

ATTITUDES TOWARD DISABILITY AND THEIR RELATIONSHIP TO
TWO SCALES OF THE PERSONAL ORIENTATION INVENTORY

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James B. Griffin. ATTITUDES TOWARD DISABILITY AND THEIR RELATIONSHIP TO TWO SCALES OF THE PERSONAL ORIENTATION INVENTORY. (Under the direction of Sheldon C. Downes, D.Ed.) Rehabilitation Counselor Education Program, Department of Counselor Education, November 1970.

The purpose of this study was to determine attitudes toward the physically disabled and to ascertain if differences exist among four groups of subjects with respect to these attitudes. In addition, the study sought to determine whether two personality factors are related to the attitudes.

Six null hypotheses were developed and tested. The null hypotheses were stated as follows:

1. There are no significant correlations between factors of personality, Time Competence and Inner-Directed Scales of the POI, and the nature of attitudes toward disabled persons when the subject groups are considered individually.

2. There is no significant difference in attitudes toward disabled persons between the counseling oriented group and the non-counseling oriented group.

3. There are no significant differences between the counseling oriented group and the non-counseling oriented group with respect to scores on the personality variables, Time Competence and Inner Directed.

4. There are no significant differences among the four groups of subjects with respect to attitudes toward the disabled.

5. There are no significant differences among the four groups of subjects with respect to scores on the Inner-Directed Scale of the POI.

6. There are no significant differences among the four groups

of subjects with respect to scores on the Time Competence Scale of the POI.

Four groups of subjects were used. Subjects included an undergraduate group of non-counseling majors, a graduate group of counseling majors, a group employed in non-counseling occupations and a group employed in counseling. The instruments used included the Attitudes Toward Disabled Persons Scale (ATDP) and two scales of the Personal Orientation Inventory (POI).

The statistical procedures included t tests used to determine significant differences, means used to determine score tendencies, and product moment correlation coefficients used to determine significant relationships. All of the statistics were derived from the COREL program at the East Carolina University Computer Center.

The analysis of the data led to the rejection of hypotheses one, four, five, and six. Hypotheses two and three were retained.

There seemed to be three major implications for further research resulting from this study. A study could be conducted in which the disabled are more definitely separated from the non-disabled so that the variable of disability may be controlled to a greater degree in the attitudinal study. Hypothesis one which dealt with the relationship between factors of personality and the nature of attitudes could be expanded to include other scales of the POI. The study could be replicated using student subjects who are more nearly alike with respect to age.

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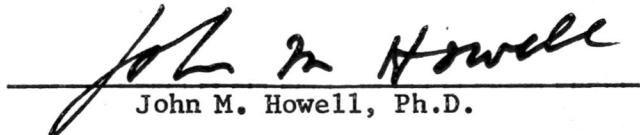
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CHAPTER I
INTRODUCTION

A topic of particular interest within the field of somatopsychological investigation is attitudes toward the physically disabled. The personality factors associated with attitudes toward the disabled has, perhaps, been studied less than the attitudes themselves.

This study attempted to determine the differences among four groups of subjects in their attitudes toward the physically disabled. Also, the study sought to determine whether personal independence and time utilization are related to attitudes toward the disabled.

The recognition of one's attitudes toward the physically disabled may well be of value in the selection of prospective counseling students, in the employment of counselors and the placement of counselors in areas of specialized counseling. It seems that a measure of personality factors may be used for the same selection and placement purposes as were discussed for the attitude scale.

Personality factors and attitudes seem to have been used less frequently in the selection of students for counseling programs and employment of counselors than have other criteria such as academic grades, intelligence tests, interviews and letters of recommendation. Patterson (1962) stated that more attention should be given to counselor selection in terms of attitudes, interests and personality factors since there is general agreement that these attributes often represent the qualifications necessary for the counseling function.

It is possible that the attitude of the counselors and counseling students may be detected by the client being counseled. If the attitudes are unfavorable or negative the counseling relationship may be less than ideal. With more information and knowledge concerning attitudes toward the disabled and the personality factors associated with these attitudes more discriminating counselor selection methods may be employed and perhaps more positive counselor-client relationships may be established.

An individual's time utilization, how well he functions in the present and his personal independence, whether he is motivated by his own feelings or by other people, are two factors which seem to be important in personal development and interpersonal interaction.

Various personality factors have been assumed to be related to counseling success. To possess these qualities requires a degree of self-actualization. If there is a significant positive relationship between the factors of time utilization and personal independence and attitudes toward the disabled, these personality characteristics may be considered as possible criteria for counselor and student selection.

Definitions

ATDP - refers to the Attitude Toward Disabled Persons Scale (Yuker, Block and Campbell, 1960). This is a 30 item attitude measure. Items are rated on a six point Likert-type scale.

attitude - refers to "the degree of positive or negative affect associated with some psychological objects" (Thurstone, 1946).

counseling oriented - refers to the combined subject groups of students with an academic major in counseling and counseling employees.

I - refers to Inner-Directed which is a sub-scale on the POI (Shostrom, 1966).

Inner-Directed - refers to one who is independent and self-supportive (Shostrom, 1966).

Likert Scales - a series of statements to be answered by checking a five or six point scale that ranges from a "strongly agree" category to a "strongly disagree" category (Likert, 1932).

non-counseling oriented - refers to the combined subject groups of students with an academic major in an area other than counseling and persons employed in an occupation other than counseling.

Other-Directed - refers to one who is dependent and often seeks support of others' views (Shostrom, 1966).

personal independence - refers to one's self-reliance.

physically disabled - refers to any individual having an abnormal physical condition, whether congenital or acquired, which is an obstacle to normal living.

physically handicapped - will be used interchangeably with physically disabled.

POI - refers to the Personal Orientation Inventory (Shostrom, 1966). This is a 150 two-choice comparative value and behavior judgments test. The inventory is considered to be a measure of self-actualization.

self-actualization - a psychological condition existing in an individual, manifesting itself in terms of one's behavior. The self-actualizing person is one who is more fully functioning and lives a more enriched life than does the average person (Maslow, 1954).

support ratio - refers to a ratio used in interpreting the POI. The ratio is designed to measure whether an individual's mode of reaction is characteristically self-oriented or other-oriented (Shostrom, 1966).

Tc - refers to a scale of the POI which measures the relative degree to which an individual lives and functions in the present, past, or future (Shostrom, 1966).

time ratio - refers to a ratio used in interpreting the POI. The ratio is designed to measure whether an individual's mode of functioning is characteristically present, past, or future oriented (Shostrom, 1966).

Specific Hypotheses to be Tested

1. There are no significant correlations between factors of

personality, Time Competence and Inner-Directed Scales of the POI, and the nature of attitudes toward disabled persons when the subject groups are considered individually.

2. There is no significant difference in attitudes toward disabled persons between the counseling oriented group and the non-counseling oriented group.

3. There are no significant differences between the counseling oriented group and the non-counseling oriented group with respect to scores on the personality variables, Time Competence and Inner-Directed.

4. There are no significant differences among the four groups of subjects with respect to attitudes toward the disabled.

5. There are no significant differences among the four groups of subjects with respect to scores on the Inner-Directed Scale of the POI.

6. There are no significant differences among the four groups of subjects with respect to scores on the Time Competence Scale of the POI.

Limitations of the Study

1. It must be recognized that the subjects associated with counseling may have a tendency, due to the nature of their academic and professional training, to respond in a more positive manner than their actual attitudes would warrant.

2. On any test, particularly a test of personality factors such as the POI, there is a variable of motivation. It should be recognized that the subjects responding to the POI had various levels of interest and motivation to respond as honestly as possible to the questions.

3. The study is limited to attitudes toward physical disability. It cannot be assumed that attitudes toward physical disability are the same as attitudes toward other forms of disability, whether it be mental illness or mental retardation.

4. The author cannot state whether the responses to the tests are from disabled or non-disabled subjects, although an attempt was made to test only the non-disabled.

CHAPTER II

REVIEW OF RELATED STUDIES

The subject of attitudes toward the disabled has been the topic of great interest and wide attention from physicians, psychologists, and persons associated with counseling over the past 35 years. The more objective techniques used today to measure these attitudes have originated from the very subjective method used at the onset of attitudinal studies.

The primary research interests have not been in the development of objective attitudinal evaluation tools or tests. Rather, most endeavors have been directed toward surveying attitudes or investigating specific hypotheses about attitudes toward disability. Consequently, the number of sophisticated tools designed to measure attitudes toward disability is limited.

General Background

There are, generally speaking, two types of studies for which attitude measures are needed. The first of these is primarily concerned with the prevalence of specific types of attitudes toward disability. The analysis for an instrument used for this purpose is relatively simple. Each attitude item can be analyzed individually in terms of the frequency of agreement or disagreement responses.

The second type of investigation is concerned with the relationship between attitudes toward disability and other variables. The present study is concerned not only with the differences in attitudes of different groups of subjects, but also with the relationships of these

attitudes to personality factors.

The range of formats used to measure attitudes has been from simple unstructured interview schedules or questionnaires to Likert Scales, from non-projective social distance scales, adjective check-lists, Q-sorts, and sociometric choice devices to sentence completion and picture-story projectives (Yuker, 1966).

Any systematic approach to the problem of counseling must concern itself with the role of public attitudes toward the disabled (Feinberg, 1967). A review of the literature in this area reveals that there has been no definitive statement regarding the nature of non-handicapped persons' attitudes toward the disabled. Research findings have been highly inconsistent and often contradictory in this area.

For example, the findings of Mussen and Barker (1944) indicate that the verbally expressed attitudes of the non-handicapped toward the disabled tend to be favorable. On the other hand, Schneider (1947) reported that both positive and negative attitudes are expressed toward the physically and mentally disabled.

Barker (1953) found that public verbalized attitudes toward disabled persons are on the average mildly favorable though an appreciable minority openly express negative attitudes. He also has stated that indirect evidence suggests that deeper un verbalized attitudes are more frequently hostile. A recent study (LeCompte & LeCompte, 1966) has suggested that powerful social sanctions and norms operate to inhibit the direct expression of hostile and devaluative attitudes toward the disabled.

There have been many factors or variables associated with particular attitudes toward disability or the disabled. The factor of exposure to the handicapped significantly changes in a positive direction the attitudes of non-disabled persons toward the disabled as measured by the ATDP test.

The study by Anthony (1969) supported the conclusion of Yuker, et al (1966) that a contact experience which is equal-status, close, personal, and social, which takes place in an employment setting, and which is coupled with educational experience will increase ATDP scores. Therefore, this type of contact experience was shown to offset attitudes positively as measured by the ATDP Scale.

Arnholter (1963) found that scores on the ATDP are positively related to the amount of contact that the non-disabled person had with disabled persons, even though this relationship might be complicated by whether the contact had been positive or negative in character. Wright (1960) pointed out that disability has been described as producing a "spread phenomenon" which negatively influences the perception of the disabled person's other characteristics and thereby devalues him.

There has been some concern directed toward the specific personality characteristics which influence attitudes toward disability. Siller (1962) related measures of disability attitude to quantitative measures of personality. Siller (1959) advanced the theory that reaction to handicaps in oneself or others is a function of ego strength and stability of interpersonal relationships. A series of subsequent experimental studies supported by the Vocational Rehabilitation Administration has been in progress testing and elaborating the basic concept.

In another study Siller (1963) used the Feeling Check List and the Attitudes Toward Disabled Persons Scale to ascertain attitudes toward disability. It was found that such factors as ego strength, security, affiliation, and intraception are positively correlated with acceptance of disability, while such variables as anxiety, hostility, and rigidity are negatively correlated.

In the same study, Siller reported that femininity is most related to acceptance of the disabled, as are low rigidity, low authoritarianism, and low aggressiveness. Positive loadings were found with nurturance, endurance, affiliation, and change. Siller concluded that while there is no strong characteristic personality pattern that leads to acceptance of the handicapped, negative self-image and disturbed object relationship are strongly conclusive to an adverse reaction.

Another area in which considerable study has been conducted is that of attitudes as related to body-satisfaction. An investigation by Epstein (1962) almost consistently supported a relationship of low body-satisfaction and avoidance or rejection of the physically disabled person, of high body-satisfaction and approach or acceptance of the disabled. Rogers (1951) expressed the view that there is a positive relationship between self-acceptance and acceptance of others.

Finally, Smits (1965) in a study of the reaction of self and others toward disability referred to several sources which indicate negative feelings (Barker, et al, 1953; Berreman, 1954; Gellman, 1960; Kessler, 1953; Meyerson, 1948; Tenny, 1953; Wright, 1960).

CHAPTER III
METHODS AND PROCEDURES

Subjects

To test the hypotheses in this study, four groups of individuals have been used. These groups are defined as follows:

- I. Graduate Counseling Students - these students are enrolled in either the Rehabilitation Counselor Education Program or the Counselor Education Program at East Carolina University, Greenville, North Carolina.
- II. Undergraduate Students - Non-Counseling - these East Carolina University students are from major fields of study other than counseling. The students are either sophomores, juniors, or seniors.
- III. Counselor Employees - these are individuals employed as rehabilitation counselors or school counselors in eastern North Carolina. At least a Bachelor's degree is held by each subject.
- IV. Non-Counselor Employees - these are individuals employed in occupations other than counseling in eastern North Carolina. At least a Bachelor's degree is held by each subject.

Each group consisted of thirty subjects.

Instruments for Study

The two tests used in this study, the two answer sheets and the face sheet formed a nine page packet. The two tests used in the study are described below.

1. Attitudes Toward Disabled Persons Scale - Revised Form A (Yuker, Block, Campbell, 1960).

A problem in research on attitudes toward the disabled is the stimulus used to elicit expressions of attitudes. A variety of stimuli have been used to represent persons with disabilities. Some of these have been photographs, written descriptions of persons, actual persons,

and labels or terms (Jaffe, 1967).

The stimulus in this study was the ATDP Scale which had 30 statements which were rated on a six point Likert-type scale. Each subject responded to the 30 statements by expressing his degree of agreement or disagreement on the six point scale ranging from +3 (I agree very much) to -3 (I disagree very much).

While the authors of the ATDP question the extent to which the different forms are equivalent, they indicate that there is reasonably good evidence that the ATDP is a reliable scale. This conclusion is based upon a consideration of reliability coefficients usually obtained with attitude scales of comparable format and length (Yuker, 1966).

The original validation study on the ATDP was on a group of students at the Hofstra College as the non-disabled population. A group of handicapped employees of Abilities Incorporated was used as the disabled population. The prediction was made that since disabled persons are probably more accepting of disability, they would tend to obtain higher scores on the ATDP than non-disabled subjects. A mean ATDP score of 80.6 with a standard deviation of 16.0 was obtained. The Hofstra College students obtained a mean score of 73.9 with a standard deviation of 15.3. The difference between the two means was significant at the .001 level, confirming the prediction (Arnholter, 1963).

The author of the ATDP assumed that when the ATDP was used with disabled persons it might provide a measure of acceptance of disability and further, of self-acceptance. It was assumed that when the ATDP was administered to non-disabled persons it would provide a measure of attitudes toward disabled people viewed as a group (Yuker, 1966).

Yuker, et al, (1960) pointed out that evidence for the validity of the ATDP is based largely upon construct validity. To establish the validity of the ATDP Scale with disabled persons, criteria included measures of personality, behavior and self-concept. To establish validity with non-disabled persons, ATDP scores were correlated with measures of prejudice and with other variables shown to be correlated with attitudes of prejudice. Therefore, correlational techniques were the prime method of indicating the relationships between ATDP scores and other theoretically related variables (Yuker, 1966). The ATDP attempts to assess the degree to which subjects view the physically disabled as different from or the same as physically normal people. For non-disabled subjects, high scores are interpreted to represent an acceptance of disabled persons, while low scores represent prejudice toward the disabled. A single total score is derived.

As is true for all Likert-type scales, no absolute interpretation of the raw score is possible since the degree of the attitude expressed by each item is not known as it would be with a Thurstone Scale (Edwards, 1957). The Likert Scales indicate the attitude of the individual relative to a normative group. In order to interpret a score, it is necessary to compare the subject's score with scores obtained by members of an appropriate reference group (Yuker, Block and Young, 1966).

Norms and the reliability for the ATDP were established on physically normal college students. Normative data scores for both disabled and non-disabled subjects are presented for Form A in Table I.

TABLE I

NORMS FOR THE ATDP, FORM A

FORM	SEX	<u>DISABLED</u>			<u>NON-DISABLED</u>		
		MEAN	STANDARD DEVIATION	N	MEAN	STANDARD DEVIATION	N
A	Male	120.43	24.00	191	106.65	20.73	337
	Female	123.58	22.65	103	114.18	20.48	405

(Figures taken from Table 6, Yaker, Block, and Youngg, 1966, p.28)

Many studies have reported the reliability of the ATDP. Separate reliability data are presented for disabled and non-disabled persons. Two different approaches to measuring equivalence reliability have been used with the ATDP. Equivalence reliability indicates the influence of the particular sample of items chosen. The first approach is the split-half method and the second approach involves construction of two different but presumably equivalent forms of a scale (Yuker, 1966).

Yuker (1966) reported that the split-half reliability coefficients range from +.73 to +.89 for Form A and from +.72 to +.87 for Form B. It is reported that there is no apparent difference between disabled and non-disabled groups. The reliability coefficients for the "immediate parallel forms" or equivalent forms range from +.57 to +.83 (Yuker, 1966).

Yuker (1966) concluded that the age variable is frequently contaminated with educational level. There seems to be an increase in acceptance of physical disability on the part of both disabled and non-disabled persons with increasing levels of completed formal education. Sex differences seem to be found sufficiently often to conclude that females show greater acceptance of physical disability than do males in both disabled and non-disabled groups. There is insufficient data to draw conclusions between the relationship of attitudes toward disability and the subjects' marital status, his socio-economic status, nationality, race, urban, or rural environment.

2. Personal Orientation Inventory (Shostrom, 1966).

The Personal Orientation Inventory consists of 150 two-choice comparative value and behavior judgments. The items are scored twice, first for two basic scales of personal orientation, Inner-Directed support

and Time Competence, and second for ten subscales, each of which measures a conceptually important element of self-actualization (Shostrom, 1966).

Maslow (1962) expressed the concept of the self-actualizing person. The self-actualizing person is one who is more fully functioning and lives a more enriched life than does the average person. Rogers (1961) and Brammer and Shostrom (1960) concurred with Maslow's idea that the self-actualized person is one who is developing and utilizing all of his unique capabilities and is free of the inhibitions and emotional turmoil of those less self-actualized.

The scales of the POI include the Support Ratio and the Time Ratio, two major areas important in personal development and interpersonal interaction. Scores on each of the ten subscales are intended to reflect a facet important in the development of self-actualization. The Time Competence and the Inner-Directed Scales have been selected for use in this study.

The Support Ratio consists of two aspects, inner-directedness and other-directedness. The Support Ratio is designed to measure whether an individual's mode of reaction is characteristically "self" oriented or "other oriented".

The inner-directed persons are guided by internal motivations rather than external influences. The other-directed persons are motivated by fear or anxiety. This person may become over-sensitive to the opinions of other people with excessive conformity resulting (Shostrom, 1966). The support orientation of the more self-actualized individuals tends to lie between that of the extreme other-directed and the extreme inner-directed person.

The Time Competence (Tc) and Inner-Directed (I) Scales give an estimate of the examinee's level of self-actualization. For correlational and other statistical analyses it is recommended that scores on these two scales be used in preference to the previously mentioned ratio scores (Shostrom, 1966).

The self-actualized person is primarily Time Competent and he appears to live more fully in the present, as contrasted with the past or future (Shostrom, 1966). The self-actualized person's use of time in a competent way is expressed in the Time Ratio score (Shostrom, 1966).

Shostrom (1966) contended that the most important test of validity in the case of the POI, is that it should discriminate between persons who have been observed in their life behavior to have attained a relatively high level of self-actualization and those who have not so evidenced such development. The results of the study by Shostrom (1965) supported the contention that the POI significantly discriminates between clinically judged self-actualized and non-self-actualized groups on 11 of the 12 scales. Results were significant at the .01 level of confidence.

Shostrom (1966) reported test-retest reliability coefficients for the major scales of Time Competence and Inner-Direction to be .71 and .84 respectively. Coefficients for the subscales range from .55 to .85.

Procedure

In the selection of subjects for study, availability was a primary consideration. Random sampling was not attempted.

The subjects were asked to participate in the study. All who participated did so voluntarily. Subject populations have been described previously. Individuals participating in the study were allowed to complete the tests at their convenience and were encouraged to respond to the questions in a serious manner.

Analysis of the Data

To test the hypotheses in this study the scheme of groups established in Figure I will be followed. It is recognized that the test scores used in this study are not, strictly speaking, interval data. However, the test data approximate the characteristics of interval data closely enough to justify the use of statistical procedures generally reserved for the analysis of interval data. Kerlinger (1964) stated that when ordinal measurements are treated as though they were interval measurements one must be alert to the possibility of gross inequality of intervals and that care should be taken with the interpretation of the statistical results.

Significant differences will be noted at the .01 and .05 levels of confidence. The East Carolina University Computer Center Library Program COREL, Symetric Correlation Program, will be used to derive the T-Tables, means, standard deviations, and product moment correlation coefficients used in analyzing the test data. A t-test will be used to determine if significant differences exist between specific groups. Product moment correlation coefficients will be used to discover significant correlations between the various scores.

FIGURE 1

Levels of Orientation

	Counseling Oriented	Non-Counseling Oriented
Student-Employee Status	Counseling Students	Non-Counseling Students
	Counseling Employees	Non-Counseling Employees

SCHEME OF GROUPS TO BE TESTED AND ANALYZED

CHAPTER IV
ANALYSIS OF RESULTS

Hypothesis One

The first hypothesis states, "there are no significant correlations between factors of personality, Time Competence and Inner-Directed Scales of the POI and the nature of attitudes toward disabled persons when the subject groups are considered individually".

An inspection of Table II indicates that there is no significant correlation between ATDP scores and the Time Competence and Inner-Directed Scales for the non-counseling students. A significant correlation ($r=+0.4649$, $df=28$, $p < .01$) was found between ATDP scores and Time Competence for the counseling students. There was no significance found between the ATDP scores and the Inner-Directed Scale for the counseling students. No significant correlations were found for the counseling employees, non-counseling students, and the non-counseling employees with respect to the ATDP scores and the two POI Scales.

The trend of means for the three tests scores were not as had been expected. The higher ATDP scores indicated more acceptance of the disabled. Table III contains the mean scores for the subject groups on the three test scores. The high POI subscale scores indicate more favorable personality characteristics. The mean of the non-counseling students ($M=101.40$) on the ATDP was 23 points lower than the mean for the non-counseling employees ($M=124.40$). However, the mean of the counseling students ($M=118.83$) and the mean of the counseling employees ($M=117.23$) approximated each other as was expected.

TABLE II

THE COEFFICIENTS OF CORRELATION BETWEEN THE ATDP
AND POI SCALES FOR THE FOUR GROUPS

Groups	I Non-Counseling Students (N=30)	II Counseling Students (N=30)	III Counseling Employees (N=30)	IV Non-Counseling Employees (N=30)
Correlation of ATDP & Time Competence	+0.2751	+0.4649*	-0.0136	-0.1467
Correlation of ATDP & Inner-Directed	-0.1693	+0.2586	0.0139	0.0948

*Significant at .01 level of confidence.

TABLE III

MEANS FOR ALL SCALES

SUBJECT GROUPS	I Non-Counseling Students (N=30)	II Counseling Students (N=30)	III Counseling Employees (N=30)	IV Non-Counseling Employees (N=30)	¹ V Counseling Oriented (N=60)	² VI Non-Counseling Oriented (N=60)
Scales						
**ATDP	101.40	118.83	117.23	124.40	118.03	112.90
*POI-I	77.96	85.96	83.50	84.70	84.73	81.33
*POI-Tc	15.33	15.96	17.00	17.06	16.48	16.20

¹Counseling Oriented is the group of subjects formed by combining Groups II and III.

²Non-Counseling Oriented is the group formed by combining Groups I and IV.

* High scores on these scales indicate more positive traits than low scores.

** High scores are interpreted to represent more acceptance of disabled persons than low scores.

The highest mean on the ATDP Scale for the four groups was that of the non-counseling employees (M=124.40).

Hypothesis one was retained for the subject groups of non-counseling students, counseling employees, and non-counseling employees. The null hypothesis was retained for the counseling groups with respect to the correlations of ATDP and Inner-Directed scores but it was rejected with respect to the ATDP and Time Competence scores.

Null hypothesis one was rejected since there was only one significant correlation.

Hypothesis Two

The second hypothesis states that "there is no significant difference in attitudes toward disabled persons between the counseling oriented group and the non-counseling oriented group".

Table IV indicates that there is no significant differences between the counseling oriented group and the non-counseling oriented group with respect to scores on the ATDP. While not significantly different ($t = -1.3828$, $df = 118$, n.s.), the mean for the counseling oriented group (M=118.03) was higher than the mean for the non-counseling oriented group (M=113.90). Table III indicates that the non-counseling oriented group mean was lowered considerably by the relatively low ATDP scores of the non-counseling students (M=101.40). The non-counseling employee mean (M=124.40) was twenty-three points higher than the non-counseling students mean (M=101.40). Therefore, null hypothesis two was retained.

TABLE IV
THE T-TABLE VALUES FOR THE COUNSELING ORIENTED GROUP
(N=60) AND THE NON-COUNSELING ORIENTED
GROUP (N=60) ON THE THREE SCALES

<u>Scales</u>		
<u>ATDP</u>	<u>Time Competence</u>	<u>Inner-Directed</u>
$\underline{t} = -1.3828$	$\underline{t} = -0.5514$	$\underline{t} = -1.7940$

All \underline{t} values are non-significant at .01 or .05 level of confidence.

Hypothesis Three

Hypothesis three states that, "there are no significant differences between the counseling oriented group and the non-counseling oriented group with respect to scores on the personality variables, Time Competence and Inner-Directed".

Table IV indicates the t -values for the counseling oriented group and the non-counseling oriented group with respect to the Time Competence and Inner-Directed Scales. No significant difference ($t=0.5514$, $df=118$, n.s.) was found between the two groups with respect to scores on the Time Competence Scale. Table III indicates that the means for the counseling oriented group ($M=16.48$) and the non-counseling oriented group ($M=16.20$) are almost identical.

The mean for the counseling oriented group ($M=84.73$) on the Inner-Directed Scale was found to be slightly greater than the mean for the non-counseling oriented group ($M=81.33$). No significant difference ($t=1.7940$, $df=118$, n.s.) was found to exist between the two groups with respect to scores on the Inner-Directed Scale.

Null hypothesis three was retained.

Hypothesis Four

Hypothesis four states, "there are no significant differences among the four groups of subjects with respect to attitudes toward the disabled".

Table V indicates the t -table values for the four groups on the ATDP. A significant difference ($t=+3.36.7$, $df=58$, $p < .01$) was found between the non-counseling students and the counseling students. A statistically significant difference ($t=+3.0182$, $df=58$, $p < .01$) was found

TABLE V

THE T-TABLE VALUES FOR THE FOUR SUBJECT
GROUPS ON THE ATDP

Groups	I Non-Counseling Students (N=30)	II Counseling Students (N=30)	III Counseling Employees (N=30)	IV Non-Counseling Employees (N=30)
Group I	0.0			
Group II	*3.3617			
Group III	*3.0182	-0.3631		
Group IV	*4.3867	1.2642	1.6019	0.0

*Significant at .01 level of confidence.

**Significant at .05 level of confidence.

between the non-counseling students and the counseling employees. Also, a significant difference ($t=+4.3867$, $dF=58$, $p < .01$) was found between the non-counseling students and the non-counseling employees. It was expected that if differences existed among the four subject groups that the greatest differences would be between the counseling students and the non-counseling students and between the counseling employees and the non-counseling employees.

Table III indicates that the mean ATDP scores for the counseling students ($M=118.83$) are over 17 points greater than the mean scores of the non-counseling students ($M=101.40$). There are over 7 points difference between the mean score of the counseling employees group ($M=117.23$) and the non-counseling employees group ($M=124.40$). The greatest mean difference was found between the non-counseling students ($M=101.40$) and the non-counseling employees ($M=124.40$). As the scores on the ATDP increase the acceptance of the disabled increases. It seems that the non-counseling employees are generally more accepting of the disabled than the other three groups mentioned. The group with the lowest degree of acceptance was found to be the non-counseling students ($M=101.40$).

Null hypothesis four was rejected on the basis of the previous analysis of the test results.

Hypothesis Five

Null hypothesis five states that, "there are no significant differences among the four groups of subjects with respect to scores on the Inner-Directed Scale of the POI".

Table VI presents the t -table values for the four groups of subjects on the Inner-Directed Scale of the POI. Table III presents the

TABLE VI
 THE T-TABLE VALUES FOR THE FOUR SUBJECT GROUPS
 ON THE POI - INNER DIRECTED SCALE

Groups	I Non-Counseling Students (N=30)	II Counseling Students (N=30)	III Counseling Employees (N=30)	IV Non-Counseling Employees (N=30)
Group I	0.0			
Group II	*3.3251			
Group III	**2.2893	-9.9501		
Group IV	**2.5472	-9.4510	0.4259	0.0

*Significant at .01 level of confidence.

**Significant at .05 level of confidence.

means for these groups on the Inner-Directed Scale. A significant difference ($t=3.3251$, $df=58$, $p<.01$) was found between the non-counseling students and the counseling students. Also, a significant difference ($t=2.2893$, $df=58$, $p<.05$) existed between the non-counseling students and the counseling employees. This difference might have been reasonably expected. A significant difference ($t=2.5472$, $df=58$, $p<.05$) was found between the non-counseling students and the non-counseling employees.

The mean scores on the Inner-Directed Scale for the four groups were similar. The greatest difference was found between the non-counseling students ($M=77.96$) and the counseling students ($M=85.96$). The lowest and highest means for the Inner-Directed Scale have previously been given. The mean for the counseling employees ($M=83.50$) approximated the non-counseling employee mean ($M=84.70$). High scores on this scale represent a more positive personality characteristic than low scores.

Since significant differences were found between three pairs of the groups, null hypothesis five is rejected.

Hypothesis Six

Hypothesis six states that, "there are no significant differences among the four groups of subjects with respect to scores on the Time Competence Scale of the POI".

Table VII presents the t -table values for the four subject groups on the Time Competence Scale of the POI. A significant difference ($t=2.3418$, $df=58$, $p<.05$) was found between the non-counseling students and the counseling employees. There was a significant difference ($t=2.2852$, $df=58$, $p<.05$) between the non-counseling students and the

TABLE VII

THE T-TABLE VALUES FOR THE FOUR SUBJECT GROUPS
ON THE POI - TIME COMPETENCE SCALE

Groups	I Non-Counseling Students (N=30)	II Counseling Students (N=30)	III Counseling Employees (N=30)	IV Non-Counseling Employees (N=30)
Group I	0.0			
Group II	0.8771			
Group III	**2.3418	1.5782		
Group IV	**2.2852	1.5595	0.0960	0.0

*Significant at .01 level of confidence.

**Significant at .05 level of confidence.

non-counseling employees. These differences could reasonably have been expected. No other significant differences were found.

The high scores on the Time Competence Scale indicate a more positive personality characteristic than low scores. Table III indicates that the mean scores for all four groups were similar. The non-counseling students (M=15.33) and the counseling students (M=15.96) were very close as were the counseling employees (M=17.00) and the non-counseling employees (M=17.06). Null hypothesis six was rejected.

Implications for Further Research

1. A study could be conducted in which the disabled are more definitely separated from the non-disabled so that the variable of disability may be controlled to a greater degree in the attitudinal study.
2. Hypothesis one which dealt with the relationship between factors of personality and the nature of attitudes could be expanded to include other scales of the POI.
3. The study could be replicated using student subjects who are more nearly alike with respect to age.

CHAPTER V

SUMMARY AND CONCLUSIONS

Re-statement of the Problem

This study dealt with attitudes toward the physically disabled and attempted to determine if differences existed among four groups of subjects with respect to these attitudes. In addition, the study sought to determine whether two personality factors are related to the attitudes. Six null hypotheses were developed and tested. The first hypothesis was concerned with the correlation between factors of personality and attitudes toward the disabled for four groups of subjects. The second hypothesis dealt with whether significant differences in attitudes toward the disabled existed between the counseling oriented group and the non-counseling oriented group. Hypothesis three was concerned with whether significant differences existed between the counseling oriented group and the non-counseling oriented group with respect to scores on the personality variables. The fourth hypothesis considered whether there were significant differences among the four groups of subjects with respect to attitudes toward the disabled. Hypotheses five and six were concerned with whether significant differences existed among the four groups with respect to scores on the two personality factors.

Review of the Methods and Procedures

Four groups of subjects were used, an undergraduate group of non-counseling majors, a graduate group of counseling majors, a group employed in non-counseling occupations and a group employed in counseling.

The instruments used included the Attitudes Toward Disabled Persons Scale (ATDP), and two scales of the Personal Orientation Inventory (POI).

The statistical procedures included t-tests used to determine significant differences, means used to determine score tendencies and product moment correlation coefficients used to determine significant relationships. All of the statistics were derived from the COREL program at the East Carolina University Computer Center.

Pertinent Findings and Conclusions

The results of the analysis of the data collected to test the six hypotheses were in many instances surprising and unexpected. The means of the four subject groups on the ATDP were all above the norm mean for men ($M=106.65$) except for the non-counseling students ($M=101.40$). When considering the means or individual scores it should be remembered that the higher scores indicate more acceptance of the physically disabled. The means of the four groups on the Time Competence and Inner-Directed Scales generally were more similar when each scale was considered individually, than were the ATDP means. The Inner-Directed Scale means ranged from a high for the counseling students ($M=85.96$) to a low for the non-counseling students ($M=77.96$). Less variability of means was found on the Time Competence Scale. The lowest mean was for the non-counseling students ($M=15.33$) and the highest mean was for the non-counseling employees ($M=17.06$).

The analysis of the data for the first hypothesis indicated that the only significant correlation between ATDP scores and the personality factors existed between the ATDP and the Time Competence Scale

for the counseling students.

To test hypothesis two the four groups were combined into the non-counseling oriented group and the counseling oriented group. A significant difference was expected in this case but none was found. The low ATDP scores for the non-counseling employees ($M=101.40$) when combined with the high scores of the non-counseling employees ($M=124.40$) reduced the combined means to a level too low for a significant difference when compared with the counseling oriented group. Perhaps the great difference in the scores of the non-counseling students and the non-counseling employees can be explained partially at least, in terms of the differences in age. The non-counseling students were all undergraduates, mostly sophomores and juniors, while the non-counseling employees were employed, having completed at least a Bachelor's degree or higher. Hypothesis two was retained.

Hypothesis three was concerned with whether significant differences existed between the counseling oriented group and the non-counseling oriented group with respect to scores on the Time Competence and Inner-Directed Scales of the POI. The means for the two groups on the Inner-Directed Scale were within approximately three points of each other. Both groups had Time Competence means with less than a one point difference between them. It was expected that there might be some significant difference existing between these groups on the scores but the null hypothesis was retained. Apparently, the orientation, whether counseling or non-counseling, had little influence on the personality scores.

The fourth hypothesis was concerned with whether significant differences existed among the four groups of subjects with respect to

attitudes toward the disabled. The means for the counseling students and the counseling employees varied by approximately one point. The means on the ATDP for the non-counseling employees and the non-counseling students differed considerably. It is interesting to note that the non-counseling employee mean was the highest for all groups, and that the non-counseling student mean was the lowest for all groups. Twenty-three points separated these two means. Perhaps the age differences had an influence on this large difference. The non-counseling employees might have over reacted to the statements, accounting for the high mean score for this group. The counseling students and counseling employees, perhaps, were more conservative in their rating of the ATDP statements. Their assumed experience with the disabled should have had a bearing on their responses. It is difficult to attempt an explanation of the low mean for the non-counseling students. Significant differences were found between the non-counseling students and the counseling students, between the non-counseling students and the counseling employees, and between the non-counseling students and the non-counseling employees. Hypothesis four was rejected.

Hypothesis five dealt with whether there were significant differences among the four subject groups with respect to scores on the Inner-Directed Scale of the POI. It was expected that the counseling students and the counseling employees would score higher on this particular scale. However, the two highest means were for the counseling students and the non-counseling employees with the counseling employees being third highest. The non-counseling students had the lowest mean. The Inner-Directed Scale is essentially a measure of independence and

self-support. The low mean score of the non-counseling students may possibly be explained if it is assumed that, generally, undergraduate students are less independent, less self-supportive than are graduate students and persons who have graduated.

Significant differences were found between the non-counseling students and each of the three other groups. The greatest difference was between the non-counseling students and the counseling students. No obvious explanation for this difference can be determined. It would seem that similar differences would exist between the non-counseling students and the counseling employees and between the counseling students and the non-counseling employees. However, such differences were not found. Hypothesis five was rejected.

Hypothesis six dealt with whether there were significant differences among the four groups of subjects with respect to scores on the Time Competence Scale of the POI. Scores on this scale varied less than the scores on the Inner-Directed Scale. Less than two points separated the highest and lowest scores on the Time Competence Scale. Each of the group means for this scale fall between the mean established for the norm group. As was expected, significant differences existed between the non-counseling students and the counseling employees and between the non-counseling students and the non-counseling employees. However, significant differences were not found between the non-counseling students and the counseling students.

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