1980

Anxiety and the disabled

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ANXIETY AND THE DISABLED

The College of William and Mary in Virginia ED.D. 1980

ANXIETY AND THE DISABLED

A Dissertation

Presented to the

Faculty of the School of Education

College of William and Mary in Virginia

In Partial Fulfillment of

the Requirements for the Degree

Doctor of Education

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by

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July, 1980

APPROVAL SHEET

We the undersigned do certify that we have read this dissertation and that in our individual opinions it is acceptable in both scope and quality, as a dissertation for the degree of Doctor of Education.

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ACKNOWLEDGEMENTS

I would like to extend my sincerest appreciation and thanks:

To Chuck Matthews for his cogent comments and support.

To John Cull for his support and his editorial comments.

To Nancy Greer and Frances Lemons for their excellent eyesight and tireless patience which made it possible.

To Bill and Shelly Watts for their emotional support.

To Mike and Rachael Magri for his technical and supportive assistance and her unqualified kindness.

To Gloria Thisdell for expediting the circumvention of the bureaucratic maze.

And a very special thanks:

To Fred Adair, my advisor, without whom, I would have always been A. B. D.

My Father and JoAnne who let me learn at my own speed and supported my mistakes.

And to my Mother, who without exception or complaint was always there when I needed her.

Oh, people look among you
The signs are everywhere
You've left it for someone other than you
To be the one who cares.

Jackson Browne

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Chapter 1

Introduction

Professional practitioners in the human services increasingly are concerned with the impact of anxiety reports, feelings of apprehension, agitation, vague expectations of impending disaster or more specifically fears of going "insane" or dying. Concomitantly, the individual experiences such physiological reactions as rapid heart rate, rapid or irregular breathing and dizziness. Anxiety generally is accepted as being the precursor to many neurotic disorders including phobic reactions, obsessive-compulsive reaction and sexual dysfunction.

Anxiety has long been regarded as a basic human emotion. It was a central theme of medieval Arab philosophy. Spielberger (1972) reports that:

> In his investigations, Abn Hazm writes, he had constantly tried to single out "one end in human actions which all men unanimously hold as good and which they all seek. I have found only this: the

> aim of escaping anxiety . . . not only have I discovered that all humanity considers this good and desirable but also that . . . no one is moved to act or moved to speak a single word who does not hope by means of this action or word to release anxiety from this spirit (p. 4)."

Although concern with anxiety is rooted in antiquity, present understanding may be traced to Sigmund Freud. In 1894, he distinguished anxiety neurosis from neurasthenia. Freud (1936) eventually came to regard anxiety as the core in all neurotic symptom formation.

In 1950 Hoch and Zubin stated that, "Although it is widely recognized that anxiety is the most pervasive psychological phenomenon of our time and that it is the chief symptom in the neurosis and in the functional psychoses, there has been little or no agreement on its definition and very little if any, progress in its measurement" (1950, p. 5). Concurrently, May (1950) identified anxiety as a national as well as an individual phenomenon.

Anxiety generally is defined as a conscious and reportable experience of intense dread and foreboding. However, Schacter (1964) has presented evidence that emotional states consist of two major components: psychological arousal and socially determined cognitions. Schacter (1967) states that:

> precisely the same physiological state can be manifested as anger, euphoria, amusement, fear, or no emotion at all . . . cognitive or situational factors triggering stimulus usually imposes the label we attach to our feelings.

More recently Spielberger (1966) has identified state anxiety and trait anxiety. State anxiety is defined as a transitory emotional state or condition of the human organism that varies in intensity and fluctuates over time. Trait anxiety refers to relatively stable individual differences in anxiety proneness, that is, to difference in the disposition to perceive a wide range of stimulus situations as dangerous or threatening.

One situation which may cause an individual anxiety is the possession of an attribute which makes him different from others especially when this attribute is not socially desirable. Goffman (1963) has labeled such an attribute a stigma. Goffman has identified three different types of stigma: 1) physical deformities; 2) blemishes of individual character; and 3) tribal stigma of race, nation, and religion.

Goffman states:

> We construct a stigma-theory, an idealogy to explain his inferiority and account for the danger he represents . . . We tend to impute a wide range of imperfections on the basis of the original one . . . (1963, p. 51).

Sullivan (1945) wrote:

> The awareness of inferiority means that one is unable to keep out of consciousness the formulation of some chronic feeling of the worst sort of insecurity and this means that one suffers anxiety and perhaps

> something even worse if jealousy is worse than anxiety. The fear that others can disrespect a person because of something he shows means that he is always insecure in his contact with other people; and this insecurity arises not from mysterious and somewhat disguised sources, as a great deal of our anxiety does, but from something which he cannot fix.

More recently stigma, as it relates to deformity has been termed "handicapism". Handicapism is defined as "a set of assumptions and practices which promote the differential and unequal treatment of people because of apparent or assumed physical, behavioral or mental differences (Bloom, 1979)."

The non handicapped person person tends to be overly sympathetic or overly nice to handicapped individuals which may, in turn, cause the disabled individual to become anxious or depressed. Anxiety and depression are the two major psychological reactions to disability (Siller, 1969; Stevens, 1969; Blank,

1970; Knorr and Bull, 1970; Weber and Wesserman, 1971; Rush, 1971; Lutner, 1971).

Statement of the Problem

A review of the literature relating to anxiety and the disabled demonstrates that anxiety is a predominant reaction to disability. Many biographical and theoretical approaches have posited a relationship between inferiority and anxiety (Sullivan, 1953; Carling, 1962; Goffman, 1966). However, there is a paucity of research concerning anxiety as a function for the visibility of disability.

Anxiety also has been linked to reduced motivation and impaired intellectual functioning (Spielberger, 1973). The rehabilitation counselor who is concerned with motivation and intellectual functioning in the rehabilitative process, must successfully gauge the individual's anxiety level if the rehabilitation program is to be successful.

Krause (1961) concluded that transitory anxiety is conventionally inferred from six different types of evidence: introspective reports, physiological

signs, "molar" behavior, task performance, clinical intuition and the response to stress. Of these, according to conventional usage, introspective reports provide the most widely accepted basis for inferring transitory anxiety. However, according to Cull and Hardy (1971), who submitted questionnaires to fifty-five states rehabilitation agency administrators, none of the counselors working in any of the agencies wwere measuring anxiety with the psychological test batteries they were using.

A follow-up study by Cull and Levinson (1977), revealed that no substantial changes had been made by the agency administrators. Fifty-five percent of the administrators felt that their counselors should not administer any psychological tests.

Despite an obvious need to know the level of anxiety being experienced by the disabled client, the rehabilitation counselor is forced to rely on clinical intuition. If there is a large discrepancy between the anxiety being experienced by the disabled individual and that being perceived by

the counselor the success of the rehabilitation program is in jeopardy.

The purpose of this study is to:

a. Determine if there is a difference between the perceived anxiety of the counselor and the experienced anxiety of the client.

b. Determine if those individuals who have a visible handicap experience more anxiety than those who have a non visible handicap.

Measuring Instrument

The State-Trait Anxiety Inventory (STAI) is composed of two separate self-report scales for measuring two distinct anxiety concepts: state anxiety (A-State) and trait anxiety (A-Trait). The STAI A-Trait scale consists of twnety statements that ask people to describe how they are feeling in general. The STAI A-State scale also consists of twenty statements but in this case instructions require that the subjects indicate how they feel at a particular moment in time. The inventory was originally developed for use in assessing anxiety in a normal population (non-psychiatrically disturbed)

however, it has proven to be effective when used with junior and senior high school students and neuropsychiatric, medical and surgical patients.

The test-retest reliability data indicate that the A-State scale has a test-retest correlation of .33 (males) and .31 (females) over a period of 104 days and the A-Trait Scale has a test-retest correlation of .73 (males) and .77 (females) over a period of 104 days. That the A-State reliability coefficient would fluctuate to a great degree and the A-Trait scale reliability coefficient would remain relatively stable is in keeping with the original premise of the test.

Definition of Terms

To insure consistency of interpretation, the following terms have been defined.

Operational Definitions

Alcoholic. Those persons who have been physically or mentally addicted to alcohol and have admitted both publicly and privately their addiction.

Spinal Cord Injury. Those persons having damage to the spinal cord which results in partial

or complete loss of function and sensation below the level of damage.

Perceived Anxiety. Is the perception of those behavioral and physiological correlates which define anxiety.

Felt Anxiety. Is the subjective interpretation of those physiological and emotional correlates which an individual defines an anxiety.

Difference between felt and perceived anxiety. The difference between felt and perceived anxiety will be defined as the difference of the score on the State-Trait Anxiety Inventory (felt) and the score on the Professional Rating Scale for Social Service and Rehabilitation Professions, (perceived).

Deaf. Those persons who either congenitally or adventitiously have lost their sense of hearing.

Cerebral Palsied. Those persons having a congential neurologic dysfunction, rather than a disease, manifested in physical impairment and often accompanied by intellectual and sensory impairment.

Visible Handicap. A visible handicap is operationally defined as any handicap which is visibly apparent to an observer. For the purpose of this study, the visible handicaps to the studied are cerebral palsy and spinal cord injury.

Non-Visible Handicap. A non-visible handicap is operationally described as any handicap which is not visibly apparent to an observer. For the purpose of this study, the non-visible handicaps to be studied are deafness and alcoholism.

Hypotheses

For the purpose of statistical research the following null hypotheses are stated:

a. There will be no statistically significant relationship between perceived and felt anxiety.

b. There will be no statistically significant difference between felt anxiety in the visibly handicapped and felt anxiety in the non-visibly handicapped.

c. There will be no statistically significant relationship between perceived levels of anxiety and felt anxiety in the visibly handicapped.

d. There will be no statistically significant relationship between perceived and felt anxiety in the non-visibly handicapped.

e. There will be no statistically difference between perceived levels of anxiety in the visibly and non-visibly handicapped.

Chapter 2

Review of the Literature

This chapter contains a review of the literature pertaining to anxiety as it relates to disability. In the interest of clarity and convenience, the chapter is divided into the following sections:

a. attitudes toward the disabled,

b. anxiety and the disabled,

c. anxiety and behavior.

Attitudes Toward the Disabled

Ichheiser (1949), in an insightful look at the way a person is likely to perceive another person, stresses visibility as a main determinant of social reality. Bodily appearance is predominant because it is the visible appearance of an individual and not his invisible personality, which constitutes the main basis of identification. Ichheiser offers the following example:

"Suppose Jane Doe would change all of her inner personality characteristics, such as her attitudes, opinions, tendencies, character, temperament, and

whatever else. At the same time, suppose she would retain unchanged her bodily appearances. Then, obviously, she would continue to be considered and identified as "the same person". Other people would probably say that Jane Doe had radically changed, but it would be still Jane who has changed. If, on the other hand, Jane would maintain all her inner personality characteristics but would by some miracle altogether change her bodily appearance so that she would look like Susan Smith, then she would cease, in terms of social reality, to be "the same person". People would then, obviously, consider and identify Jane as being Susan, and they would probably wonder why Susan talks and behaves like Jane. Goffman (1963) states in writing on social identity:

> While the stranger is present before us, evidence can arise of his possession of an attribute that makes him different from others in the category of persons available for him to be, and of a less desirable

> kind . . . Such an attribute is a stigma, especially when its discrediting effect is very extensive . . . Three grossly different types of stigmas may be mentioned . . . physical deformities . . . blemishes of individual character . . . and tribal stigma of race, nation, and religion.

Russell, (1949) in a biography which details his experiences with a visible handicap (amputation of both hands with prosthetic devices) describes the onset of anxiety when he believes that others may notice his physical differences. He relates:

"When I finally got off (the bus) I carried my bag in one hook and put my other hook in my pocket. I hoped they (those meeting him) wouldn't notice that one with the bag right away. I tried to keep it out of sight but the bag kept bumping against my legs. Rita spotted me first. She shouted and waved at me . . . my first impulse was to wave back at them. Then, I realized how grotesque that would be . . . with every step, I became more uncertain, more jittery, more scared."

Goffman (1963) distinguishes between discredited and discreditable. A person who possesses a stigma which is evident to everyone he meets is immediately discredited. To be discredited is to be assigned certain negative attributes on the sole basis of the stigma. When a discredited person is in the company of 'normals' there is likely to be no obvious recognition of the stigma. This strained non-attention may cause the situation to become anxiety provoking for all those involved. However, a person may possess a stigma which is not readily apparent (i.e., deafness, prostitution, alcoholism). If the person is to avoid the negative attributes associated with his stigma, he must conceal his stigma from others. For this reason, the discreditable person may be secretive and anxious with others lest they discover his stigma.

Thompson and Siebold (1978) explored the efficacy of disclosure as a stigma management strategy in normal-stigmatized interactions. A laboratory experiment was conducted using confederates to stimulate three classes of stigmas. The reactions of normals (non-stigmatized) were uniform across

stigmas. While there was some indication that disclosure may reduce uncertainty in normal-stigmatized interactions, no support was obtained for the hypothesis that disclosure about a stigma increases acceptance of the bearer.

White, Wright and Dembo (1948) interviewed returning World War II veterans about how others responded to their disabilities. Their findings indicate that almost all interviewees complained that they were stared at, a response which they felt was condescending and dehumanizing. "They stare and gawk at you . . . there is nothing you can do about it" (p. 17). "We felt like a monkey in a glass cage" (p. 22). "Some people look at him and act like he's not human or something" (p. 18).

Farina, Holland, and Ring (1966) investigated the effects of responsibility for disability and its influence on interpersonal relationships. The results indicate that mental illness and the extent to which a person is held responsible for his stigma determine the amount of pain inflicted upon him by subjects and

how favorably he is evaluated by the subjects.

Responsibility for the stigma was varied by having the confederate report to the undergraduate subjects either a typical or a pathogenic childhood. A bad childhood mitigated the harshness of the shock administered by the subject to the mentally ill confederate. The findings indicate that a person who suffered a bad childhood and a person who is perceived as mentally ill, both receive harsher shocks than normals.

In a follow-up study, Farina, Sherman and Allen (1968) investigated the impact of physical abnormalities on interpersonal relations. Sixty male undergraduates were induced to administer shock to an ostensibly naive student (confederate) who appeared either as an amputee in a wheelchair or as only slightly crippled. The findings indicate that the subjects were more likely to administer painful shocks to the slightly crippled than the severely disabled. The authors concluded that all stigmata do not have the same interpersonal consequences and

stigmata do not have the same interpersonal consequences and that the most marked effects occur for behaviors of which the subjects have little awareness.

Warfield (1948) recounts the experiences of Frances who had a hidden disability (deafness) which she attempted to conceal with "as if" behavior.

". . . I had never even felt faint really, just a sickish little ball of panic in the pit of my stomach when I wasn't hearing and was afraid someone was goind to say "What's the matter - cotton in your ears?" The dressmaker . . . kept mumbling and mumbling down on the floor . . . several times I pretended to feel faint to explain my not answering her. Feeling faint was a good alibi" (p. 19).

According to Hentig (1948) disability has had a negative connotation since early biblical days. Twelve blemishes are enumerated in the bible including "a blind man, or a lame, or he that hath a flat nose, or anything superflous, or a man that

is broken-footed or broken-handed, or crook back, or a dwarf . . ."

Wright (1960) has compared attitudes of physically normal persons toward the disabled to the attitudes shown toward many ethnic and religious minorities. In a study designed to assess the relationship between ethnocentric attitudes and attitudes toward the disabled, Chesler (1965) found that high ethnocentrism was significantly related to lack of acceptance of the disabled.

Whiteman and Lukoff (1965), using social work students as subjects, found that blindness was evaluated as being more anxiety provoking than other physical handicaps. There also was a clear distinction in attitudes toward "blindness" and toward "blind persons", the condition of blindness being evaluated much more negatively than blind persons. Finally, this study concludes that there was no apparent difference in the evaluations of blind and physically handicapped person.

Wright (1964) points out there is good reason

to believe that a negative evaluation of the condition of disability spreads to effect the evaluation of other non-impaired characteristics of the person possessing the disability. Yuker (1965) developed the Attitude Toward Disabled Persons Scale (ATDP). His work with the scale has led him to conclude that "prejudices toward the disabled are similar to prejudices toward other groups." Thus, the person who is prejudiced toward the disabled will believe that all disabled persons are alike.

Early work with the ATDP showed that there was a high correlation between degree of contact and reduced prejudice toward the disabled. It was also found that women tend to have a more positive attitude toward the disabled (Yuker, Block and Cambell, 1960).

Siller (1963) in a study of age as a function of attitudes toward the disabled found that college students were consistently more accepting of the disabled than high school and junior high school students.

Horowitz, Rees, and Horowitz (1965) explored the attitudes of sixth grade, high school, college and graduate students toward deafness. They concluded that a continuum exists with respect to age, education, maturity, and realistic attitudes and information relative to the personal and achievement characteristics of the deaf.

Dow (1965) hypothesized that an inverse relationship exists between social class and the relative emphasis attached to physique. Thus, reactions to physical disability would be more severe at lower socioeconomic levels. However, no difference was found between a sample of lower and middle income families. In an earlier related study Lukoff and Whiteman (1964) found no difference in attitudes toward the disabled between middle and lower class families.

Secord and Jourard (1953) developed the BC-SC scale (body-cathexis/self-cathexis) to measure the relationships between attitudes toward the self and attitudes toward the disabled. Using the BC-SC scale Cormack (1967) found that an individuals personal

body cognition positively correlates with his attitudes toward the disabled.

Marinelli (1974) introduced fourteen students, in an undergraduate program in rehabilitation, to a facially disfigured person and studied their heart rates. The control group was exposed to a non-handicapped individual. He concluded that the state anxiety, anxiety present in the individual at the time in question, increases substantially when a non-handicapped person meets a person with a handicap.

In a more recent study, Kleck, Ono and Hastorf (1966) systematically varied handicapped/non-handicapped interactions. An interview-like situation was employed, in which a confederate of the experimenters served as either a physically disabled or a physically normal stimulus person. The results indicate that subjects interacting with the physically disabled stimulus person tended to demonstrate less variability in their behavior as a group than did subjects interacting with a physically normal stimulus person. In addition,

interviews with disabled subjects were terminated sooner than those with the non-disabled.

Negative attitudes toward the disabled are also present in children. Richardson (1978) investigated the differences in attitudes toward the disabled child as a function of age and sex. He found that attitudes toward the disabled were generally not systematized until age twelve. He showed pictures of normal and handicapped children to normal children from grades kindergarten to high school. The normal child was overwhelmingly preferred by all age groups. Girls were more likely to conform to group values than boys. This tendency increased with age. Girls generally disliked the child with a cosmetic handicap (overweight and facial disfigurement) most, and boys disliked the child with a functional disability most. Richardson concluded that his findings indicated a clear "emergency of a value toward the handicapped by age five and six (p. 212)."

Cowen, Rockway, Bobrove and Stevenson (1967)

selected forty-eight students (twenty-four high scoring and twenty-four low scoring) who had previously been administered a specially designed Anti-Deafness Scale. Two prepared and trained student-confederates were interviewed by the subject. Each subject rated each of the "interviewees" on several personal characteristics following the interview. The only condition which systematically varied was the wearing of a hearing aid by one of the two confederates. The findings demonstrated that those subjects who scored high on the Anti-Deafness Scale found the hearing aid wearer to be less likeable than the normal confederate.

In an attempt to measure structural components of attitudes toward the disabled, Siller (1963) developed a Disability Factor Scale. Three disabilities, blindness, amputation and cosmetic function were studied. The findings demonstrated that amputation and blindness produce virtually the same feelings in the non-handicapped person: uneasiness, rejection, aversion, imputed maladjustment, and

incompetence. Cosmetic conditions evoked feelings of uneasiness, rejection, aversion, disgust, yet endowment of the person with some virtues.

Shurka and Katz (1976) studied the evaluative judgments of 327 eleventh grade Israeli students toward the disabled. The subjects were randomly assigned to one of ten groups. Nine of the groups were shown a videotape simulating a life history interview with a visibly impaired male adult. For the tenth group, the interviewer was non-disabled. After viewing the videotape the subjects were administered a semantic differential scale of personality and social desirability. The results indicated that the non-disabled interviewer was judged more favorably than the disabled interviewees.

In an attempt to measure physiological and self-respect reactions to the disabled and the deviant Vander Kolk (1976) used the Psychological Stress Evaluator. Ten male and ten female college

students were asked to rank, by desirability, a list of eleven impairments. The subjects' were then instructed to read the list aloud. The subjects' vocal patterns and modulations during the reading were analyzed for signs of physiological discomfort. Psychological Stress Evaluator measures indicated significant stress in relation to all impairments. The author concluded that negative reactions to the disabled involve a physiological component stemming from a perceived threat to the self-image.

Emerton and Rothman (1978) investigated the attitudes held by hearing students toward deafness. Although the results were mixed, pre-tested attitudes held by entering students were generally positive toward deaf people. However, a six month follow-up indicated a negative trend in attitudes toward the deaf.

In a study relating negative attitudes toward the disabled with aggression Evans (1973) administered

the Attitudes Toward Disabled Persons and the Zaks-Walters scale of aggression to twenty juvenile delinquents and twenty non-delinquent juveniles. The hypothesis that aggressive subjects were less accepting of disabled persons was supported.

In an earlier study, Barker, Wright, Myerson and Gonick (1953) found that attitudes toward the disabled were frequently ambivalent. They concluded that public, verbalized attitudes toward the handicapped tend to be generally favorable, with indirect evidence suggesting that deeper unverbalized feelings were frequently hostile.

More recently, Kleck (1968) documented the contradictory nature of normal adults' reactions to people confined to wheelchairs. In face-to-face encounters with either a disabled or a normal person, subjects evaluated the disabled person more favorably and strove more to agree with his assumed opinions, but also exhibited more motoric inhibition and terminated the interaction sooner.

Katz, Glass, Lucido, and Farber (1977) investigated the relationship between ambivalence, guilt, and

and the denigration of the physically handicapped. Sixty-three female subjects delivered either a mild or a noxious stimuli to a female confederate who either was or was not confined to a wheelchair. Before and after the experiment they evaluated the confederates personality. The results indicated that: (a) with variations in pre-ratings held constant the least favorable post ratings occurred in the wheelchair noxious stimuli condition; and (b) in this condition denigration was related to amount of ambivalence about physically handicapped people in general.

Alcoholism

Since the publication of Jelinek's (1960) formulation of the disease concept of alcoholism, the definition of alcoholism has been variously defined. Alcoholism has been defined as: (1) a hereditary disease (Siegler, 1968); (2) a mental illness (Sargent, 1968); (3) a disease defined on social policy grounds (Seeley, 1962); and (4) a maladaptive coping behavior (Carroll, 1975).

Friedson (1970) notes that although alcoholism has been officially labeled an illness -- illnesses are social objects. As such they are not exclusively defined by rehtoric or medicine. Consequently, legislation of alcoholism into a disease category does not insure that the general public will accept alcoholism as a disease or react tolerantly to alcoholics as persons.

Blizzard (1971) in a study of attitudes toward alcoholics found quite negative attitudes. Almost all respondents rejected such persons as marriage partners for their children and would neither share a room with such a person or rent a room to them. Most respondents also preferred not to work with alcoholics. One-third of the subjects preferred to have no contact with alcoholics.

In a related study Simmons (1969) investigated attitudes toward thirteen deviant groups. Alcoholics were rated more intolerantly than six other groups including gamblers and atheists and more tolerantly than marijuana users.

Ries (1977) examined the publics perception of alcoholism, blindness, and epilepsy. The 306 subjects were instructed to rate each group with respect to unpredictability, threatening, identifiableness, and responsibility for their condition. Alcoholics obtained the most unfavorable scores on unpredictability, threatening, and responsibility for their condition. In the fourth category, identifiability the blind scored the highest.

Kraft (1971) proposed a social anxiety model of alcoholism. The author posits the principle that social anxiety is the central feature of alcoholism. He concludes that an alcoholic who becomes anxiety-free in all normal social situations is no longer an alcoholic and he can resume drinking as a social drinker.

Margret (1978) administered the Hopkins Symptom Checklist, 60-item mood scale, six semantic differentials measuring attitudes, and the 130-item Word Atmosphere Scale to 44 males over age 55 and 117 males under age 50. Results indicate that introversion and depression are significantly

related to attrition for all alcoholic subjects. In addition, depression and anxiety scores were significantly higher for younger alcoholic subjects.

Investigating the stigma of mental illness, Jones, Hester, Farina, and Davis (1959) found that subjects listening to standardized taped "interviews", dislike the speaker more when they are told (by the experimenter) that she is maladjusted than when they believe she is well adjusted.

In a related study, Farina and Ring (1965) found that when subjects perceive their co-worker (confederate) as mentally ill, they blame him for inadequacies in the joint performance even though objective evidence does not justify these responses. Subjects would also rather work alone than with a partner who is represented as being mentally ill.

Knowledge of and familiarity with are generally considered two important variables with regard to attitudes toward the disabled. Palmerton and Frumkin (1969) received 81 completed Yuker Attitudes Toward Disabled Person Scales from college counselors.

The findings were the reverse of those hypothesized in that the greater the knowledge, the more unfavorable the attitudes toward the disabled. In a follow-up study, Palmerton and Frumkin (1969) investigated the relationship between contact with the disabled and intensity of attitude. The results indicate that subjects who have a low frequency of contact with disabled persons, had significantly less intense negative attitudes toward the disabled than subjects with a high frequency of contact.

It would seem from reviewing the literature, that disabled individuals are subject to the same negative prejudices and stereotypes that afflict other minorities. The research findings are consistent in showing that a person who posses a stigma, such as a physical handicap, is frequently involved in anxiety-evoking interpersonal interactions. This study's purpose is to measure the effects of visible and non visible handicaps on anxiety.

Anxiety and Behavior

The importance of anxiety and its effect on man's behavior has long been recognized.

Kierkegaard, as noted by May (1950), states:

> ". . . having to know anxiety is an adventure which every man has to affront . . . He therefore who has learned rightly to be anxious has learned the most important thing."

Freud, who was the first to distinguish between neuroasthenia and anxiety, also was the first to define anxiety within the framework of a psychological theory. Freud (1936) believed that anxiety was distinguishable from other unpleasant affective states, as anger and grief, by its unique combination of phenomenological and physiological qualities. However, his primary concern was isolating the stimuli which percipitate anxiety rather than analyzing the affective state.

Perhaps, as suggested by May (1950) it is the universality of anxiety in man's existence which has resulted in so many definitions of anxiety, (Adler, 1930, Goldstein, 1939; Sullivan, 1953; Lazarus, 1966).

Adler (1930) defined anxiety as a function of inferiority feelings. Adler believed that every

human begins life in a state of biological inferiority and insecurity. A person overcomes his insecurity through progressively affirming his social relationships. However, normal development may be hampered by social discrimination (i.e., possession of a handicap). This causes inferiority feelings (which Adler equates with anxiety). Adler believed that anxiety serves the purpose of blocking further activity and motivates individuals to evade decisions and responsibilities.

Sullivan (1953) believed that anxiety is an intense and unpleasant state of tension which results when an individual experiences disapproval in interpersonal relationships.

The first experimental work with human subjects on anxiety resulted from Taylor's (1953) construction of the "Manifest Anxiety Scale" (M.A.S.). The scale was derived from the Minnesota Multiphasic Personality Inventory.

Goodstein, Spielberger, Williams and Dahlstrom (1955) administered the M.A.S. to forty-eight undergraduate college students. The findings suggest

that high anxiety facilitates the learning of simple tasks but causes a decrease in the ability to learn difficult tasks.

Spielberger (1966) has attempted to distinguish between anxiety as a transitory state and anxiety as a relatively stable personality trait. Spielberger defined (A-State) anxiety as "arousal caused by a process or sequence of temporally ordered events" and (A-Trait) anxiety as "residues of past experiences that in some way determine individual differences in anxiety proneness."

Traditional serial learning tasks were presented by Montague (1953) to fifty subjects. The findings demonstrate that low anxiety groups performed significantly better on the task than high anxiety groups. In a similar study Hughes, Sprague, and Bendig (1954) found that anxiety groups made significantly more errors on learning trials than did the low anxiety groups.

In a study, related to inferiority and poor performance, Eriksen (1952) presented a list of jumbled sentences to college freshmen, all of whom

were given instructions which indicated that anyone with an I. Q. of over 115 should be able to complete the list. To increase feelings of failure, stooges were planted throughout the group and they pretended to successfully complete the list. The control group was told that the experiment was a trivial one and that some of the items could not be solved. The control group performed significantly better than the experimental.

Grice (1955) administered the Manifest Anxiety Scale and an intelligence test to Air Force basic trainees. He found that high M.A.S. scores were significantly and negatively correlated with a number of different measures of intelligence.

Holroyd, Westbrook, Wolf and Bradhorn (1978) collected autonomic, self-report and performance measures of anxiety. The State-Trait Anxiety Inventory and a modified Stroop Color-Word Test were administered to 36 test-anxious and 36 non-test anxious female undergraduates. The results indicate that high-test-anxious subjects performed more poorly and reported higher levels of anxious

arousal and worry in the analog testing situation than low test anxious subjects.

In a related study, Verma (1977) measured the effects of anxiety on the reproduction of simple and complex figures. An anxiety scale was administered to 205 undergraduates and based on their scores, 48 subjects were selected as (high anxious) and 53 were selected as (low anxious). Results indicate that there was no significant difference between high anxious subjects and low anxious subjects in the reproduction of complex figures, however, low anxious subjects were significantly better than high anxious subjects in the reproduction of simple figures.

Bond (1977) analyzed the effect of anxiety on the test performance of 110 female undergraduates. Subjects who exhibited a high increase in anxiety on the test day, performed more poorly on the test than subjects who either had a low increase or a high decrease in anxiety. The author concluded that the data supports the view that an increase in anxiety exerts an interferring effect on test

performance.

In a related study, Simka (1976) compared the performance of 68 high anxious subjects and 68 low anxious subjects on an alphabet cancellation task. Performance speed and accuracy were measured. High anxious subjects performed significantly faster than the low anxious subjects but the high anxious subjects made significantly more errors.

Allsopp and Eysenck (1974) administered the Taylor Manifest Anxiety Scale and the State-Trait Anciety Inventory for 101 high school males. The findings indicate that subjects with medium anxiety levels performed significantly worse than subject with high or low anxiety levels.

Many researchers have investigated the effects of anxiety on time orientation. Based on the hypothesis that anxiety commits the individual to the psychological present and therefore, detracts from his ability to project a stable expectancy Rychlak and Lerner (1965) conducted a study using "level of aspiration" statements as dependent

variables. The findings indicate that anxious subjects were less stable in projecting expectancies than non-anxious subjects. The authors concluded that anxious subjects are more responsive to immediate experience in basing their expectations for the future.

In a follow-up study Rychlak (1972) administered the Taylor Manifest Anxiety Scale to 73 undergraduate college students and then asked each subject to approximate time on a "time bar". The results indicate that anxious subjects distort future time perspectives and they are more present oriented than non-anxious subjects.

This review of the literature was for the purpose of demonstrating that anxiety is an omnipresent affect which can effect motivation and performance. The research indicates that a moderate level of anxeity is facilitative but that low or high amounts of anxiety are debilitating.

Anxiety and the Disabled

It is both paradoxical and interesting to note that anxiety is almost universally accepted.

by rehabilitation psychologists and theorists as one of the two major psychological reactions to disability (depression is the other), but it is not cross-indexed in any of the major works in rehabilitation psychology books such as: Adjustment to Physical Handicaps and Illness: A Survey of the Social Psychology of Physique and Disability, (Barker, Wright and Gonick, 1946); Physical Disability: A Psychological Approach (Wright, 1960); Physical Disability and Human Behavior, (McDaniel, 1969); and Vocational Rehabilitation: Profession and Process, (Cull and Hardy, 1972). There is also a paucity of research concerning anxiety as a reaction to deafness and blindness. Wright (1960) suggests that the type of impairment has less explanatory value upon personality than the fact or presence of impairment. For this reason, many types of disabilities and individual psychological reactions to them will be discussed. According to Wright (1960) it is the presence of a disability, not the type of disability, which evokes a psychological

reaction. According to Siller (1969) the foremost reactions to disability are depression and anxiety. Siller states that, with spinal cord injuries, there is a great deal of anxiety over the possible loss of sexual functioning.

Nagler (1950) identified seven distinct psychological reaction types to disability. Of the seven reactions only Type 1 - the patient experiences anxiety and depression - identified anxiety as a reaction to disability.

O'Connor and Lietner (1971) found that low self-esteem among quadriplegics directly related to loss of sexual function while guilt, shame, and anxiety are related to changes in excretory functions.

Stevens (1969) undertook a pilot study to assess the social and psychological needs of patients disabled by multiple sclerosis and other neurological disorders. Sixty-two subjects were administered the Katz Standardized Index of Independence in Activities in Daily Living and the Goldberg's General Health Questionnaire to ascertain their level of depression and anxiety.

They found approximately half of the patients experienced anxiety and depression immediately after the onset of disability.

In a review of sexual function following spinal cord injury, Weber and Wessman (1971) found that the realization of paralysis and the loss of normal function of the sexual organs and the loss of bladder and bowell control resulted in anxiety, depression, and denial. They also found that a male paraplegic usually will undergo a role reversal which creates anxiety and affects his masculine image.

Kemp and Vash (1971) administered the Weschsler Adult Intelligence Scale, the Adjective Check List, and the California Psychological Inventory for 25 paraplegics and 25 quadriplegics. Five expert psychologists rated excerpts from interviews to determine productivity. The more productive persons were characterized by effective social and intellectual functioning and high self-esteem and assurance. The less productive persons were characterized by high anxiety, inadequate

social functioning and pessimism.

The Manifest Anxiety Scale and a defensive scale from the Minnesota Multiphasic Personality Inventory was administered by Dean (1957) to blind subjects. He concluded that the blind seem to differ from both normal and clinical groups on the Manifest Anxiety Scale. There was a tendency for the blind to defend themselves through response distortion. As a result many blind subjects gave responses which made them "look good".

Cross (1947) transcribed the Minnesota Multiphasic Personality Inventory (M.M.P.I.) into braille and administered it to blind subjects. He also administered a standard version to sighted subjects. A comparison revealed that blind male subjects scored significantly higher than sighted subjects on the depression, masculinity-femininity, psychasthenia (a measure of anxiety) and hypomania scales.

In a study on magical thinking and associated psychological reactions, among fifty-two blind

subjects, Zarlock (1959) found that social adaptation to blindness was best predicted by high ego strength, low manifest anxiety and a positive attitude toward blindness.

Fitzgerald (1970) found that normal psychological reaction to loss of sight includes shock, denial, anxiety, depression, and anger. Of these reactions depression was found to be the most common occurring in eighty-two percent to ninety-two percent of all cases.

Harper (1978) administered the "Minnesota Multiphasic Inventory" to fifty-two disabled adolescents. He found that disabled females scored higher than males on the psychasthenia scale. This finding led the author to suggest that females, who are disabled, are more sensitive and aware of their differences and anxious about body image as it related to their capacity for social and physical attractiveness. The typical profile for a disabled female suggested "a somewhat dissatisfied, pessimistic and anxious personality style in which one often projects her own

shortcomings as a defense against anxiety and self-doubt (p. 102)."

In a similar study Meissner, Thorenson, and Butler (1967) administered the Major Medical Problem Scale, Bills' Index of Adjustment and Values, and the Handicapped Problem Inventory to 382 juniors in high school. They found that female subjects with highly obvious disabilities reported significantly more negative self-report statements, than similar males. These findings support an earlier study by Smits (1964) which found that females with highly obvious, high impact disabilities have the most negative self-concepts.

Fitzgerald (1951) found that physically disabled men are inhibited in their expression of aggression and exaggerated in their expression of unhappiness. According to Fitzgerald, a disabled physique provides a man with a poor instrument for carrying out the active, aggressive role of the male in our culture which in turn places him in an underpriviledged position. The result was

that the situation inhibited action and created mild anxiety, which was expressed in unhappiness. According to this study, disability does not interfere with the normal female role and hence does not produce inhibited action and anxiety in females. This conclusion was in accordance with an earlier study of Lowman and Seidenfield's (1947) which found that seriously disabled males report they have little social life more frequently than seriously disabled females.

As reported by Barker (1954) Zucker administered the Rorschach to deaf subjects. She reported that the cases displayed a uniformity in pattern and that these subjects displayed a high stereotype in thought content characterized by hostility, anxiety and depression.

Muthard (1965) administered the Minnesota Multiphasic Personality Inventory (M.M.P.I.) to male and female cerebral palsied college students and non impaired college students. He found that male and female cerebral palsied differed significantly in their M.M.P.I. profiles, with

males having a greater amount of worry, feelings of worthlessness, seclusiveness and feelings of inferiority. When compared with the 'normal' group, the cerebral palsied differed significantly being more emotionally disturbed and in need of psychological help.

Boone, Roessler and Cooper (1978) examined the motivational significance of hope and anxiety for the process of acceptance of disability. The Self-Anchoring Striving Scale and the Taylor Manifest Anxiety Scale was administered to forty-eight physically disabled rehabilitation clients. It was found that hope and anxiety were independent constructs, both of which are related to acceptance of disability in a curvelinear manner and that hope is negatively related to anxiety. Hope, anxiety and time since onset of disability, accounted for a large percentage of the variance in acceptance of disability ($R^2 = .69$).

Several theorists, (Tolman, 1948; French, 1952; Mower, 1960; Stolland, 1969) have addressed the

significance of hope as a factor in successful goal attainment. French (1952) described the process of activation of goal-directed behavior in terms of hope of satisfaction, which has significant influence both on the planning and responding necessary for goal attainment.

Tolmen (1948) theorized that without the expectancy of goal achievement an organism would not "behave". Similarily, Mower (1960) described the process of learning in terms of learning to hope, that is, learning that a given event signals an oncoming reinforcement.

The limited available research generally indicates that anxiety is an omnipresent emotion which appears to be experienced frequently by handicapped individuals because of the attitudes which others express toward them.

Chapter 3

Methodology

This chapter is organized to include the following:

(1) populations

(2) procedures

(3) statistical analysis

(4) instruments and materials

(5) hypotheses

Populations

The sixty-eight subjects for this study were volunteers randomly selected from each of four different populations of handicapped persons. One group consisted of fourteen spinal cord injured individuals from Woodrow Wilson Rehabilitation Center in Fisherville, Virginia. W.W.R.C. is a state residential rehabilitation facility serving the residents of Virginia and four surrounding states. Ethical constraits placed on the researcher did not permit the collection of other demographic data. There is no reason to assume that the population is not representative.

The second group consisted of twenty volunteer recovered alcoholics from the Alcohol Rehabilitation Center located in San Antonio, Texas. The Alcohol Rehabilitation Center is a residential treatment center for recovering alcoholics.

The third group consisted of twenty volunteer deaf clients from the Texas School for the Deaf located in San Antonio, Texas.

The fourth group consisted of fourteen volunteer individuals who have cerebral palsy. These individuals are participants in a sheltered workshop at the Cerebral Palsy Association of San Antonio, Texas.

Procedures

Each of the four institutions involved were contacted and asked permission to use their facilities. Upon receiving permission, each group of residents were asked to volunteer in an experiment designed to assess attitudes among the disabled. Each subject was informed that their participation would be purely voluntary and that they could terminate their

participation in the experiment at any time. Each subject was asked to sign a consent form (See Appendix A).

Each subject, who volunteered, was then asked to complete a self-evaluation questionnaire. The STAI was individually administered to each subject. At the completion of the STAI each subject was informed that his/her score on the questionnaire would remain confidential and that the results would have absolutely no bearing on their standing in their rehabilitation program.

The personal counselor, of each subject who volunteered, was then asked to fill out the Professional Rating Form for Social Services and Rehabilitation Professionals. Each counselor was asked to assess the manifest anxiety of each of their clients.

Statistical Analysis of Data

According to Siegel (1956), certain requirements must be met before a parametric test can be used. Specifically these are:

1. The observations must be independent.

2. The observations must be drawn from normally distributed populations.

3. These populations must have the same variance.

4. The variables involved must be measured at least at an interval scale, so that it is possible to use the operation of arithmetic on the scores.

The State-Trait Anxiety Inventory and the Professional Rating Scale for Social Service and Rehabilitation Professionals yield interval data. For this reason, the t-test for independent groups was chosen to test the two hypotheses.

The Spearman rank-order correlation coefficients test was used to statistically analyze the three remaining hypotheses. The Spearman was chosen because the measurements yielded data which contained relatively few tied rankings. According to Nie, Hull, Jenkins, Steinbrenner and Bent (1970) Spearman's r_s yields as closer approximation to product-moment correlation coefficients when the data is more or less continuous and is not

characterized by a large number of ties at each rank.

All tests were scored by hand. Analyses of data were performed by Behavioral Assessment Clinic in San Antonio, Texas, utilizing the Hewlett-Pachard 65 mini-computer and the computer facilities of the College of William and Mary.

Instruments and Materials

In order to test the hypotheses under investigation, two evaluation instruments were used. These instruments were: (a) the State-Trait Anxiety Inventory (Spielberger, 1970); the Professional Rating Scale for Social Service and Rehabilitation Professionals (Cull and Hardy, 1975).

The State-Trait Anxiety Inventory

The State-Trait Anxiety Inventory is "comprised of separate self-report scales for measuring two distinct anxiety concepts: state anxiety (A-State) and trait anxiety (A-Trait)". The STAI-A-TRAIT scale is composed of twenty statements that ask

people to describe how they generally feel. The A-State scale also "consists of twenty statements but the instructions require subjects to indicate how they feel at a particular moment in time".

Trait anxiety (A-Trait) is conceptualized as a relatively constant individual differences in anxiety proneness. It is believed that each person has a tendency to respond to situations perceived as stressful with elevations in A-State intensity.

State anxiety (A-State) refers to a "transitory emotional state or condition of the human organism, that is characterized by subjective, consciously perceived feelings of tension and apprehension and heightened autonomic nervous system activity." A-State may be relatively unstable and may vary in intensity over time.

The standardization groups from which the norms were developed include; college freshmen, undergraduate college students, and high school students. Also available are normative data for male psychiatric patients, general medical and surgical patients

and young persons.

The STAI (Form X) norms for college students are based on two separate samples of Florida State University students: (a) 982 incoming freshmen (334 males, 648 females); and (b) 484 undergraduate students (253 males, 231 females).

The test-retest reliability data on STAI (Form X) for subgroups of subjects who were included in the normative sample of undergraduate college students for the A-Trait, range from .73 to .86, while those for the A-State range from .16 to .54 with a median r of .32.

Evidence for the concurrent validity of the STAI-A-Trait scale has been presented by Spielberger and Gorsuch (1966) and Spielberger, et al (1968). Due to the permanent nature of the handicapping conditions, the trait anxiety scale was used to measure anxiety.

The Professional Rating Scale for Social Service and Rehabilitation Professionals

The Professional Rating Scale for Social Service and Rehabilitation Professionals consists

of thirty items which are designed to measure manifest anxiety in disabled populations. The scale consists of thirty statements which ask the counselor to rate how the disabled feels in general.

Construct and face validity of The Professional Rating Scale for Social Service and Rehabilitation Professionals was established by Cull, (1972). He requested from fifty other rehabilitation psychologists, rehabilitation counselors, and rehabilitation administrators a list of various attributes which these practitioners thought were indicators of anxiety in disabled people.

Construction of the scale consisted of having five clinical experts judge the effectiveness of each item and answer in measuring anxiety. Judges were asked to place the item number in one of the following categories: (1) Excellent Measure of Anxiety; (2) Good Measure of Anxiety; (3) Fair Measure of Anxiety; (4) Poor Measure of Anxiety. Based on the recommendations of the clinical experts the thirty best items were selected for inclusion in the scale.

Hypotheses

For the purpose of statistical research the following null hypotheses are stated:

Hypothesis 1

There will be no statistically significant relationship between perceived and felt anxiety.

Hypothesis 2

There will be no statistically significant difference between felt anxiety in the visibly handicapped and felt anxiety in the non visibly handicapped.

Hypothesis 3

There will be no statistically significant relationship between perceived anxiety and felt anxiety in the visibly handicapped.

Hypothesis 4

There will be no statistically significant relationship between perceived anxiety and felt anxiety in the non visibly handicapped.

Hypothesis 5

There will be no statistically significant difference between perceived levels of anxiety in the visibly and non visibly handicapped.

Chapter 4

Results

The purpose of this investigation was two-fold: (1) to investigage the relationship between visibleness and non visibleness of disability and anxiety; and (2) to determine the relationship between the felt anxiety of the handicapped individual and the manifest anxiety of that handicapped individual, as assessed by their counselor.

There are five hypotheses formulated for this research study. The conclusions were derived from an analysis of self-report anxiety and counselor evaluation of manifest anxiety of four groups of handicapped individuals. These four groups consisted of cerebral palsied, spinal cord injured, reformed alcoholics, and deaf individuals. The subjects were administered the State-Trait Anxiety Inventory. Also, each subject's personal counselor was asked to complete an anxiety scale with regard to the subject's manifest anxiety. The statistical results are reported separately by research hypothesis.

Hypothesis 1

Hypothesis 1 states that there will be no statistically significant relationship between perceived anxiety and felt anxiety. This hypothesis was tested by comparison rankings of scores from the State-Trait Anxiety Inventory and the Professional Rating Scale for Social Service and Rehabilitation Professionals.

Spearman rank-order correlation test are presented in Table 1. The Spearman test yielded a correlation coefficient of 0.2115 ($p < .05$).

Hypothesis 1, which states that there will be no statistically significant correlation between felt and perceived anxiety was rejected ($r_s = .2115$, $p < .05$).

Table 1

Hypothesis 1 - Summary of Data for Felt and Perceived Anxiety

Spearman Rank-Order Correlation Coefficient

Variable	r_s	Significance
Felt Anxiety with Perceived Anxiety	o.2115	.042*

N = 68

Hypothesis 2

Hypothesis 2 states that there will be no statistically significant difference between felt anxiety in the visibly handicapped and felt anxiety in the non visibly handicapped.

Table 2 indicates no statistically significant difference between the two groups on felt anxiety ($t = .57$, $df = 66$, $p > .05$). Thus, null hypothesis 2, which states that there will be no statistically significant difference between felt anxiety in the visibly handicapped and felt anxiety in the non visibly handicapped, was not rejected.

Table 2

Hypothesis 2 - Summary of Data for Felt Anxiety in the Visibly and Non Visibly Handicapped

t-Ration for Independent Groups

Variable	Mean	Standard Deviation	Standard Error of the Mean	Degree of Freedom	t-value
Felt Anxiety non visibly Handicapped	44.39	9.65	1.42		
Felt Anxiety Visibly Handicapped	42.96	11.44	2.20	df=66	
					.57

p =.10

Hypothesis 3

Hypothesis 3 states that there will be no statistically significant relationship between perceived anxiety and felt anxiety for the visibly handicapped. The criterion measures used were the State-Trait Anxiety Inventory and the Professional Rating Scale for Social Service and Rehabilitation Professionals. As indicated in Table 3, the Spearman rank-order correlation test yielded a correlation coefficient of 0.2234 ($p < .05$).

Hypothesis 3, which states that there will be no statistically significant correlation between perceived anxiety and felt anxiety in the visibly handicapped was not rejected ($r_s = .2234$, $p < .05$).

Table 3

Hypothesis 3 - Summary of Data

Felt Anxiety and Percieved Anxiety

In the Visibly Handicapped

Spearman Rank-Order Correlation

Variable	r_s	Significance
Perceived Anxiety Visibly Handicapped with Felt Anxiety Visibly Handicapped	0.2234	.127

N = 28

Hypothesis 4

Hypothesis 4 states that there will be no statistically significant relationship between perceived anxiety and felt anxiety in the non visibly handicapped. The results of a Spearman rank-order correlation test are presented in Table 4. The test yielded a correlation coefficient of 0.1924 ($p > .05$).

Hypothesis 4, which states that there will be no statistically significant correlation between perceived anxiety and felt anxiety in the non visibly handicapped was not rejected ($r_s = .1924$, $p > .05$).

Table 4

Hypothesis 4 - Summary of Data for

Felt Anxiety and Perceived Anxiety

In the Non Visibly Handicapped

Visable	r_s	Significance
Felt Anxiety Non Visibly Handicapped with Perceived Anxiety Non Visibly Handicapped	.1924	.117

N = 40

Hypothesis 5

Hypothesis 5 states that there will be no statistically significant difference between perceived levels of anxiety in the visibly and non visibly handicapped. The results of a t-test for independent groups along with the means, standard deviations and standard error of the mean are presented in Table 5. The mean of perceived anxiety in the visibly handicapped =64.30 and the mean of perceived anxiety in the non visibly handicapped = 51.87 yielded a t-value of 4.01.

Hypothesis 5 which states that there will be no statistically significant difference between perceived levels of anxiety in the visibly and non visibly handicapped was rejected ($t = 4.01$, $df = 66$, $p < .05$).

Table 5

Hypothesis 5 - Summary of Data for Perceived Levels of Anxiety in the Visibly and Non Visibly Handicapped

Variable	Mean	Standard Deviation	Standard Error of the Mean	Degree of Freedom	t-value
Perceived Anxiety Non Visibly Handicapped	51.87	15.68	2.96		
Perceived Anxiety Visibly Handicapped	64.30	9.67	1.53	df=66	
					4.01

p = .01

Summary

An analysis of data obtained by this study indicates that:

1. Hypothesis 1, which states that there will be no statistically significant relationship between perceived and felt anxiety, was rejected.
2. Hypothesis 2, which states that there will be no statistically significant difference between felt anxiety in the visibly handicapped and felt anxiety in the non visibly handicapped, was not rejected.
3. Hypothesis 3, which states that there will be no statistically significant relationship between perceived anxiety and felt anxiety in the visibly handicapped, was not rejected.
4. Hypothesis 4, which states that there will be no statistically significant relationship between perceived anxiety and felt anxiety in the non visibly handicapped, was not rejected.
5. Hypothesis 5, which states that there will be no statistically significant difference between perceived levels of anxiety in the visibly and non visibly handicapped, was rejected.

Chapter 5

Summary, Conclusions, Limitations, Implications and Recommendations

The purpose of Chapter 5 is to present the research findings, by hypothesis, and to develop appropriate conclusions, implications, and recommendations. Limitations of the present investigation are also presented and discussed.

Summary

Research studies have illustrated the fact that both handicapped and non handicapped individuals experience apprehension and anxiety as a result of interpersonal interaction (Russell, 1949; Thompson & Siebold, 1978). Goffman (1963) pointed out that physical deformity is a type of stigma and that possession of a stigma generally connotes undesirability. In addition, Goffman distinguished between descredited and discreditable. A person who possesses a stigma which is readily apparent to others is discredited. A person who possesses a stigma, but because of the nature of the attribute, is able to conceal it from others is discreditable.

According to Goffman the "visibly" stigmatized individual will have special reasons for feeling that social interactions make for anxious unanchored interaction. In addition, 'normals' will also find these interactions anxiety producing.

The discreditable person-non "visibly" stigmatized-experiences anxiety for two distinct reasons. The discreditable individual not only must fear that the 'normal(s)' will become knowledgable of his stigma, but also must fear their reaction. Warfield (1948) recounts the "sickist little ball of panic in the pit of my stomach" caused by a fear of her non visible stigma (deafness) being discovered.

Sullivan (1945) theorized that the awareness of inferiority (or assumed inferiority) causes an individual insecurity and anxiety.

A review of the literature concerning disability and reaction to disability indicated that anxiety and depression are the two most common reactions. However, based upon a review of pertinent literature (Cull and Hardy, 1971; Cull and Levinson, 1977), it was found

that very few rehabilitation practitioners measure manifest anxiety in their disabled clients.

The purpose of this study was to measure levels of anxiety in the visibly disabled and the non visibly disabled. In addition, the study attempted to assess the accuracy of the rehabilitation counselor's perception of anxiety in their clients. This study attempted to measure manifest anxiety in four groups of disabled individuals.

Deaf individuals from the Texas Institute for the Deaf comprised one group. The second group was made up of reformed alcoholics who were residents at the Alcohol Rehabilitation Center in San Antonio, Texas. The third group included individuals with cerebral palsy from the Sheltered Workshop of San Antonio, Texas. The fourth group consisted of spinal cord injured individuals from Woodrow Wilson Rehabilitation Center.

Subjects were administered the State-Trait Anxiety Inventory (Spielberger, 1966). In addition, each subject's personal counselor was asked to complete

a Professional Rating Scale for Social Service and Rehabilitation Professionals. Each counselor was asked to assess the manifest anxiety level of each of his clients.

Statistical analysis of the data consisted of t-test for independent groups and the Spearman rank-order correlation test. The .05 level of probability was used to test all hypotheses.

Conclusions

The conclusions of the investigation comparing manifest anxiety in the visibly disabled and the non visibly disabled.

Hypothesis 1

Hypothesis 1 states that there will be no relationship between the felt anxiety of the subjects and the manifest anxiety perceived by the counselors. The measures used to test this hypothesis were the Stait-Trait Anxiety Inventory and the Professional Rating Scale for Social Service and Rehabilitation Professionals. The null hypothesis in this case was rejected. Based

upon this result, it appears there is a significant relationship between the experienced anxiety of the client and the perceived anxiety of the counselor.

Hypothesis 2

Research Hypothesis 2 states that there will be no significant difference between felt anxiety of subjects with visible handicaps and subjects with non visible handicaps. Felt anxiety was measured by each subject's score on the State-Trait Anxiety Inventory. For Hypothesis 2, the null hypothesis is not rejected. It appears that individuals with visible handicaps do not experience more anxiety than individuals with non visible handicaps.

Hypothesis 3

Research Hypothesis 3 states that there will be no significant relationship between felt anxiety and perceived anxiety in those subjects with visible handicaps. The Stait-Trait Anciety Inventory was used to assess felt anxiety and the Professional Rating Scale for Social Service and Rehabilitation Profes-

sionals was used to assess perceived anxiety. For research hypothesis 3, the null hypothesis was not rejected. It appears that there is not a significant relationship between the anxiety experienced by individuals with visible handicaps and the manifest anxiety which is perceived by their counselors.

Hypothesis 4

Research Hypothesis 4 states that there will be no significant relationship between felt anxiety and perceived anxiety in those subjects with non visible handicaps. The State-Trait Anxiety Inventory was used to assess felt anxiety and the Professional Rating Scale for Social Service and Rehabilitation Professionals was used to assess perceived anxiety. For hypothesis 4, the null hypothesis was not rejected. Based upon the result of this study, it appears that there is no significant relationship between the anxiety being experienced by rehabilitation clients with non visible handicaps and that which is perceived by their counselors.

Hypothesis 5

Research Hypothesis 5 states that there will be no statistically significant difference between perceived levels of anxiety in the visibly and non visibly handicapped. The results of a t-test for independent groups along with the means, standard deviations and standard error of the mean are presented in Table 5.

Hypothesis 5, which states that there will be no statistically significant difference between perceived levels of anxiety in the visibly and non visibly handicapped, was rejected.

Limitations

In light of the research design employed and the method of subject selection, the findings are considered to be generalizable only to the disability groups included in the study. Generalizability may be even more limited by the volunteer subject pool and the ex post facto nature of the research.

Another limitation of this study is that the State-Trait Anxiety Inventory may not be an accurate

measure of manifest anxiety. Writing in Buros Eighth Mental Measurement Yearbook, Dreger (1978) states that there is a question as to whether trait anxiety scores are related to everyday reality or just to other purported measures of that reality. In addition, STAI is considered likely to be an inadequate measure at time because of its high susceptibility to "faking good" and "faking bad".

It may also be that because the STAI has not been normed on, or widely used with, disabled groups it is deficient in assessing manifest anxiety in that population.

Another limitation of the study is that no attempt was made to assess the experience level or personal characteristics of the rehabilitation counselors.

Implications

Goffman's (1963) stigma theory posits a causal relationship between visibleness and nonvisibleness of stigmata and anxiety. The discredited and discreditable experience anxiety for different reasons.

The discredited individuals fears that the 'normal(s)' will generalize from the stigmata to other less desirable traits. The discreditable individual fears that 'normal(s)' will discover his stigmata.

The results of this study indicate that individuals with visible handicaps are not experiencing more anxiety than individuals with non visible handicaps. There are many possible explanations for this lack of difference. The researcher was knowledgable of the discreditable individual's possession of a non visible stigmata. This may alleviate individuals' anxiety and fear of being 'discovered'. The situation with the discredited individual is more complicated. One possible explanation is that the discredited individual may have assumed that the researcher would be more knowledgable of disability and therefore, would be less likely to generalize other non desirable traits to the individual. However, these explanations do not explain the absence of a high trait-score, the measure used because of the susceptibility of the state-score to

fluctuation, in the discredited and the discreditable. Another possible explanation is that discredited and discreditable individuals are not experiencing the anxiety attributed to them by the theorists and counselors (Goffman, 1963; Wright, 1960; Sullivan, 1945). It may also be that the counselors have been trained to expect the client to be anxious and project that assumption in their individual ratings of manifest anxiety in handicapped clients.

The wide discrepancy between felt anxiety in the visibly and non visibly handicapped and the perceived anxiety of the rehabilitation counselors has many implications. The results of this study indicate that rehabilitation counselors are perceiving more manifest anxiety in their visibly and non visibly handicapped clients than the clients are experiencing. This investigation also indicates that rehabilitation counselors tend to ascribe higher levels of manifest anxiety to their visibly handicapped clients than to their non visibly handicapped clients. The autobio-

graphical data from those individuals who are discredited and discreditable. Russell (1949) and Warfield (1948), certainly suggests that these individuals are experiencing considerable anxiety. One possible explanation for these findings is that the counselors are projecting their anxieties to their clients. This explanation would be in accord with Goffman's theory of strained interactions between the visibly handicapped and 'normals'. Conversely, it may be that the rehabilitation clients are "faking good". As was mentioned previously, the State-Trait Anxiety Inventory is extremely susceptible to faking. If this assumption is true, the subjects may have "faked good" for a number of reasons. They may not have believed that their scores would not be used in determining their progress in their rehabilitation program. Second, they may have given answers which they felt the researcher would like them to give and those which they felt were socially desirable responses. The results of this investigation indicate that the counselors

attribute higher levels of anxiety to the visibly handicapped than to the non visibly handicapped.

The fact that the counselors are attributing high levels of anxiety to their clients, than may actually be present, has ominous implications with regard to rehabilitation programs. The previously described relationship between anxiety and poor task performance, anxiety and lack of motivation and anxiety and lack of hope suggests that a client may be held back in a rehabilitation program because of misperceived inter and intrapersonal inadequacies.

Recommendations

The following recommendations for future investigations are suggested for the results of this study.

1. That rehabilitation counselors be required to use an objective standardized test to assess anxiety in their clients.
2. That rehabilitation counselors be given extensive training in recognizing the physiological and psychological symptoms of anxiety.
3. That an additional study be conducted using other discreditable and discredited groups such as ex-convicts, individuals with colostomies, amputees, and blind individuals. Using an instrument such as the Rorschach, it might be possible to assess anxiety in visibly and non visibly handicapped individuals without overtly pointing out that the measure used actually measures anxiety.
4. That a similar study be conducted with the researcher using as a co-variate the counselors' years of experience, attitude toward the disabled and their own self-concept.

5. That further validation research be done on the State-Trait Anxiety Inventory specifically using handicapped populations. The additional research might point to the development of a scale for measuring anxiety in the handicapped.

Appendix

Appendix A

CONSENT FORM

I, _____, agree to participate in a research project, being conducted by Wayne Villeneuve, which is concerned with assessing attitudes of the disabled. I understand that all results will be confidential and that my anonymity with regard to participation in this research is guaranteed. Also, I may withdraw from the research project at any time with the full understanding that my previous participation was voluntary. I have also received a complete explanation of the purposes of this research and if I desire I may have access to the results of the study.

CLIENT SIGNATURE

RESEARCHER'S SIGNATURE

SELF-EVALUATION QUESTIONNAIRE

Developed by C. D. Spielberger, R. L. Gorsuch and R. Lushene

STAI FORM X-1

NAME _____ DATE _____

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *feel* right now, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

	NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1. I feel calm	①	②	③	④
2. I feel secure	①	②	③	④
3. I am tense	①	②	③	④
4. I am regretful	①	②	③	④
5. I feel at ease	①	②	③	④
6. I feel upset	①	②	③	④
7. I am presently worrying over possible misfortunes	①	②	③	④
8. I feel rested	①	②	③	④
9. I feel anxious	①	②	③	④
10. I feel comfortable	①	②	③	④
11. I feel self-confident	①	②	③	④
12. I feel nervous	①	②	③	④
13. I am jittery	①	②	③	④
14. I feel "high strung"	①	②	③	④
15. I am relaxed	①	②	③	④
16. I feel content	①	②	③	④
17. I am worried	①	②	③	④
18. I feel over-excited and "rattled"	①	②	③	④
19. I feel joyful	①	②	③	④
20. I feel pleasant	①	②	③	④

SELF-EVALUATION QUESTIONNAIRE

STAI FORM X-2

NAME _____ DATE _____

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

	ALMOST NEVER	SOMETIMES	OFTEN	ALMOST ALWAYS
21. I feel pleasant	①	②	③	④
22. I tire quickly	①	②	③	④
23. I feel like crying	①	②	③	④
24. I wish I could be as happy as others seem to be	①	②	③	④
25. I am losing out on things because I can't make up my mind soon enough	①	②	③	④
26. I feel rested	①	②	③	④
27. I am "calm, cool, and collected"	①	②	③	④
28. I feel that difficulties are piling up so that I cannot overcome them	①	②	③	④
29. I worry too much over something that really doesn't matter	①	②	③	④
30. I am happy	①	②	③	④
31. I am inclined to take things hard	①	②	③	④
32. I lack self-confidence	①	②	③	④
33. I feel secure	①	②	③	④
34. I try to avoid facing a crisis or difficulty	①	②	③	④
35. I feel blue	①	②	③	④
36. I am content	①	②	③	④
37. Some unimportant thought runs through my mind and bothers me	①	②	③	④
38. I take disappointments so keenly that I can't put them out of my mind	①	②	③	④
39. I am a steady person	①	②	③	④
40. I get in a state of tension or turmoil as I think over my recent concerns and interests	①	②	③	④

Appendix C

PROFESSIONAL RATING SCALE FOR SOCIAL SERVICE AND REHABILITATION PROFESSIONALS
(for indicating anxiety levels of clients)

Name_____Age_____Sex_____Race_____

Date of Onset of Disability_____

Name of Examiner_____

Total I.Q_____Name of I.Q. Test_____
Verbal_____Year Given_____
Performance_____

Primary Disability_____

Secondary Disability_____ (if any)

	None or a little of the time	Some of the time	Good Part of the time	Most or all of the time
1. This disabled person tends to become upset when definite events are scheduled.				
2. This disabled person often appears under strain when he/she must answer questions.				
3. He/she almost always works well under timed pressure.				
4. This disabled person appears to be unusually hesitant in moving about.				
5. He/she lacks self-confidence.				
6. He/she has accepted the dependence which has been forced upon him/her by his/her disability.				
7. This is a restless person.				
8. Assignments and concrete goals often seem to cause this disabled person to worry.				
9. This disabled person has difficulty in most activity that extend over a few minutes.				
10. This disabled person often is nervous.				
11. Tension interfers seriously with this person's satisfaction.				
12. He/she cannot relax.				
13. His/her response to slight provocation is exaggerated.				

PROFESSIONAL RATING SCALE FOR SOCIAL SERVICE AND REHABILITATION PROFESSIONALS - PAGE 2	None or a little of the time	Some of the time	Good Part of the time	Most or all of the time
14. He/she readily undertakes new tasks.				
15. He/she is overly irritable.				
16. This is an indecisive individual				
17. This person has tension which reduces his/her competency.				
18. This person is easily upset.				
19. This disabled person gives general indications of fatigue not attributable to his/her physical condition.				
20. This disabled student is very easily embarrassed.				
21. This person is overly concerend about how he/she is doing.				
22. This disabled person frequently has an unhappy outlook about the consequences of his/her behavior.				
23. This disabled person usually has an emotional reaction to constructive criticism.				
24. This disabled person feels discriminated against because of his/her disability.				
25. This disabled person feels that having a disability has made him/her a better person.				
26. This disabled person feels that disability has made him/her feel moreimportant.				
27. He/she would if he/she could, rather have some other disability.				
28. He/she feels that disability has provided some positive results.				
29. He/she believes that marriage should not be considered with his/her disability.				
30. This disabled person feels that his/her disability is unfair to other family members.				

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