training and the placement activities which take place immediately thereafter (P. Clutter, V. Johnson, J. Furey, personal communications, July, 1984).

Clutter is the Coordinator and head trainer at the JSS Program of the Northern Virginia Evaluation Center in Falls Church, Virginia. Johnson and Furey are placement specialists who serve as interviewers during JSS training and work with the JSS-trained clients after they have completed the program. Clutter and her colleagues are finding that many JSS-trained clients, both males and females, are still performing unsatisfactorily on the audio-taped simulated job interviews as well as on actual job interviews. Clinical observations and subjective ratings of the clients on these interviews have revealed that the primary reason for their poor performance is inadequacy or disturbance in one or more of the following areas: control and composure of posture and general body movements, direct eye contact, responsiveness and variability in facial expression, control and modulation of voice, attentiveness, ability to recall essential facts about personal background, and presence of mind to provide appropriate embellishment on responses and ask appropriate questions. The consensus

clinical opinion is that these are all manifest symptoms of anxiety associated with job interviewing.

It is easy to understand why rehabilitation clients would have a high degree of anxiety associated with interviewing for jobs. By definition, all rehabilitation clients have physical and/or psychological problems that diminish their abilities and undermine their self-confidence. In addition, many clients either have never held a job or have never known much success in employment and, therefore, have little in the way of positive experiences upon which to base their expectations and behavior. Consequently, it is not surprising that many of these clients, despite their JSS training, would continue to have difficulty controlling their anxiety, maintaining their composure, and showing the presence of mind to incorporate their newly-acquired knowledge into actual performance.

This, then, is the conclusion of those rehabilitation professionals who are closest to the situation and who have studied it for the past four years. Since 1983, the JSS training notes and summary clinical reports on 535 clients provide ample support for the assertion that anxiety continues to interfere with the performance of many JSS-trained clients on both audio-videotaped simulated job interviews during training as well as real job interviews. Though there are no hard data in the form of follow-up

studies to determine how many of these clients actually secured employment, the clinical evidence that there is a problem is convincing.

#### Research Problem

The research problem was embodied in the question: Would it be possible to train JSS clients to reduce and/or control their anxiety associated with job interviews? It has been determined that the existing training in interviewing skills is not resulting in satisfactory performance by clients in either real or audio-videotaped simulated job interviews. Anxiety has been identified as the culprit. Improvement is desired. To date, however, no approach to solving this training problem has been found.

#### Purpose Of The Research

The purpose of this study was to develop and test a training technique that might be incorporated into the JSS training regimen to teach clients how to reduce and/or control their job interview anxiety during job interviews. The technique that was developed and tested is predicated upon the principles of hypnosis, including self-hypnosis. The term that was chosen to describe it is relaxation training. The choice of this particular training technique and the term used to describe it can be justified from both

a common sense and scientific point of view and this will be done in the next chapter which is entitled Review Of The Literature.

### Research Questions

The primary intent of this study was to examine the relationship between relaxation training and the anxiety level of vocational rehabilitation clients immediately prior to a job interview situation. Although the job interview in this field experiment was only a simulation, it was considered to be highly representative of an actual job interview with regard to anxiety arousal. To accomplish this, it was necessary to set up a quasi-experimental condition in the field, where an experimental group received relaxation training and a control group did not. Anxiety was measured through a set of three cardiovascular measures and two self-report measures.

In addition to the primary focus of this study, it seemed worthwhile to consider some key individual client characteristics which could possibly have an interaction effect on self-report anxiety and cardiovascular responses associated with a job interview. These individual characteristics were the client's age, sex, weight, years of education, type of disability (physical, psychological, or both), and trait anxiety.

Restated, the central research question was: Would there be a significant difference in job interview anxiety level between clients who received relaxation training and clients who did not? This central research question gave rise to three specific research questions:

1. Would clients who received relaxation training have significantly different cardiovascular signs of anxiety (as measured by systolic blood pressure, diastolic blood pressure, and pulse rate) than clients who did not receive relaxation training?

2. Would clients who received relaxation training have significantly different self-report anxiety (state anxiety) than clients who did not receive relaxation training?

Additionally, due to the nature of the quasi-experimental design, it was necessary to compare the experimental and control groups on some key individual characteristics which could possibly have an interaction effect on self-report anxiety and cardiovascular responses associated with a job interview. The individual characteristics which were identified as worth considering for possible effects on the measures of anxiety were the client's age, sex, weight, years of education, and type of disability (physical, psychological, or both), and trait anxiety. Consideration of these individual characteristics formed the basis for a third research question:

3. Would clients who received relaxation training differ significantly with respect to key individual characteristics (age, sex, weight, years of education, type of disability and trait anxiety) from clients who did not receive relaxation training?

#### Definition of Terms

1. Hypnosis/Self-hypnosis. Hypnosis is a state of mind which is characterized by increased suggestibility, decreased power of conscious criticism, initiative, and will to act on one's own. One's focus of attention is narrowed and the general level of autonomic nervous system activity is lowered (e.g., heart rate, blood pressure, respiration rate). Whether guided by someone else or self-induced. Most experts agree that all hypnosis is really self-hypnosis; the individual never abandons ultimate control and cannot be hypnotized against his or her will.

2. Relaxation Training. A kind of training in which there is an emphasis on teaching others how to relax their mind and their body to promote the decrease of psychological distress. Relaxation training is often used as a synonym for self-hypnosis training because the techniques and effects are essentially identical.

3. Subjective, or Self-report, Experience. Referring to experience available only to the subject of the experience; not available to consensual validation; usually

referring to sensations originating in internal states; in the case of this study, anxiety.

4. Anxiety. (Described in the text).

5. Systolic Blood Pressure. Referring to the pressure exerted on the arterial walls by the blood during the systole, or period of active contraction of the heart muscle.

6. Diastolic Blood Pressure. Referring to the pressure exerted on the arterial walls by the blood during the diastole, or period of the cardiac cycle (between contractions) during which the heart dilates and the ventricles fill with blood.

7. Sphygmomanometer. An apparatus which measures the arterial tensions and blood pressure (described more completely in text).

#### Delimitations

This was not a study of how well vocational rehabilitation clients actually perform during either a simulated or a real job interview. Neither was it a study of the motivation or ability of vocational rehabilitation clients to learn and apply relaxation training. It was also not a study of how relaxation training operates to reduce anxiety, or whether relaxation training is superior to another kind of technique. It was, however, a study of the

effectiveness of relaxation training in reducing the anxiety level of vocational rehabilitation clients (in JSS) prior to participating as the interviewee in an audio-videotaped simulation of a job interview.

#### Limitations

As with most field experiments (as opposed to laboratory experiments) complete control of the experimental situation was not possible. Two possible weaknesses, or limitations, of this study bear mentioning. First, it was not possible to randomly select subjects; rather, subjects were drawn only from the pool of clients who had been referred to the Job Search Skills Training Program. The subjects were, therefore, not truly representative of the general client population so the findings cannot be generalized to all rehabilitation clients.

A second possible limitation of this study is that the independent variable, relaxation training, may have been contaminated by uncontrolled environmental variables (e.g., failure by the subject, for whatever reason, to practice self-relaxation). When viewed from another perspective, however, this may actually be a strength. As Kerlinger (1964) notes: ". . . the more realistic the situation, the more valid are generalization to other situations likely to be " (p.383).

### Significance Of The Research

The problem and the research questions and hypotheses it generated are important for three reasons. First, the problem directly and adversely affects the many clients in JSS training programs who are simply too anxious about job interviewing to perform satisfactorily. These clients must learn to interview with less manifest anxiety so that they might stand a better chance of securing employment and becoming taxpayers rather than continuing to be tax burdens. Second, DRS has demonstrated its commitment to JSS training by investing substantial amounts of public money in these programs and, therefore, has a stake in exploring any means available to make them more cost effective. Third, the use of hypnotic techniques within the context of JSS training is certainly uncommon, and may even be unique (this statement will be supported in the next chapter). Therefore, a study of this nature could be an important contribution to research in vocational rehabilitation and training.

This study, then, was motivated by both practical and theoretical concerns. The problem of interview anxiety continues to be a very real and costly one and it begs solution. If training in hypnotic techniques could be found to have a significant positive effect on the interview

anxiety of rehabilitation clients then future clients would benefit from a clinically improved JSS training program and the Commonwealth of Virginia would have a more efficient service agency. Should no difference be found between those clients who received relaxation training and those who did not, the study would still have heuristic value. Other investigators might find ways to improve upon this study and, thereby, either support the inclusion of hypnotic techniques in JSS training or rule out the idea as being either impractical or invalid.

#### Summary

This chapter was intended to establish the background, purpose, and rationale for this study. The next chapter will look at research that lends support to the assertions upon which this study was based. These assertions have to do with the nature of anxiety, the effects of anxiety upon human performance, and the specific circumstances under which anxiety was examined in this study. Chapter 3, Methodology, will provide a detailed description of the research design, instruments, procedures, population sample, and data analysis procedures. The results are reported in Chapter 4. In the final chapter, the findings are discussed and summarized and some conclusions and implications are presented.

## Chapter 2

### REVIEW OF THE LITERATURE

This study was based upon a set of assertions, all of which are related to anxiety. These assertions are that (a) anxiety can affect human performance, (b) anxiety can be experimentally manipulated and measured, (c) job interviewing can be an anxiety-arousing experience, (d) the anxiety-producing experience of job interviewing can be simulated through the use of audio-videotaped role play, and (e) hypnotic techniques can be used to help mitigate the adverse effects of anxiety.

There is common sense, or face validity, to each of these assertions. Prior to 1950, however, there had been relatively little formal research on human anxiety (Spielberger, 1966). The paucity of such research was probably due to a number of factors, not the least of which is the complex nature of anxiety.

The focus of this section will be on reviewing the research since 1950 that lends support to the five assertions mentioned above. Anxiety will be described and defined. Various approaches to assessing anxiety will be reviewed categorically and within the context of the effects of anxiety on human experience and performance. Emphasis

will be given to studies that have used one or more of the same assessment approaches that will be used in the present study. These approaches will be discussed in detail in the next chapter. Lastly, there will be a review of relevant studies that have used audio-videotaped role play to simulate anxiety-arousing situations and studies that have employed hypnotic techniques to reduce/control anxiety.

### Anxiety Described and Defined

In the last three and a half decades, anxiety as a theoretical construct has been greatly clarified and there has long been general agreement in the clinical literature as to what is meant by anxiety. Quoting from the American Handbook of Psychiatry (Portnoy, 1959), Martin and Sroufe (1970) provide a typical description of anxiety:

. . . . . subjectively experienced uneasiness, apprehension, anticipation of danger, doom, disintegration, and going to pieces, the source of which is unknown by the individual and toward which he feels helpless, with a characteristic somatic pattern. This somatic pattern shows evidence of increased tension in the skeletal muscles (stiffness, tremors, weakness, unsteadiness of voice, etc.); the cardiovascular system (palpitation, blushing or pallor, faintness, rapid pulse, increased blood pressure, etc.); and the gastrointestinal system (nausea, vomiting, diarrhea, etc.). There may also be other manifestations such as cold wet extremities, rapid or irregular breathing, frequency of urination, and sleep disturbance . . . (p.216).

As can be seen from the foregoing description, anxiety is usually thought of as a multiple response reaction or syndrome. Furthermore, the term anxiety is really used to describe two completely different, though related, constructs. Perhaps the most common use of the term anxiety is to describe an unpleasant emotional state. However, when an individual has a relatively stable or enduring tendency to be anxiety-prone, then that person can be said to have an anxiety trait in his or her personality.

The concepts of state and trait anxiety are not new. The terms were first introduced by Cattell (1966; Cattell & Scheier, 1961, 1963) and subsequently refined by Spielberger (1966, 1972, 1976, 1979, 1983). A clear and concise definition of state and trait anxiety and their relationship to each other is provided in the Manual for the State-Trait Anxiety Inventory (STAI):

Although personality states are often transitory, they can recur when evoked by appropriate stimuli; and they may endure over time when the evoking conditions persist. In contrast to the transitory nature of emotional states, personality traits can be conceptualized as relatively enduring differences among people in specifiable tendencies to perceive the world in a certain way and in dispositions to react or behave in a specifiable manner with predictable regularity.

Personality traits have the characteristics of a class of constructs that Atkinson (1964) calls "motives" and that Campbell (1963) refers to as "acquired behavioral dispositions." Atkinson defines motives as dispositional tendencies acquired in childhood that are latent until the cues of a situation activate them. Acquired dispositional concepts, according to Campbell, involve residues of past

experience that dispose an individual both to view the world in a particular way and to manifest "object-consistent" response tendencies.

Trait anxiety (T-Anxiety) refers to relatively stable individual differences in anxiety-proneness, that is, to differences between people in the tendency to perceive stressful situations with elevations in the intensity of their state anxiety (S-Anxiety) reactions. T-Anxiety may also reflect individual differences in the frequency and intensity with which anxiety states have been manifested in the past, and in the probability that S-Anxiety will be experienced in the future. The stronger the anxiety trait, the more probable that the individual will experience more intense elevations in S-Anxiety in a threatening situation (Spielberger, 1983, p.1).

It is not enough, however, to merely describe and define anxiety. To understand anxiety, it is necessary to examine the phenomenon through experimental manipulation and this implies measurement or assessment.

#### Assessment of Anxiety

In addition to providing descriptions and definitions of anxiety, the formal research of Spielberger and many others has also done much to enhance our understanding of anxiety by assessing its effects on human experience and performance. Although an exhaustive and detailed review of this literature would go beyond the scope and focus of this chapter, it would facilitate understanding of the present study to look briefly at some of the relevant work which exemplifies the assessment of subjective and somatic, or physiological, aspects of the anxiety reaction.

### Assessment: Physiological Reactions

One of the most frequently examined physiological aspects of the anxiety reaction is skin conductance level or galvanic skin response (GSR). Though attempts to discriminate experimental subjects on the basis of resting skin conductance level have been largely negative or equivocal (Malmo, 1957), there have been successful attempts to discriminate experimental subject's GSR during moments of stress. For example, in his now classic study of novice parachutists, Epstein (1962) found higher GSR levels before than after a jump, and also greater GSR's in response to words and pictures related to jumping on the day of the jump than at a time two weeks away from a jump.

Since Epstein's study, many other investigators have used the GSR to analyze individual differences in performance in response to anxiety (Kilpatrick, 1970; Katkin, 1975; Kilpatrick, Sutker, Roitzsch, & Mason, 1975; Haney & Euse, 1976; Harris, 1985). In fact, the validity and reliability of the GSR as a measure of anxiety has been so thoroughly established, it is not surprising that it has remained one of the indices of the polygraph examination which is used to detect the anxiety that is (supposedly) associated with lying.

It has been argued, however, that the GSR may not be the best single measure of anxiety (Martin, 1961), and there are some instances in which another measure may be more appropriate. For example, in a now well-known study, Brady (1958) examined the effects of stress on gastric activity. Brady found that "executive monkeys," those monkeys responsible for preventing regularly scheduled shocks, developed peptic ulcers while yoked monkeys that received the same number of unavoidable shocks did not. More recent studies of gastrointestinal activity and anxiety include: Christodoulou, Mevizo, & Konstantakakis, 1983; Bergeron, 1983; Goldsmith, Regimball, McEwen, & Hill, 1983; Judah, 1983; and Sigman & Amit, 1983.

Other physiological indices which have been used in the study of anxiety include the pupillary response (Rubin, 1962, 1964; Matheson, 1973; Janisse, 1976, 1977; Beatty, 1982), respiration (Foss, 1976; Sebej, 1980; Sebej & Mullner, 1980; Grossman & DeFares, 1983), and brain wave activity (Bray, 1975; Hord, Tracy, Lubin, & Johnson, 1975; Valle & DeGood, 1977; Frost, Burish, & Holmes, 1978; Kotzen, Needham, Honigbug, Vallner, Stewart, Brown, & Jun, 1979; Critelli, 1980; Fisher & Dyer, 1981; Vincent, 1981).

Perhaps the most commonly and successfully employed measures of anxiety in research, however, are the

cardiovascular responses (heart rate and blood pressure). The major reasons for this may be the relative ease with which these responses can be measured and the accuracy and reliability of the instruments which are used to take these measures.

### Cardiovascular Responses

The cardiovascular responses include the systolic blood pressure, diastolic blood pressure, and heart rate. When the heart contracts, it forces blood through the arteries, and the pressure on the artery walls increases. This is called the systolic blood pressure. When the heart relaxes between contractions, or beats, the pressure levels off, and this is called the diastolic blood pressure. The number of times that this cycle of contractions and relaxation occurs per minute is called the heart rate. The heart rate is usually measured by taking the pulse rate of an artery (Grollman, 1970).

Many studies using the cardiovascular responses as measures of anxiety have focused on the immediate response to strong aversive stimuli. Graham and Clifton (1966) reviewed these studies which include responses to intense cold (Engel, 1960; Obrist, 1963), loud noises (Uno & Grings, 1965), and electric shock (Zeaman, Deane, & Wenger, 1954).

More relevant to most clinician's concept of anxiety, however, would be responses in anticipation of some aversive stimuli. The majority of recent studies of this nature have used anticipation of electric shock. For example, Adams (1981) used electric shock as a negative reinforcer to study cardiovascular responsiveness to stress in college males at risk for hypertension. In a study of age differences in cardiovascular reactivity, Ginter (1984) measured heart rate, systolic blood pressure, and diastolic blood pressure using electric shock as a negative reinforcer on a reaction time task. In another study of reaction time, Ellender (1984) used both electric shock and a loud noise as negative reinforcers.

Cardiovascular responses have also been used as dependent variables in studies of anxiety which is caused by factors other than the anticipation of an aversive stimulus. For example, Harris (1985) studied cardiovascular reactivity in subjects taking mathematics and anagram tests and, in a relatively rare study of cardiovascular responses in children, Mueller (1984) examined the effects of stressful life circumstances and events. It has also been demonstrated that the heart accelerates and blood pressure increases in response to anxiety-producing situations such as anticipating oral exams (Hickham, Cargill, & Golden,

1948) and criticism from others (Malmo, Boag, & Smith, 1957) - - situations not unlike that of a job interview.

In summary, then, the usefulness of cardiovascular responses as measures of elevated anxiety has been well demonstrated in previous research.

It would stand to reason, therefore, that cardiovascular responses are also excellent measures of lowered anxiety level. Benson (1983a, 1983b) provides a good review of cardiovascular measures within the context of research on the physiology of the relaxation response.

Recalling the typical description of anxiety given earlier, however, physiological reactions are only one aspect of the anxiety phenomenon. The other aspect of anxiety is subjective experience and this has also been thoroughly examined.

#### Assessment: Subjective Experiences (Self-Report)

Subjective experiences are obtained, in most formal research studies, with the use of self-report instruments. These instruments record the subject's report about their thoughts and feelings. The Taylor Manifest Anxiety Scale (Taylor, 1953), the IPAT Adult Anxiety Scale (Cattell, 1957), and the Neuroticism Scale of the Maudsley Personality

Inventory (Eysenck, 1959) are examples of some of the more widely known and used self-report instruments to measure anxiety. Like so many other instruments of this nature, however, they assumed popularity among researchers only to eventually fall from favor. With the benefit of hindsight, it can be seen that their demise was inevitable.

In truth, it was probably a misnomer to have labeled these scales as measures of anxiety, per se. The "face validity" of the items employed in these scales reflect many affective states and, therefore, "a broader term such as neuroticism might well be a more appropriate label for what these scales measure" (Martin & Sroufe, 1970, p.238). Furthermore, though these scales generally correlated fairly highly with one another, they were not found to have any significant relationship with physiological measures. It is little wonder, then, that these scales have vanished from the research scene.

#### State-Trait Anxiety Inventory (STAI)

Since 1968, according to Buros (1978), the self-report instrument used more often in research than any other to measure anxiety is the STAI. In fact, during the period from 1979 to 1984, the STAI was used in more than 225 published studies per year (Spielberger, 1984). The STAI

has also been widely used as a cross-cultural research instrument for anxiety and has been translated or adapted in 37 languages or dialects (Spielberger & Diaz-Guerrero, 1975, 1983).

Research with the STAI has been stimulated by the growing consensus among clinicians and behavioral and medical scientists regarding the importance of differentiating between transitory emotional states of anxiety and anxiety as a relatively stable personality trait (Spielberger, 1984). Instruments such as the Taylor Manifest Anxiety Scale and others mentioned earlier did not do this and, therefore, were not appropriate for examining many anxiety-related problems. The STAI, on the other hand, is much more flexible. For example, the STAI has been used to study how anxiety affects complex human learning tasks such as concept formation and discrimination (O'Neil, 1978), programmed learning (Dallos, 1976), computer-assisted instruction (Shelton, 1980), and behavioral modeling techniques (Green, 1983).

A number of studies have been done on the effects of anxiety on recall, short-term memory, and memory orientation (Hermann, 1982; Smith, Ingram, & Brehm, 1983). The relationship between anxiety and academic achievement has been an especially popular area of research (Heinrich, 1975;

King, Heinrich, Stephenson, & Spielberger, 1976; Flake & Smith, 1981; Traub, 1983).

The STAI has even been used as a measure of anxiety in competitive situations such as sports (Argote, Fisher, McDonald, & O'Neal, 1976; Huddleston & Gill, 1975; Scanlon, 1977).

Finally, and most directly related to the focus of this study, the STAI has been used as a measure of situation-specific anxiety. This is anxiety-proneness in particular situations such as taking tests (Allen, Elias, & Zlotlow, 1980; Depreeuw, 1982; Ndimbie, 1984; Hermes, 1985), being confronted with a phobic stimulus (Goetsch, 1985), and having to speak in front of people or be exposed to some other socially threatening situation (Osberg, 1980; Gross & Fremouw, 1982; Pirone, 1984).

These studies are, of course, only examples of the abundant research which has been performed using the STAI as a measure of subjective, or self-report, anxiety. It should be noted, however, that the STAI was frequently not the only measure of anxiety that was employed in this research. The STAI has often been used in concert with physiological measures such as cardiovascular responses (Klorman & Ryan, 1980; Levenson & Ditto, 1981; Shandry, 1981; Larkin, 1982; Billotti, 1984). In fact, it was based upon this research

that the STAI and cardiovascular measures were chosen for use in the present study. A more detailed discussion of how this particular two-measure approach was applied will come later. First, however, it is necessary to address the remainder of the assertions upon which this study was based.

#### Job Interview Anxiety: Real And Simulated

All of the research cited thus far supports, in a general way, the assertions that anxiety can affect human performance and that anxiety can be experimentally manipulated and measured. The third and fourth assertions are, respectively, that job interviewing is an anxiety-arousing experience and that this experience can be successfully simulated through the use of audio-videotaped role play.

Certainly, the assertion that job interviewing can be anxiety arousing makes common sense and is tacitly understood and accepted. This assertion has also been the premise upon which many formal research studies have been based. For example, King and Manaster (1979) studied the effects of anxiety on body image, self-esteem, expectations, self-assessments, and actual success in simulated job interviews. In reality, of course, actual job interviews are not subject to experimental manipulation and

measurement. Therefore, to study the effects of job interview anxiety, it is necessary to simulate the experience as realistically as possible.

In recent years, the use of audio-videotaped role play to simulate real life situations has become a widely-accepted technique in both research and training. For example, Keefe (1980) used a videotaped simulation of an intake interview with a suicidal client to study the reactions of psychotherapists. Robar (1978) compared the effectiveness of live, video-taped, and audio-taped group relaxation training on the ability to reduce physiological and self-report measures of anxiety, and Suozzi (1977) and Stein (1978) examined the effects of videotape playback on self-report anxiety.

Due to the natural uneasiness associated with being in an unfamiliar situation and being evaluated by another person, most people find job interviews to be anxiety-ridden experiences. Although a simulated job interview may not be quite as anxiety arousing as the real thing, most people are initially nervous about the camera and microphone and are self-conscious about being taped. These factors help to make up for some of the anxiety that would otherwise be present during an actual job interview. As a matter of fact, many clients who have undergone simulated interviews report that the absence of the recording equipment in a real

job interview actually helps them to relax (Pryor & Ward, 1985).

In light of the common sense and research evidence, then, it seems reasonable to accept the assertions that job interviews are anxiety arousing and that this experience can be successfully simulated through the use of audio-videotaped role play exercises.

The last of the five assertions put forth at the beginning of this chapter is that hypnotic techniques can be used to mitigate the adverse effects of anxiety. To support this assertion and establish the rationale for choosing hypnotic techniques for use in this study, it is necessary to take a look at the clinical management of anxiety in general, and hypnotic techniques in particular.

#### Management Of Anxiety

There are a variety of clinical approaches to the management of anxiety and there has been ample research on the singular, combined, and relative effectiveness of each approach. A sampling of this research would include the use of traditional psychotherapy and counseling procedures (Elizabeth, 1983; deJong, 1984), systematic desensitization procedures used alone (Leidy, 1979; Graser, 1981; Knapp, 1982) and in conjunction with biofeedback and other behavior

treatments (Bennett, Holmes, & Frost, 1978; Rupert & Holmes, 1978), stress management techniques (Ganster, Mayes, Sime, & Tharp, 1982; Schloss, Sedlak, Wiggins, & Ramsey, 1983), social support (Sangal, Coyle, & Hoesar, 1983; Schoeneman, Reznikoff, & Bacon, 1983), and physical exercise (Wood, 1977; Sinyor, 1984).

As effective as some of these techniques may be, however, each has certain practical drawbacks which precluded their use in the present study. For example, time constraints and the demand for specialized personnel make traditional psychotherapy/counseling and systematic desensitization impractical approaches for a one-week JSS training program. Biofeedback techniques are good, but they are also time-consuming and the best results are usually obtained with the use of highly expensive equipment which is not generally available to state-sponsored JSS training programs. Stress management procedures, social support, and physical exercise are also impractical procedures for dealing with interview anxiety.

Currently, the greatest amount of support for clinical efficacy in anxiety management exists for hypnotic techniques; specifically, self-hypnosis or relaxation. This, at least, is the conclusion of a recent study by Stainbrook, Hoffman, and Benson (1983). Considering treatment outcome, durability of results, and cost

effectiveness, Stainbrook et al. maintain that relaxation training is preferable to any other technique for controlling anxiety.

### Hypnotic Techniques

The word "hypnosis" is really a misnomer. Although it is derived from the Greek word "hypnos" which means sleep, hypnosis is not sleep. In fact, the word, and the subject itself, are so generally misunderstood that most people regard it with some skepticism, if not fear. As a result, many who have wanted to use hypnotic techniques but have not wanted to align themselves with the negative connotations of the name have used the less mystified and, therefore, less potentially threatening term "relaxation." Indeed, such was the case in the present study. Nevertheless, most clinicians who use hypnotic techniques understand that "hypnosis by any other name is still hypnosis" (Greene, 1982, p.7).

In truth, however, there does not appear to be one universally accepted definition of hypnosis and controversy exists as to whether it is a state of consciousness or whether a person possesses a trait of hypnotic responsiveness. Most clinicians accept both positions (i.e., people differ in their hypnotic responsiveness and

those who are highly hypnotizable choose when to experience the hypnotic state).

Hypnosis is probably best understood by observing persons who are in a hypnotic state and listening to their descriptions of the experience. Generally, the eyes close, the respiration rate slows, and the muscles relax. When asked to describe the hypnotic experience, or "trance," the person will usually note mental and physical relaxation. Depending on the depth of the trance, other phenomena may occur such as feelings of derealization and disorientation (Fiel, 1982).

The phenomenon of hypnosis, which includes self-hypnosis or relaxation, is certainly not a recent discovery. The principles and techniques of hypnosis have been known and practiced for many centuries in primitive as well as advanced societies. "Primitive peoples have long resorted to dancing, chanting, and singing to drive away demons and restore health. Ancient Greeks used special rooms for 'temple sleep' to create a sense of well-being, and throughout other cultures, references have been made to visions, the 'magic touch,' and exorcism as a means of healing" (Smith, 1982, p.30). The Bible contains several hundred references to the apparent use of hypnotic-like methods (Erickson, Hershman, & Secter, 1981). However, the modern history of the scientific application of hypnotic

techniques is generally thought to have begun in France in the 1770's with the work of a Viennese physician named Franz Mesmer and his concept of "animal magnetism" (Smith, 1982).

As Smith relates the history:

He gained a wide following until the King of France appointed a commission to evaluate "animal magnetism." That commission comprised of Chairman Benjamin Franklin, astronomer Bailly, chemist Lavoisier, and Guillotin, among others, found that mesmerism did not work, but that the results were dependent upon the imagination of the patient. The professional community lost what respect it might have had for mesmerism and few physicians continued to use it.

James Braid revived mesmerism, giving it the name "hypnosis," yet disbelief regarding its efficacy in treatment persisted. Charcot and Freud both were interested in its applications, but Freud ceased to use it because all patients could not be hypnotized. William McDougall brought interest to the use of hypnosis as a means of treating shell shocked soldiers in World War I, and John Watkins used hypnotic principles in the treatment of war neuroses in World War II (Sheehan & Perry, 1976). . . . Hypnosis as a medium of treatment has (since) gained wide respect among professionals. (p.30)

Through the years, hypnotic techniques have been used for a wide variety of problems and purposes. For example, they have been used in relieving and managing pain (Barber & Adrian, 1982; Hilgard & Hilgard, 1983); uncovering repressed memories and emotional conflicts, resolving phobias, removing bad habits and engendering good habits (Edelstein, 1981); enhancing self-esteem (Steffenhagan, 1983); and generally improving a person's ability to relax, concentrate, think more effectively, and behave more appropriately (Greene, 1982).

Although stage hypnotists have long entertained audiences with demonstrations of hypnosis, the serious use of hypnotic techniques has traditionally remained in the province of clinical psychology and psychiatry. This tradition is changing, however. With increasing frequency, hypnotic techniques are now being taught to, and applied by, nonclinical persons for human performance problems in business and industry, government, academics, sports - - virtually every setting where improved physical and/or mental performance is needed and valued (Alman, 1983).

There is, however, one noteworthy exception to this trend. As recently as February of 1987, a comprehensive computer search of literature data bases including psychology (PSYCINFO), education (ERIC), business (ABI/INFORM), social sciences (SOCIAL SCISEARCH), medicine (MEDLINE), Mental Health Abstracts, Dissertation Abstracts, GRANTS, FOUNDATION GRANTS, CONFERENCE PAPERS INDEX, and FEDERAL RESEARCH IN PROGRESS revealed no research on the application of hypnotic techniques (including hypnosis, self-hypnosis, autohypnosis, hypnotherapy, relaxation, self-relaxation, deep relaxation, progressive relaxation, systematic relaxation, relaxation training, relaxation therapy, meditation, and stress management) to performance problems in either job search skills training or job interviewing (DIALOG Information Services, 1987).

There are probably many reasons why a review of the literature reveals no research on the use of hypnotic techniques within the context of job interviewing training and job interviewing. One reason is that most JSS training programs are part of state government agencies which have as their primary mission client service rather than research. Tradition is another reason. As previously mentioned, hypnotic techniques have historically been employed by psychologists and psychiatrists within a clinical or research framework. JSS training, on the other hand, is usually planned and conducted by nonclinical and nonresearch professionals whose disciplines, training, and experience do not generally include the use of hypnotic techniques.

Nevertheless, in view of the fact that hypnotic techniques have been found to be useful in a variety of settings and human endeavors, it seemed reasonable to suppose that they might also prove helpful in building better job interviewing skills by teaching people to manage their anxiety about job interviewing. Pryor and Ward (1985) agree. In writing about unemployment counseling, they note that "relaxation training can be an extremely helpful technique for use with . . . unemployed people" (p.7).

The ease and flexibility with which hypnotic techniques can be employed as an anxiety management tool also makes them suitable for a training program. Daley (1981) notes

that anxiety management training is essentially an education-based intervention that could be as effective in large groups as in small groups. These techniques also do not require highly trained professionals. This is illustrated by McCready's (1983) design and evaluation of a professionally guided model of relaxation training which modifies existing training procedures to reduce professional involvement without sacrificing professional guidance.

#### Summary

In summary, then, there was every reason to believe that the addition of relaxation training to the existing JSS training regimen would help clients to feel and/or show less anxiety on job interviews. The next chapter will provide a detailed description of the method by which this belief and the associated null hypotheses were tested.

Chapter 3  
METHODOLOGY

As stated in Chapter 1, the central research question was: Would there be a significant difference in interview anxiety level immediately prior to a job interview between clients who received relaxation training and clients who did not? This central research question was broken down into three specific research questions:

1. Would clients who received relaxation training have significantly different cardiovascular signs of anxiety (as measured by systolic blood pressure, diastolic blood pressure, and pulse rate) than clients who did not receive relaxation training?

2. Would clients who received relaxation training have significantly different self-report anxiety (state anxiety) than clients who did not receive relaxation training?

3. Would clients who received relaxation training differ significantly with respect to key individual characteristics (age, sex, weight, years of education, and type of disability, and trait anxiety) from clients who did not receive relaxation training?

The first two questions relate specifically to the primary research interest. The third question was added as a means of checking for potential differences between the

experimental and control groups on individual characteristics variables. Differences on these variables might impact on the results of the experiment, and this information could be used to help explain the results of primary interest. To help focus and guide the investigation, these three specific research questions were transformed into the following research hypotheses:

H0<sub>1</sub> : There is no difference in cardiovascular signs of anxiety between clients who receive relaxation training and clients who do not.

HA<sub>1</sub> : The cardiovascular signs of anxiety would be lower for those clients who receive relaxation training than for those who do not.

H0<sub>2</sub> : There is no difference between the self-report anxiety of clients who receive relaxation training and those who do not.

HA<sub>2</sub> : The self-report anxiety would be lower for those clients who receive relaxation training than for those who do not.

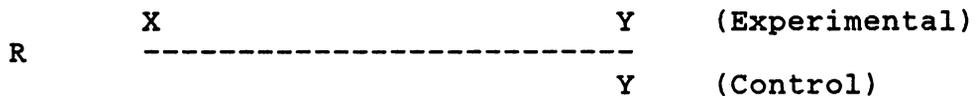
H0<sub>3</sub> : There is no difference with respect to key individual characteristics between clients who receive relaxation training and clients who do not.

HA<sub>3</sub> : There would be a difference with respect to key individual characteristics between clients who receive relaxation training and clients who do not.

Additionally, an investigation of the predictive value of the set of variables on the State Anxiety of the subjects at the time of the job interview was conducted. This was done in an attempt to explain the relationship between the set of variables and State Anxiety.

### Research Design

To test the three null hypotheses, it was necessary to have a research design that would allow a comparison of those who received the training with those who did not. The research paradigm also had to conform with certain ethical and practical constraints that are inherent in the public service delivery program from which the subjects were to be drawn. The design that best met these criteria is that which employs an experimental group and a control group, and allows for random assignment of subjects to one of the two groups. This design may be schematically represented as follows (see Kerlinger, 1964, p. 303):



where, X = Training in relaxation/self-hypnosis  
 Y = Measures of anxiety  
 R = Random assignment of subjects to groups

### Subjects and Sampling Procedures

To enhance generalizability of the results, subjects were taken from the same population of clients from which the Job Search Skills (JSS) training programs normally receive their trainees. As previously stated, these were clients who were in the placement phase of their vocational rehabilitation programs and actively seeking employment.

Potential subjects were drawn from all clients who participated in JSS training during the eight-month period from July, 1986 through February, 1987. JSS training was usually done in groups which averaged four clients per group. These groups were randomly assigned to one of two treatment conditions: The Experimental condition (those who received relaxation training) and the Control condition (those who received a placebo training exercise, a group discussion of job interviewing problems). The random assignment of groups to treatment conditions was achieved in all cases by a coin flip.

The clients were advised of the general nature of the study and asked to volunteer to be subjects. All clients volunteered. Ethical constraints required that clients be instructed that participation in the study was not mandatory and that they would not be penalized in any way should they

choose not to participate. Furthermore, each client was assured that he or she could withdraw from the study at any time, again, without any penalty.

All subjects were asked if they had ever had any previous training or experience in the use of any hypnotic technique such as those mentioned earlier (see page 35). None of the subjects acknowledged having had such training or experience so it was not necessary to screen out anyone.

Upon completion of the eight-month period, data from 60 subjects (30 experimentals and 30 controls) had been accumulated. The subjects were 46 males and 14 females ranging in age from 17 to 59, with a mean age of 30.9 years. Forty clients were classified as having only a psychological disability, 15 were classified as having only a physical disability, and 5 were both psychologically and physically disabled.

## Instrumentation

### Cardiovascular Measures

A Marshall Astropulse 99 Digital Sphygmomanometer was used to measure systolic blood pressure (SBP), diastolic blood pressure (DBP), and heart rate (by pulse rate).

In humans, the mean SBP is 120 millimeters (mm) of mercury (Hg) and the mean DBP is 80 mm Hg. The pressure measurements are written one over the other: 120/80. The systolic (upper) is always recorded first, and the diastolic (lower) is second. The overall pressure is sometimes given as the average of the systolic and diastolic pressures (e.g.,  $120 + 80$  divided by  $2 = 100$  mm Hg).

The pulse rate is often used as an approximate measure of the heart rate. In humans, the normal pulse rate varies greatly from person to person. The normal range is considered to be between 50 and 100 beats per minute, with the mean being about 72 beats per minute.

The sphygmomanometer measures heart action by the appearance and disappearance of sounds, known as Kortkoff sounds. The technique involves the inflation of an arm cuff which contains a microphone. The cuff is placed just above the elbow with the microphone directly over the brachial artery. As the pressure caused by the inflation of the cuff decreases, the microphone detects the arterial sounds and automatically records and displays them on the digital screen in the form of systolic and distolic pressure and pulse rate.

### Subjective/Self-Report Measures

The State-Trait Anxiety Inventory (STAI) was used for assessing the subjective experience of anxiety. The manual for the STAI provides the best description of its form and function:

It comprises separate self-report scales for measuring state and trait anxiety. The S-Anxiety scale (STAI Form Y-1) consists of 20 statements that evaluate how respondents feel "right now, at this moment." The T-Anxiety scale (STAI Form Y-2) consists of 20 statements that assess how people "generally" feel. The STAI-Y S-Anxiety and T-Anxiety scales are printed on opposite sides of a single-page test form.

Consistent with the definition of state and trait anxiety given earlier, the essential qualities evaluated by the STAI S-Anxiety scale may also be used to evaluate how they felt at a particular time in the recent past and how they anticipate they will feel either in a specific situation that is likely to be encountered in the future or in a variety of hypothetical situation. Scores on the S-Anxiety scale increase in response to physical danger and psychological stress and decrease as a result of relaxation training. The S-Anxiety scale has been found to be a sensitive indicator of changes in transitory anxiety . . . (such as that) induced by stressful experimental procedures and by unavoidable real life stressors such as . . . job interviews (Spielberger, 1983, p.2).

The STAI was designed to be self-administering and may be given either individually or to groups. The inventory has no time limits . . . although the T-Anxiety scale should always be given with the instructions printed on the test form, instructions for the S-Anxiety scale may be modified to evaluate the intensity of S-Anxiety for any situation or time interval of interest to an experimenter or clinician. (p.3)

In clinical practice, clients may be instructed to report the feelings they experienced at the time they were tested or in a counseling or psychotherapy

session. They may also be asked to report how they feel before and after progressive relaxation or biofeedback training . . . . (p.3)

Reliability. In constructing and standardizing Form Y of the STAI, Spielberger tested more than 5,000 subjects. Factor analysis studies have revealed clear-cut distinctions between state and trait anxiety. As Spielberger (1983) notes:

Distinctive state and trait anxiety factors were found in four studies that simultaneously factored all forty STAI items (Barker et al., 1977; Gaudry & Poole, 1975; Gaudry et al., 1975; Kendall et al., 1976), and individual S-Anxiety and T-Anxiety items consistently loaded on different factors in these studies. Anxiety-present and -absent factors were also found, suggesting that the anxiety-present and anxiety-absent items may be tapping different sources of variance. (p.13)

In addition, almost identical anxiety-present and anxiety-absent factors were found for both sexes.

Stability, as measured by test-retest coefficients, is relatively high for the STAI T-Anxiety scale (.65 to .86) and low for the S-Anxiety scale (.16 to .62), as would be expected for a measure assessing changes in anxiety resulting from situational stress. The internal consistency for both the S-Anxiety and T-Anxiety scales are quite high as measured by alpha coefficients and item-remainder correlation. The overall median alpha coefficient is .92

for the S-Anxiety scale and .90 for the T-Anxiety scale (Spielberger, 1983).

Validity. At each stage of the test development process, the individual items of the STAI were required to meet validity criteria in order to be retained for further evaluation and validation. Evidence of the construct validity of the T-Anxiety scale is illustrated by its ability to discriminate between normals and psychiatric patients for whom anxiety is a major symptom. Evidence of the construct validity of the S-Anxiety scale is provided by the much higher scores of military recruits, tested shortly after they began highly stressful training programs, as compared to the scores of college and high school students of about the same age who were tested under relatively nonstressful conditions. The mean S-Anxiety scores for the recruits were also much higher than their own T-Anxiety scores. In contrast, the mean S-Anxiety and T-Anxiety scores for normal subjects who were tested under relatively nonstressful conditions were quite similar. The median correlations between the S-Anxiety and T-Anxiety for the normative samples is .65 (Spielberger, 1983).

In summary, the STAI has been shown to be a reliable, valid, and clinically flexible self-report measure of anxiety and these are the reasons why it was chosen for use in this study.

## Procedures

On the first day of the five-day JSS training program, five days prior to participating in an audio-videotaped simulation of a job interview, subjects in both treatment groups were given an initial orientation to the study and asked to provide some basic information about themselves to form a subject profile (see Appendix A). The subjects were also asked to sign a consent form (Appendix B and C) and complete the STAI Trait Anxiety (TA) Scale (Appendix D). No clients refused to do so.

Subjects in the experimental groups were then given a training session in self-relaxation to mitigate their anxiety about job interviewing. The training session was conducted by the researcher. A standardized format was followed which generally required about one hour and entailed a combination of the training procedures of Fiel (1982) and the relaxation technique of Greene (1982). Greene's relaxation technique involves counting backwards from 100 to 0, one count for each exhalation. While doing this, the subject generally (though not necessarily) keeps his or her eyes closed and remains seated and still. This particular technique was chosen for use in this study because it met three criteria that were deemed essential: (a) it could be easily learned by most rehabilitation

clients, (b) it could be practiced and applied in a relatively inconspicuous manner, and (c) it could be expected to bring results within the one-week framework of the JSS training program. This last criterion was based upon the researcher's approximately 14 years of clinical experience, including five years of using the same relaxation technique in psychotherapy.

The subjects were also asked to practice the same relaxation technique at home at least twice a day. Printed instructions were provided to help to guide and standardize the home practice sessions (see Appendices E and F). The subjects were instructed by the researcher to telephone if they encountered any problems achieving relaxation and to come in to discuss their practice experiences and receive a reinforcing training session. This reinforcing session was conducted by the researcher. It was always scheduled on the third day of the program. During this mid-week session, subjects were questioned about their home practice and encouraged to continue practicing.

Following the administration of the STAI Trait Anxiety (TA) Scale on the first day of their JSS training, subjects in the control group participated in the first of two one-hour discussions about several problems related to finding and securing employment. The subjects were then asked to return on the third day of the JSS program (as had the

experimental subjects) to complete the discussion. These discussions also served as a control in the sense that they made it possible for subjects in both groups to be exposed to the researcher for approximately the same amount of time.

Both experimental and control subjects were instructed to return on the fifth day of their JSS training program dressed for the simulated job interview as they would for an actual job interview. All subjects were given a pre-interview orientation and encouraged to engage in the simulation as if they were being interviewed for an actual job they very much wanted.

The same interviewer was used for all subjects in both the experimental groups and the control groups. The interviewer was a male placement specialist who was trained and experienced in performing this role for the JSS training program. He was always dressed in a business suit and tie. The job interview was standardized through the use of a list of 10 questions which were always asked in the same order. The interviews usually lasted approximately 15 minutes. The interviews were "blind" in the sense that the interviewer did not know to which treatment group the subjects belonged.

Immediately prior to participating in the job interview, subjects in the experimental groups were given a few minutes (never more than five) to practice the self-

relaxation exercise they had been taught. These subjects were then asked to complete the STAI State Anxiety (SA) Scale and their cardiovascular measures were taken with the sphygmomanometer. Control subjects were given an equivalent amount of time immediately prior to their interview to collect their thoughts and get ready. These subjects were then asked to complete the STAI State Anxiety (SA) Scale and their cardiovascular measures were taken, just as had been done with the experimental subjects. The researcher conducted the preinterview testing for all subjects.

After the interview, all subjects in both the experimental groups and the control groups were given the opportunity to view a playback of the interview and to discuss their performance and have it critiqued by the JSS training staff. Their STAI and cardiovascular measures were also discussed with them.

#### Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS<sup>x</sup>) which is a software system produced by SPSS, Inc. (1986). Data analysis was conducted in two phases. The first phase involved describing the sample and testing the research hypotheses. The second phase involved analyzing the data in order to explain the findings and to draw conclusions and proffer

implications. The two phases of data analysis may be summarized as follows:

Descriptive Analysis and Hypothesis Testing.

Frequency distributions were obtained for all 60 subjects to get a general picture of the sample. This yielded the number and percentage of subjects by group (experimental and control), sex (male and female), and type of disability (physical, psychological, and both). This procedure also derived measures of central tendency (mean, median, and mode) and dispersion (range and standard deviation) for the sample on key descriptive characteristics (education, age, and weight) as well as the five indices of anxiety (SA, TA, SBP, DBP, and Pulse). This descriptive information was important in helping to analyze and explain some of the results which were obtained about the relationships between the variables in this study.

To test the hypotheses of interest, t-tests were used to determine if there was a significant ( $p < .05$ ) relationship between the experimental group and the control group on the descriptive variables (education, age, and weight) and the five indices of anxiety (SA, TA, SBP, DBP, and Pulse).

In addition, crosstabulations were performed to check for the possibility of significant relationships between the experimental group and control group on the other two categorical variables (sex and type of disability). This

yielded chi-square values for group by sex and group by disability. Phi correlations were calculated to establish the strength of the relationship, when a significant relationship between two categorical variables was evident.

Explanatory Analysis. The second phase involved analysis of the data to explore the relationship between state anxiety and all other variables. Multiple regression analysis was used in an attempt to explain variability in state anxiety. A full model regression analysis was used first with state anxiety as the criterion variable and all other variables as independent, or predictor variables. A stepwise regression procedure was used in an attempt to identify a parsimonious model that could be used to explain variance in the criterion variable (state anxiety).

#### SUMMARY

The research method was a field experiment. Data were collected on 60 subjects (30 experimentals and 30 controls). The Spielberger State-Trait Anxiety Inventory was used to measure self-report anxiety and cardiovascular signs of anxiety were taken with a sphygmomanometer. Data was analyzed using both descriptive and inferential statistics.

Results are reported in Chapter 4 and Summary,  
Discussion, Conclusions, and Implications will be presented  
in Chapter 5.

## Chapter 4

### RESULTS

This chapter reports the results of the statistical analysis of the data.

The first section provides summary descriptive information on individual characteristics and on both cardiovascular and self-report anxiety measures for the total sample, as well as separately for the experimental and control groups. The descriptive information is followed by the results of statistical tests to determine any differences between the two groups on each of the variables, thereby testing the three hypotheses of interest (see Chapter 3).

The second section includes the results of a multiple regression analysis used to assess the predictive value of groups membership (experimental vs control), cardiovascular anxiety measures, and key individual characteristics (education, age, weight, sex, type of disability, and trait anxiety) on the criterion measure of state anxiety prior to an audio-video taped simulation of a job interview.

#### Descriptive Analysis and Hypothesis Testing

Comparisons of the experimental and control groups were made on: (a) the key individual characteristics of sex

(male and female), type of disability (physical, psychological, and both), years of education, age, and weight and (b) the five indices of anxiety (state anxiety, trait anxiety, systolic blood pressure, diastolic blood pressure and pulse).

Table 4.1 summarizes the data on frequencies and percentages for categorical variables (sex, and disability) for the entire sample, as well as for the experimental and control groups. This is followed in Table 4.2 by chi-square results to test for the existence of relationships between these two variables and treatment group membership. A summary of the data on central tendencies and dispersions for continuous variables (education, age, weight, SBP, DBP, and Pulse) for the entire sample is presented in Table 4.3. These data were useful primarily for the purpose of comparing the study sample to normative samples for the STAI. Table 4.4 contains the means and standard deviations of all continuous variables by group, and the t-test results.

For the total sample of 60 subjects, which was evenly divided into an experimental and a control group, Table 4.1 indicates that the majority of the subjects were males (77%) and that over half of the subjects had psychological disabilities (67%). A quarter of the subjects had physical disabilities and only 8% had both types of disability.

Table 4.1

Frequency and Percent of Sex and Type of Disability  
By Total Sample and Treatment Groups  
(N = 60)

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<u>Variable</u>	<u>Total</u>	<u>Exp. Group</u>	<u>Con. Group</u>
<b>Sex</b>			
Male	46 (76.7%)	21 (70%)	25 (83.3%)
Female	14 (23.3%)	9 (30%)	5 (16.7%)
<b>Disability</b>			
Phy.	15 (25.0%)	10 (33.3%)	5 (16.7%)
Psy.	40 (66.7%)	15 (50.0%)	25 (83.3%)
Both	5 (08.3%)	5 (16.7%)	0 (00.0%)

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Note: The sample of N=60 subjects was evenly divided into an experimental and a control group.

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Table 4.2

Chi-Square Results of  
Relationships Between Groups by  
Sex and Type of Disability

(N = 60)

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<u>Variable</u>	<u><math>\chi^2</math></u>	<u>df</u>	<u>Significance</u>	<u>Phi</u>
Sex	0.8385	1	0.3598	0.1576
Disability	9.1667	2	0.0102	0.3909

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Although there are some differences between the experimental and control groups with respect to sex and disability, the results of a chi-square analysis of the relationships between the groups on sex and disability reveal that the groups did not differ significantly on sex ( $p = .359$ ) (see Table 4.2). However, there was a relationship between group and type of disability ( $p < .05$ ), although of only moderate strength (.39). Exactly half of the experimental group (50%) had a psychological disability, while over four-fifths (83%) of the control group were similarly disabled. Also, no one in the control group had both types of disabilities, while five persons (17%) in the experimental group fell into this category.

Table 4.3 presents the data on central tendency (mean, median, and mode) and dispersion (range and standard deviation) for the total sample on the key individual characteristics of education, age, and weight and the five indices of anxiety (state anxiety, trait anxiety, systolic blood pressure, diastolic blood pressure, and pulse).

Looking at Table 4.4 it can be seen that the experimental subjects had approximately one year more education than the control subjects with means of 13.03 and 11.86, respectively. The mean age of the experimental subjects was 33.83 to 28.10 for the controls, a difference of slightly more than five years. The experimental subjects were approximately 18 1/2 pounds heavier than the control

Table 4.3

Summary Statistics for Total Sample on  
Individual Characteristics and Anxiety Measures

(N = 60)

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<u>Variable</u>	<u>Mean</u>	<u>Median</u>	<u>Mode</u>	<u>Range</u>	<u>S.D.</u>
<u>Individual Characteristics</u>					
Educ.	12.4	12.0	12.0	9-18	2.0
Age	30.9	28.0	25.0	17-59	9.9
Weight	159.0	152.0	150.0	89-302	34.0
<u>Anxiety Measures</u>					
SA	39.0	39.5	30.0	20-64	11.4
TA	43.6	43.0	37.0	22-69	10.7
SBP	129.4	128.0	130.0	92-194	21.3
DBP	84.1	81.5	75.0	63-129	13.2
Pulse	68.8	68.0	63.0	38-116	12.0

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Table 4.4

Comparison of Experimental and Control Groups on  
Individual Characteristics and Anxiety Measures

(N = 60)

<u>Variable</u>	<u>Experimentals</u> Mean (S.D.)	<u>Controls</u> Mean (S.D.)	<u>t-value</u>	<u>Prob.</u>
<u>Individual Characteristics</u>				
Education	13.03 (2.34)	11.86 (1.52)	2.29	0.026
Age	33.83 (8.69)	28.10 (10.33)	2.32	0.024
Weight	168.36 (43.61)	149.70 (16.44)	2.19	0.032
<u>Anxiety Measures</u>				
SA	34.00 (9.00)	43.03 (10.08)	-4.26	0.0005
TA	46.56 (12.02)	40.80 (8.56)	2.14	0.037
SBP	130.93 (23.23)	128.03 (19.58)	0.52	0.603
DBP	85.60 (14.18)	82.63 (12.38)	0.86	0.392
Pulse Rate	70.93 (14.81)	66.70 (8.25)	1.37	0.177

Note: All t values were calculated with a 2-tail probability and pooled variance estimates. Degrees of freedom in all cases was 58.

subjects (means of 168.36 to 149.70, respectively). On the five indices of anxiety, the experimental subjects had a lower mean SA score (34.00) than that of the control subjects (43.03), but a higher mean TA score (46.56 for the experimentals to 40.80 for the controls). The results of a t-test analysis show that the experimental group and the control group differed significantly on these three individual characteristics: years of education ( $p = .026$ ), age ( $p = .024$ ), and weight ( $p = .035$ ). The correlations between each of these three variables and group was low.

The t-test analysis revealed that the groups did not differ significantly on any of the three cardiovascular variables (see Table 4.4). Nevertheless, the finding that the experimental and control groups did differ significantly on at least four key individual characteristics makes it possible to reject the third null hypothesis ( $H_{03}$ ) which was: There is no difference with respect to key individual characteristics between the clients who receive relaxation training and clients who do not.

Turning now to the hypotheses regarding the indices of anxiety, the first null hypotheses ( $H_{01}$ ) was: There is no difference in cardiovascular signs of anxiety between clients who receive relaxation training and clients who do not.

The t-test analyses revealed that the groups did not differ significantly on any of the three cardiovascular

variables (SBP, DBP, and Pulse). The respective probability values were: .603, .392, and .177 (see Table 4.3).

Null hypothesis 2 ( $H_{02}$ ) was: There is no difference between the self-report anxiety of clients who receive relaxation training and those who do not.

The t-test analyses revealed that the mean state anxiety of the experimental group was significantly ( $p = .0005$ ) lower than that of the control group. The mean trait anxiety of the experimental group was, however, significantly ( $p = .037$ ) higher than that of the control group.

#### Explanatory Analyses

A multiple regression analysis was used to determine the optimal set of predictor variables from among the treatment variable (group vs control), the individual characteristics variables, and the anxiety measures. This analysis was conducted on a subset of 55 subjects. The five excluded subjects were those who had both a physical and a psychological disability. This was done because type of disability was significantly related with the treatment group variable and because all subjects with both types of disabilities were in the experimental group. After excluding these subjects, no statistically significant relationship

was found between the treatment group and disability variables.

Using state anxiety (SA) as the criterion variable in a stepwise regression, the variables that were found to explain a significant portion of the total variance in state anxiety (SA) and, therefore, included in the equation as having significant value as a predictor variable were, in order of respective significance: Trait anxiety (TA), group, and age. Together, the 10 variables in the full model accounted for approximately 62% of the total variance of SA. Variables not found to have significant coefficients and, therefore, not included in the equation were: sex, disability, education, weight, SBP, DBP, and Pulse. The three significant variables accounted for 58% of the variance in SA, while the excluded variables only accounted for an additional 4%.

Table 4.5 shows the analysis of variance for the regression equation. The data indicate that there is a relationship between the dependent measure, state anxiety, and three independent variables: group, TA, and age. An F value of 23.79 with a probability value of  $<.01$  shows that the regressors (independent variables) contribute significantly to the regression model.

The three independent variables in the reduced model each add significantly to the explained variance. Trait anxiety explains 27% of the variability, and group and age

explain an additional 24% and 7%, respectively. Table 4.6 includes each independent variable, the cumulative  $R^2$ , and the  $R^2$  change, which is the percent of variance explained by each variable individually.

Using the standardized regression coefficient (Beta in Table 4.6), it appears that treatment group membership and TA have approximately equal weight in explaining SA, while age is considerably less important. Bivariate relations between pairs of these variables are presented in Table 4.7. It can be seen that the three independent or predictor variables in the reduced model have relatively low correlations among themselves and relatively higher correlations with the criterion variable.

#### Summary

This chapter reported the results of the data analysis by describing the sample on key individual characteristics and comparing the experimental group with the control group on those characteristics. The results show that the groups did differ significantly ( $p < .05$ ) on years of education, age, and weight.

In addition, the three null hypotheses were tested. Two null hypotheses,  $H_{01}$  and  $H_{03}$ , were found to be significant and were rejected. The corresponding alternative hypotheses were supported.

Table 4.5

Analysis of Variance Table  
For the Regression Equation:  
Reduced Model

(N = 60)

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<u>Source of Variation</u>	<u>DF</u>	<u>Sum of Squares</u>	<u>Mean Squares</u>	<u>F</u>	<u>Signif. Of F</u>
Regression	3	4167.84	1389.28	23.79	<.0005 *
Residual	51	2977.87	58.39		

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Note:  $p < .01$ 

Table 4.6

Multiple Regression Equation:  
Reduced Model

(N = 60)

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<u>Independent Variable</u>	<u>B</u>	<u>Error</u>	<u>Beta</u>	<u>R<sup>2</sup></u>	<u>R<sup>2</sup> Change</u>
Group	-13.39	2.19	-.59	.24	.24
TA	.63	.10	.60	.51	.27
Age	-.34	.11	.29	.58	.07
Constant	28.71	4.86			

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Table 4.7

Multiple Regression Correlation  
Coefficients: Reduced Model

(N = 60)

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	<u>SA</u>	<u>Group</u>	<u>TA</u>	<u>Age</u>
SA	1.000			
			(Symmetrical)	
Group	-.491	1.000		
TA	.365	.272	1.000	
Age	-.274	.236	.253	1.000

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Note: All correlations were calculated with one-tailed  
significance.

Finally, it was established that trait anxiety, group, and age were the three variables which explained a significant portion of the total explained variance in state anxiety.

## Chapter 5

### DISCUSSION OF RESULTS

#### Summary

The Department of Rehabilitative Services of the Commonwealth of Virginia is charged with the responsibility of assisting eligible citizens (clients) with physical and/or psychological handicaps to enter, return to, or remain in gainful employment. To accomplish this goal, it is often necessary to have the client undergo training in job search skills (JSS). Part of this JSS training includes helping the client to develop better job interviewing skills. Empirical evidence gathered in recent years, however, indicates that anxiety associated with job interviewing continues to be a major problem for many clients.

The research problem was embodied in the question: Would it be possible to train JSS clients to effectively manage their anxiety associated with job interviews? The purpose of this study was to develop and test a training technique that could be incorporated into the existing JSS training regimen to teach clients to manage their job interview anxiety better. A form of self-relaxation was selected as the training technique.

The research method was a field experiment utilizing an experimental group and control design with random assignment

of subjects to groups. All subjects participated as the interviewee in an audio-videotaped simulation of a job interview on the fifth day of the five-day JSS training program. All subjects were given the Trait Anxiety Scale of the STAI on the first day of the program. During the course of the week, the experimental subjects received relaxation training and practiced self-relaxation; the control subjects received a substitute placebo training exercise.

Immediately prior to the simulated job interview, all subjects were given the STAI State Anxiety Scale and their blood pressure and pulse rate were taken with a sphygmomanometer. Data were gathered on 60 subjects (30 experimentals and 30 controls).

Data were analyzed with frequency distributions, chi-square, t-tests, and multiple regression analysis procedures.

Of the three null hypotheses, the first and third were rejected and the second was not rejected. Both rejections were in favor of the alternative hypotheses.

Multiple regression analysis revealed that approximately 58% of the variability in state anxiety is explained by three variables: Trait anxiety (27%), group (24%), and age (7%). The remaining seven variables (education, weight, disability, sex, SBP, DBP, and Pulse) together accounted for only approximately 4% of the variance, and none were significant.

## Discussion

The rejection of  $H_0_3$  in favor of the  $H_{A_3}$  was an unexpected finding. A priori there was no reason to believe that the experimental group and control group would differ significantly on age, sex, weight, years of education, and type of disability. However, the results show that the groups did differ significantly ( $p < .05$ ) on years of education, age, and weight. The mean years of education for the experimental group was 13.03 versus 11.86 for the control group. This amounts to just a little over one more year of education for the experimental subjects. The mean age for the experimental subjects was 33.83 and the mean for the controls was 28.10, a difference of over five years. Comparing the mean weight of both groups revealed that the experimental subjects were almost 19 pounds heavier, on average, than the control subjects.

These differences in key individual characteristics (age, education, and weight) help to some extent to explain the rejection of  $H_0_1$ . Regarding age, it seems reasonable to speculate that the greater maturity in years of the experimental group may have worked to their advantage. All other things being equal, older people tend to have lower state and trait anxiety than younger people. This indeed was what Spielberger (1983) found when he administered the

STAI to a sample of 1,838 working adults between the ages of 25 and 69. Both the state and trait anxiety of those subjects decreased with age. In the present study, only state anxiety was negatively correlated with age. Younger clients had higher state anxiety than did older clients. It is also interesting to note that control subjects had higher state anxiety than did experimental subjects. This could mean that younger clients, who were generally more anxious to begin with, actually benefited more from relaxation training than did older clients. In fact, age was found to explain an additional 7% of the variance in state anxiety, after accounting for membership and trait anxiety.

As far as education is concerned, the difference of approximately one year of education between the groups may not seem like much. However, considering that the mean for the experimental group was 13.03, which indicates slightly over one year of college, and that the control mean was 11.86, or less than a high school diploma, that difference of one year takes on greater significance. Unfortunately, no normative data are available on the relationship between education and either state or trait anxiety. However, a negative correlation between years of education and state anxiety would make sense if one accepts the premise that education generally facilitates self-confidence and enhances one's resources with which to meet new challenges and cope with stressful situations (such as a job interview). There

is also reason to believe that better educated people respond more favorably to relaxation training. This notion receives some support from a study by Payne-Gair (1982) which found that white collar workers responded more favorably to stress management training than did blue collar workers who generally had less education.

Nevertheless, despite the appealing speculation about the difference in education between the groups in the present study, education was not found to explain a significant portion of the variance in state anxiety.

Regarding the significant difference that was found between groups in weight, the initial expectation was that weight might have an effect on blood pressure and pulse, but there was no logical reason to assume that weight (other than in cases of obesity) would have any effect on either state or trait anxiety. This, in fact, was what the findings revealed.

Therefore, even though the groups differed significantly on education, age, and weight, only age was found to make a significant contribution in explaining the variance in state anxiety.

The rejection of  $H_0$  in favor of  $H_A$  was an expected finding. There was abundant evidence from previous research that relaxation training can help to reduce anxiety level. As the results indicate, the mean state anxiety for the experimental group was 34.00 as opposed to 43.03 for the

control group. This difference was significant and shows a moderate negative correlation between relaxation training and state anxiety level. Regression analyses showed that 24% of the explained variance in state anxiety was accounted for by group. The fact that trait anxiety and age accounted for an additional 27% and 7%, respectively, makes sense when one recalls that state anxiety was positively correlated with trait anxiety and negatively correlated with age. It is, therefore, understandable that state anxiety would be lower for the group of clients who were not only older but also had the benefit of relaxation training.

The failure to reject the second null ( $H_{02}$ ) about differences in cardiovascular anxiety measures was unexpected. One possible explanation may be the significantly greater age and weight of the experimental group. Generally, the cardiovascular levels of older and heavier individuals are likely to be somewhat higher than those of younger and lighter individuals. Another possible explanation may lie in the interpretation of the cardiovascular signs. It may well be that other more positive arousal states may have come into play, such as heightened interest, excitement, anticipation, enthusiasm, and orientation to new stimuli (e.g., coming for the first time to the taping room). Certainly, any one or combination

of these factors could have operated to mask the effects of the situation on the cardiovascular signs.

### Conclusions

The findings of this study show that relaxation training had a significant effect in reducing the level of subjective or self-report anxiety level of rehabilitation clients in a Job Search Skills Training Program prior to participating as the interviewee in an audio-videotaped simulation of a job interview. Relaxation training did not have a significant effect on the cardiovascular levels, but it is unclear whether the cardiovascular signs were actually measuring anxiety or a number of other possible emotional reactions.

Nevertheless, based upon the researcher's approximately fourteen years of experience in applied clinical psychology, including over five years of experience in using relaxation techniques, it seems reasonable to conclude that the relaxation technique which was used in this study can help rehabilitation clients to reduce their anxiety level before real as well as simulated job interviews. This, in turn, should result in better performance during those job interviews.

### Implications

The relaxation technique which was developed and tested in this study is simple and, therefore, easy to teach and easy to learn. JSS trainers could be taught how to use this technique and incorporate it into their existing training regimen. The technique is not particularly time-consuming and it has been shown to bring significant results within the one-week time frame of JSS training programs. A prudent approach to implementation of this technique would be a pilot testing period at one JSS training site, followed by an evaluation of its effectiveness and a discussion of the findings among representatives of other JSS training programs.

As far as the heuristic value of this study is concerned, there are aspects of the methodology which could be improved. If possible, a pretest/posttest study should be done to get a more accurate picture of the effects of relaxation training. Also, if possible, it would be helpful to have some way of gauging the clients' performance during the simulated interview. It would also be desirable to undertake a follow-up study of how successful clients are at securing employment after going through the training and to determine if self-relaxation played a role in their success.

The bottom line, however, is this: Relaxation training has been shown to help clients reduce their subjective feelings of anxiety associated with job interviewing. If the technique used in this study can be effectively incorporated into JSS training programs on a state-wide basis, it should result in better JSS training and improved interview performance by clients. This, in turn, should translate into more clients securing jobs and becoming taxpayers rather than continuing to be tax burdens. Of course, there would be other less tangible gains to be derived by everyone involved but they would not be so easy to measure.

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## APPENDICES

APPENDIX A  
Subject Profile Sheet

SUBJECT PROFILE

GROUP:        EXPERIMENTAL \_\_\_\_\_        CONTROL \_\_\_\_\_

NAME: \_\_\_\_\_        SUB.# \_\_\_\_\_

AGE: \_\_\_\_\_        SEX: \_\_\_\_\_        EDUC.: \_\_\_\_\_

WEIGHT: \_\_\_\_\_        DISABILITY: (PHYSICAL) \_\_\_\_\_ (PSYCH) \_\_\_\_\_

PREVIOUS EXPERIENCE WITH RELAXATION TRAINING: YES \_\_\_\_\_ NO \_\_\_\_\_

\_\_\_\_\_  
  
TEST RESULTS:

STATE ANXIETY SCORE: \_\_\_\_\_

TRAIT ANXIETY SCORE: \_\_\_\_\_

SYSTOLIC BLOOD PRESSURE: \_\_\_\_\_

DIASTOLIC BLOOD PRESSURE: \_\_\_\_\_

PULSE RATE PER MINUTE: \_\_\_\_\_

APPENDIX B  
Informed Consent Form  
(Experimental Group)

INFORMED CONSENT

I understand that I will be participating in a research study which is intended to examine the effectiveness of relaxation training in reducing the anxiety level of vocational rehabilitation clients immediately prior to a job interview.

I am aware that my participation in the study will be for the duration of the Job Seeking Skills Training Program.

I understand that I will be trained in using a relaxation technique and that this training will involve home practice as well as guided/supervised practice sessions at the training site.

I understand that I will be asked to participate as the interviewee in an audio-videotaped simulation of a job interview.

I understand that immediately prior to that interview I will be asked to complete a self-report questionnaire about my anxiety level and that I will have my blood pressure and pulse rate taken with a sphygmomanometer.

I understand that all of the procedures and tasks involved in this study are safe and should not result in any foreseeable harm to my physical or mental health and well-being. I am aware, however, that taking blood pressure and pulse with a sphygmomanometer involves the inflation of a pressure cuff on the upper arm and that I may experience slight and temporary discomfort associated with this procedure. I am also aware that in the highly unlikely event that I may require medical assistance a licensed medical doctor is available for consultation.

I am aware that the potential benefit to myself from this study is an enhanced ability to control my anxiety level prior to a job interview. I also understand that others who receive such training may also similarly benefit from their participation. If such is found to be the case, it will mean that the Job Seeking Skills Training Program will have

been improved and that my participation will have helped to make this possible.

I understand that the relaxation technique which I will be taught is not the only approach to managing anxiety and that counseling, psychotherapy, biofeedback training, and meditation are examples of some other ways to manage anxiety.

I understand that I may contact my rehabilitation counselor if I have any questions about the research study, my rights, or the procedures I may follow should I be injured in any way as a direct result of my participation.

I understand that my participation is voluntary and that I may refuse to participate or discontinue participation at any time without any penalty or loss of benefits to which I am otherwise entitled.

I understand that all the information that is collected about me will be held in strictest confidence by the investigator, kept in a locked file cabinet in a locked office, and promptly destroyed as soon as it is no longer needed.

My signature below indicates that I have read and had explained to me all of the foregoing information and that I fully understand and agree to participate in the study.

Client's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Witness: \_\_\_\_\_

Date: \_\_\_\_\_

APPENDIX C  
Informed Consent Form  
(Control Group)

INFORMED CONSENT

I understand that I will be participating in a research study which is intended to examine the anxiety level of vocational rehabilitation clients immediately prior to an audio-videotaped simulation of a job interview.

I understand that I will be asked to participate as the interviewee in an audio-videotaped simulation of a job interview.

I understand that immediately prior to that interview I will be asked to complete a self-report questionnaire about my anxiety level and that I will have my blood pressure and pulse rate taken with a sphygmomanometer.

I understand that this will be the extent of my participation in the study. I am aware, however, that this study may lead to improvement in the Job Seeking Skills Training Program and that my participation will have helped to make this possible.

I understand that all of the procedures and tasks involved in this study are safe and should not result in any foreseeable harm to my physical or mental health and well-being. I am aware, however, that taking blood pressure and pulse with a sphygmomanometer involves the inflation of a pressure cuff on the upper arm and that I may experience slight and temporary discomfort associated with this procedure. I am also aware that in the highly unlikely event that I may require medical assistance a licensed medical doctor is available for consultation.

I understand that I may contact my rehabilitation counselor if I have any questions about the research study, my rights, or the procedures I may follow should I be injured in any way as a direct result of my participation.

I understand that my participation is voluntary and that I may refuse to participate or discontinue participation at any time without any penalty or loss of benefits to which I am otherwise entitled.

I understand that all of the information that is collected about me will be held in strictest confidence by the investigator, kept in a locked file cabinet in a locked office, and promptly destroyed as soon as it is no longer needed.

My signature below indicates that I have read and had explained to me all of the foregoing information and that I fully understand and agree to participate in the study.

Client's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Witness: \_\_\_\_\_

Date: \_\_\_\_\_

APPENDIX D

State-Trait Anxiety Inventory

### The STAI State Anxiety Scale

The subject responds to 20 statements (1-20) according to how he or she feels "right now, that is, at this moment." This scale uses a Likert-type arrangement of four numbered responses:

1. Not at all
2. Somewhat
3. Moderately so
4. Very much so

Sample statements include:

1. I feel calm.
  2. I feel secure.
  3. I am tense.
- 

### The STAI Trait Anxiety Scale

The subject responds to 20 statements (21-40) according to how he or she "generally feels." The four alternatives include:

1. Almost never
2. Sometimes
3. Often
4. Almost always

Sample statements include:

21. I feel pleasant.
22. I feel nervous and restless.
23. I feel satisfied with myself.

APPENDIX E

Self-Relaxation Exercise

SELF-RELAXATION EXERCISE

Any self-improvement program works better when the body is relaxed and the mind is clear and at peace. The following exercise is a mental relaxation technique. It is designed to train you to focus your attention and quiet your mental processes. It will help you get into a relaxed state easily and effortlessly. When that occurs, the body seems to relax automatically. Each day as you practice this exercise, you will find that you will be able to relax more deeply than the day before. Soon, you will be able to reach your own level and you will be able to go there easily and effortlessly in a very few seconds.

First: Sit in a comfortable position with both feet flat on the floor.

Next: Without tilting your head up, cast your eyes upward and find a spot on the ceiling. Keep your eyes on that spot.

Next: With your eyes focused on the spot, begin taking three deep breaths - - all the way in and all the way out. As you exhale on the third breath, let your eyes close.

Next: Let a few moments pass as your breathing returns to normal (perhaps 30 seconds to a minute).

Next: Begin counting backwards silently from 100 down to 0; one count for each exhalation. If you should lose your place in counting, don't be concerned. Simply pick up where you think you might have been and continue counting down as you breathe out. Let your breathing be natural.

Next: When you reach 0, you may remain there in a relaxed state until you choose to get up. When you are ready to get up, simply reorient yourself by opening your eyes. Do this comfortably, at your own pace.

IMPORTANT: Try to practice this exercise at least twice a day.

APPENDIX F

Directions For Home Practice

DIRECTIONS FOR HOME PRACTICE

1. Find a time and place that will allow you approximately 20 minutes of relatively undisturbed quite.
2. Try to develop a habit of relaxing at least twice each day. Make it a part of your daily schedule. Relaxation is a skill that requires practice.
3. Try to avoid doing the relaxation exercise immediately after eating a full meal or when you are tired, as you may actually fall asleep and not benefit from the relaxation practice. However, relaxation itself may be used to substitute for a nap as a source of renewed energy, or it can be used to combat insomnia which is associated with anxiety.
4. Of course, do not practice relaxation when operating a motor vehicle or doing any other activity which demands complete mental alertness and attention.
5. Remember, try to practice at least twice each day and if you have any problems or questions call the office anytime during the hours of 8:15 to 5:00 (820-3066).

APPENDIX G

Interview Directions And Questionnaire

(Interview Script)

INTERVIEW DIRECTIONS AND QUESTIONS

Directions: Ask questions in numbered order. Accept the subject's responses without comment. When it is clear that the subject has completed his or her response to a question, move on to the next question. Respond to any question from the subject in the following manner: "I will be happy to answer any questions that you have but first I would like to get a little more information about you."

Subject's Name: \_\_\_\_\_

Position for which they are applying: \_\_\_\_\_

Exchange Greetings.

1. I would like to begin this interview Mr./Ms. \_\_\_\_\_ by asking you to tell me about yourself.
2. Why have you decided to pursue a career as a \_\_\_\_\_?
3. Tell me how your previous education, training, and experience have prepared you for this position.
4. What would you describe as an area of weakness for you?
5. What would you describe as an area of strength for you?
6. What interests you most about working for our organization?
7. Are you currently employed?  
(If yes): Why do you want to change jobs?  
(If no): Why did you leave your last job?  
(If never employed): How long do you intend to stay with our organization and what would you like to be doing five years from now?

8. Have you ever had a problem getting along with others on a job?
9. What kind of supervision do you prefer and work best under?
10. Do you prefer working with people, things, or ideas?

Close the interview as follows:

11. Mr./Ms. \_\_\_\_\_, I want to close this interview by asking you to briefly tell me why this organization should offer you this position.

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