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STUDENTS: EFFECTS UPON ACCEPTANCE OF
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ASSERTION TRAINING AND PHYSICALLY DISABLED UNIVERSITY

STUDENTS: EFFECTS UPON ACCEPTANCE OF DISABILITY

by

Brenda Gail Morgan

A Dissertation Submitted to the Faculty of the

REHABILITATION CENTER

In Partial Fulfillment of the Requirements
For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College

THE UNIVERSITY OF ARIZONA

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THE UNIVERSITY OF ARIZONA

GRADUATE COLLEGE

I hereby recommend that this dissertation prepared under my
direction by Brenda Gail Morgan
entitled Assertion Training and Physically Disabled
University Students: Effects Upon Acceptance
of Disability
be accepted as fulfilling the dissertation requirement for the
degree of Doctor of Philosophy

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that we have read this dissertation and agree that it may be
presented for final defense.

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Final approval and acceptance of this dissertation is contingent
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Brenda Gail Morgan

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ABSTRACT

The skill of getting along with people in home or work environments is generally related to having a good self-concept and being a better self-advocate. For the physically disabled, the development of these skills would result in better self acceptance, less concern with physical deficits and more concern with strengths.

Assertion Training (AT) improves interpersonal interaction skills and self-worth with various populations. Other research indicates a relationship between self-concept and acceptance of disability. In addition, acceptance of disability is considered crucial for rehabilitation and adjustment of the physically disabled to their environments. Because of this relationship between self-worth, self-concept and acceptance of disability, AT, often used to increase a person's self-worth and interpersonal interaction skills, was used with a physically disabled population.

The present study focused on the effects of assertion skills training upon physically disabled college students' acceptance of disability. Four constructs were used as dependent variables: assertive behaviors, self-concept, social interaction skills and acceptance of disability. Two questionnaires and one observational scale were used to measure these constructs.

A pretest-posttest control group design was utilized. The population consisted of physically disabled college student volunteers. Fourteen were randomly assigned to an experimental and a control group.

Criterion measures were given to all subjects during the first and last week of training. The experimental group received 15 hours of assertion training extending over 10 weeks. The treatment consisted of ten 1-1/2 hour sessions, one session each week. The training centered on development of assertiveness and social interaction skills, utilizing the techniques of modeling, behavioral rehearsal, role-playing, coaching and audio-visual playback.

The following four hypotheses were analyzed:

- H₁ Individuals given AT will show no significant difference in acceptance of disability scores when compared to individuals who experience no special training.
- H₂ Individuals given AT will show no significant difference in self-concept scores when compared to individuals who experience no special training.
- H₃ Individuals given AT will show no significant difference in social interaction skills scores when compared to individuals who experienced no special training.
- H₄ Individuals given AT will show no significant difference in assertive behavior scores when compared to individuals who experience no special training.

Significant results beyond the .05 level of confidence were obtained on all hypotheses. The groups differed in Acceptance of Disability/Self-Concept scores and Social Interaction Skills/Assertiveness scores.

These data indicate that AT is effective for physically disabled college students with measured positive change in acceptance of disability, self-concept, social interaction skills and assertive behavior skills.

CHAPTER 1

THE PROBLEM

Introduction

Disability and acceptance of disability has been a topic of discussion in rehabilitation for some time. As acceptance of disability appears related to self-concept and satisfaction with social relationships, this study was an attempt to use an assertion training model toward improving acceptance of disability, self-concept, social interaction and assertive behavior skills.

Disability

A number of authors have attempted to define disability (Wright, 1960; Garrett and Levine, 1962; McGowan and Porter, 1967; Safilios-Rothschild, 1971). Hamilton (1950) described it as a physical or mental condition of impairment which has an objective aspect that is usually describable by a physician. Burk (1971) discussed three major components which best describe the basic aspects of disability. First, there is a biologic component which can be labeled in medical terms as impairment, pathology and anatomic-physiologic alteration. Secondly, there is a psychologic component which either causes or is the result of the biologic component. Finally, there is a sociologic component; factors outside the individual which may be the final determinants of any effort to restore impairment or lost function.

Acceptance of Disability

Acceptance of disability has been considered a crucial variable in the rehabilitation process of the physically disabled (Dembo, Leviton and Wright, 1956; Wright, 1960). Research by Linkowski and Dunn (1974) indicated a relationship between self-concept and acceptance of disability. Cull and Hardy (1972) and others (Wright, 1960; Safilios-Rothschild, 1971) found acceptance of disability to be important for rehabilitation and adjustment of the physically disabled to their environment.

For this study, acceptance of disability is when an individual sees one's disability as non-devaluating. It may be viewed as an inconvenience and limiting and a person may still strive to improve, but will not feel shame and inferiority resulting from the disability being seen as a value loss (Wright, 1960).

Acceptance of disability appears to be closely related to an individual's self-concept and satisfaction with social relationships. Safilios-Rothschild (1971) stated that whenever the appearance of an individual is changed because of a disability, interpersonal relations were also greatly influenced. This change in interaction may also affect the individual's self-perception. Wright (1960) concluded that the self-concept was crucial in determining expectations the physically disabled individual has concerning the attitudes of others towards self and, as such, should be emphasized when attempting to deal with acceptance of disability by a physically disabled person.

Assertion Training

An effective and concise technique which has improved interpersonal interaction skills and increased perception of self-worth in various populations is Assertion Training (AT) (Cotler, 1975). AT teaches a process which encourages independent action; that is, people learn to say clearly how they feel without being offensive to others. While no research has documented the effects of AT upon the physically disabled, several authors have recommended that the physically disabled receive training in social and interactional skills to prepare for social, vocational and emotional adjustment. In other words, acceptance of their disability and integration into their communities (Wright, 1960; Siller, 1970; Dembo et al., 1973).

In conclusion, research indicates a relationship between self-worth, self-concept, and acceptance of disability. AT, often used for increasing a person's self-worth and interactional skills, may provide a systematic and effective tool for increasing the physically disabled individual's self-concept and resultant acceptance of disability.

This study examined the possible effects and relationship between AT and acceptance of disability. It evaluated the use of AT as a way to increase acceptance of disability among physically disabled college students. An increase in acceptance of disability would result in improved social, vocational and emotional adjustment to their living environments.

Statement of the Problem

This study was concerned with the influence of AT on acceptance of disability among physically disabled college students. The effects of this training were evaluated on instruments measuring assertiveness/ social interaction skills and acceptance of disability/self-concept.

There was a need for such a study because there has been no research on the relationship between the physically disabled, acceptance of disability and AT. The study may also provide rehabilitation personnel with information concerning the treatment process for clients having difficulty in accepting their disabilities. Finally, it may influence the preparation of physically disabled students for social and vocational integration by providing them with skills for improving their social perceptions and interactions.

Research Questions

This study was designed to answer the following questions:

1. Do physically disabled college students in the experimental group differ in acceptance of disability levels from those students in the control group?
2. Do physically disabled college students in the experimental group differ in self-concept levels from those students in the control group?
3. Do physically disabled college students in the experimental group differ in social interaction skill levels from those students in the control group?

4. Do physically disabled college students in the experimental group differ in assertive behavior levels from those students in the control group?

Hypotheses

The following four null-hypotheses were tested:

- H₁ Individuals given Assertion Training will show no significant difference in acceptance of disability scores when compared to individuals who experience no special training.
- H₂ Individuals given Assertion Training will show no significant difference in self-concept scores when compared to individuals who experience no special training.
- H₃ Individuals given Assertion Training will show no significant difference in social interaction skills scores when compared to individuals who experience no special training.
- H₄ Individuals given Assertion Training will show no significant difference in assertive behavior scores when compared to individuals who experience no special training.

Rationale for the Study

Research has indicated a positive relationship between self-esteem and acceptance of disability (Linkowski and Dunn, 1974). Additionally, acceptance of disability has been shown by many researchers to be crucial for adjustment of the physically disabled to their environments (Wright, 1960; Safilios-Rothschild, 1971; Marinelli and Dell Orto, 1977). Other research has indicated a relationship between self-worth/esteem, self-concept, and acceptance of disability. Linkowski

and Dunn (1974) found that the manner in which people view disability bears a relationship to how they view themselves in general, as well as their perceptions of relationships with others. Linkowski and Dunn suggested that perceptions of disability were a significant and central aspect of the self-concept, relating to both self-esteem and satisfaction with social relationships. B. A. Wright (1960) considered the self-concept crucial in determining expectations the physically disabled individual has concerning the attitudes of others towards self and, as such, should be emphasized when attempting to deal with acceptance of disability by a physically disabled person. Finally, acceptance of disability appears to be intimately related to an individual's self-concept and satisfaction with social relationships. Safilios-Rothschild (1971) stated that whenever the appearance of an individual is changed due to a disability, the mode of interpersonal relations will also be greatly influenced. As a result of this change in interactions, the individual's self-concept is also affected.

Shontz (1975) concluded that the personal meaning of a disability to the individual is crucial for adjustment to that disability. Several authors have suggested that psychological treatment be directed toward individual situations and reactions (Diller, 1962; Seidenfeld, 1962; Wepman, 1962; Kaplan and Lotsof, 1968). Dembo et al. (1973) stated that therapists need to help limit the physically disabled person's devaluation of himself when he shares the view of people around him spreading the negative aspects, and to analyze goals or tasks and break them into parts which can be approached in a stepwise fashion. M. E. Wright (1970) stated that through solving common problems and

coping with personal social realities related to a disability problem, the sense of "deviancy", "uniqueness", and "aleness" tends to be moderated. Garrity (1973) found that a sense of control over fate is related to rehabilitation success. Dua (1970) contended that people need to learn action-oriented strategies for dealing with problem situations in order to experience a sense of control over their lives. Wright (1960) commented that giving social training skills stimulates new ways of behaving. As such, more than just behavior is changed. Underlying attitudes and meanings are concomitantly affected, and these changes make well-managed social interactions possible.

Thus, acceptance of disability depends upon an individual's self-concept. Since one's self-concept is based upon how one views himself in general as well as how one perceives relationships with others, it is contended that giving a physically disabled individual interpersonal interaction and assertion skills will result in an improved self-concept. This improvement will result in better acceptance of disability.

AT is an assemblage of techniques whose purpose is to help the individual behave in more socially outgoing and appropriate ways, resulting in a more productive life style. Flowers, Cooper, and Whiteley (1975) described AT as a psychological intervention treating covert and mediating variables of behavior as well as specific and overt behaviors. Therefore, in AT, feelings, thoughts and fantasies are also subjects for behavior change. Flowers also stated that AT includes the traditional behavioral techniques of rehearsal, modeling, successive approximation, response shaping, positive reinforcement and cognitive

restructuring of systems of belief which direct behavior and play an important part in the intervention process. Rathus (1975) described it as a behavioral procedure for replacing inhibited or withdrawing behavior with expressive, socially appropriate and outgoing behavior.

Since acceptance of disability includes the learning of such behavior and AT is a modality which teaches this behavior, it is logical to conclude that higher degrees of social interaction skills result in higher self-esteem and in higher acceptance of disability than without AT.

Definition of Terms

The following terms used are defined for this project:

1. Acceptance of disability: Acceptance occurs when an individual sees his disability as non-devaluating. The disability may be seen as an inconvenience and limiting, and a person may still strive to improve those aspects of self that can be improved. Additionally, he will not feel shame and inferiority resulting from the disability being seen as a value loss, as measured by Linkowski's (1971) Acceptance of Disability (AD) Scale.
2. Aggressive behavior: Aggressive behavior is the expression of one's feelings with no consideration for the other person. The verbalization may be direct and honest, but it does not take into consideration the other person's feelings.
3. Assertive behavior: Assertive behavior is the direct expression of a variety of behaviors: refusals, requests, and expressions of positive and negative feelings, verbally or nonverbally.

4. Assertion Training: AT is defined as a group process focusing on development of assertiveness. Techniques such as modeling, coaching, role-playing, instructions, behavior rehearsal and homework assignments are employed.
5. Nonverbal behavior: Includes six elements: (1) loudness of voice; (2) fluency of spoken words; (3) eye contact; (4) facial expression; (5) body expressions; and (6) distance from person with whom one is interacting (Alberti, 1977).
6. Passive or sub-assertive behavior: This concept is defined as the lack of expression of one's own feelings, denying self-expression; person is not emotionally honest.
7. Physically disabled: For the purposes of this study, Linkowski and Dunn's (1974) definition was used: Those individuals whose primary disabilities were physical; being neurological or orthopedic in nature.
8. Self-concept: Self-concept is defined as satisfaction with social relationships and self-esteem, as measured by the AD Scale.
9. Self-esteem: Self-esteem is defined as the degree of conscious, positive self-attitudes, the congruence between an individual's actual self-concept and ideal self, as measured by the AD Scale.
10. Social interaction skills: Mastery of verbal and nonverbal skills which allow an individual to become integrated in personal, social, and work relationships in a culturally acceptable manner.
11. Verbal behavior: Vocal sounds and/or the spoken word.

Assumptions Underlying the Study

All persons involved in the study were physically disabled college students. Thus, it was assumed their intellectual capacities were in the normal to above average range.

Limitations of the Study

The study was limited to physically disabled students at The University of Arizona, Tucson, Arizona and were volunteers.

CHAPTER 2

REVIEW OF THE LITERATURE

A review of the literature pertinent to the study is presented in this chapter. The review is presented in four parts. The first focuses on an historical overview on the importance of acceptance of disability and methods for changing it. The second section focuses on a description of AT, its verbal and nonverbal components, and the behavioral techniques used in the training process. The third section focuses on the relationship between AT and acceptance of disability. The fourth and final section is concerned with implications taken from a review of the literature.

Acceptance of Disability

The concept of acceptance of disability is based upon the concept of acceptance of loss (Dembo et al., 1956). Loss was seen as the absence of something valuable, and that absence being experienced by the individual as a misfortune. B. A. Wright (1960) described acceptance of loss as a series of progressive and interdependent steps by which an individual experiences a series of value changes. These changes and the development of healthy attitudes toward disablement were defined as: (1) Enlargement of scope of values: an individual moves to values beyond his physique; he sees that other values exist which are not in opposition to his disability; (2) Subordination of physique: an

individual places less emphasis upon physical abilities and appearance which are incompatible with his disabled condition. An individual raises other values to greater potency by enhancing what he is able to do; (3) Containment of disability effects: an individual does not spread his disablement to other areas of his life, other than to his actual physical impairment; (4) Transformation from comparative values to asset values: an individual emphasizes what he can do and does not compare himself to others in relationship to his limitations and/or liabilities. An individual avoids comparisons and emphasizes his assets (Dembo et al., 1956; Wright, 1960). Wright (1960, p. 134) went on to state:

The resulting acceptance frees the person of devaluation because of a disability and also frees him to seek satisfactions in activities that befit his own characteristics as a person rather than those of an idolized normal standard. The assumptions made and the consequences presumed lead us to expect that a person who in these terms accepts his handicap would be well on his way toward becoming well-adjusted.

Thus, acceptance of disability is seen as a crucial variable in the rehabilitation process of the physically disabled (Dembo et al., 1956; Wright, 1960; Safilios-Rothschild, 1971; Marinelli and Dell Orto, 1977). Kir-Stimon (1977) reported that the critical variable in adjustment, once a disability occurs, is the significance to the individual of changes in relationships with others. He stated:

In my experience it is not the specific nature of the disease entity itself that is important, but the way in which it has changed or affected the patient's relationship to himself and his world. . . For the disabled the question is clearly not one of being one's self but of being one's self in a world of animate existence among others who are functioning, developing, being (Kir-Stimon, 1977, p. 363).

B. A. Wright (1960, p. 178) explained that a person's acceptance of disability is likely to be associated with better adjustment.

If, as there is good reason to believe, the so-called non-disabled hold both positive and negative attitudes toward persons with disability, the positive attitudes will more readily be aroused when the person has accepted his disability and believes that others can accept it too. . . Expectations concerning the attitudes of others toward oneself are crucial in the perception of those attitudes. To go one step further, the self-concept is crucial in determining those expectations. The self-concept is psychologically of such great importance that it can hardly be overstressed, though to be sure other factors, such as environmental conditions and the actual attitudes of others, must not be understressed.

Starr and Heiserman (1977) supported this premise in their study of acceptance of disability among teenagers with oral-facial clefts. In reviewing a number of research studies, Shontz (1975) concluded that the personal meaning of a disability to an individual is crucial for adjustment to it.

Self-Concept and Acceptance of Disability

Research has indicated a relationship between self-concept and acceptance of disability (Linkowski and Dunn, 1974). Linkowski and Dunn examined acceptance of disability and its relationship to two aspects of self-concept: self-esteem and satisfaction with social relationships. Measures on 55 college students with physical disabilities yielded significant positive correlations among the three variables. Linkowski and Dunn concluded that acceptance of disability was a part of self-concept in general. Additionally, they reported that there was a need to view values associated with disability as part of the broader perception of self. They further suggested that perceptions of disability are

a significant and central aspect of the self-concept, relating to both self-esteem and satisfaction with social relationships.

Safilios-Rothschild (1971, p. 96) discussed how changes in social relationships due to a disability will affect a person's perception of self. She stated:

Whenever a person's appearance is changed as a result of disability, the mode of interpersonal relations will also be greatly influenced. These marked changes in the interaction process will finally affect the individual's self-perception, although the extent and depth of such an effect will depend greatly upon his willingness to perceive these changes and interpret them as significant . . .

MacGregor and Abel (1953) concluded that persons with facial disfigurements who had adequately incorporated their disability in their self-concept were satisfied with improvement achieved through plastic surgery, whereas the opposite held true for those who had never accepted their disability and had not incorporated it into their self-concept. Safilios-Rothschild (1971) stated a person's body image--including physical appearance, bodily sensations, beliefs and emotions about the body--makes up part of his self-concept. Both Shibutani (1961) and MacGregor (1951) concluded that the importance of body image within the self-concept varies according to the nature and intensity of emotions and values invested in it. Wright (1960) indicated that non-disabled individuals have both positive and negative attitudes toward persons with disability, and that positive attitudes will occur more readily when the disabled person has accepted his disability and concludes others can accept it also.

Expectations concerning the attitudes of others toward oneself are crucial in the perception of those attitudes . . . the self-concept is crucial in determining those expectations (Wright, 1960, p. 178).

Facilitation of Acceptance of Disability

As previously discussed, Linkowski and Dunn's (1974, p. 31) research indicated that acceptance of disability is intimately related to an individual's self-concept. The authors went on to state:

The results of this research suggest that perceptions of disability are a significant and central aspect of the self-concept, relating to both self-esteem and satisfaction with social relationships. Researchers and practitioners alike should therefore evaluate the perceived effects of disability within this broader context of the phenomenal self.

Thus, acceptance of disability must be examined in relationship to the level of social interaction skills which an individual has developed.

In addition, Shontz (1975) concluded that the personal meaning of a disability to an individual is crucial for adjustment to that disability. Others have felt (Diller, 1962; Seidenfeld, 1962; Wepman, 1962; Kaplan and Lotsof, 1968) that psychological treatment which focuses on acceptance of disability should be directed toward individual situations and reactions. For example, Dembo et al. (1973) reported that the physically disabled person's devaluation of himself needs to be limited. She suggested analyzing goals or tasks into parts which can be approached in a stepwise fashion. Wright (1960) concluded that developing social training skills in the physically disabled can stimulate new ways of behaving. She indicated that as behavior changes so do underlying attitudes and meanings, with the result being well-managed social interactions. English (1977) suggested providing the disabled with the facts about their stigma toward improving their behavioral skills in dealing with the nondisabled. He stated that

simulation techniques such as role-playing, psychodrama and socio-drama can be of great value in transferring these skills. Thus, several authors have concluded that a person's acceptance of disability is likely to be associated with better adjustment. Furthermore, this acceptance requires the development of social interaction skills and improved self-esteem.

Assertion Training

Assertion Training was developed as a form of behavior therapy and was initially seen as a counter-conditioning procedure for anxiety (Salter, 1949; Wolpe, 1958; Wolpe and Lazarus, 1966). At the same time, it incorporated concepts from social learning theory (Bandura, 1969), "Gestalt" theory (Perls, 1969), humanistic-existential theory (Rogers, 1961), and the concepts of legitimate human rights, some of which are listed in Table 1.

AT is an approach which teaches an individual their rights, how to defend them, prevent their usurpation, and how to recognize the rights of others. AT provides for the development of social interaction and assertion skills. It entails having a person follow through on specific behavioral exercises and assignments both in and out of the therapeutic situation.

Major credit for the development of AT belongs to Andrew Salter and Joseph Wolpe. Salter's (1949) work is often considered the first related to AT. He discussed assertive behaviors in terms of six rules of excitatory reflexes and included case studies in which these reflexes were used for treatment of various symptoms. Salter defined these excitatory reflexes as follows: (1) Feeling talk: the deliberate

Table 1. Legitimate Human Rights--A Partial List

1. You have the right to be the ultimate judge of yourself and your behavior.
 2. You have the right to set your own priorities.
 3. You have the right to refuse a request without feeling guilty.
 4. You have the right to ask for what you want (knowing that others have the right to refuse).
 5. You have the right to offer no reasons or excuses to justify your behavior.
 6. You have the right to get what you pay for.
 7. You have the right to make mistakes.
 8. You have the right to have and express your own feelings and opinions.
 9. You have the right to change your mind.
 10. You have the right to choose not to assert your rights.
-

expression of spontaneously felt emotions; being emotionally outspoken. (2) Facial talk: congruent expression of emotions felt and emotions shown on the face. (3) Contradict and attack: not simulating agreeability if in disagreement with someone. Instead, one is to externalize the feeling and contradict on an unprovable emotional basis. An individual intersperses emotional content among facts. (4) Deliberate use of "I" statements: "I think . . .", "I feel . . .", "I want . . .". (5) Expressing agreement when praised as well as volunteering self-praise. (6) Improvisation: being more spontaneous and improvising more with less planning for tomorrow, living more for today. From these concepts have come the more behaviorally-oriented terminologies of today.

Wolpe's (1958) work labeled these excitatory reflexes as assertive reflexes and considered AT as a principal method by which an individual can reciprocally inhibit and eliminate anxiety. He reported that an individual can learn to express feelings and emotions. In a later work (Wolpe and Lazarus, 1966, p. 40), he stated that:

. . . the motor acts of assertion, if suitably applied, are usually followed by rewarding consequences of various kinds, notably diminution of anxiety drive and the attainment of dominance and control in social situations that were previously out of hand. The habit strength of these motor acts is consequently increased.

Flowers et al. (1975, p. 3) defined Assertion Training as a psychological intervention which treats intrapsychic or mediating variables of behavior as well as specific, overt behaviors. He reported:

Feelings, thoughts and fantasies are therefore also the subject matter of behavior change in most models of assertion training. . . . as an intervention, assertion training is specifically designed to deal with dysfunctional interpersonal behaviors, where transactions with other persons are the focus of behavior.

Percell, Berwick, and Beigel (1974) tested the assumption that an assertive person is generally happier and more self-accepting because he is assertive. They administered an assertiveness inventory and a self-acceptance questionnaire to clients who were either in treatment or seeking treatment at a community mental health center. Results indicated a significant positive correlation between the assertiveness and self-acceptance measures. They found that persons judged to be assertive have high measured self-esteem, while those judged not assertive have low measured self-esteem.

Percell et al. (1974) found that the AT group showed significant increases in their self-esteem and a significant decrease in anxiety as measured by their inventories, while controls showed no significant changes on any of these measures. In addition to modifying the client's interpersonal and social behavior, AT in the group format also improved the self-concepts of members and reduced their general level of distress as well.

More recently, Alberti (1977) concluded that the process of assertive behavior training involves three key elements.

1. Skills training: specific behaviors are taught, practiced, and integrated into the trainee's behavioral repertoire.
2. Anxiety reduction: can be achieved directly, as through desensitization or other counter-conditioning procedures, or indirectly as a by-product of skills training.
3. Cognitive restructuring: in which values, beliefs, cognitions, and/or attitudes may be changed by insight, exhortation, or behavioral achievements.

In conclusion, AT encompasses behavioral techniques such as behavioral rehearsal, modeling, successive approximation, response shaping and positive reinforcement, and cognitive restructuring of the belief systems which direct behavior and play an important part in intervention (Flowers et al., 1975).

While AT employs a variety of approaches, the goals are very explicit. They include the spontaneous expression of personal rights and feelings, both positive and negative, in a socially acceptable manner (Percell et al., 1974). Research supports the general conclusion that AT is a useful therapeutic approach (Lazarus, 1966). The first large-scale study employing assertive training reported improvement, as measured by therapist's ratings of increased assertiveness, in 23 of 25 patients receiving these procedures, in contrast to 11 of 25 receiving "reflection'interpretation" (Percell et al., 1974).

Before discussing the specific behavioral techniques used in this study, an explanation of the verbal and nonverbal components of assertion is discussed, since AT is an intervention which considers both covert and overt behaviors.

Verbal Components of Assertion Training

Winship and Kelly (1976) defined the verbal component or verbal response model of assertion as one which includes: (1) an empathy statement--the ability to see the situation through the other person's eyes; (2) a conflict statement--the individual's communicative rationale for his action; and (3) an action statement--what it is the individual wants to happen. In their study, subjects practiced the verbal response

model through the use of a combination of techniques including modeling, behavioral rehearsal, videotape feedback, and positive reinforcement. The authors concluded that these three forms of assertive behavior increased as a result of the training program. An additional conclusion was that there is validity for the verbal response model under the conditions in which it was measured. Cooley and Hollandsworth (1977) expanded these components and developed an approach to teach the verbal content of assertiveness. The focus was on three assertive skill areas: (1) saying "no" or taking a stand; (2) asking favors or asserting rights; and (3) expressing feelings (Table 2). These same authors concluded from their clinical experience that this strategy is effective, but cautioned that further empirical evidence is necessary to verify its effectiveness.

The results of Winship and Kelly's (1976) study, discussed earlier, lent support to Cooley and Hollandsworth's (1977) conclusions that specific components of an assertive response facilitate acquisition of new assertive behavior. They felt that the generalization of new assertive behavior to other situations would occur because the learner would not be required to develop a new verbal response to each situation encountered.

The next section emphasizes the importance of nonverbal components of assertive behavior. It focuses on how these components, more than the verbal components, may be critical to becoming a part of the assertiveness repertoire of an individual.

Table 2. Verbal Components of Assertive Statements*

SAYING "NO" OR TAKING A STAND

1. Position: Statement, usually pro or con of one's stand on an issue, or one's response to a request or demand.
2. Reason: Statement offered in explanation or justification of one's position, request, or feelings.
3. Understanding: Statement recognizing and accepting another's position, request, or feelings.

ASKING FAVORS OR ASSERTING RIGHTS

4. Problem: Statement describing an unsatisfactory situation that needs to be changed.
5. Request: Statement asking for something necessary to resolve the problem.
6. Clarification: Statement designed to elicit additional, specific information concerning the problem.

EXPRESSING FEELINGS

7. Personal Expression: Statement communicating one's emotions, feelings, or other appropriate expressions such as gratitude, affection, or admiration.
-

* Alberti, 1977, p. 79

Nonverbal Components of Assertion Training

A number of researchers have found that nonverbal messages are more important than the verbal messages received by the subject (Mehrabian and Ferris, 1967; Mehrabian, 1968). For example, Serber (1977, p. 69) described the nonverbal behaviors as: loudness of voice, body expression, fluency of spoken words, eye contact, facial expression, and distance from person with whom one is interacting. He noted that:

Some of the six variables listed are easily measurable--loudness of voice, fluency, distance from the other person, eye contact--but bodily and facial expression defy simple measurement. They can, in fact, be measured, but by complex techniques that are time-consuming and unnecessary for clinical work (Ekman, Friesen and Taussig, 1969). . . all of the variables mentioned can be satisfactorily assessed by a clinician or behavioral rater with adequate experience in working with this kind of behavior.

Serber continued, stating that behavior therapy has available the necessary technology to shape such nonverbal behavior.

The behavioral techniques used in the present study's AT format included groups, modeling, role-playing, coaching, and behavioral rehearsal coupled with audiovisual feedback. Research on these techniques specifically applicable to AT are discussed in the following paragraphs.

Behavioral Techniques in Assertion Training

Group format. In general, AT is done on a one-to-one basis, but Rathus (1972) demonstrated its effectiveness in a group setting. In his study, three groups of college women received AT, three groups discussed fears and related problems, and several other women received no treatment. Those receiving AT showed greater gains in assertive behavior and tended to report greater reduction of fear of social

competence than women in the other groups. Rimm et al.'s (1974) investigation also provided support for AT in a group format.

Emphasis in an assertive group format is on acting out the desired behavior. The techniques employed include group discussion, role-playing, role rehearsals and modeling (Hansen, Warner, and Smith, 1976).

Modeling. Hansen, Warner, and Smith (1976) found the inclusion of examples or modeling of desired responses is necessary if group members are to learn more appropriate behaviors. The basic assumption of modeling is that while learning results from direct experience, it can come from vicarious reinforcement or initiative learning. Bandura's theory (Bandura, Blanchard, and Ritter, 1969, p. 181) on acquisition and performance of modeling behavior described the modeling process as follows:

In order for the observer to reproduce a response under similar stimulus conditions subsequently, there must be a mediational system for retention and retrieval of the stimulus response association. . . (there are) four aspects of this mediation process: (1) attention; (2) retention; (3) motor reproduction; (and) (4) incentive.

Further research by Bandura et al. (1969) has supported this theory.

Eisler, Hersen, and Miller (1973) concluded from their study on the effects of modeling on components of assertive behavior that observation of videotaped model assists in the acquisition of assertive responses to specific situations in psychiatric patients. Grossen, Polansky, and Lippett (1951) and Ross (1962) demonstrated that behavior inconsistent with an individual's usual inhibitions increases significantly when these individuals are exposed to models who engage

in the behavior without negative consequences. Additionally, Rathus (1973a) found the effects of modeling suggest that observing others engaging in assertive behavior without aversive consequences may serve to reduce fear of social interactions. Friedman (1972) compared the effectiveness of different forms of modeling with and without guided practice for increasing assertive behavior in passive college students. Different groups had assertive response to provocation modeled in the form of either verbal descriptions or actual behavioral demonstrations, or they relied on reconstructed examples of assertiveness as guides for their behavior. Behavioral modeling supplemented with guided practice proved to be the most powerful treatment; it produced approximately a triple increase in assertive behavior.

Thus, both in theory and in clinical practice, modeling has been allotted a major role in behavior rehearsal therapy (Kelly, 1955; Bandura et al., 1969 ; Wolpe, 1969). Additionally, there is evidence that it can be of significant therapeutic value in treatments similar to behavior rehearsal (Sarason, 1968; Bandura et al., 1969).

Behavior rehearsal/role-playing. Behavioral rehearsal, as defined by Wolpe and Lazarus (1966, p. 46), is described as play-acting of prescribed behavior. They explained that:

Where the patient's reaction pattern is considered deficient or inappropriate, he is required to reenact the incident while the therapist plays the role of the other person(s). The therapist may then switch roles and act the part of the patient, sometimes presenting a deliberately overdramatic picture of assertion, thus affording the patient an opportunity for learning adaptive responses by imitation.

The goal of behavioral rehearsal is to provide an individual with direct training in those performance skills lacking in his response

repertoire (McFall and Lillesand, 1971). McFall and Marston (1970) examined the role of two fundamental treatment components, one of which was role-played overt response rehearsal. They concluded that overt response rehearsal resulted in significant therapeutic effects in assertion training. McFall and Twentyman (1973) also concluded that behavioral rehearsal was a significant treatment variable; it was a significant additive contribution to improved performance on self-report and behavioral assertion measures. Thus, as McFall and Twentyman conclude, response rehearsal, along with feedback it produces, appears to be the mechanism by which newly acquired responses are strengthened, refined, and integrated into the individual's repertoire of responses.

Videotape usage. Ayers (1971) commented that videotape has been used in a variety of ways in attempting to modify behavior and attitudes, that it can provide an excellent resource for presenting the client with immediate or delayed feedback about his behavior and involves both the audio and visual channels of communication. He remarked that video-counseling can be utilized in at least three areas: improvement of performance, development of personal-social skills, and facilitation of attitude changes. As the goal orientation of Assertive Training is on improvement of performance, development of personal-social skills, and facilitation of attitude changes, all are congruent with Ayer's conclusions.

Eisler, Hersen, and Agras (1973) focused on videotape usage as a method for controlled observation of nonverbal interpersonal behavior. These authors reported that videotape observation of the nonverbal

interaction behaviors of smiling and looking is highly reliable and equal to reliabilities obtained by observing the interactions live. Furthermore, they stated that distinct advantages to the use of videotape are: (1) interactions can be replayed numerous times to focus on additional behaviors which were not related live; and (2) the replays can facilitate precision in defining and measuring behaviors during subsequent replays.

Rathus (1973a) investigated the effects of videotape-mediated assertive models and directed practice upon assertive behavior. College women were shown a series of videotapes in which peers reported and demonstrated increased assertive behavior. The experimental subjects manifested significantly greater self-reported assertive behavior and were independently rated as significantly more assertive than control subjects. Thus, empirical research has validated the usefulness of videotape usage in Assertion Training.

Coaching. The role of the coach is to assist an individual who is experiencing difficulty when practicing an assertive situation. The coach gives the individual specific words to use until he is able to take over the situation on his own. After this process has been modeled several times by the group leader(s), other members may assume this responsibility. As Flowers and Guerra (1974) found, individuals who have the opportunity to serve as a coach learn the assertive techniques better than those who do not.

Friedman's (1972) study compared the effectiveness of different forms of modeling with and without guided practice. The author concluded that behavioral modeling supplemented with guided practice proved

to be the most powerful treatment in that it produced approximately a triple increase in assertive behavior. The coaching component has been assigned a major role (along with modeling) in behavioral rehearsal therapy; moreover, there is evidence that it can be of significant therapeutic value in treatments similar to behavior rehearsal (McFall and Lillesand, 1971).

Effects of Selected Characteristics upon Acceptance of Disability

The selected characteristics of age, age at onset of disability, years since onset, sex, religious preference and years of education have been found to have some effect in terms of acceptance of disability.

Safilios-Rothschild (1971) suggested that further research is necessary to identify those sociopsychological characteristics of the disabled that are significantly related to disability acceptance. Thomas, Davis, and Hochman (1976) focused on relationships between selected characteristics of the physically disabled and acceptance of disability. Subjects included 51 amputees who were receiving or had received services from a state vocational rehabilitation agency. Twenty-seven characteristics were treated as independent variables. The dependent variable, acceptance of disability, was operationally defined as scores on Linkowski's (1971) Acceptance of Disability scale. Statistical analysis indicated significance on only three of 27 variables. These three variables were years of education, religious preference and occupations. However, trends toward significance were observed on type of amputation, incidence of prior work experience and current source of support. They further reported that acceptance of

disability was unrelated to age, age at onset and years since disability onset. The authors felt these findings suggested that the socio-economic (i.e., the social status and income of a person's occupation) may be less critical to acceptance than whether a change in occupation or vocational plans is necessitated by onset of disability. Thomas and Britton (1973) indicated that physically disabled females tended to be more accepting of their disabilities than males. Thomas et al. (1976) provided tentative support for the idea that it may be more difficult in our society for males than for females to accept the disabled role because of culturally defined differences in sex role expectations. However, Smits (1965) contradicts this in a study in which he reported that severely disabled female adolescents had a significantly lower mean self-acceptance score than both severely disabled male adolescents and mildly disabled female adolescents. The author went on to state that having feelings of inferiority seemed to have a different effect on the degree to which male and female adolescents accept themselves.

Block (1973) concluded that for males, socialization can enhance options as the male socialization experience involves learning to be assertive, competitive, independent and aggressive. On the other hand, for females socialization and its process tends to reinforce nurturant, docile, submissive and conservative aspects of the traditional female role and discourages personality traits conventionally defined as masculine: self-assertiveness, achievement orientation and independence.

Wolfe and Fodor (1975, p.45) stated that Fodor's unpublished 1975 findings demonstrated that beliefs about assertion cannot be separated from one's perception of how the opposite sex views assertion.

They related Steinman's (1974) conclusion that both males and females hold strong expectations as to appropriate female role behavior.

In a Thomas et al. (1976) study, the finding that acceptance of disability was positively related to years of education provided support for Safilios-Rothschild's (1971) hypothesis that the more resources (one of which is education) people have at their disposal, the less threatened they are by the functional limitations of a disability. Linkowski's (1971) research showed that the physically disabled college student samples scored significantly higher on acceptance of disability than did those in vocational evaluation at a rehabilitation center. The author went on to suggest that disabled college students would have experienced greater success in life in relation to their disabilities than would those in a beginning, exploration stage of vocational rehabilitation. Therefore, college students would be more acceptant of their disabilities as compared to subjects in work evaluation.

Conclusion

Cotler (1975) found that AT procedures have been useful in a wide variety of settings and with various target populations such as private patients, hospitalized patients, college students, couples and adolescents. Corby (1975) related its effectiveness with juvenile delinquents, women, para-professionals, schizophrenics, married couples and the unemployed. Jakubowski and Lacks (1975) stated that AT can be helpful for a wide variety of clinical problems: crying spells, depression, headaches, homosexuality, marital discord, phobias, sex problems and skin eruptions. However, while AT has been demonstrated to be effective in dealing with a variety of problems over a wide range of

populations, its effectiveness for the physically disabled has not been explored.

Several authors have concluded that acceptance of disability depends upon an individual's self-concept and that this acceptance is based upon how one views himself in general as well as how one perceives his relationships with others. With an improvement in these areas, there would be an increase in acceptance of disability.

AT provides a modality for improving self-concept through the development of interpersonal interaction and assertion skills. Thus, the present study was initiated to examine the effects of AT upon acceptance of disability among physically disabled college students.

CHAPTER 3

RESEARCH METHODOLOGY

The purpose of this chapter is to present the methods and procedures of the study. The chapter has been divided into five sections: (1) statement of the null-hypotheses; (2) description of the subjects; (3) description of the research instrumentation; (4) description of the procedures; and (5) treatment of the data.

Statement of the Null-Hypotheses

- H₁ Individuals given Assertion Training will show no difference in acceptance of mean disability scores from individuals who experience no special training.
- H₂ Individuals given Assertion Training will show no difference in self-esteem scores from individuals who experience no special training.
- H₃ Individuals given Assertion Training will show no difference in social interaction skills from individuals who experience no special training.
- H₄ Individuals given Assertion Training will show no difference in assertive behavior scores from individuals who experience no special training.

Description of the Subjects

The subjects in this study were male and female physically disabled college students. They were contacted through their academic

advisors, associates, or notices placed in various areas within the Special Services Center. Sixteen subjects volunteered for this study. Fourteen subjects completed the study.

Description of the Research Instrumentation

Two questionnaires and one observational instrument were used in this study.

Rathus Assertiveness Schedule

The Rathus Assertiveness Scale (RAS) (Rathus, 1973b) is a 30-item rating scale of items selected from Allport (1928), Guilford and Zimmerman (1956), Wolpe and Lazarus (1966), and Wolpe (1969). Test-retest reliability for an undergraduate population was .78 after eight weeks and split-half reliability was .77, indicating moderate stability and homogeneity. In a validation procedure, RAS scores of 67 subjects were compared with adjective ratings of their assertiveness compiled by raters who "knew the subjects well." The RAS scores showed positive correlations with ratings of boldness (.61), outspokenness (.62), assertiveness (.33), aggressiveness (.54), and confidence (.32), and negatively with ratings of niceness (-.36). As another index of validity, the RAS scores of 47 coeds were compared to ratings of their responses to open-ended questions about what they would do in five situations that called for assertive responses. The correlation between the RAS and ratings from the question and answer session was .70 (Rathus, 1973b).

Linkowski's Acceptance of Disability Scale

The Acceptance of Disability Scale (AD) was developed by Linkowski (1971), based upon the Dembo et al. (1956) concept of acceptance of loss. It is a 50-item inventory with a six point Likert-type scale of agreement/disagreement following each item. Total scores of the scale were evaluated for reliability (internal consistency coefficient = .93) and content, construct, and concurrent validity, all of which supported the measurement of the concept of acceptance of disability (Linkowski, 1971).

Self-Concept and Linkowski's Acceptance of Disability Scale

Linkowski and Dunn (1974) defined two aspects of self-concept as self-esteem and satisfaction with social relationships. He then administered the Acceptance of Disability Scale to measure acceptance of disability, the Butler and Haigh Self-Ideal Q-Sort to measure self-esteem and the Satisfaction with Social Relationships Scale to measure satisfaction with social relationships. Significant correlations were found between the Acceptance of Disability Scale and Self-Esteem measure ($r = .52$, $df = 54$, $p < .01$), between the Acceptance of Disability Scale and the Satisfaction with Social Relationships Measure ($r = .34$, $df = 54$, $p < .05$), and the Self-Esteem Measure and Satisfaction with Social Relationships Measure ($r = .54$, $df = 54$, $p < .01$). Finding significant positive correlations among these three measured variables, he concluded that acceptance of disability is a part of self-concept in general. Linkowski further stated that perceptions of disability are a significant and central aspect of the self-concept, relating to both self-esteem and

satisfaction with social relationships. Linkowski's Acceptance of Disability Scale was used in this study to measure self-concept, as defined by the author.

Behavioral Observation Scale

The Behavioral Observation Scale (BOS) (Morgan and Fordney, 1977) consists of 10 tape-recorded situational tests of assertive behavior aimed to assess individuals' reactions to tape-recorded, role-played threatening or irritating social or interpersonal situations. Individuals are presented with each of the stimulus situations requiring assertive responses and are instructed to respond to each situation as if it were actually happening to them. Responses are scored on a 3-point scale of overall assertiveness. The use of the BOS in this study was an initial field test. To determine interjudge reliability, Ebel and Mehrens' (1967) method was used. Ten live situations, randomly selected, were observed by two judges. The two judges were the AT trainers in this research, both experienced in AT. Each judge rated the situations separately to determine whether assertive, passive, or aggressive behavior was exhibited by the individual(s) being observed. The correlation between the two judges was .99.

Description of the Procedures

Subjects were randomly assigned into experimental and control groups.

Pretest

1. All subjects were required to read an informed consent and to sign a release form (Appendix A).
2. All subjects completed the Rathus Assertiveness Scale (1973a) (Appendix B).
3. All subjects completed Linkowski's Acceptance of Disability Scale (1971) (Appendix C).
4. All subjects completed the Behavioral Observation Scale (Appendix D).

Treatment

5. Experimental subjects participated in ten weeks of Assertion Training. The treatment consisted of ten 1-1/2 hour sessions, one session each week. The format included group process focusing on development of assertiveness and social interaction skills, utilizing the techniques of modeling, behavioral rehearsal, role-playing, coaching and audio-visual playback.

Posttest

6. All subjects were readministered the Rathus Assertiveness Scale, Linkowski's Acceptance of Disability Scale and the Behavioral Observation Scale in the posttest phase.

Apparatus

A Sony Videocorder was used for audio-visual playback of behavioral rehearsal, role-playing, modeling, and coaching of verbal and nonverbal behaviors.

Treatment of the Data

The major statistical analysis was a mixed analysis of variance which would test pretest and posttest differences between Experimental and Control Groups (Winer, 1971). This analysis also indicated differences between the groups in pretest-posttest changes. The tests for Main Effects were irrelevant to the hypothesis or the research because they related to the data at the level of the AB cell means (i.e., the primary hypotheses were that experimental subjects would improve pre to post and control subjects would not). The schematic representation of the analysis model is shown in Table 3.

The ANOVA summary table yielded tests on the A Effect (i.e., that $\bar{A}_1 = \bar{A}_2$), of the B Effect (i.e., that $\bar{B}_1 = \bar{B}_2$) and of the AB interaction (i.e., that the magnitude of the Pre-Post change score was different for the two groups of subjects).

Table 3. The Analyses

		B Effect		
		Pretest=1		Posttest=2
A Effect	Experimental	\bar{A}_1	\bar{B}_1 a	\bar{A}_1 \bar{B}_2 b
	Control	\bar{A}_2	\bar{B}_1 c	\bar{A}_2 \bar{B}_2 d
		\bar{B}_1	\bar{B}_2	

For this research, the experimental hypotheses translated to the following statistical hypotheses: (1) that the AB interaction would be significant; (2) that $b > a$; and (3) that $c = d$. Statistical hypotheses (2) and (3) can be tested only when the AB interaction is significant. In that case, tests for simple \bar{B} effects were run (Winer, 1971).

The alpha level was set at .10 for this study.

CHAPTER 4

RESULTS OF THE STUDY

This chapter reports the results of this research project. The general results are presented, the hypotheses are restated and specific analyses are made.

General Results

For all dependent measures (AD, RAS, BOS), the \overline{AB} interaction was significant at $p < .01$. Tests for simple pre-post differences indicated that experimental subjects improved from pre to posttest, whereas control subjects evidenced no changes.

Testing the Hypotheses

Hypothesis 1

Individuals given Assertion Training will show no significant difference in acceptance of disability scores when compared to individuals who experience no special training.

The analysis of variance for acceptance of disability scores exceeded the .10 requirement and shows that acceptance of disability scores do differ between the Experimental and Control Group (Table 4). Figure 1 shows the difference between Experimental and Control groups on pretest and posttest scores on the variable of Acceptance of Disability.

Table 4. Summary Table for the Analysis of Variance on
Acceptance of Disability/Self-Concept Scores

Source of Variance	Analysis of Variance				
	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
A Effect: Experimental- Control	1	329.1429	329.1429	.1744	N.S.
Error Term for A Effect	12	22642.2857	1886.8571		
B Effect: Pre-Post	1	1760.1429	1760.1429	29.7369	<.001
AB Interaction	1	2720.5714	2720.5714	45.9630	<.001
Error Term for B Effect and AB Interaction	12	710.2857	59.1905		

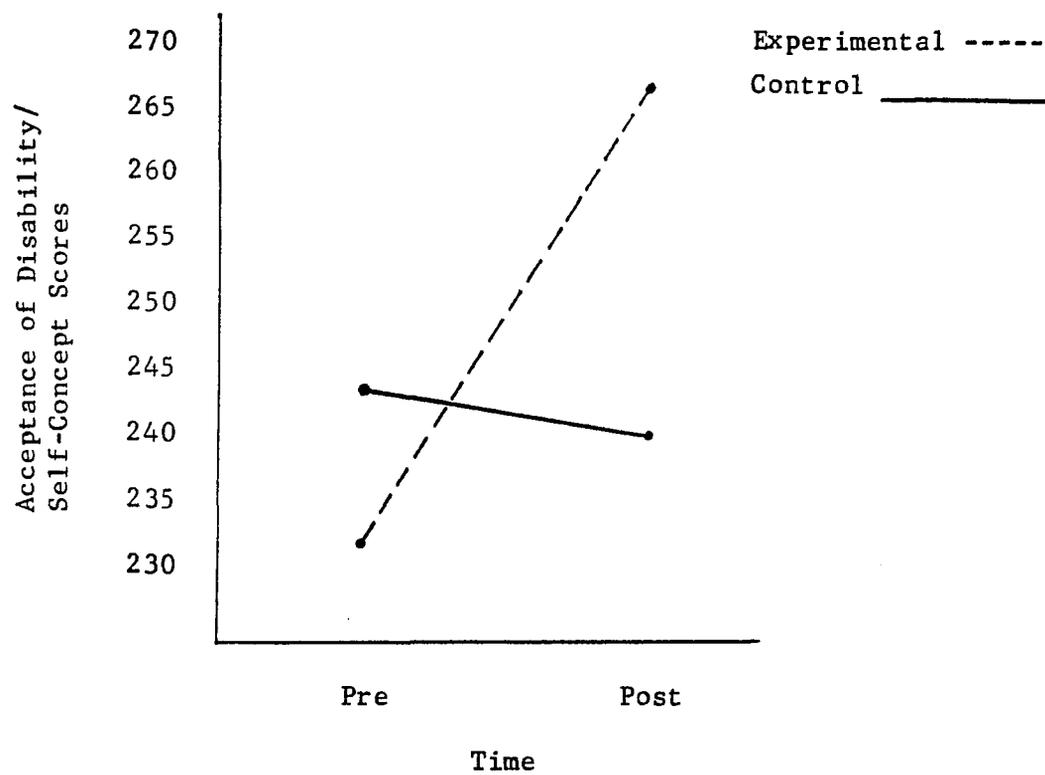


Figure 1. Difference Between Experimental and Control Groups on Pre and Posttest Scores on the Variable of Acceptance of Disability/Self-Concept

Because the null-hypothesis was rejected, a test for simple pre-post effects was run. Results show that the experimental subjects evidenced significant improvement in Acceptance of Disability from pre to post whereas the control subjects showed no change (Table 5).

Table 5. Summary Table for Simple Pre-Posttest Effects on Acceptance of Disability/Self-Concept Scores

Source	D.F.	Simple Pre-Posttest Effects	
		F Ratio	F Prob
Experimental	1/12	74.821	$p < .001$
Control	1/12	.8797	N.S.

Hypothesis 2

Individuals given Assertion Training will show no significant difference in self-concept scores when compared to individuals who experience no special training.

The analysis of variance for self-concept scores exceeded the .10 requirement and shows that self-concept scores differ in the Experimental and Control Group (Table 4). Figure 1 illustrates the difference between experimental and control groups on pre and posttest scores on the variable of Self-Concept.

As the null-hypothesis was rejected, a test for simple pre-post effects was run. Results indicate that the experimental subjects evidenced significant improvement in Self-Concept from pre to post whereas the control subjects showed no change (Table 5).

Hypothesis 3

Individuals given Assertion Training will show no significant difference in social interaction skills when compared to individuals who experience no special training.

Because two measures of social interaction skills were used, the RAS and BOS, results are discussed separately.

RAS: The analysis of variance for social interaction skills scores exceeded the .10 requirement and indicates that social interaction skills scores do differ between the Experimental and Control Group (Table 6). Figure 2 shows the difference between experimental and control groups on pre and posttest scores on the variable of Social Interaction Skills.

As the null-hypothesis was rejected, a test for simple pre-post effects was run. Results show that the experimental subjects evidenced significant improvement in Social Interaction Skills from pre to post whereas the control subjects showed no change (Table 7).

BOS: The analysis of variance for Social Interaction Skills scores exceeded the .10 requirement and shows that social interaction skills scores do differ between the Experimental and Control Group (Table 8). Figure 3 illustrates the difference between experimental and control groups on pre and posttest scores on the variable of Social Interaction Skills/Assertiveness.

Table 6. Summary Table for the Analysis of Variance on Social Interaction Skills/Assertiveness Scores from Rathus Assertiveness Scale

Source of Variance	D.F.	Analysis of Variance			
		Sum of Squares	Mean Squares	F Ratio	F Prob
A Effect: Experimental-Control	1	289.2857	289.2857	.5911	N.S.
Error Term for A Effect	12	5872.5714	489.3810		
B Effect: Pre-Post	1	847.0000	847.0000	8.9315	<.025
AB Interaction	1	1372.0000	1372.0000	14.4675	<.005
Error Term for B Effect and AB Interaction	12	1138.0000	94.8333		

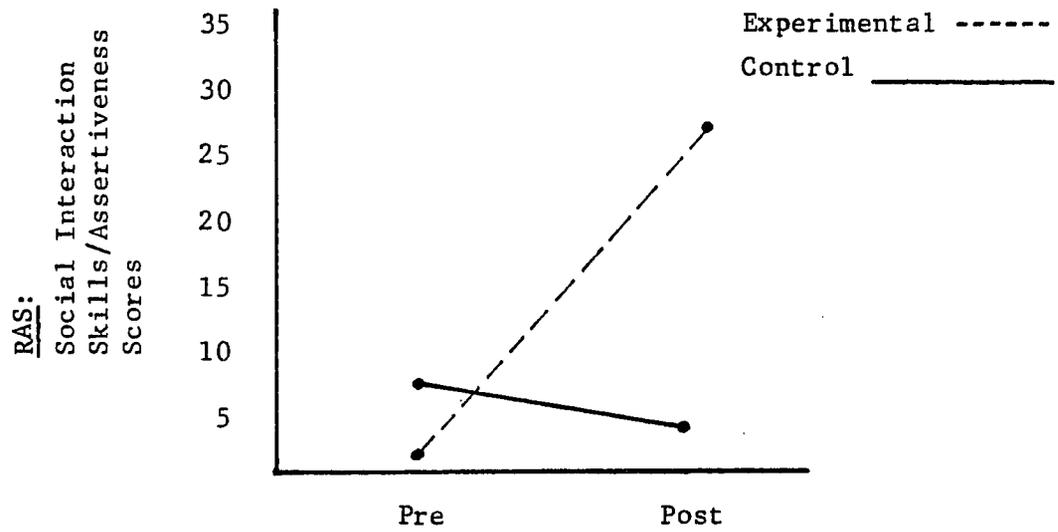


Figure 2. Difference Between Experimental and Control Groups on Pre and Posttest Scores on the Variable of Social Interaction Skills/Assertiveness (RAS)

Table 7. Summary Table for Simple Pre-Posttest Effects on Social Interaction Skills/Assertiveness Scores

Simple Pre-Post Test Effects			
Source	D.F.	F Ratio	F Prob
Experimental	1/12	23.0668	$p < .001$
Control	1/12	.3216	N.S.

Table 8. Summary Table for the Analysis of Variance on Social Interaction Skills/Assertiveness Scores from Behavioral Observation Scale

Analysis of Variance					
Source of Variance	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob
A Effect: Experimental-Control	1	30.0357	30.0357	3.1022	N.S.
Error Term for A Effect	12	116.5714	9.7143		
B Effect: Pre-Post	1	78.8929	78.8929	36.8167	$< .001$
AB Interaction	1	78.8929	78.8929	36.8167	$< .001$
Error Term for B Effect and AB Interaction	12	25.7143	2.1429		

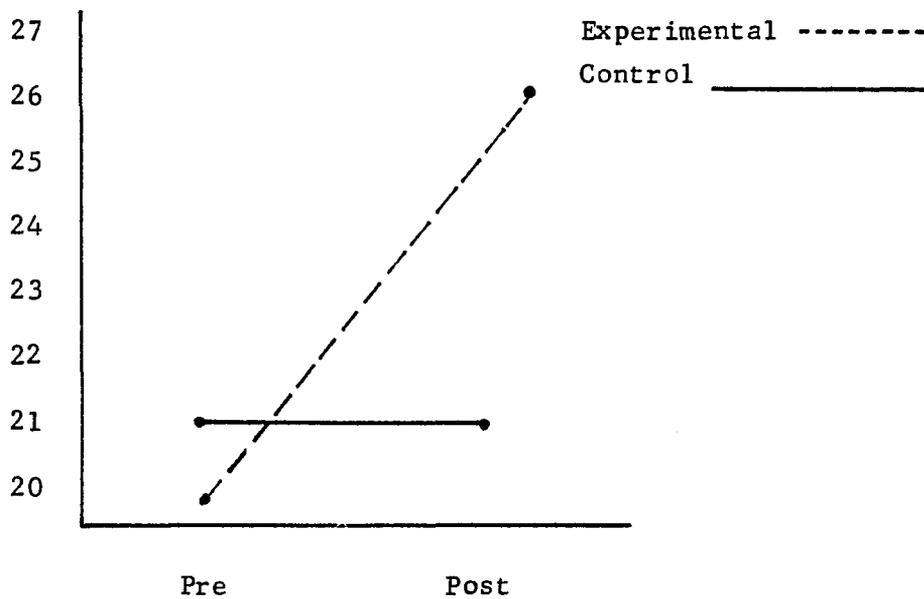


Figure 3. Difference Between Experimental and Control Groups on Pre and Posttest Scores on the Variable of Social Interaction Skills/Assertiveness (BOS)

Because the null-hypothesis was rejected, a test for simple pre-post effects was run. Results indicate that the experimental subjects evidenced significant improvement in Social Interaction Skills from pre to post, whereas the control subjects showed no change. Summary Table 9 illustrates these results.

Hypothesis 4

Individuals given Assertion Training will show no significant difference in assertive behavior scores when compared to individuals who experience no special training.

The RAS and BOS were used to measure assertive behavior scores exceeded the .10 requirement and shows that assertive behavior scores differ between the Experimental and Control Group (Table 8). Figure 3 points out the difference between experimental and control groups on pre and posttest scores on the variable of Assertiveness.

Because the null-hypothesis was rejected, a test for simple pre-post effects was run. Results indicate that the experimental subjects evidenced significant improvement in Assertiveness from pre to post whereas the control subjects showed no change (Table 9).

Table 9. Summary Table for Simple Pre-Posttest Effects on Social Interaction Skills/Assertiveness Scores

Source	Simple Pre-Posttest Effects		
	D.F.	F Ratio	F Prob.
Experimental	1/12	73.6319	p .001
Control	1/12	0	N.S.

CHAPTER 5

SUMMARY, CONCLUSIONS, DISCUSSION AND FUTURE RESEARCH

This chapter contains a summary of the study, conclusions based on the results obtained from the data and recommendations for further research.

General Summary

A review of the literature demonstrated that acceptance of disability is considered an essential variable in the rehabilitation process of the physically disabled. Other research findings indicated a relationship between self-worth, self-concept and acceptance of disability. Assertion Training, often used to increase a person's self-worth and social interaction skills, served to provide a systematic and effective tool for increasing the physically disabled individual's self-concept and resultant acceptance of disability. However, no research focused on the impact of AT upon acceptance of disability among physically disabled college students. Thus, the present research was conducted to focus on the interaction between AT and acceptance of disability in this population.

The Purpose

The purpose of this study was to examine the effects of AT upon acceptance of disability among physically disabled college students.

The Sample

Fourteen subjects participated in this study. The subjects' ages ranged from 18 to 40. There were 5 males and 9 females. The mean age was 25.07 years.

The Procedure

Subjects were randomly assigned into experimental and control groups. Both experimental and control groups completed the pretest battery (RAS, AD, BOS). The Experimental Group was exposed to 10 weeks of Assertion Training, while the Control Group received instructions to return for the posttest battery at the end of the same 10 week period of time.

Statistical Treatment

The major statistical analyses was a mixed anova which tested both for differences between experimental and control groups pretest and posttest, and for differences between the groups in pre-post test changes.

Results

Significant results beyond the .10 level of confidence were obtained on all four parts of the study therefore rejecting all the null-hypotheses. The first hypothesis established that, at the .001 level of confidence, the groups differed on mean acceptance of disability scores. The second hypothesis established that, at the same level of confidence, the groups differed on mean self-concept scores. The third hypothesis established that, at the same level of confidence,

the groups differed on mean social interaction skills scores. The fourth hypothesis established that, at the same level of confidence, the groups differed on assertive behavior scores.

Limitations

Some limitations should be considered when interpreting these data. The sample of subjects was 14 and consisted of college students. The small number of subjects and their educational status may have influenced the results. Additionally, these subjects were volunteers. This volunteer status may have made a significant difference in the results.

Conclusions

The conclusions based on the results of the statistical analysis of the data are:

1. Physically disabled college students in the Experimental Group differed in mean acceptance of disability scores from students in the Control Group. This supports AT and its positive effects upon acceptance of disability. Physically disabled college students respond well to AT and thus significantly raise their acceptance of disability.
2. Physically disabled college students in the Experimental Group differed in mean self-concept scores from students in the Control Group. This supports previous research that AT improves self-concept.
3. Physically disabled college students in the Experimental Group differed in mean social interaction skills scores from students

in the Control Group. This lends support to AT and its effects upon social interaction skills. Physically disabled college students can significantly raise their social interaction skill scores following AT.

4. Physically disabled college students in the Experimental Group differed in mean assertive behavior scores from students in the Control Group. This supports AT and its effects upon assertive behavior. Physically disabled college students can significantly raise their assertive behavior scores after AT.

Discussion

This study was initiated to explore the effects of AT upon physically disabled college students' acceptance of disability, self-concept, social interaction skills and assertive behavior skills. These data indicate that AT is feasible and effective with physically disabled college students in creating positive changes in acceptance of disability, self-concept, social interaction skills and assertive behavior skills. Since acceptance of disability is seen as a vital link in the rehabilitation process of physically disabled people, AT could be used as a tool for enhancing acceptance of disability among physically disabled college students who may be experiencing problems in the classroom setting as well as in social and personal areas. It would facilitate preparation of physically disabled college students for productive living by helping them develop skills for social and vocational integration. In an academic setting, the students would develop assertion skills for classroom use as well as interaction skills for social relationships. Individuals would develop interpersonal

interaction skills for personal relationships as found in marriage, close friendships, etc. Vocationally, improved self-concept and assertion in a work situation increase opportunity of promotions and relationships with co-workers. More community and political involvement as a citizen could occur when individuals trust their decisions and experience personal power which comes with decision making.

AT would give physically disabled college students permanent skills for all their environments, requiring less counseling intervention. Thus, AT can be seen as preventative and the individual becomes the agent for change, not dependent upon counseling support. AT would give this population skills to improve social perceptions and interactions. Additionally, AT groups would provide interaction with others who are physically disabled resulting in social acceptance and approval. Safilios-Rothschild (1971) stated this interaction can be an ideal setting for the disabled to feel their experience is not unique and that others with similar or more serious disabilities are able to function adequately in their environments.

Using the format of AT with this population would provide an individualized problem-solving approach. Safilios-Rothschild (1971) found that a rehabilitant's participation and relative self-determination in the goal setting process can increase his motivation (Grau, 1963). Others have indicated that when goals are externally imposed upon the rehabilitants, they feel less inclined to achieve those goals (Rabinowitz and Mitsos, 1964). AT requires active participation in the problem-selection and goal-setting process.

The results of this study would indicate that AT can be successfully used with this population. It would increase acceptance of disability, improve self-concepts, enhance social interaction skills, as well as increase assertive behavior.

Future Research

This study raises a number of questions for future research in AT and the physically disabled.

1. Research should include a larger number of groups. The Experimental and Control Groups, although statistically from the same population, may have been from a biased population. They were volunteers, and several of these individuals were exposed to the University of Arizona's Division of Special Services which encourages involvement in self-help and personal growth activities. In future research, subjects should come from other college campuses where such a program does not exist.
2. There is a need to replicate this study with other rehabilitation populations. Certain populations may be in need of AT which focuses on a specific area such as vocational and/or job seeking skills, intimate relationships, or on supervision of aides/attendants.
3. Further research needs to focus on specific AT techniques which may need modification for certain rehabilitation populations. For example, if blind or deaf individuals were exposed to AT, the usage of audio-visual equipment for behavioral rehearsal

and feedback would need modification in order to communicate changes.

4. Future research efforts should focus on duplicating this study with younger rehabilitants who are in the age range of 10 to 17. Rationale for such a study would be that working with this age group would help the development of assertive skills to be used socially, vocationally and academically during their adolescent years. This is a time when self-concepts are going through radical changes and development.
5. In this study no significant correlation was found between the sociopsychological characteristics of age, sex, disability, onset of disability, religious preference and acceptance of disability. Previous research has indicated there is a significant positive correlation between acceptance of disability and years of education (Thomas et al., 1976). Future research should focus on examining this variable in relationship to acceptance of disability.

APPENDIX A

CONSENT FORMS

Experimental Subject's Consent

Title: Assertion Training and Physically Disabled University Students: Effects Upon Acceptance of Disability.

Purpose: To examine the relationship between Assertion Training and its effects upon acceptance of disability by physically disabled students. The training is thought to improve emotional, psychological, social, and vocational adjustment to one's total environment.

Objectives: To increase assertive behaviors, social interaction skills, acceptance of disability, and self-concepts of physically disabled students.

Population: The population will consist of undergraduate volunteers, male and female, who are motorically disabled.

A belief shared by many researchers is: if an individual has the skills to get along with people in his home and work environments, then he would have a better self-concept, feel better about himself, and thus be less concerned with his physical disability.

The Assertion Training you have recently become aware of involves learning ways to get along more easily with people and to learn to say clearly how one feels in ways satisfactory to himself without putting other people down. The training will last for ten 1-1/2 hours. There will be two trained co-leaders who have extensive experience in running groups as well as experience in Assertion Training. No psychological risks are anticipated for you, but should they occur, counseling will be available as needed.

The two short questionnaires you will be asked to fill out, along with your responses to 10 tape-recorded role-play situations, will be anonymous, and will take approximately 1 hour to complete. You will be asked to do this twice: once at the beginning of the ten week training period, and again at the end of that same period of time. Occasionally during the training, audio-visual tapings may be done to help you learn some of the assertion skills. These tapes will be erased at the end of the groups. There will be no charge to you for the training, even though you will get such benefits as social interaction skills and assertiveness skills. You are encouraged to ask questions at any time, and to receive their answers. If you wish, you may withdraw from the training at any time, and your relationship with us will not be affected in any way. Your withdrawal from the group will not be reported to the department. However, you are asked to make a commitment to attend the sessions once you begin, by making a sincere effort to attend all ten meetings. All the information I will collect will be

confidential, will be anonymous, and will not be used for other research projects. If the results are published, the information will be entirely anonymous, and will be discussed in relationship to group differences.

"I have read the above 'Subject's Consent.' The nature, demands, risks, and benefits of the project have been explained to me. I understand that I may ask questions and that I may withdraw from the project at any point in time without ill will.

"I also understand that this consent form will be filed in an area designated by the Human Subjects Committee with access restricted to the principal investigator or authorized representatives of the particular department."

Subject's Signature: _____ Date: _____

Parent/Guardian (if needed): _____ Date: _____

Witness's Signature: _____ Date: _____

Control Subject's Consent

Title: Assertion Training and Physically Disabled University Students: Effects Upon Acceptance of Disability.

Purpose: To examine the relationship between Assertion Training and its effects upon acceptance of disability by physically disabled students. The training is thought to improve emotional, psychological, social, and vocational adjustment to one's total environment.

Objectives: To increase assertive behaviors, social interaction skills, acceptance of disability, and self-concepts of physically disabled students.

Population: The population will consist of undergraduate volunteers, male and female, who are motorically disabled.

The two short questionnaires you will be asked to fill out, along with your responses to 10 tape-recorded role-play situations, will be anonymous and will take approximately 1 hour to complete. You will be asked to do this twice: once at the beginning of a ten week period of time, and again at the end of that same period of time. There will be no cost or remuneration to you for your participation, but the results will help other disabled people gain assertion and social interaction skills. You are encouraged to ask questions at any point in time and answers will be given. You may withdraw at any point in time without jeopardizing your relationship to the researcher. All the information I will collect will be anonymous, confidential, and will not be used for other research projects. If the results are published, the information will be anonymous and discussed in relationship to group differences.

"I have read the above 'Subject's Consent.' The nature, demands, risks, and benefits of the project have been explained to me. I understand that I may ask questions and that I am free to withdraw from the project at any time without incurring ill will.

"I also understand that this consent form will be filed in an area designated by the Human Subjects Committee with access restricted to the principal investigator or authorized representatives of the particular department."

Subject's Signature: _____ Date: _____

Witness's Signature: _____ Date: _____

Parent/Guardian (if needed): _____ Date: _____

APPENDIX B

RATHUS ASSERTIVENESS SCHEDULE

DIRECTIONS: INDICATE HOW CHARACTERISTIC OR DESCRIPTIVE EACH OF THE FOLLOWING STATEMENTS IS OF YOU BY USING THE CODE GIVEN BELOW.

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

- ___1. Most people seem to be more aggressive and assertive than I am.
- ___2. I have hesitated to make or accept dates because of "shyness."
- ___3. When the food served at a restaurant is not done to my satisfaction, I complain about it to the waiter or waitress.
- ___4. I am careful to avoid hurting other people's feelings, even when I feel that I have been injured.
- ___5. If a salesman has gone to considerable trouble to show me merchandise which is not quite suitable, I have a difficult time in saying "No."
- ___6. When I am asked to do something, I insist upon knowing why.
- ___7. There are times when I look for a good, vigorous argument.
- ___8. I strive to get ahead as well as most people in my position.
- ___9. To be honest, people often take advantage of me.
- ___10. I enjoy starting conversations with new acquaintances and strangers.
- ___11. I often don't know what to say to attractive persons of the opposite sex.
- ___12. I will hesitate to make phone calls to business establishments and institutions.

- __13. I would rather apply for a job or for admission to a college by writing letters than by going through with personal interviews.
- __14. I find it embarrassing to return merchandise.
- __15. If a close and respected relative were annoying me, I would smother my feelings rather than express my annoyance.
- __16. I have avoided asking questions for fear of sounding stupid.
- __17. During an argument I am sometimes afraid that I will get so upset that I will shake all over.
- __18. If a famed and respected leader makes a statement which I think is incorrect, I will have the audience hear my point of view as well.
- __19. I avoid arguing over prices with clerks and salesmen.
- __20. When I have done something important or worthwhile, I manage to let others know about it.
- __21. I am open and frank about my feelings.
- __22. If someone has been spreading false and bad stories about me, I see him (her) as soon as possible to "have a talk" about it.
- __23. I often have a hard time saying "No."
- __24. I tend to bottle up my emotions rather than make a scene.
- __25. I complain about poor service in a restaurant and elsewhere.
- __26. When I am given a compliment, I sometimes just don't know what to say.
- __27. If a couple near me in a theatre or at a lecture were conversing rather loudly, I would ask them to be quiet or to take their conversation elsewhere.
- __28. Anyone attempting to push ahead of me in a line is in for a good battle.
- __29. I am quick to express an opinion.
- __30. There are times when I just can't say anything.

APPENDIX C

ACCEPTANCE OF DISABILITY SCALE

Subject No. _____

READ EACH STATEMENT AND PUT AN "X" IN THE SPACE INDICATING HOW MUCH YOU AGREE OR DISAGREE WITH EACH STATEMENT.

1. A physical disability may limit a person in some ways, but this does not mean he should give up and do nothing with his life.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

2. Because of my disability, I feel miserable much of the time.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

3. More than anything else, I wish I didn't have this disability.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

4. Disability or not, I'm going to make good in life.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

5. Good physical appearance and physical ability are the most important things in life.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

6. My disability prevents me from doing just about everything I really want to do and from becoming the kind of person I want to be.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

7. I can see the progress I am making in rehabilitation, and it makes me feel like an adequate person in spite of the limitations of my disability.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

8. It makes me feel very bad to see all the things nondisabled people can do which I cannot.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

9. My disability affects those aspects of life which I care most about.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

10. Though I am disabled, my life is full.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

11. If a person is not entirely physically able, he is that much less a person.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

12. A person with a disability is restricted in certain ways, but there is still much he is able to do.

_____ I disagree very much	_____ I agree a little
_____ I disagree pretty much	_____ I agree pretty much
_____ I disagree a little	_____ I agree very much

13. There are many more important things in life than physical ability and appearance.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

14. There are times I completely forget that I am physically disabled.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

15. You need a good and whole body to have a good mind.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

16. There are many things a person with my disability is able to do.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

17. Since my disability interferes with just about everything I try to do, it is foremost in my mind practically all the time.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

18. If I didn't have my disability, I think I would be a much better person.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

19. My disability, in itself, affects me more than any other characteristic about me.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

20. The kind of person I am and my accomplishments in life are less important than those of nondisabled persons.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

21. I know what I can't do because of my disability, and feel that I can live a full and normal life.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

22. Though I can see the progress I am making in rehabilitation, this is not very important since I can never be normal.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

23. In just about everything, my disability is annoying to me so that I can't enjoy anything.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

24. How a person conducts himself in life is much more important than physical appearance and ability.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

25. A person with my disability is unable to enjoy very much in life.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

26. The most important thing in this world is to be physically normal.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

27. A person with a disability finds it especially difficult to expand his interests and range of abilities.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

28. I believe that physical wholeness and appearance make a person what he is.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

29. A physical disability affects a person's mental ability.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

30. With my condition, I know just what I can and cannot do.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

31. Almost every area of life is closed to me because of my disability.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

32. Because of my disability, I have little to offer other people.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

33. Besides the many physical things I am unable to do, there are many many other things I am unable to do.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

34. Personal characteristics such as honesty and a willingness to work hard are much more important than physical appearance and ability.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

35. I get very annoyed with the way some people offer to help me.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

36. With my disability, there isn't a single area of life that is not affected in some major way.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

37. Though I can see that disabled people are able to do well in many ways, still they can never lead normal lives.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

38. A disability, such as mine, is the worst possible thing that can happen to a person.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

39. No matter how hard I try or what I accomplish, I could never be as good a person as one without my disability.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

40. There is practically nothing a person in my condition is able to do and really enjoy it.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

41. Because of my disability, I am unable to enjoy social relationships as much as I could if I were not disabled.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

42. There are more important things in life than those my physical disability prevents me from doing.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

43. I want very much to do things that my disability prevents me from doing.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

44. Because of my disability, other people's lives have more meaning than my own.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

45. Oftentimes, when I think of my disability, it makes me feel so sad and upset that I am unable to think of or do anything else.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

46. A disability changes one's life completely. It causes one to think differently about everything.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

47. I feel that I should be as able as the next guy, even in areas where my disability limits me.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

48. Life is full of so many things that I sometimes forget for brief periods of time that I am disabled.

<u> </u> I disagree very much	<u> </u> I agree a little
<u> </u> I disagree pretty much	<u> </u> I agree pretty much
<u> </u> I disagree a little	<u> </u> I agree very much

49. Because of my disability, I can never do most things that normal people can do.

_____ I disagree very much

_____ I agree a little

_____ I disagree pretty much

_____ I agree pretty much

_____ I disagree a little

_____ I agree very much

50. I feel satisfied with my abilities and my disability doesn't bother me too much.

_____ I disagree very much

_____ I agree a little

_____ I disagree pretty much

_____ I agree pretty much

_____ I disagree a little

_____ I agree very much

APPENDIX D

BEHAVIORAL OBSERVATION SCALE

Instructions: At the end of each of the following statements, please respond as if it was actually happening to you now:

1. You are being interviewed for a job. The interview is coming to an end. You have some questions which have not been answered. The interviewer says: "Well, thank you for coming. We will call you when we come to a decision." What, if anything, would you do?
2. You are at a party where you know no one except the host. You would like to get to know some of the other people at the party. What, if anything, would you do?
3. You would like to go out on a date with a person whom you have met but only talked to a few times. What, if anything, would you do?
4. You are at the beauty/barber shop. The stylist has just finished cutting your hair. You turn and look in the mirror and you are displeased with the results and feel that more work is needed. What, if anything, would you do?
5. You have just bought something at a store. After leaving the building, you notice that you have been shortchanged 70 cents. What, if anything, would you do?
6. While in a store, you are waiting at a counter to pay for an item you wish to buy. However, while waiting, other customers who came after you are being taken care of first. What, if anything, would you do?
7. You are in a class with 300 students. The teacher speaks very fast and quietly and you, as well as several others, can not hear him clearly. What, if anything, would you do?
8. You are attending a lecture. The speaker has just concluded his remarks. You have some questions. What, if anything, would you do?
9. You are one of ten people in a discussion group. The topic being discussed is sexuality. Several people in the group have stated an opinion with which you strongly disagree. What, if anything, would you do?

10. Your boss/teacher, whom you highly respect, has asked you to do some outside research. You have no interest in doing it. What, if anything, would you do?

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